# CUTTING TOOLS

PREMIUM PRODUCTION GRADE CUTTING TOOLS & THREAD GAGES. MADE IN USA

GLOBALLY SOURCED TOOLS PROVIDING A BALANCE OF QUALITY & PRICE

CUTTING TOOL STORAGE

INDEXABLE TOOLS

COUNTERSINKS • END MILLS • CUTTERS

COUNTERSINKS • DEBURRING TOOLS

TAP EXTRACTORS

HOLE SAWS

BROACHES

INDEXABLE TOOLING & INSERTS

TAP & DIE SETS

THREADED INSERTS

REAMERS

CUTTERS

HIGH PERFORMANCE TAPS

CARBIDE TIPPED HOLE SAWS

AMERICAN NATIONAL CARBIDE CARBIDE INSERTS

BUCKINGHAM THREAD RESTORERS

DRILL SETS CIRCULAR SAWS

PARABOLIC DRILLS


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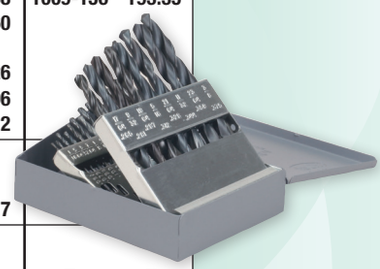
# Drill Sets

Look for ALLEGIANCE® AMERICANMADE

## Jobber Drill Sets

| DESCRIPTION | | BLACK OXIDE H.S.S. [3] ORDER NO. | PRICE EACH | POLISHED FLUTE H.S.S. [3] ORDER NO. | PRICE EACH | HEAVY DUTY H.S.S. [3] ORDER NO. | PRICE EACH | BLACK & GOLD H.S.S. [2] ORDER NO. | PRICE EACH | M42 COBALT [2] ORDER NO. | PRICE EACH | TIN COATED H.S.S. [2] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Straight Shank** | | | | | | | | | | | | | |
| 1/16–1/4 x 64ths | 13 pc. | 1009-098 | $ 17.14 | 1048-997 | $ 17.14 | 1009-013 | $ 17.76 | 9500-277 | $ 17.55 | 1109-115 | $ 22.26 | 1009-253 | $ 35.28 |
| 1/16–1/2 x 32nds | 15 pc. | 1009-099 | 40.18 | 1048-998 | 40.18 | 1009-014 | 44.96 | 9500-278 | 45.71 | 1109-110 | 66.24 | 1009-254 | 106.76 |
| 1/16–3/8 x 64ths | 21 pc. | 1009-100 | 33.89 | 1048-999 | 33.89 | 1009-015 | 37.14 | 9500-279 | 39.86 | 1109-105 | 57.85 | 1009-255 | 95.14 |
| 1/16–1/2 x 64ths | 29 pc. | 1009-101 | 70.27 | 1049-000 | 70.27 | 1009-016 | 75.52 | 9500-280 | 81.28 | 1109-100 | 114.38 | 1009-156 | 193.35 |
| 1/16–1/4 x 64ths & 9/32–1/2 x 32nds | 21 pc. | – | – | – | – | 1009-326 | 51.73 | 9500-288 | 52.00 | 1109-136 | 79.60 | | |
| Letter Sizes A-Z | 26 pc. | 1009-104 | 71.99 | 1049-003 | 75.26 | 1009-018 | 77.07 | – | – | 1109-130 | 125.26 | | |
| Number Sizes 1-60 | 60 pc. | 1009-102 | 57.30 | 1049-001 | 57.30 | 1009-017 | 69.37 | – | – | 1109-125 | 91.06 | | |
| 3-in-1 | 115 pc. | 1009-000 | 202.62 | 1049-002 | 208.96 | 1009-019 | 222.88 | – | – | 1109-120 | 342.12 | | |
| **3/8" Shank Sets From 25/64" to 1/2"** | | | | | | | | | | | | | |
| 1/16–1/2 x 64ths | 29 pc. | 1009-300 | 81.13 | 1009-305 | 78.00 | 1009-310 | 86.60 | 9500-285 | 87.55 | 1109-132 | 143.17 | | |
| **Left Hand** | | | | | | | | | | | | | |
| 1/16–1/2 x 64ths | 29 pc. | – | – | 1139-190 | 229.20 | – | – | – | – | – | – | – | – |



## Pittsburg® Surface Treated Jobber Drills High Speed Steel - Right Hand

| NO. PCS. | DESCRIPTION | BLACK IMPORT ORDER NO. [2] | PRICE EACH |
|---|---|---|---|
| 13 | 1/16 to 1/4 by 64ths | 1009-140 | $ 7.95 |
| 21 | 1/16 to 3/8 by 64ths | 1009-145 | 18.90 |
| 29 | 1/16 to 1/2 by 64ths | 1009-150 | 19.45 |
| 15 | 1/16 to 1/2 by 32nds | 1009-155 | 18.90 |
| 60 | No. 1 to 60 | 1009-160 | 25.95 |
| 20 | No. 61 to 80 | 1009-165 | 15.95 |
| 26 | A to Z | 1009-180 | 24.95 |
| 115 | 3N1: (1/16 - 1/2 by 64ths. A to Z & 1 to 60) | 1009-250 | 71.95 |
| | **3/8 SHANK** | | |
| 29 | 1/16 to 1/2 by 64ths | 1449-400 | 48.88 |

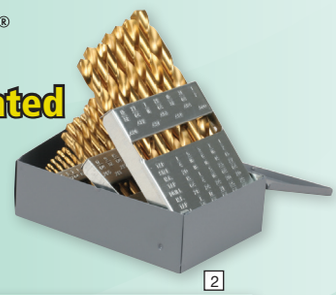
## Pittsburg® M35 Cobalt 135° Split Point Jobber Drill Sets

| NO. PCS. | SIZE | ORDER NO. [4] | PRICE EACH |
|---|---|---|---|
| 15 | 1/16-1/2 x 32nds | 1109-155 | $55.70 |
| 29 | 1/16-1/2 x 64ths | 1109-150 | 81.85 |

## IRWIN® TURBOMAX® Drill Sets

| PCS. | DESCRIPTION | ORDER NO. [2] | PRICE EACH |
|---|---|---|---|
| 15 | 1/16"-1/2" by 32nds | 1073-137 | $ 78.62 |
| 29 | 1/16"-1/2" by 64ths | 1073-138 | 153.58 |

## Pittsburg® TiN Coated



| NO. PCS. | SIZE | ORDER NO. [2] | PRICE EACH |
|---|---|---|---|
| 29 | 1/16 - 1/2 x 64ths | 1009-151 | $43.40 |

## IRWIN® 29-Piece Drill Sets 135° Point

- Rubber over molded case
- Removable cartridges
- Automatic indexing

| DESCRIPTION | ORDER NO. [2] | PRICE EACH |
|---|---|---|
| Heavy Duty HSS Black Oxide | 1073-650 | $85.28 |
| HSS TiN Coated | 1073-655 | 160.28 |
| M35 Cobalt HSS | 1073-660 | 138.15 |

## Pittsburg® Left Hand High Speed Steel

| NO. PCS. | SIZE | ORDER NO. [3] | PRICE EACH |
|---|---|---|---|
| 15 | 1/16-1/2 x 32nds | 1139-155 | $ 75.90 |
| 29 | 1/16-1/2 x 64ths | 1139-150 | 152.35 |
| 60 | No. 1 to 60 | 1139-160 | 102.30 |
| 26 | A - Z | 1139-180 | 139.10 |

# Drill Sets

## Silver & Deming Sets 1/2" Shank – High Speed Steel

| SIZE | [2] Pittsburg® ORDER NO. | [2] Pittsburg® PRICE EACH | [3] Allegiance® American Made ORDER NO. | [3] Allegiance® American Made PRICE EACH |
|---|---|---|---|---|
| 5 drills in box: 9/16, 5/8, 3/4, 7/8, 1 | 1449-099 | $ 39.00 | – | – |
| 9/16 to 1 by 16ths: 8 Drills in index | 1449-100 | 56.50 | 1441-097 | $ 156.80 |
| 17/32 to 1 by 32nds: 13 drills in wood stand | 1309-400 | 75.95 | – | – |
| 1/2 to 1 by 64ths: Most complete set offered. 33 drills in sturdy Huot stand. | 1449-300 | 199.90 | 1441-098 | 551.50 |

## Screw Machine Length Drill Sets– Right Hand

| NO. PCS. | DESCRIPTION | [2] Pittsburg® ORDER NO. | [2] Pittsburg® PRICE EACH | [3] Allegiance® American Made ORDER NO. | [3] Allegiance® American Made PRICE EACH |
|---|---|---|---|---|---|
| 29 | 1/16" to 1/2" by 64ths | 1169-110 | $ 44.80 | 1169-125 | $65.19 |
| 29 | 1/16" to 1/2" M42 Cobalt | – | – | 1211-197 | 111.75 |
| 60 | No. 1 to 60 | 1169-115 | 42.00 | – | – |
| 26 | A to Z | 1169-120 | 50.05 | – | – |
| 33 | *1/2" to 1" by 64ths | 1169-300 | 459.45 | – | – |

* Supplied in Metal Stand

## Long Boy High Speed Steel Drill Sets

| NO. PCS. | DESCRIPTION | OVERALL LENGTH | [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 25 | 1/8" – 1/2" by 64ths in Metal Stand | 8" | 1309-450 | $134.25 |
| 25 | | 10" | 1309-455 | 159.95 |
| 25 | | 12" | 1309-460 | 136.92 |
| 25 | | 18" | 1309-465 | 390.65 |

## H.S.S. Aircraft Extension Drill Sets

| NO. PCS. | DESCRIPTION | OVERALL LENGTH | [2] ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 13 | 1/16" – 1/4" by 64ths | 6" | 1309-470 | $ 27.47 |
| 29 | 1/16" – 1/2" by 64ths | 12" | 1309-475 | 189.37 |

## Tap & Drill Sets

**Sets match 9 taps with correct tap drill. All tools High Speed Steel. Jobber Length Drills are polished flute ground from the solid.**

## National Coarse Set

National Coarse Set holds 6-32 tap #36 drill, 8-32 #29, 10-24 #25, 10-32 #21, 1/4-20 #7, 5/16-18 F, 3/8-16 5/16, 7/16-14 U, and 1/2-13 27/64.

| | [2] ORDER NO. | PRICE EACH |
|---|---|---|
| Pittsburg-Alleghany | 1009-005 | $40.80 |
| Allegiance | 1009-006 | 63.45 |

## National Fine Set

National Fine Set holds 6-40 tap #33 drill, 8-36 #29, 10-24 #25, 10-32 #21, 1/4-28 #3, 5/16-24 I, 3/8-24 Q, 7/16-20 25/64, and 1/2-20 29/64.

| | [2] ORDER NO. | PRICE EACH |
|---|---|---|
| Pittsburg-Alleghany | 1009-010 | $42.30 |
| Allegiance | 1009-011 | 66.85 |

## Metric Set

Holds sizes: 2.5 x 0.45 tap 2.05 drill, 3.0 x 0.50 2.50, 3.5 x 0.60 2.90, 4.0 x 0.70 3.30, 5.0 x 0.80 4.20, 6.0 x 1.00 5.00, 8.00 x 1.25 6.70, 10.0 x 1.50 8.50, 12.0 x 1.75 10.20

| | [2] ORDER NO. | PRICE EACH |
|---|---|---|
| Pittsburg-Alleghany | 1009-012 | $55.00 |

# Cutting Tool Storage



MADE IN USA

## Drill Indexes For Jobber Length Drills

*PRICES FOR INDEXES WITHOUT DRILLS*

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 313 | 1/16 to 1/4 by 64ths-single panel | 1919-015 | $ 4.20 |
| 15 | 1/16 to 1/2 by 32nds | 1919-035 | 6.60 |
| 20 | No. 61 to 80 inclusive | 1919-055 | 3.90 |
| 21 | 1/16 to 3/8 by 64ths | 1919-020 | 6.60 |
| 26 | A-Z inclusive | 1919-070 | 7.50 |
| 29 | 1/16 to 1/2 by 64ths | 1919-025 | 6.60 |
| 60 | No. 1 to 60 inclusive | 1919-050 | 6.40 |
| 80 | No. 1 to 80 inclusive | 1919-060 | 24.10 |
| 1316 | 1/64 to 1/4 by 64ths | 1919-005 | 12.10 |
| 2100 | 1/16 to 1/4 by 64ths and 9/32 to 1/2 by 32nds. Jobbers | 1919-040 | 8.10 |
| 115 | For jobbers: 1/16 to 1/2 by 64ths A-Z No. 1-60 | 1919-180 | 27.00 |
| 135 | For jobbers: 1/16 to 1/2 by 64ths A-Z & No. 1-80 | 1919-190 | 34.70 |
| 134 | For jobbers: 1/16 to 1/2 by 64ths No. 1-80, & 1mm to 13mm by 0.5mm | 1919-185 | 34.70 |
| 4011 | 1mm to 6mm by 0.5mm | 1919-075 | 4.50 |
| 4013 | 1mm to 7mm by 0.5mm | 1919-080 | 4.50 |
| 4019 | 1mm to 10mm by 0.5mm | 1919-085 | 7.70 |
| 4025 | 1mm to 13mm by 0.5mm | 1919-090 | 8.60 |
| 4041 | 6mm to 10mm by 0.1mm | 1919-095 | 28.00 |
| 4050 | 1mm to 5.9mm by 0.1mm | 1919-100 | 10.80 |

## Aircraft Drill Indexes

- Index holds 29 6" aircraft extension length drill bits in fractional sizes 1/16" to 1/2" in 1/64" increments
- Labeled storage holes for identification and organization
- Made of steel with an epoxy finish and has a snap-lock cover for durability and protection

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 11655 | 1/16" to 1/2" x 64ths. | 1919-118 | $ 20.10 |

## Index For SILVER & DEMING Drills

For Drills 9/16" to 1" by 16ths with 1/2" shanks.
Index measures 8-1/8" x 6-1/4" x 2".
MODEL NO. 88SD ORDER NO. 1919-140 PRICE: $22.70

## Drill Indexes For Screw Machine Length Drills

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 2013 | 1/16" to 1/4" by 64ths | 1919-150 | $ 6.00 |
| 2021 | 1/16" to 3/8" by 64ths | 1919-155 | 8.70 |
| 2025 | 1mm to 13mm by 0.5mm | 1919-600 | 16.10 |
| 2026 | A to Z inclusive | 1919-170 | 12.70 |
| 2029 | 1/16" to 1/2" by 64ths | 1919-160 | 9.90 |
| 2060 | No. 1 to 60 inclusive | 1919-165 | 10.80 |
| 11550 | 1/16" to 1/2" by 64ths A-Z and No. 1 to 60 | 1919-175 | 37.40 |

## Mountable Drill Stands

- These drill stands can be hung on a wall, used on a bench or mounted on press.
- Durably made from a single piece of prime steel, rigidly formed and welded.
- Plated black zinc finish.

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 826 | A-Z | 1919-240 | $ 7.40 |
| 829 | 1/16 to 1/2 by 64ths | 1919-230 | 7.40 |

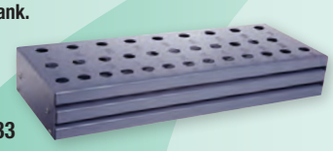
## Indexes For Taps/Drills

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 99 | NC 6-32 #36 to 1/2 - 13 #27/64 Holds 9 drills & 9 taps | 1919-365 | $7.20 |
| 18 | NF 6-40 #33 to 1/2-20 #29/64 Holds 9 drills & 9 taps | 1919-370 | 7.80 |
| 4099 | Metric 2.5mm x 0.45 tap 2.05 drill to 12.0mm x 1.75 tap 10.20mm drill | 1919-335 | 8.40 |

## S & D Drill Stand

- For Drills 1/2" to 1" by 64ths with 1/2" shank.
- Dimensions: 2-3/4" x 13" x 5".
- Baked epoxy finish.
- Fractional & decimal size equivalents clearly marked.

MODEL NO. 833SD ORDER NO. 1919-233
PRICE: $26.10



*All HUOT Indexes, Dispensers & Stands are supplied without tools*

# Cutting Tool Storage Huot

MADE IN USA

## Master Drill Dispenser

- All steel cabinet with vinyl dividers to help protect and separate bits.
- Each cabinet is LOCKABLE with its own set of 2 keys.
- STACKABLE for larger inventories at one location.
- Top drawer holds fractional drills 1/16" to 1/2" by 64ths with 42 compartments.
- 2nd drawer is for 1 to 60 wire gauge with 75 compartments.
- 3rd drawer is for letter size A to Z with 42 compartments.
- Each drawer measures 23-1/8" wide; 11" front to back.
- Lower drawer is undivided for extra long drills, reamers and miscellaneous tools.
- Drawer Divider Kit available for lower drawer.

ORDER NO. 1919-306
PRICE:……$345.40 [1]

## Master Tap/Drill Dispenser

Conveniently holds tap with the corresponding tap drill.
Holds Tap & Drill sizes #0-80, 3/64 to 1.5-12, 1-27/64.
Holds approximately one dozen each of the smaller sizes and at least several of each of the larger sizes.
Built-in cam lock with two keys.
Heavy-duty ball-bearing drawer slides for easy use and long service life.

ORDER NO. 1919-317
PRICE:……$405.50 [1]

## Metric Reamer Dispenser

Stackable with all Huot "Original" style dispensers.
Holds metric reamers from 1mm to 13mm x 0.5mm.
Dimensions: 14 5/8" W x 7 3/8" D x 7 3/4" H

ORDER NO. 1919-348 [1]
PRICE:…$ 88.60

## Taper Shank/Taper Length Drill Index

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1016 | 33/64" to 3/4" by 64ths Taper Shank or Taper Length | 1919-125 | $ 72.60 |
| 2016 | 49/64" to 1" by 64ths for Taper Shank or Taper Length | 1919-130 | 79.40 |
| 326 | A-Z for Taper Length | 1919-120 | 18.70 |
| 329 | 1/16" to 1/2" by 64ths for Taper Length | 1919-110 | 18.70 |
| 360 | No. 1 to 60 Taper Length | 1919-115 | 30.70 |

[2]

## Taper Shank/Taper Length Drill Dispenser

- Conveniently stores quantities of each size Taper Length or Taper Shank Drills 1/8" to 1" by 64ths.
- Plastic drawer dividers separate and protect drills.
- Stackable with other dispensers.
- Lockable with own set of keys.

MODEL NO. 57
ORDER NO. 1919-307 PRICE:……$364.90 [1]

## Drill Dispensers For Jobber Length Drills

Buy Models #1, #2 & #3 Together and save!
ORDER NO. 1919-300 PRICE: $196.90

[1]

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1 | 1/16 to 1/2 by 64ths | 1919-301 | $66.70 |
| 2 | No. 1 to 60 | 1919-302 | 85.40 |
| 3 | A-Z | 1919-303 | 66.70 |
| 4 | 1mm to 13mm by 0.5mm | 1919-304 | 77.20 |
| 5 | 1mm to 6.9mm by 0.1mm | 1919-305 | 104.90 |
| 84 | No. 1 to 80, 84 compartments | 1919-309 | 104.90 |

## Tap/Drill Dispenser

Stores and organizes correct Tap Drill with corresponding size Tap. Holds one dozen (minimum) of each size. Dimensions: 7-3/8" x 7-3/4" x 14-5/8"

| TAP | FOR | DRILL | TAP | FOR | DRILL |
|---|---|---|---|---|---|
| 6-32 | | #36 | 5/16-24 | | I |
| 8-32 | | #29 | 3/8-16 | | 5/16 |
| 10-24 | | #25 | 3/8-24 | | Q |
| 10-32 | | #21 | 7/16-14 | | U |
| 1/4-20 | | #7 | 7/16-20 | | 25/64 |
| 1/4-28 | | #3 | 1/2-13 | | 27/64 |
| 5/16-18 | | F | 1/2-20 | | 29/64 |

ORDER NO. 1919-375
PRICE:……$80.50 [1]

## Reamer Dispenser

Lockable and stackable with other Huot storage units. Painted in our tough gray plastic finish. Packaged one per carton 40 lbs. shipping wt. overall 12" x 26" x 9-5/16" high. Ball bearing slides standard equipment.
Dispenser does not include reamers.

Holds popular sizes and quantities:
1/8"-4 ea., .1230 d/p, .1240 under,.1247 d/p, .1260 over, 3 ea. *3/16", .1855 d/p, .1865 under,.1870 d/p, .1885 over, 3 ea.
1/4"-4 ea., .2480 d/p, .2490 under,.2495 d/p, .2510 over, 3 ea.
5/16-3 ea., .3105 d/p-3 ea., .3115 under-2 ea., .3120 d/p-2ea., .3135 over-2 ea.
3/8"-4 ea., .3730 d/p, .3740 under, .3745 d/p, .3760 over, 3 ea.
7/16", .4355 d/p, .4365 under,.4370 d/p, .4385 over, 2 ea.
1/2"-4 ea., .4980 d/p-2 ea., .4990 under, .4995 d/p, .5010 over, 3 ea.

Order No. 1919-308 Price Each: $324.20 [1]

## Reamer Index

These handy, all-steel reamer cases are designed to hold the reamer securely by the shank to help protect delicate cutting edges. Indexed for reamer size in decimal equivalents, with raised embossed lettering for permanent identification. Prices do not include reamers.

No. 1919-255……$18.60 [2]
Over and under sizes .124 - .126 to .499 - .501 by 16ths.
Holds 14 reamers. Dimensions 4" x 8-5/8" x 13/16".

No. 1919-270……$20.70
For dowelpin reamers .123 to .4995. Holds 14 reamers.
Dimensions 4" x 8-5/8" x 13/16".

No. 1919-265……$18.60
A to Z reamers. Dimensions 4" x 8-5/8" x 1-13/16".

No. 1919-250……$18.60
Chucking reamers 1/16" to 1/2" by 64ths.
Dimensions 4" x 8-5/8" x 1-13/16".

No. 1919-260……$26.10
No. 1 to 60 inclusive. Dimensions 3-3/8" x 6-3/4" x 1-3/16".

*All HUOT Indexes, Dispensers & Stands are supplied without tools*

# Jobbers Length Drills

## High Speed Steel – Fractional Sizes

Surface Treated

Polished Flute

Titanium Nitride Coated – 118° Point

| | | | 4 | | 3 | | 3 | | 3 | | 2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | |
| | | | BLACK | | BLACK* | | POLISHED* | | POLISHED* | | TiN* | |
| FRAC. SIZES | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/64 | 3/16 | 3/4 | 1000-001 | $0.50 | 1001-001 | $ 1.35 | 1040-001 | $ 0.75 | 1041-001 | $1.35 | – | – |
| 1/32 | 1/2 | 1-3/8 | 1000-002 | 0.40 | 1001-002 | 0.85 | 1040-002 | 0.50 | 1041-002 | 0.85 | – | – |
| 3/64 | 3/4 | 1-3/4 | 1000-003 | 0.40 | 1001-003 | 0.80 | 1040-003 | 0.50 | 1041-003 | 0.80 | – | – |
| 1/16 | 7/8 | 1-7/8 | 1000-004 | 0.35 | 1001-004 | 0.66 | 1040-004 | 0.50 | 1041-004 | 0.66 | 6326-004 | $1.36 |
| 5/64 | 1 | 2 | 1000-005 | 0.35 | 1001-005 | 0.66 | 1040-005 | 0.50 | 1041-005 | 0.66 | 6326-005 | 1.36 |
| 3/32 | 1-1/4 | 2-1/4 | 1000-006 | 0.35 | 1001-006 | 0.68 | 1040-006 | 0.50 | 1041-006 | 0.68 | 6326-006 | 1.36 |
| 7/64 | 1-1/2 | 2-5/8 | 1000-007 | 0.35 | 1001-007 | 0.68 | 1040-007 | 0.50 | 1041-007 | 0.68 | 6326-007 | 1.36 |
| 1/8 | 1-5/8 | 2-3/4 | 1000-008 | 0.35 | 1001-008 | 0.70 | 1040-008 | 0.50 | 1041-008 | 0.70 | 6326-008 | 1.36 |
| 9/64 | 1-3/4 | 2-7/8 | 1000-009 | 0.40 | 1001-009 | 0.76 | 1040-009 | 0.55 | 1041-009 | 0.76 | 6326-009 | 1.71 |
| 5/32 | 2 | 3-1/8 | 1000-010 | 0.40 | 1001-010 | 0.88 | 1040-010 | 0.55 | 1041-010 | 0.88 | 6326-010 | 1.71 |
| 11/64 | 2-1/8 | 3-1/4 | 1000-011 | 0.40 | 1001-011 | 0.92 | 1040-011 | 0.60 | 1041-011 | 0.92 | 6326-011 | 1.76 |
| 3/16 | 2-5/16 | 3-1/2 | 1000-012 | 0.45 | 1001-012 | 1.00 | 1040-012 | 0.65 | 1041-012 | 1.00 | 6326-012 | 1.87 |
| 13/64 | 2-7/16 | 3-5/8 | 1000-013 | 0.50 | 1001-013 | 1.14 | 1040-013 | 0.70 | 1041-013 | 1.14 | 6326-013 | 2.39 |
| 7/32 | 2-1/2 | 3-3/4 | 1000-014 | 0.55 | 1001-014 | 1.24 | 1040-014 | 0.80 | 1041-014 | 1.24 | 6326-014 | 2.45 |
| 15/64 | 2-5/8 | 3-7/8 | 1000-015 | 0.60 | 1001-015 | 1.28 | 1040-015 | 0.85 | 1041-015 | 1.28 | 6326-015 | 2.55 |
| 1/4 | 2-3/4 | 4 | 1000-016 | 0.70 | 1001-016 | 1.30 | 1040-016 | 0.95 | 1041-016 | 1.30 | 6326-016 | 2.60 |
| 17/64 | 2-7/8 | 4-1/8 | 1000-017 | 0.75 | 1001-017 | 1.50 | 1040-017 | 1.10 | 1041-017 | 1.50 | 6326-017 | 3.52 |
| 9/32 | 2-15/16 | 4-1/4 | 1000-018 | 0.85 | 1001-018 | 1.84 | 1040-018 | 1.15 | 1041-018 | 1.84 | 6326-018 | 3.57 |
| 19/64 | 3-1/16 | 4-3/8 | 1000-019 | 0.90 | 1001-019 | 2.10 | 1040-019 | 1.30 | 1041-019 | 2.10 | 6326-019 | 3.85 |
| 5/16 | 3-3/16 | 4-1/2 | 1000-020 | 1.00 | 1001-020 | 2.36 | 1040-020 | 1.40 | 1041-020 | 2.36 | 6326-020 | 4.03 |
| 21/64 | 3-5/16 | 4-5/8 | 1000-021 | 1.05 | 1001-021 | 2.58 | 1040-021 | 1.55 | 1041-021 | 2.58 | 6326-021 | 4.83 |
| 11/32 | 3-7/16 | 4-3/4 | 1000-022 | 1.20 | 1001-022 | 2.86 | 1040-022 | 1.75 | 1041-022 | 2.86 | 6326-022 | 5.11 |
| 23/64 | 3-1/2 | 4-7/8 | 1000-023 | 1.30 | 1001-023 | 3.14 | 1040-023 | 1.95 | 1041-023 | 3.14 | 6326-023 | 5.44 |
| 3/8 | 3-5/8 | 5 | 1000-024 | 1.40 | 1001-024 | 3.22 | 1040-024 | 2.00 | 1041-024 | 3.22 | 6326-024 | 5.49 |
| 25/64 | 3-3/4 | 5-1/8 | 1000-025 | 1.45 | 1001-025 | 3.80 | 1040-025 | 2.25 | 1041-025 | 3.80 | 6326-025 | 6.76 |
| 13/32 | 3-7/8 | 5-1/4 | 1000-026 | 1.60 | 1001-026 | 3.88 | 1040-026 | 2.30 | 1041-026 | 3.88 | 6326-026 | 6.85 |
| 27/64 | 3-15/16 | 5-3/8 | 1000-027 | 1.75 | 1001-027 | 4.30 | 1040-027 | 2.60 | 1041-027 | 4.30 | 6326-027 | 7.14 |
| 7/16 | 4-1/16 | 5-1/2 | 1000-028 | 1.90 | 1001-028 | 4.48 | 1040-028 | 2.65 | 1041-028 | 4.48 | 6326-028 | 7.28 |
| 29/64 | 4-3/16 | 5-5/8 | 1000-029 | 2.00 | 1001-029 | 5.07 | 1040-029 | 3.00 | 1041-029 | 5.07 | 6326-029 | 8.42 |
| 15/32 | 4-5/16 | 5-3/4 | 1000-030 | 2.10 | 1001-030 | 5.45 | 1040-030 | 3.20 | 1041-030 | 5.45 | 6326-030 | 8.73 |
| 31/64 | 4-3/8 | 5-7/8 | 1000-031 | 2.30 | 1001-031 | 5.63 | 1040-031 | 3.35 | 1041-031 | 5.63 | 6326-031 | 8.94 |
| 1/2 | 4-1/2 | 6 | 1000-032 | 2.60 | 1001-032 | 5.67 | 1040-032 | 3.40 | 1041-032 | 5.67 | 6326-032 | 9.31 |
| 33/64 | 4-13/16 | 6-5/8 | 1000-033 | 5.85 | 1001-033 | 11.20 | – | – | 1041-033 | 11.20 | – | – |
| 17/32 | 4-13/16 | 6-5/8 | 1000-034 | 6.05 | 1001-034 | 11.50 | – | – | 1041-034 | 11.50 | – | – |
| 35/64 | 4-13/16 | 6-5/8 | 1000-035 | 6.60 | 1001-035 | 12.70 | 1040-035 | 6.85 | 1041-035 | 12.70 | – | – |
| 9/16 | 4-13/16 | 6-5/8 | 1000-036 | 6.90 | 1001-036 | 13.05 | – | – | 1041-036 | 13.05 | – | – |
| 37/64 | 4-13/16 | 6-5/8 | 1000-037 | 6.95 | 1001-037 | 13.30 | – | – | 1041-037 | 13.30 | – | – |
| 19/32 | 5-3/16 | 7-1/8 | 1000-038 | 7.10 | 1001-038 | 13.70 | 1040-038 | 7.40 | 1041-038 | 13.70 | – | – |
| 39/64 | 5-3/16 | 7-1/8 | 1000-039 | 7.80 | 1001-039 | 14.65 | – | – | 1041-039 | 14.65 | – | – |
| 5/8 | 5-3/16 | 7-1/8 | 1000-040 | 7.65 | 1001-040 | 14.40 | – | – | 1041-040 | 14.40 | – | – |
| 41/64 | 5-3/16 | 7-1/8 | 1000-041 | 8.20 | 1001-041 | 15.70 | 1040-041 | 8.55 | 1041-041 | 15.70 | – | – |
| 21/32 | 5-3/16 | 7-1/8 | 1000-042 | 7.70 | 1001-042 | 16.45 | – | – | 1041-042 | 16.45 | – | – |
| 43/64 | 5-5/8 | 7-5/8 | 1000-043 | 9.45 | 1001-043 | 17.80 | 1040-043 | 9.90 | 1041-043 | 17.80 | – | – |
| 11/16 | 5-5/8 | 7-5/8 | 1000-044 | 9.25 | 1001-044 | 17.80 | – | – | 1041-044 | 17.80 | – | – |

* Ground from solid. Limited Quantities

**PACKAGE QUANTITIES: Fractional Sizes**
**1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 33/34–11/16: 1 pcs.**

# Jobbers Length Drills

## High Speed Steel – Wire Gage Sizes

**Titanium Nitride Coated – 118° Point**

**Surface Treated**

**Polished Flute**

**PACKAGE QUANTITIES: Wire Gage Sizes**
**1-100: 12 pcs.**

| | | | [4] | | [3] | | [3] | | [3] | | [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pittsburg® ALLEGHANY BLACK | | ALLEGIANCE® AMERICAN MADE BLACK* | | Pittsburg® ALLEGHANY POLISHED* | | ALLEGIANCE® AMERICAN MADE POLISHED* | | Pittsburg® ALLEGHANY TiN* | |
| FRAC. SIZES | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1 | 2-5/8 | 3-7/8 | 1010-001 | $0.70 | 1011-001 | $1.42 | 1050-001 | $0.90 | 1051-001 | $1.42 | 6326-101 | $2.50 |
| 2 | 2-5/8 | 3-7/8 | 1010-002 | 0.70 | 1011-002 | 1.42 | 1050-002 | 0.90 | 1051-002 | 1.42 | 6326-102 | 2.50 |
| 3 | 2-1/2 | 3-3/4 | 1010-003 | 0.65 | 1011-003 | 1.32 | 1050-003 | 0.80 | 1051-003 | 1.32 | 6326-103 | 2.39 |
| 4 | 2-1/2 | 3-3/4 | 1010-004 | 0.65 | 1011-004 | 1.32 | 1050-004 | 0.80 | 1051-004 | 1.32 | 6326-104 | 2.39 |
| 5 | 2-1/2 | 3-3/4 | 1010-005 | 0.65 | 1011-005 | 1.32 | 1050-005 | 0.80 | 1051-005 | 1.32 | 6326-105 | 2.39 |
| 6 | 2-1/2 | 3-3/4 | 1010-006 | 0.65 | 1011-006 | 1.32 | 1050-006 | 0.80 | 1051-006 | 1.32 | 6326-106 | 2.39 |
| 7 | 2-7/16 | 3-5/8 | 1010-007 | 0.55 | 1011-007 | 1.18 | 1050-007 | 0.70 | 1051-007 | 1.18 | 6326-107 | 2.29 |
| 8 | 2-7/16 | 3-5/8 | 1010-008 | 0.55 | 1011-008 | 1.18 | 1050-008 | 0.70 | 1051-008 | 1.18 | 6326-108 | 2.29 |
| 9 | 2-7/16 | 3-5/8 | 1010-009 | 0.55 | 1011-009 | 1.18 | 1050-009 | 0.70 | 1051-009 | 1.18 | 6326-109 | 2.29 |
| 10 | 2-7/16 | 3-5/8 | 1010-010 | 0.55 | 1011-010 | 1.18 | 1050-010 | 0.70 | 1051-010 | 1.18 | 6326-110 | 2.29 |
| 11 | 2-5/16 | 3-1/2 | 1010-011 | 0.50 | 1011-011 | 1.10 | 1050-011 | 0.70 | 1051-011 | 1.10 | 6326-111 | 2.29 |
| 12 | 2-5/16 | 3-1/2 | 1010-012 | 0.50 | 1011-012 | 1.10 | 1050-012 | 0.70 | 1051-012 | 1.10 | 6326-112 | 2.29 |
| 13 | 2-5/16 | 3-1/2 | 1010-013 | 0.50 | 1011-013 | 1.10 | 1050-013 | 0.65 | 1051-013 | 1.10 | 6326-113 | 1.66 |
| 14 | 2-3/16 | 3-3/8 | 1010-014 | 0.50 | 1011-014 | 1.10 | 1050-014 | 0.65 | 1051-014 | 1.10 | 6326-114 | 1.66 |
| 15 | 2-3/16 | 3-3/8 | 1010-015 | 0.50 | 1011-015 | 1.10 | 1050-015 | 0.65 | 1051-015 | 1.10 | 6326-115 | 1.66 |
| 16 | 2-3/16 | 3-3/8 | 1010-016 | 0.50 | 1011-016 | 1.10 | 1050-016 | 0.65 | 1051-016 | 1.10 | 6326-116 | 1.66 |
| 17 | 2-3/16 | 3-3/8 | 1010-017 | 0.50 | 1011-017 | 0.91 | 1050-017 | 0.65 | 1051-017 | 0.91 | 6326-117 | 1.66 |
| 18 | 2-1/8 | 3-1/4 | 1010-018 | 0.40 | 1011-018 | 0.90 | 1050-018 | 0.55 | 1051-018 | 0.90 | 6326-118 | 1.52 |
| 19 | 2-1/8 | 3-1/4 | 1010-019 | 0.40 | 1011-019 | 0.90 | 1050-019 | 0.55 | 1051-019 | 0.90 | 6326-119 | 1.52 |
| 20 | 2-1/8 | 3-1/4 | 1010-020 | 0.40 | 1011-020 | 0.82 | 1050-020 | 0.55 | 1051-020 | 0.82 | 6326-120 | 1.52 |
| 21 | 2-1/8 | 3-1/4 | 1010-021 | 0.40 | 1011-021 | 0.82 | 1050-021 | 0.55 | 1051-021 | 0.82 | 6326-121 | 1.50 |
| 22 | 2 | 3-1/8 | 1010-022 | 0.40 | 1011-022 | 0.82 | 1050-022 | 0.55 | 1051-022 | 0.82 | 6326-122 | 1.50 |
| 23 | 2 | 3-1/8 | 1010-023 | 0.40 | 1011-023 | 0.82 | 1050-023 | 0.50 | 1051-023 | 0.82 | 6326-123 | 1.48 |
| 24 | 2 | 3-1/8 | 1010-024 | 0.40 | 1011-024 | 0.82 | 1050-024 | 0.50 | 1051-024 | 0.82 | 6326-124 | 1.48 |
| 25 | 1-7/8 | 3 | 1010-025 | 0.40 | 1011-025 | 0.82 | 1050-025 | 0.50 | 1051-025 | 0.82 | 6326-125 | 1.46 |
| 26 | 1-7/8 | 3 | 1010-026 | 0.40 | 1011-026 | 0.82 | 1050-026 | 0.50 | 1051-026 | 0.82 | 6326-126 | 1.46 |
| 27 | 1-7/8 | 3 | 1010-027 | 0.40 | 1011-027 | 0.72 | 1050-027 | 0.50 | 1051-027 | 0.72 | 6326-127 | 1.46 |
| 28 | 1-3/4 | 2-7/8 | 1010-028 | 0.35 | 1011-028 | 0.72 | 1050-028 | 0.45 | 1051-028 | 0.72 | 6326-128 | 1.42 |
| 29 | 1-3/4 | 2-7/8 | 1010-029 | 0.35 | 1011-029 | 0.72 | 1050-029 | 0.45 | 1051-029 | 0.72 | 6326-129 | 1.42 |
| 30 | 1-5/8 | 2-3/4 | 1010-030 | 0.35 | 1011-030 | 0.72 | 1050-030 | 0.45 | 1051-030 | 0.72 | 6326-130 | 1.42 |
| 31 | 1-5/8 | 2-3/4 | 1010-031 | 0.30 | 1011-031 | 0.72 | 1050-031 | 0.45 | 1051-031 | 0.72 | 6326-131 | 1.24 |
| 32 | 1-5/8 | 2-3/4 | 1010-032 | 0.30 | 1011-032 | 0.72 | 1050-032 | 0.45 | 1051-032 | 0.72 | 6326-132 | 1.24 |
| 33 | 1-1/2 | 2-5/8 | 1010-033 | 0.30 | 1011-033 | 0.72 | 1050-033 | 0.45 | 1051-033 | 0.72 | 6326-133 | 1.24 |
| 34 | 1-1/2 | 2-5/8 | 1010-034 | 0.30 | 1011-034 | 0.72 | 1050-034 | 0.45 | 1051-034 | 0.72 | 6326-134 | 1.24 |
| 35 | 1-1/2 | 2-5/8 | 1010-035 | 0.30 | 1011-035 | 0.72 | 1050-035 | 0.45 | 1051-035 | 0.72 | 6326-135 | 1.24 |
| 36 | 1-7/16 | 2-1/2 | 1010-036 | 0.30 | 1011-036 | 0.72 | 1050-036 | 0.45 | 1051-036 | 0.72 | 6326-136 | 1.24 |
| 37 | 1-7/16 | 2-1/2 | 1010-037 | 0.30 | 1011-037 | 0.72 | 1050-037 | 0.45 | 1051-037 | 0.72 | 6326-137 | 1.24 |
| 38 | 1-7/16 | 2-1/2 | 1010-038 | 0.30 | 1011-038 | 0.72 | 1050-038 | 0.45 | 1051-038 | 0.72 | 6326-138 | 1.24 |
| 39 | 1-3/8 | 2-3/8 | 1010-039 | 0.30 | 1011-039 | 0.72 | 1050-039 | 0.45 | 1051-039 | 0.72 | 6326-139 | 1.24 |
| 40 | 1-3/8 | 2-3/8 | 1010-040 | 0.30 | 1011-040 | 0.72 | 1050-040 | 0.45 | 1051-040 | 0.72 | 6326-140 | 1.24 |
| 41 | 1-3/8 | 2-3/8 | 1010-041 | 0.30 | 1011-041 | 0.74 | 1050-041 | 0.45 | 1051-041 | 0.74 | 6326-141 | 1.24 |
| 42 | 1-1/4 | 2-1/4 | 1010-042 | 0.30 | 1011-042 | 0.74 | 1050-042 | 0.45 | 1051-042 | 0.74 | 6326-142 | 1.24 |
| 43 | 1-1/4 | 2-1/4 | 1010-043 | 0.30 | 1011-043 | 0.74 | 1050-043 | 0.45 | 1051-043 | 0.74 | 6326-143 | 1.24 |
| 44 | 1-1/8 | 2-1/8 | 1010-044 | 0.30 | 1011-044 | 0.74 | 1050-044 | 0.45 | 1051-044 | 0.74 | 6326-144 | 1.24 |
| 45 | 1-1/8 | 2-1/8 | 1010-045 | 0.30 | 1011-045 | 0.74 | 1050-045 | 0.45 | 1051-045 | 0.74 | 6326-145 | 1.24 |
| 46 | 1-1/8 | 2-1/8 | 1010-046 | 0.30 | 1011-046 | 0.74 | 1050-046 | 0.45 | 1051-046 | 0.74 | 6326-146 | 1.24 |
| 47 | 1 | 2 | 1010-047 | 0.30 | 1011-047 | 0.74 | 1050-047 | 0.45 | 1051-047 | 0.74 | 6326-147 | 1.24 |
| 48 | 1 | 2 | 1010-048 | 0.30 | 1011-048 | 0.74 | 1050-048 | 0.45 | 1051-048 | 0.74 | 6326-148 | 1.24 |
| 49 | 1 | 2 | 1010-049 | 0.30 | 1011-049 | 0.74 | 1050-049 | 0.45 | 1051-049 | 0.74 | 6326-149 | 1.24 |
| 50 | 1 | 2 | 1010-050 | 0.30 | 1011-050 | 0.74 | 1050-050 | 0.45 | 1051-050 | 0.74 | 6326-150 | 1.24 |
| 51 | 1 | 2 | 1010-051 | 0.30 | 1011-051 | 0.74 | 1050-051 | 0.45 | 1051-051 | 0.74 | 6326-151 | 1.24 |
| 52 | 7/8 | 1-7/8 | 1010-052 | 0.30 | 1011-052 | 0.74 | 1050-052 | 0.45 | 1051-052 | 0.74 | 6326-152 | 1.24 |
| 53 | 7/8 | 1-7/8 | 1010-053 | 0.30 | 1011-053 | 0.74 | 1050-053 | 0.45 | 1051-053 | 0.74 | 6326-153 | 1.19 |
| 54 | 7/8 | 1-7/8 | 1010-054 | 0.30 | 1011-054 | 0.74 | 1050-054 | 0.45 | 1051-054 | 0.74 | 6326-154 | 1.19 |
| 55 | 7/8 | 1-7/8 | 1010-055 | 0.30 | 1011-055 | 0.74 | 1050-055 | 0.45 | 1051-055 | 0.74 | 6326-155 | 1.19 |
| 56 | 3/4 | 1-3/4 | 1010-056 | 0.30 | 1011-056 | 0.74 | 1050-056 | 0.45 | 1051-056 | 0.74 | 6326-156 | 1.19 |
| 57 | 3/4 | 1-3/4 | 1010-057 | 0.30 | 1011-057 | 0.74 | 1050-057 | 0.45 | 1051-057 | 0.74 | 6326-157 | 1.19 |
| 58 | 11/16 | 1-5/8 | 1010-058 | 0.30 | 1011-058 | 0.74 | 1050-058 | 0.45 | 1051-058 | 0.74 | 6326-158 | 1.19 |
| 59 | 11/16 | 1-5/8 | 1010-059 | 0.30 | 1011-059 | 0.74 | 1050-059 | 0.45 | 1051-059 | 0.74 | 6326-159 | 1.19 |
| 60 | 11/16 | 1-5/8 | 1010-060 | 0.30 | 1011-060 | 0.74 | 1050-060 | 0.45 | 1051-060 | 0.74 | 6326-160 | 1.19 |

*** Ground from solid.**

# Jobbers Length Drills

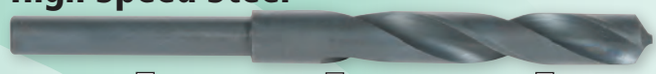
## High Speed Steel – Wire Gage Sizes, Con't.

| WIRE GAGE SIZES | DEC. EQV. | FLT. L'GTH | OAL | Pittsburg® ALLEGHANY BLACK [4] ORDER NO. | PRICE EACH | Pittsburg® ALLEGHANY POLISHED* [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE POLISHED* [3] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 61 | .0390 | 11/16 | 1-5/8 | 1010-061 | $0.40 | 1050-061 | $0.40 | 1051-061 | $0.90 |
| 62 | .3080 | 5/8 | 1-1/2 | 1010-062 | 0.40 | 1050-062 | 0.40 | 1051-062 | 0.90 |
| 63 | .3070 | 5/8 | 1-1/2 | 1010-063 | 0.40 | 1050-063 | 0.40 | 1051-063 | 0.90 |
| 64 | .0360 | 5/8 | 1-1/2 | 1010-064 | 0.40 | 1050-064 | 0.40 | 1051-064 | 0.90 |
| 65 | .0350 | 5/8 | 1-1/2 | 1010-065 | 0.40 | 1050-065 | 0.40 | 1051-065 | 0.90 |
| 66 | .0330 | 1/2 | 1-3/8 | 1010-066 | 0.40 | 1050-066 | 0.40 | 1051-066 | 0.90 |
| 67 | .0320 | 1/2 | 1-3/8 | 1010-067 | 0.40 | 1050-067 | 0.40 | 1051-067 | 0.90 |
| 68 | .0310 | 1/2 | 1-3/8 | 1010-068 | 0.40 | 1050-068 | 0.40 | 1051-068 | 0.90 |
| 69 | .0292 | 1/2 | 1-3/8 | 1010-069 | 0.45 | 1050-069 | 0.45 | 1051-069 | 1.00 |
| 70 | .0280 | 3/8 | 1-1/4 | 1010-070 | 0.45 | 1050-070 | 0.45 | 1051-070 | 1.00 |
| 71 | .0260 | 3/8 | 1-1/4 | 1010-071 | 0.55 | 1050-071 | 0.55 | 1051-071 | 1.25 |
| 72 | .0250 | 5/16 | 1-1/8 | 1010-072 | 0.55 | 1050-072 | 0.55 | 1051-072 | 1.25 |
| 73 | .0240 | 5/16 | 1-1/8 | 1010-073 | 0.55 | 1050-073 | 0.55 | 1051-073 | 1.25 |
| 74 | .0225 | 1/4 | 1 | 1010-074 | 0.55 | 1050-074 | 0.55 | 1051-074 | 1.25 |
| 75 | .0210 | 1/4 | 1 | 1010-075 | 0.55 | 1050-075 | 0.55 | 1051-075 | 1.25 |
| 76 | .0200 | 3/16 | 7/8 | 1010-076 | 0.55 | 1050-076 | 0.55 | 1051-076 | 1.25 |
| 77 | .0180 | 3/16 | 7/8 | 1010-077 | 0.55 | 1050-077 | 0.55 | 1051-077 | 1.25 |
| 78 | .0160 | 3/16 | 7/8 | 1010-078 | 0.55 | 1050-078 | 0.55 | 1051-078 | 1.25 |
| 79 | .0145 | 1/8 | 3/4 | 1010-079 | 0.65 | 1050-079 | 0.65 | 1051-079 | 1.50 |
| 80 | .0135 | 1/8 | 3/4 | 1010-080 | 0.65 | 1050-080 | 0.65 | 1051-080 | 1.50 |
| 81 | .0130 | 3/32 | 3/4 | – | – | – | – | 1051-081 | 3.00 |
| 82 | .0125 | 3/32 | 3/4 | – | – | – | – | 1051-082 | 3.00 |
| 83 | .0120 | 3/32 | 3/4 | – | – | – | – | 1051-083 | 3.40 |
| 84 | .0115 | 3/32 | 3/4 | – | – | – | – | 1051-084 | 3.40 |
| 85 | .0110 | 5/64 | 3/4 | – | – | – | – | 1051-085 | 3.40 |
| 86 | .0105 | 5/64 | 3/4 | – | – | – | – | 1051-086 | 3.80 |
| 87 | .0100 | 5/64 | 3/4 | – | – | – | – | 1051-087 | 3.80 |
| 88 | .0095 | 5/64 | 3/4 | – | – | – | – | 1051-088 | 4.80 |
| 89 | .0091 | 1/16 | 3/4 | – | – | – | – | 1051-089 | 4.80 |
| 90 | .0087 | 1/16 | 3/4 | – | – | – | – | 1051-090 | 4.80 |
| 91 | .0083 | 1/16 | 3/4 | – | – | – | – | 1051-091 | 4.80 |
| 92 | .0079 | 1/16 | 3/4 | – | – | – | – | 1051-092 | 4.80 |
| 93 | .0075 | 1/16 | 3/4 | – | – | – | – | 1051-093 | 4.80 |
| 94 | .0071 | 1/16 | 3/4 | – | – | – | – | 1051-094 | 6.90 |
| 95 | .0067 | 1/16 | 3/4 | – | – | – | – | 1051-095 | 6.90 |
| 96 | .0063 | 1/16 | 3/4 | – | – | – | – | 1051-096 | 7.60 |
| 97 | .0059 | 1/16 | 3/4 | – | – | – | – | 1051-097 | 7.60 |

* Ground from Solid

# 3/8" Shank Drills

## High Speed Steel



| DIAM. | Pittsburg® ALLEGHANY BLACK [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE BLACK* [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE POLISHED* [3] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 25/64 | 1460-025 | $2.54 | 1460-125 | $4.37 | 1460-225 | $4.37 |
| 13/32 | 1460-026 | 2.80 | 1460-126 | 4.46 | 1460-226 | 4.46 |
| 27/64 | 1460-027 | 3.06 | 1460-127 | 4.95 | 1460-227 | 4.95 |
| 7/16 | 1460-028 | 3.33 | 1460-128 | 5.15 | 1460-228 | 5.15 |
| 29/64 | 1460-029 | 3.50 | 1460-129 | 5.83 | 1460-229 | 5.83 |
| 15/32 | 1460-030 | 3.68 | 1460-130 | 6.27 | 1460-230 | 6.27 |
| 31/64 | 1460-031 | 4.03 | 1460-131 | 6.47 | 1460-231 | 6.47 |
| 1/2 | 1460-032 | 4.55 | 1460-132 | 6.52 | 1460-232 | 6.52 |
| 17/32 | 1460-034 | 6.36 | – | – | – | – |
| 9/16 | 1460-036 | 6.73 | – | – | – | – |
| 19/32 | 1460-038 | 7.24 | – | – | – | – |
| 5/8 | 1460-040 | 7.59 | – | – | – | – |
| 21/32 | 1460-042 | 8.06 | – | – | – | – |
| 11/16 | 1460-044 | 8.44 | – | – | – | – |
| 23/32 | 1460-046 | 8.89 | – | – | – | – |
| 3/4 | 1460-048 | 9.26 | – | – | – | – |

* Ground from Solid

# 1/4" Reduced Shank High Speed Steel

## 4" OAL

[2]

| DIAM. | OVERALL LENGTH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|
| 5/16 | 4 | 1450-120 | $2.74 |
| 3/8 | 4 | 1450-124 | 3.62 |
| 7/16 | 4 | 1450-128 | 4.78 |
| 1/2 | 4 | 1450-132 | 5.88 |

# 1/4" Reduced Shank High Speed Steel – Jobbers Length

[3]

| DIAM. | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 17/64 | 1450-017 | $1.20 | – | – |
| 11/32 | 1450-018 | 1.36 | 1450-218 | $2.60 |
| 23/64 | 1450-019 | 1.44 | – | – |
| 3/8 | 1450-020 | 1.60 | 1450-220 | 3.04 |
| 21/64 | 1450-021 | 1.68 | – | – |
| 11/32 | 1450-022 | 1.92 | 1450-222 | 3.54 |
| 23/64 | 1450-023 | 2.08 | – | – |
| 3/8 | 1450-024 | 2.24 | 1450-224 | 4.02 |
| 25/64 | 1450-025 | 2.32 | – | – |
| 13/32 | 1450-026 | 2.56 | 1450-226 | 4.62 |
| 27/64 | 1450-027 | 2.80 | – | – |
| 7/16 | 1450-028 | 3.04 | 1450-228 | 5.31 |
| 29/64 | 1450-029 | 3.20 | – | – |
| 15/32 | 1450-030 | 3.36 | 1450-230 | 5.85 |
| 31/64 | 1450-031 | 3.68 | – | – |
| 1/2 | 1450-032 | 4.16 | 1450-232 | 6.53 |

# High Speed Steel – Letter Sizes

| WIRE GAGE SIZES | DEC. EQV. | FLT. L'GTH | OAL | Pittsburg® ALLEGHANY BLACK [4] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE BLACK* [3] ORDER NO. | PRICE EACH | Pittsburg® ALLEGHANY POLISHED* [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE POLISHED* [3] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | .2340 | 2-5/8 | 3-7/8 | 1020-001 | $0.85 | 1021-001 | $1.48 | 1060-001 | $1.00 | 1061-001 | $1.48 |
| B | .2380 | 2-3/4 | 4 | 1020-002 | 0.85 | 1021-002 | 1.56 | 1060-002 | 1.00 | 1061-002 | 1.56 |
| C | .2420 | 2-3/4 | 4 | 1020-003 | 0.85 | 1021-003 | 1.56 | 1060-003 | 1.00 | 1061-003 | 1.56 |
| D | .2460 | 2-3/4 | 4 | 1020-004 | 0.85 | 1021-004 | 1.58 | 1060-004 | 1.00 | 1061-004 | 1.58 |
| E | .2500 | 2-3/4 | 4 | 1020-005 | 0.80 | 1021-005 | 1.60 | 1060-005 | 0.95 | 1061-005 | 1.60 |
| F | .2570 | 2-7/8 | 4-1/8 | 1020-006 | 0.90 | 1021-006 | 2.16 | 1060-006 | 1.10 | 1061-006 | 2.16 |
| G | .2610 | 2-7/8 | 4-1/8 | 1020-007 | 1.00 | 1021-007 | 2.16 | 1060-007 | 1.20 | 1061-007 | 2.16 |
| H | .2660 | 2-7/8 | 4-1/8 | 1020-008 | 1.00 | 1021-008 | 2.18 | 1060-008 | 1.20 | 1061-008 | 2.18 |
| I | .2720 | 2-7/8 | 4-1/8 | 1020-009 | 1.00 | 1021-009 | 2.24 | 1060-009 | 1.20 | 1061-009 | 2.24 |
| J | .2770 | 2-7/8 | 4-1/8 | 1020-010 | 1.10 | 1021-010 | 2.30 | 1060-010 | 1.30 | 1061-010 | 2.30 |
| K | .2810 | 2-15/16 | 4-1/4 | 1020-011 | 1.25 | 1021-011 | 2.34 | 1060-011 | 1.40 | 1061-011 | 2.34 |
| L | .2900 | 2-15/16 | 4-1/4 | 1020-012 | 1.25 | 1021-012 | 2.46 | 1060-012 | 1.40 | 1061-012 | 2.46 |
| M | .2950 | 3-1/16 | 4-3/8 | 1020-013 | 1.30 | 1021-013 | 2.62 | 1060-013 | 1.50 | 1061-013 | 2.62 |
| N | .3020 | 3-1/16 | 4-3/8 | 1020-014 | 1.30 | 1021-014 | 2.68 | 1060-014 | 1.50 | 1061-014 | 2.68 |
| O | .3160 | 3-3/16 | 4-1/2 | 1020-015 | 1.30 | 1021-015 | 2.90 | 1060-015 | 1.50 | 1061-015 | 2.90 |
| P | .3230 | 3-5/16 | 4-5/8 | 1020-016 | 1.50 | 1021-016 | 3.12 | 1060-016 | 1.65 | 1061-016 | 3.12 |
| Q | .3320 | 3-7/16 | 4-3/4 | 1020-017 | 1.50 | 1021-017 | 3.26 | 1060-017 | 1.65 | 1061-017 | 3.26 |
| R | .3390 | 3-7/16 | 4-3/4 | 1020-018 | 1.60 | 1021-018 | 3.40 | 1060-018 | 1.80 | 1061-018 | 3.40 |
| S | .3480 | 3-1/2 | 4-7/8 | 1020-019 | 1.65 | 1021-019 | 3.50 | 1060-019 | 1.90 | 1061-019 | 3.50 |
| T | .3580 | 3-1/2 | 4-7/8 | 1020-020 | 1.95 | 1021-020 | 3.70 | 1060-020 | 2.15 | 1061-020 | 3.70 |
| U | .3680 | 3-5/8 | 5 | 1020-021 | 1.95 | 1021-021 | 4.04 | 1060-021 | 2.15 | 1061-021 | 4.04 |
| V | .3770 | 3-5/8 | 5 | 1020-022 | 1.95 | 1021-022 | 4.16 | 1060-022 | 2.20 | 1061-022 | 4.16 |
| W | .3860 | 3-3/4 | 5-1/8 | 1020-023 | 2.00 | 1021-023 | 4.42 | 1060-023 | 2.25 | 1061-023 | 4.42 |
| X | .3970 | 3-3/4 | 5-1/8 | 1020-024 | 2.45 | 1021-024 | 4.68 | 1060-024 | 2.75 | 1061-024 | 4.68 |
| Y | .4040 | 3-7/8 | 5-1/4 | 1020-025 | 2.75 | 1021-025 | 4.90 | 1060-025 | 3.20 | 1061-025 | 4.90 |
| Z | .4130 | 3-7/8 | 5-1/4 | 1020-026 | 2.95 | 1021-026 | 5.00 | 1060-026 | 3.25 | 1061-026 | 5.00 |

* Ground from Solid

**PACKAGE QUANTITIES: Letter Sizes**
**A-N: 12pcs. O-Z: 6 pcs.**

# Metric Jobber Length Drills

**118° Point**

## High Speed Steel

| DIAM. mm | DECM'L. EQUIV. | Pittsburg® HIGH SPEED ORDER NO. | PRICE EACH |
|---|---|---|---|
| 0.30 | .0118 | 1030-030 | $1.53 |
| 0.32 | .0126 | 1030-032 | 1.36 |
| 0.35 | .0138 | 1030-035 | 1.15 |
| 0.38 | .0150 | 1030-038 | 0.98 |
| 0.40 | .0157 | 1030-040 | 0.98 |
| 0.42 | .0165 | 1030-042 | 0.98 |
| 0.45 | .0177 | 1030-045 | 0.98 |
| 0.48 | .0189 | 1030-048 | 0.98 |
| 0.50 | .0197 | 1030-050 | 0.98 |
| 0.52 | .0204 | 1030-052 | 0.98 |
| 0.55 | .0217 | 1030-055 | 0.98 |
| 0.58 | .0228 | 1030-058 | 0.98 |
| 0.60 | .0236 | 1030-060 | 0.98 |
| 0.65 | .0256 | 1030-065 | 0.98 |
| 0.68 | .0267 | 1030-068 | 0.98 |
| 0.70 | .0276 | 1030-070 | 0.77 |
| 0.72 | .0283 | 1030-072 | 0.77 |
| 0.75 | .0295 | 1030-075 | 0.72 |
| 0.80 | .0315 | 1030-080 | 0.64 |
| 0.85 | .0335 | 1030-085 | 0.64 |
| 0.90 | .0354 | 1030-090 | 0.64 |
| 0.95 | .0374 | 1030-095 | 0.64 |
| 1.00 | .0394 | 1030-100 | 0.64 |
| 1.05 | .0413 | 1030-105 | 0.64 |
| 1.10 | .0433 | 1030-110 | 0.64 |
| 1.15 | .0453 | 1030-115 | 0.64 |
| 1.20 | .0472 | 1030-120 | 0.64 |
| 1.25 | .0492 | 1030-125 | 0.64 |
| 1.30 | .0512 | 1030-130 | 0.64 |
| 1.35 | .0531 | 1030-135 | 0.64 |
| 1.40 | .0551 | 1030-140 | 0.64 |
| 1.45 | .0571 | 1030-145 | 0.64 |
| 1.50 | .0591 | 1030-150 | 0.64 |
| 1.55 | .0610 | 1030-155 | 0.64 |
| 1.60 | .0630 | 1030-160 | 0.64 |
| 1.65 | .0650 | 1030-165 | 0.64 |
| 1.70 | .0669 | 1030-170 | 0.64 |
| 1.75 | .0689 | 1030-175 | 0.64 |
| 1.80 | .0709 | 1030-180 | 0.64 |
| 1.85 | .0728 | 1030-185 | 0.64 |
| 1.90 | .0748 | 1030-190 | 0.64 |
| 1.95 | .0768 | 1030-195 | 0.64 |

**PACKAGE QUANTITIES: Metric**
**0.30–7.90: 12 pcs. 8.00-12.5: 6 pcs.**
**12.60-17.50: 1 pcs.**

| DIAM. mm | DECM'L. EQUIV. | Pittsburg® HIGH SPEED ORDER NO. | PRICE EACH | ROCK RIVER CARBIDE TIPPED ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2.00 | .0787 | 1030-200 | $0.64 | – | – |
| 2.05 | .0807 | 1030-205 | 0.64 | – | – |
| 2.10 | .0827 | 1030-210 | 0.64 | – | – |
| 2.15 | .0846 | 1030-215 | 0.64 | – | – |
| 2.20 | .0866 | 1030-220 | 0.64 | – | – |
| 2.25 | .0886 | 1030-225 | 0.64 | – | – |
| 2.30 | .0906 | 1030-230 | 0.64 | – | – |
| 2.35 | .0925 | 1030-235 | 0.64 | – | – |
| 2.40 | .0945 | 1030-240 | 0.64 | – | – |
| 2.45 | .0965 | 1030-245 | 0.64 | – | – |
| 2.50 | .0984 | 1030-250 | 0.64 | – | – |
| 2.55 | .1005 | 1030-255 | 0.64 | – | – |
| 2.60 | .1024 | 1030-260 | 0.64 | – | – |
| 2.70 | .1063 | 1030-270 | 0.64 | – | – |
| 2.75 | .1083 | 1030-275 | 0.64 | – | – |
| 2.80 | .1102 | 1030-280 | 0.64 | – | – |
| 2.90 | .1142 | 1030-290 | 0.64 | – | – |
| 3.00 | .1181 | 1030-300 | 0.64 | 2993-300 | $14.45 |
| 3.10 | .1220 | 1030-310 | 0.74 | 2993-310 | 15.10 |
| 3.20 | .1260 | 1030-320 | 0.74 | 2993-320 | 15.10 |
| 3.30 | .1299 | 1030-330 | 0.74 | 2993-330 | 15.10 |
| 3.40 | .1339 | 1030-340 | 0.74 | 2993-340 | 15.10 |
| 3.50 | .1378 | 1030-350 | 0.74 | 2993-350 | 13.95 |
| 3.60 | .1417 | 1030-360 | 0.78 | 2993-360 | 14.45 |
| 3.70 | .1457 | 1030-370 | 0.78 | 2993-370 | 14.45 |
| 3.75 | .1476 | 1030-375 | 0.78 | – | – |
| 3.80 | .1496 | 1030-380 | 0.78 | 2993-380 | 14.45 |
| 3.90 | .1535 | 1030-390 | 0.78 | 2993-390 | 14.45 |
| 4.00 | .1575 | 1030-400 | 0.78 | 2993-400 | 13.60 |
| 4.10 | .1614 | 1030-410 | 0.87 | 2993-410 | 13.10 |
| 4.20 | .1654 | 1030-420 | 0.87 | 2993-420 | 13.95 |
| 4.30 | .1693 | 1030-430 | 0.87 | 2993-430 | 13.95 |
| 4.40 | .1732 | 1030-440 | 0.87 | 2993-440 | 13.95 |
| 4.50 | .1772 | 1030-450 | 0.87 | 2993-450 | 14.45 |
| 4.60 | .1811 | 1030-460 | 1.10 | 2993-460 | 15.75 |
| 4.70 | .1850 | 1030-470 | 1.10 | 2993-470 | 13.35 |
| 4.80 | .1890 | 1030-480 | 1.10 | 2993-480 | 13.95 |
| 4.90 | .1929 | 1030-490 | 1.10 | 2993-490 | 15.75 |
| 5.00 | .1969 | 1030-500 | 1.10 | 2993-500 | 15.10 |
| 5.10 | .2008 | 1030-510 | 1.29 | 2993-510 | 16.40 |
| 5.20 | .2047 | 1030-520 | 1.29 | 2993-520 | 16.40 |
| 5.25 | .2067 | 1030-525 | 1.29 | – | – |
| 5.30 | .2087 | 1030-530 | 1.29 | 2993-530 | 16.40 |
| 5.40 | .2126 | 1030-540 | 1.29 | 2993-540 | 16.40 |
| 5.50 | .2165 | 1030-550 | 1.29 | 2993-550 | 16.05 |
| 5.60 | .2205 | 1030-560 | 1.47 | 2993-560 | 16.85 |
| 5.70 | .2244 | 1030-570 | 1.47 | 2993-570 | 16.85 |
| 5.75 | .2264 | 1030-575 | 1.47 | – | – |
| 5.80 | .2283 | 1030-580 | 1.47 | 2993-580 | 16.85 |
| 5.90 | .2323 | 1030-590 | 1.47 | 2993-590 | 16.85 |
| 6.00 | .2362 | 1030-600 | 1.47 | 2993-600 | 16.65 |
| 6.10 | .2402 | 1030-610 | 1.61 | 2993-610 | 17.60 |
| 6.20 | .2441 | 1030-620 | 1.61 | 2993-620 | 17.60 |
| 6.30 | .2480 | 1030-630 | 1.61 | 2993-630 | 17.60 |
| 6.40 | .2520 | 1030-640 | 1.61 | 2993-640 | 17.60 |
| 6.50 | .2559 | 1030-650 | 1.61 | 2993-650 | 17.20 |
| 6.60 | .2598 | 1030-660 | 1.89 | 2993-660 | 18.40 |
| 6.70 | .2638 | 1030-670 | 1.89 | 2993-670 | 18.40 |
| 6.80 | .2677 | 1030-680 | 1.89 | 2993-680 | 18.40 |
| 6.90 | .2717 | 1030-690 | 1.89 | 2993-690 | 18.40 |
| 7.00 | .2756 | 1030-700 | 1.89 | 2993-700 | 18.00 |
| 7.10 | .2795 | 1030-710 | 2.12 | 2993-710 | 18.85 |
| 7.20 | .2835 | 1030-720 | 2.12 | 2993-720 | 18.85 |
| 7.25 | .2854 | 1030-725 | 2.12 | – | – |
| 7.30 | .2874 | 1030-730 | 2.12 | 2993-730 | 18.85 |
| 7.40 | .2913 | 1030-740 | 2.12 | 2993-740 | 18.85 |
| 7.50 | .2953 | 1030-750 | 2.12 | 2993-750 | 18.85 |
| 7.60 | .2992 | 1030-760 | 2.44 | 2993-760 | 19.75 |
| 7.70 | .3031 | 1030-770 | 2.44 | 2993-770 | 19.75 |

2

## Carbide Tipped

| DIAM. mm | DECM'L. EQUIV. | Pittsburg® HIGH SPEED ORDER NO. | PRICE EACH | ROCK RIVER CARBIDE TIPPED ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 7.80 | .3071 | 1030-780 | $2.44 | 2993-780 | $19.75 |
| 7.90 | .3110 | 1030-790 | 2.44 | 2993-790 | 19.75 |
| 8.00 | .3150 | 1030-800 | 2.44 | 2993-800 | 19.30 |
| 8.10 | .3189 | 1030-810 | 2.76 | 2993-810 | 21.10 |
| 8.20 | .3228 | 1030-820 | 2.76 | 2993-820 | 21.10 |
| 8.25 | .3248 | 1030-825 | 2.76 | – | – |
| 8.30 | .3268 | 1030-830 | 2.76 | 2993-830 | 21.10 |
| 8.40 | .3307 | 1030-840 | 2.76 | 2993-840 | 21.10 |
| 8.50 | .3346 | 1030-850 | 2.76 | 2993-850 | 20.20 |
| 8.55 | .3367 | 1030-855 | 2.76 | – | – |
| 8.60 | .3386 | 1030-860 | 3.17 | 2993-860 | 21.10 |
| 8.70 | .3425 | 1030-870 | 3.17 | 2993-870 | 21.10 |
| 8.80 | .3465 | 1030-880 | 3.17 | 2993-880 | 21.10 |
| 8.90 | .3504 | 1030-890 | 3.17 | 2993-890 | 21.10 |
| 9.00 | .3543 | 1030-900 | 3.17 | 2993-900 | 20.60 |
| 9.10 | .3583 | 1030-910 | 3.50 | 2993-910 | 22.85 |
| 9.20 | .3622 | 1030-920 | 3.50 | 2993-920 | 22.85 |
| 9.25 | .3642 | 1030-925 | 3.50 | – | – |
| 9.30 | .3661 | 1030-930 | 3.50 | 2993-930 | 22.85 |
| 9.40 | .3701 | 1030-940 | 3.50 | 2993-940 | 22.85 |
| 9.50 | .3740 | 1030-950 | 3.50 | 2993-950 | 22.40 |
| 9.60 | .3780 | 1030-960 | 3.96 | 2993-960 | 23.20 |
| 9.70 | .3819 | 1030-970 | 3.96 | 2993-970 | 23.20 |
| 9.80 | .3558 | 1030-980 | 3.96 | 2993-980 | 23.20 |
| 9.90 | .3898 | 1030-990 | 3.96 | 2993-990 | 23.20 |
| 10.00 | .3937 | 1031-000 | 3.96 | 2994-000 | 23.20 |
| 10.10 | .3976 | – | – | 2994-010 | 27.65 |
| 10.20 | .4016 | 1031-020 | 4.37 | 2994-020 | 27.65 |
| 10.30 | .4055 | 1031-030 | 4.37 | 2994-030 | 27.65 |
| 10.40 | .4094 | 1031-040 | 4.37 | 2994-040 | 27.65 |
| 10.50 | .4134 | 1031-050 | 4.37 | 2994-050 | 26.75 |
| 10.60 | .4173 | 1031-060 | 4.78 | 2994-060 | 30.30 |
| 10.70 | .4213 | 1031-070 | 4.78 | 2994-070 | 30.30 |
| 10.80 | .4252 | 1031-080 | 4.78 | 2994-080 | 30.30 |
| 10.90 | .4291 | – | – | 2994-090 | 30.30 |
| 11.00 | .4331 | 1031-100 | 4.78 | 2994-100 | 29.00 |
| 11.10 | .4370 | 1031-110 | 5.29 | 2994-110 | 33.80 |
| 11.20 | .4409 | 1031-120 | 5.29 | 2994-120 | 33.80 |
| 11.30 | .4449 | 1031-130 | 5.29 | 2994-130 | 33.80 |
| 11.40 | .4488 | 1031-140 | 5.29 | 2994-140 | 33.80 |
| 11.50 | .4528 | 1031-150 | 5.29 | 2994-150 | 32.50 |
| 11.60 | .4567 | 1031-160 | 5.70 | 2994-160 | 36.85 |
| 11.70 | .4606 | 1031-170 | 5.70 | 2994-170 | 36.85 |
| 11.80 | .4646 | 1031-180 | 5.70 | 2994-180 | 36.85 |
| 11.90 | .4685 | – | – | 2994-190 | 36.85 |
| 12.00 | .4724 | 1031-200 | 5.70 | 2994-200 | 35.20 |
| 12.10 | .4764 | – | – | 2994-210 | 38.30 |
| 12.20 | .4803 | 1031-220 | 6.16 | 2994-220 | 38.30 |
| 12.30 | .4843 | – | – | 2994-230 | 38.30 |
| 12.40 | .4882 | 1031-240 | 6.16 | 2994-240 | 38.30 |
| 12.50 | .4921 | 1031-250 | 6.16 | 2994-250 | 36.50 |
| 12.60 | .4921 | 1031-260 | 6.81 | 2994-260 | 39.65 |
| 12.70 | .5000 | 1031-270 | 6.81 | 2994-270 | 33.70 |
| 12.80 | .5039 | 1031-280 | 6.81 | 2994-280 | 43.50 |
| 12.90 | .5079 | 1031-290 | 6.81 | 2994-290 | 43.50 |
| 13.00 | .5118 | 1031-300 | 6.81 | 2994-300 | 43.50 |
| 13.50 | .5315 | 1031-350 | 8.37 | 2994-350 | 56.30 |
| 14.00 | .5512 | 1031-400 | 8.37 | 2994-400 | 59.70 |
| 14.50 | .5709 | 1031-450 | 9.11 | 2994-450 | 64.00 |
| 15.00 | .5906 | 1031-500 | 9.11 | 2994-500 | 64.00 |
| 15.50 | .6102 | 1031-550 | 10.90 | – | – |
| 16.00 | .6299 | 1031-600 | 10.90 | 2994-600 | 66.05 |
| 16.50 | .6496 | 1031-650 | 12.70 | – | – |
| 17.00 | .6693 | 1031-700 | 12.70 | – | – |
| 17.50 | .6890 | 1031-750 | 15.55 | – | – |

# Jobbers Length Drills– Cobalt

## M42 Cobalt – 135° Split Point

Look for ALLEGIANCE® AMERICANMADE — MADE IN USA

### Fractional Sizes

| FRAC. SIZES | DEC. EQV. | FLUTE LG'TH | OAL | COBALT USA ORDER NO. | COBALT USA PRICE EACH |
|---|---|---|---|---|---|
| 1/64 | 0.0156 | 3/16 | 3/4 | 1101-001 | $ 1.70 |
| 3/64 | 0.0469 | 3/4 | 1-3/4 | 1101-003 | 1.10 |
| 1/16 | 0.0625 | 7/8 | 1-7/8 | 1101-004 | 1.04 |
| 5/64 | 0.0781 | 1 | 2 | 1101-005 | 1.04 |
| 3/32 | 0.0937 | 1-1/4 | 2-1/4 | 1101-006 | 1.04 |
| 7/64 | 0.1094 | 1-1/2 | 2-5/8 | 1101-007 | 1.12 |
| 1/8 | 0.1250 | 1-5/8 | 2-3/4 | 1101-008 | 1.28 |
| 9/64 | 0.1406 | 1-3/4 | 2-7/8 | 1101-009 | 1.40 |
| 5/32 | 0.1562 | 2 | 3-1/8 | 1101-010 | 1.46 |
| 11/64 | 0.1719 | 2-1/8 | 3-1/4 | 1101-011 | 1.57 |
| 3/16 | 0.1875 | 2-5/16 | 3-1/2 | 1101-012 | 1.76 |
| 13/64 | 0.2031 | 2-7/16 | 3-5/8 | 1101-013 | 2.14 |
| 7/32 | 0.2187 | 2-1/2 | 3-3/4 | 1101-014 | 2.33 |
| 15/64 | 0.2344 | 2-5/8 | 3-7/8 | 1101-015 | 2.50 |
| 1/4 | 0.2500 | 2-3/4 | 4 | 1101-016 | 2.58 |
| 17/64 | 0.2656 | 2-7/8 | 4-1/8 | 1101-017 | 3.19 |
| 9/32 | 0.2812 | 2-15/16 | 4-1/4 | 1101-018 | 3.55 |
| 19/64 | 0.2969 | 3-1/16 | 4-3/8 | 1101-019 | 3.86 |
| 5/16 | 0.3125 | 3-3/16 | 4-1/2 | 1101-020 | 4.11 |
| 21/64 | 0.3281 | 3-5/16 | 4-5/8 | 1101-021 | 4.63 |
| 11/32 | 0.3437 | 3-7/16 | 4-3/4 | 1101-022 | 5.03 |
| 23/64 | 0.3594 | 3-1/2 | 4-7/8 | 1101-023 | 5.88 |
| 3/8 | 0.3750 | 3-5/8 | 5 | 1101-024 | 5.74 |
| 25/64 | 0.3906 | 3-3/4 | 5-1/8 | 1101-025 | 6.68 |
| 13/32 | 0.4062 | 3-7/8 | 5-1/4 | 1101-026 | 7.09 |
| 27/64 | 0.4219 | 3-15/16 | 5-3/8 | 1101-027 | 7.65 |
| 7/16 | 0.4375 | 4-1/16 | 5-1/2 | 1101-028 | 7.93 |
| 29/64 | 0.4531 | 4-3/16 | 5-5/8 | 1101-029 | 9.48 |
| 15/32 | 0.4687 | 4-5/16 | 5-3/4 | 1101-030 | 9.71 |
| 31/64 | 0.4844 | 4-3/8 | 5-7/8 | 1101-031 | 10.25 |
| 1/2 | 0.5000 | 4-1/2 | 6 | 1101-032 | 10.01 |

**PACKAGE QUANTITIES: Fractional Sizes**
**1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs.**
**33/34–11/16: 1 pcs.**

**FOR SIZES 33/64 - 11/16 SEE S&D DRILL SECTION**

### 3/8" Shank Sizes

| DIAM. | DEC. EQV. | FLUTE LG'TH | OAL | COBALT USA ORDER NO. | COBALT USA PRICE EACH |
|---|---|---|---|---|---|
| 25/64 | .3594 | 3-1/2 | 4-7/8 | 1460-325 | $7.68 |
| 13/32 | .4062 | 3-7/8 | 5-1/4 | 1460-326 | 8.15 |
| 27/64 | .4219 | 3-15/16 | 5-3/8 | 1460-327 | 8.80 |
| 7/16 | .4375 | 4-1/16 | 5-1/2 | 1460-328 | 9.12 |
| 29/64 | .4531 | 4-3/16 | 5-5/8 | 1460-329 | 10.90 |
| 15/32 | .4687 | 4-5/16 | 5-3/4 | 1460-330 | 11.17 |
| 31/64 | .4844 | 4-3/8 | 5-7/8 | 1460-331 | 11.79 |
| 1/2 | .5000 | 4-1/2 | 6 | 1460-332 | 11.51 |

Note: Sizes under 1/16, and #52 are not Split Point

### Wire Gage Sizes

| WIRE GAGE SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | COBALT USA ORDER NO. | COBALT USA PRICE EACH |
|---|---|---|---|---|---|
| 1 | .2280 | 2-5/8 | 3-7/8 | 1111-001 | $2.70 |
| 2 | .2210 | 2-5/8 | 3-7/8 | 1111-002 | 2.70 |
| 3 | .2130 | 2-1/2 | 3-3/4 | 1111-003 | 2.53 |
| 4 | .2090 | 2-1/2 | 3-3/4 | 1111-004 | 2.53 |
| 5 | .2055 | 2-1/2 | 3-3/4 | 1111-005 | 2.53 |
| 6 | .2040 | 2-1/2 | 3-3/4 | 1111-006 | 2.53 |
| 7 | .2010 | 2-7/16 | 3-5/8 | 1111-007 | 2.08 |
| 8 | .1990 | 2-7/16 | 3-5/8 | 1111-008 | 1.98 |
| 9 | .1960 | 2-7/16 | 3-5/8 | 1111-009 | 1.98 |
| 10 | .1935 | 2-7/16 | 3-5/8 | 1111-010 | 1.97 |
| 11 | .1910 | 2-5/16 | 3-1/2 | 1111-011 | 1.97 |
| 12 | .1890 | 2-5/16 | 3-1/2 | 1111-012 | 1.97 |
| 13 | .1850 | 2-5/16 | 3-1/2 | 1111-013 | 1.88 |
| 14 | .1820 | 2-3/16 | 3-3/8 | 1111-014 | 1.88 |
| 15 | .1800 | 2-3/16 | 3-3/8 | 1111-015 | 1.88 |
| 16 | .1770 | 2-3/16 | 3-3/8 | 1111-016 | 1.80 |
| 17 | .1730 | 2-3/16 | 3-3/8 | 1111-017 | 1.74 |
| 18 | .1695 | 2-1/8 | 3-1/4 | 1111-018 | 1.74 |
| 19 | .1660 | 2-1/8 | 3-1/4 | 1111-019 | 1.68 |
| 20 | .1610 | 2-1/8 | 3-1/4 | 1111-020 | 1.62 |
| 21 | .1590 | 2-1/8 | 3-1/4 | 1111-021 | 1.62 |
| 22 | .1570 | 2 | 3-1/8 | 1111-022 | 1.64 |
| 23 | .1540 | 2 | 3-1/8 | 1111-023 | 1.64 |
| 24 | .1520 | 2 | 3-1/8 | 1111-024 | 1.64 |
| 25 | .1495 | 1-7/8 | 3 | 1111-025 | 1.52 |
| 26 | .1470 | 1-7/8 | 3 | 1111-026 | 1.52 |
| 27 | .1440 | 1-7/8 | 3 | 1111-027 | 1.46 |
| 28 | .1405 | 1-3/4 | 2-7/8 | 1111-028 | 1.46 |
| 29 | .1360 | 1-3/4 | 2-7/8 | 1111-029 | 1.42 |
| 30 | .1285 | 1-5/8 | 2-3/4 | 1111-030 | 1.40 |
| 31 | .1200 | 1-5/8 | 2-3/4 | 1111-031 | 1.40 |
| 32 | .1160 | 1-5/8 | 2-3/4 | 1111-032 | 1.40 |
| 33 | .1130 | 1-1/2 | 2-5/8 | 1111-033 | 1.40 |
| 34 | .1110 | 1-1/2 | 2-5/8 | 1111-034 | 1.40 |
| 35 | .1100 | 1-1/2 | 2-5/8 | 1111-035 | 1.40 |
| 36 | .1065 | 1-7/16 | 2-1/2 | 1111-036 | 1.40 |
| 37 | .1040 | 1-7/16 | 2-1/2 | 1111-037 | 1.40 |
| 38 | .1015 | 1-7/16 | 2-1/2 | 1111-038 | 1.38 |
| 39 | .0995 | 1-3/8 | 2-3/8 | 1111-039 | 1.38 |
| 40 | .0980 | 1-3/8 | 2-3/8 | 1111-040 | 1.20 |
| 41 | .0960 | 1-3/8 | 2-3/8 | 1111-041 | 1.26 |
| 42 | .0935 | 1-1/4 | 2-1/4 | 1111-042 | 1.28 |
| 43 | .0890 | 1-1/4 | 2-1/4 | 1111-043 | 1.28 |
| 44 | .0860 | 1-1/8 | 2-1/8 | 1111-044 | 1.28 |
| 45 | .0820 | 1-1/8 | 2-1/8 | 1111-045 | 1.28 |
| 46 | .0810 | 1-1/8 | 2-1/8 | 1111-046 | 1.28 |
| 47 | .0785 | 1 | 2 | 1111-047 | 1.28 |
| 48 | .0760 | 1 | 2 | 1111-048 | 1.28 |
| 49 | .0730 | 1 | 2 | 1111-049 | 1.16 |
| 50 | .0700 | 1 | 2 | 1111-050 | 1.16 |
| 51 | .0670 | 1 | 2 | 1111-051 | 1.16 |
| 52 | .0635 | 7/8 | 1-7/8 | 1111-052 | 1.16 |
| 53 | .0595 | 7/8 | 1-7/8 | 1111-053 | 1.16 |
| 54 | .0550 | 7/8 | 1-7/8 | 1111-054 | 1.16 |
| 55 | .0520 | 7/8 | 1-7/8 | 1111-055 | 1.16 |
| 56 | .0465 | 3/4 | 1-3/4 | 1111-056 | 1.21 |
| 57 | .0430 | 3/4 | 1-3/4 | 1111-057 | 1.21 |
| 58 | .0420 | 11/16 | 1-5/8 | 1111-058 | 1.21 |
| 59 | .0410 | 11/16 | 1-5/8 | 1111-059 | 1.21 |
| 60 | .0400 | 11/16 | 1-5/8 | 1111-060 | 1.21 |

**PACKAGE QUANTITIES: Wire Gage Sizes**
**1-100: 12 pcs.**

### Letter Sizes

| LETTER SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | COBALT USA ORDER NO. | COBALT USA PRICE EACH |
|---|---|---|---|---|---|
| A | .2340 | 2-5/8 | 3-7/8 | 1121-001 | $2.85 |
| B | .2380 | 2-3/4 | 4 | 1121-002 | 3.28 |
| C | .2420 | 2-3/4 | 4 | 1121-003 | 3.28 |
| D | .2460 | 2-3/4 | 4 | 1121-004 | 3.70 |
| E | .2500 | 2-3/4 | 4 | 1121-005 | 2.87 |
| F | .2570 | 2-7/8 | 4-1/8 | 1121-006 | 3.24 |
| G | .2610 | 2-7/8 | 4-1/8 | 1121-007 | 3.28 |
| H | .2660 | 2-7/8 | 4-1/8 | 1121-008 | 3.70 |
| I | .2720 | 2-7/8 | 4-1/8 | 1121-009 | 3.45 |
| J | .2770 | 2-7/8 | 4-1/8 | 1121-010 | 3.70 |
| K | .2810 | 2-15/16 | 4-1/4 | 1121-011 | 3.70 |
| L | .2900 | 2-15/16 | 4-1/4 | 1121-012 | 4.20 |
| M | .2950 | 3-1/16 | 4-3/8 | 1121-013 | 4.45 |
| N | .3020 | 3-1/16 | 4-3/8 | 1121-014 | 4.45 |
| O | .3160 | 3-3/16 | 4-1/2 | 1121-015 | 4.91 |
| P | .3230 | 3-5/16 | 4-5/8 | 1121-016 | 5.21 |
| Q | .3320 | 3-7/16 | 4-3/4 | 1121-017 | 5.41 |
| R | .3390 | 3-7/16 | 4-3/4 | 1121-018 | 5.41 |
| S | .3480 | 3-1/2 | 4-7/8 | 1121-019 | 6.63 |
| T | .3580 | 3-1/2 | 4-7/8 | 1121-020 | 6.63 |
| U | .3680 | 3-5/8 | 5 | 1121-021 | 6.63 |
| V | .3770 | 3-5/8 | 5 | 1121-022 | 7.31 |
| W | .3860 | 3-3/4 | 5-1/8 | 1121-023 | 7.31 |
| X | .3970 | 3-3/4 | 5-1/8 | 1121-024 | 7.31 |
| Y | .4040 | 3-7/8 | 5-1/4 | 1121-025 | 7.75 |
| Z | .4130 | 3-7/8 | 5-1/4 | 1121-026 | 8.43 |

**PACKAGE QUANTITIES: Letter Sizes**
**A-N: 12pcs. O-Z: 6 pcs.**

# Jobbers Length Drills– Cobalt

## M35 Cobalt – 135° Split Point

Pittsburg® ALLEGHANY 4

### Fractional Sizes

| FRAC. SIZES | DEC. EQV. | FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/64 | 0.0156 | 3/16 | 3/4 | 1100-001 | $0.95 |
| 1/32 | 0.0312 | 1/2 | 1-3/8 | 1100-002 | 0.95 |
| 3/64 | 0.0469 | 3/4 | 1-3/4 | 1100-003 | 0.59 |
| 1/16 | 0.0625 | 7/8 | 1-7/8 | 1100-004 | 0.59 |
| 5/64 | 0.0781 | 1 | 2 | 1100-005 | 0.64 |
| 3/32 | 0.0937 | 1-1/4 | 2-1/4 | 1100-006 | 0.71 |
| 7/64 | 0.1094 | 1-1/2 | 2-5/8 | 1100-007 | 0.78 |
| 1/8 | 0.1250 | 1-5/8 | 2-3/4 | 1100-008 | 0.78 |
| 9/64 | 0.1406 | 1-3/4 | 2-7/8 | 1100-009 | 0.97 |
| 5/32 | 0.1562 | 2 | 3-1/8 | 1100-010 | 1.00 |
| 11/64 | 0.1719 | 2-1/8 | 3-1/4 | 1100-011 | 1.14 |
| 3/16 | 0.1875 | 2-5/16 | 3-1/2 | 1100-012 | 1.40 |
| 13/64 | 0.2031 | 2-7/16 | 3-5/8 | 1100-013 | 1.62 |
| 7/32 | 0.2187 | 2-1/2 | 3-3/4 | 1100-014 | 1.76 |
| 15/64 | 0.2344 | 2-5/8 | 3-7/8 | 1100-015 | 1.94 |
| 1/4 | 0.2500 | 2-3/4 | 4 | 1100-016 | 2.03 |
| 17/64 | 0.2656 | 2-7/8 | 4-1/8 | 1100-017 | 2.30 |
| 9/32 | 0.2812 | 2-15/16 | 4-1/4 | 1100-018 | 2.39 |
| 19/64 | 0.2969 | 3-1/16 | 4-3/8 | 1100-019 | 2.97 |
| 5/16 | 0.3125 | 3-3/16 | 4-1/2 | 1100-020 | 3.24 |
| 21/64 | 0.3281 | 3-5/16 | 4-5/8 | 1100-021 | 3.56 |
| 11/32 | 0.3437 | 3-7/16 | 4-3/4 | 1100-022 | 3.87 |
| 23/64 | 0.3594 | 3-1/2 | 4-7/8 | 1100-023 | 4.46 |
| 3/8 | 0.3750 | 3-5/8 | 5 | 1100-024 | 4.46 |
| 25/64 | 0.3906 | 3-3/4 | 5-1/8 | 1100-025 | 5.04 |
| 13/32 | 0.4062 | 3-7/8 | 5-1/4 | 1100-026 | 5.22 |
| 27/64 | 0.4219 | 3-15/16 | 5-3/8 | 1100-027 | 5.81 |
| 7/16 | 0.4375 | 4-1/16 | 5-1/2 | 1100-028 | 5.90 |
| 29/64 | 0.4531 | 4-3/16 | 5-5/8 | 1100-029 | 7.07 |
| 15/32 | 0.4687 | 4-5/16 | 5-3/4 | 1100-030 | 7.25 |
| 31/64 | 0.4844 | 4-3/8 | 5-7/8 | 1100-031 | 7.47 |
| 1/2 | 0.5000 | 4-1/2 | 6 | 1100-032 | 7.47 |

**PACKAGE QUANTITIES: Fractional Sizes**
**1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs.**
**33/34–11/16: 1 pcs.**

Note: Sizes under 1/16, and #52 are not Split Point

### Wire Gage Sizes

| WIRE GAGE SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | .2280 | 2-5/8 | 3-7/8 | 1110-001 | $2.16 |
| 2 | .2210 | 2-5/8 | 3-7/8 | 1110-002 | 2.16 |
| 3 | .2130 | 2-1/2 | 3-3/4 | 1110-003 | 2.07 |
| 4 | .2090 | 2-1/2 | 3-3/4 | 1110-004 | 2.07 |
| 5 | .2055 | 2-1/2 | 3-3/4 | 1110-005 | 2.07 |
| 6 | .2040 | 2-1/2 | 3-3/4 | 1110-006 | 2.07 |
| 7 | .2010 | 2-7/16 | 3-5/8 | 1110-007 | 1.58 |
| 8 | .1990 | 2-7/16 | 3-5/8 | 1110-008 | 1.58 |
| 9 | .1960 | 2-7/16 | 3-5/8 | 1110-009 | 1.58 |
| 10 | .1935 | 2-7/16 | 3-5/8 | 1110-010 | 1.58 |
| 11 | .1910 | 2-5/16 | 3-1/2 | 1110-011 | 1.58 |
| 12 | .1890 | 2-5/16 | 3-1/2 | 1110-012 | 1.58 |
| 13 | .1850 | 2-5/16 | 3-1/2 | 1110-013 | 1.58 |
| 14 | .1820 | 2-3/16 | 3-3/8 | 1110-014 | 1.58 |
| 15 | .1800 | 2-3/16 | 3-3/8 | 1110-015 | 1.58 |
| 16 | .1770 | 2-3/16 | 3-3/8 | 1110-016 | 1.49 |
| 17 | .1730 | 2-3/16 | 3-3/8 | 1110-017 | 1.40 |
| 18 | .1695 | 2-1/8 | 3-1/4 | 1110-018 | 1.31 |
| 19 | .1660 | 2-1/8 | 3-1/4 | 1110-019 | 1.26 |
| 20 | .1610 | 2-1/8 | 3-1/4 | 1110-020 | 1.26 |
| 21 | .1590 | 2-1/8 | 3-1/4 | 1110-021 | 1.26 |
| 22 | .1570 | 2 | 3-1/8 | 1110-022 | 1.26 |
| 23 | .1540 | 2 | 3-1/8 | 1110-023 | 1.26 |
| 24 | .1520 | 2 | 3-1/8 | 1110-024 | 1.26 |
| 25 | .1495 | 1-7/8 | 3 | 1110-025 | 1.13 |
| 26 | .1470 | 1-7/8 | 3 | 1110-026 | 1.13 |
| 27 | .1440 | 1-7/8 | 3 | 1110-027 | 1.13 |
| 28 | .1405 | 1-3/4 | 2-7/8 | 1110-028 | 1.08 |
| 29 | .1360 | 1-3/4 | 2-7/8 | 1110-029 | 1.04 |
| 30 | .1285 | 1-5/8 | 2-3/4 | 1110-030 | 0.95 |
| 31 | .1200 | 1-5/8 | 2-3/4 | 1110-031 | 0.95 |
| 32 | .1160 | 1-5/8 | 2-3/4 | 1110-032 | 0.90 |
| 33 | .1130 | 1-1/2 | 2-5/8 | 1110-033 | 0.90 |
| 34 | .1110 | 1-1/2 | 2-5/8 | 1110-034 | 0.90 |
| 35 | .1100 | 1-1/2 | 2-5/8 | 1110-035 | 0.90 |
| 36 | .1065 | 1-7/16 | 2-1/2 | 1110-036 | 0.90 |
| 37 | .1040 | 1-7/16 | 2-1/2 | 1110-037 | 0.90 |
| 38 | .1015 | 1-7/16 | 2-1/2 | 1110-038 | 0.81 |
| 39 | .0995 | 1-3/8 | 2-3/8 | 1110-039 | 0.81 |
| 40 | .0980 | 1-3/8 | 2-3/8 | 1110-040 | 0.81 |
| 41 | .0960 | 1-3/8 | 2-3/8 | 1110-041 | 0.81 |
| 42 | .0935 | 1-1/4 | 2-1/4 | 1110-042 | 0.81 |
| 43 | .0890 | 1-1/4 | 2-1/4 | 1110-043 | 0.81 |
| 44 | .0860 | 1-1/8 | 2-1/8 | 1110-044 | 0.81 |
| 45 | .0820 | 1-1/8 | 2-1/8 | 1110-045 | 0.81 |
| 46 | .0810 | 1-1/8 | 2-1/8 | 1110-046 | 0.81 |
| 47 | .0785 | 1 | 2 | 1110-047 | 0.81 |
| 48 | .0760 | 1 | 2 | 1110-048 | 0.81 |
| 49 | .0730 | 1 | 2 | 1110-049 | 0.81 |
| 50 | .0700 | 1 | 2 | 1110-050 | 0.81 |
| 51 | .0670 | 1 | 2 | 1110-051 | 0.81 |
| 52 | .0635 | 7/8 | 1-7/8 | 1110-052 | 0.81 |
| 53 | .0595 | 7/8 | 1-7/8 | 1110-053 | 0.90 |
| 54 | .0550 | 7/8 | 1-7/8 | 1110-054 | 0.90 |
| 55 | .0520 | 7/8 | 1-7/8 | 1110-055 | 0.90 |
| 56 | .0465 | 3/4 | 1-3/4 | 1110-056 | 0.95 |
| 57 | .0430 | 3/4 | 1-3/4 | 1110-057 | 0.95 |
| 58 | .0420 | 11/16 | 1-5/8 | 1110-058 | 0.95 |
| 59 | .0410 | 11/16 | 1-5/8 | 1110-059 | 0.95 |
| 60 | .0400 | 11/16 | 1-5/8 | 1110-060 | 0.95 |

**PACKAGE QUANTITIES: Wire Gage Sizes**
**1-100: 12 pcs.**

### Wire Gage Sizes (Continued)

| WIRE GAGE SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 61 | .0390 | 11/16 | 1-5/8 | 1110-061 | $1.07 |
| 62 | .0380 | 5/8 | 1-1/2 | 1110-062 | 1.07 |
| 63 | .0370 | 5/8 | 1-1/2 | 1110-063 | 1.07 |
| 64 | .0360 | 5/8 | 1-1/2 | 1110-064 | 1.07 |
| 65 | .0350 | 5/8 | 1-1/2 | 1110-065 | 1.07 |
| 66 | .0330 | 1/2 | 1-3/8 | 1110-066 | 1.15 |
| 67 | .0320 | 1/2 | 1-3/8 | 1110-067 | 1.15 |
| 68 | .0310 | 1/2 | 1-3/8 | 1110-068 | 1.15 |
| 69 | .0292 | 1/2 | 1-3/8 | 1110-069 | 1.28 |
| 70 | .0280 | 3/8 | 1-1/4 | 1110-070 | 1.28 |
| 71 | .0260 | 3/8 | 1-1/4 | 1110-071 | 1.28 |
| 72 | .0250 | 5/16 | 1-1/8 | 1110-072 | 1.28 |
| 73 | .0240 | 5/16 | 1-1/8 | 1110-073 | 1.28 |
| 74 | .0225 | 1/4 | 1 | 1110-074 | 1.28 |
| 75 | .0210 | 1/4 | 1 | 1110-075 | 1.43 |
| 76 | .0200 | 3/16 | 7/8 | 1110-076 | 1.43 |
| 77 | .0180 | 3/16 | 7/8 | 1110-077 | 1.43 |
| 78 | .0160 | 3/16 | 7/8 | 1110-078 | 1.43 |
| 79 | .0145 | 1/8 | 3/4 | 1110-079 | 1.43 |
| 80 | .0135 | 1/8 | 3/4 | 1110-080 | 1.43 |

**PACKAGE QUANTITIES: Wire Gage Sizes**
**1-100: 12 pcs.**

† Limited Quantities

### Letter Sizes

| LETTER SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| A | .2340 | 2-5/8 | 3-7/8 | 1120-001 | $2.23 |
| B | .2380 | 2-3/4 | 4 | 1120-002 | 2.23 |
| C | .2420 | 2-3/4 | 4 | 1120-003 | 2.33 |
| D | .2460 | 2-3/4 | 4 | 1120-004 | 2.33 |
| E | .2500 | 2-3/4 | 4 | 1120-005 | 2.33 |
| F | .2570 | 2-7/8 | 4-1/8 | 1120-006 | 2.33 |
| G | .2610 | 2-7/8 | 4-1/8 | 1120-007 | 2.65 |
| H | .2660 | 2-7/8 | 4-1/8 | 1120-008 | 2.65 |
| I | .2720 | 2-7/8 | 4-1/8 | 1120-009 | 2.75 |
| J | .2770 | 2-7/8 | 4-1/8 | 1120-010 | 2.75 |
| K | .2810 | 2-15/16 | 4-1/4 | 1120-011 | 2.75 |
| L | .2900 | 2-15/16 | 4-1/4 | 1120-012 | 3.42 |
| M | .2950 | 3-1/16 | 4-3/8 | 1120-013 | 3.42 |
| N | .3020 | 3-1/16 | 4-3/8 | 1120-014 | 3.73 |
| O | .3160 | 3-3/16 | 4-1/2 | 1120-015 | 4.09 |
| P | .3230 | 3-5/16 | 4-5/8 | 1120-016 | 4.09 |
| Q | .3320 | 3-7/16 | 4-3/4 | 1120-017 | 4.45 |
| R | .3390 | 3-7/16 | 4-3/4 | 1120-018 | 4.45 |
| S | .3480 | 3-1/2 | 4-7/8 | 1120-019 | 5.13 |
| T | .3580 | 3-1/2 | 4-7/8 | 1120-020 | 5.13 |
| U | .3680 | 3-5/8 | 5 | 1120-021 | 5.13 |
| V | .3770 | 3-5/8 | 5 | 1120-022 | 5.80 |
| W | .3860 | 3-3/4 | 5-1/8 | 1120-023 | 5.80 |
| X | .3970 | 3-3/4 | 5-1/8 | 1120-024 | 6.00 |
| Y | .4040 | 3-7/8 | 5-1/4 | 1120-025 | 6.00 |
| Z | .4130 | 3-7/8 | 5-1/4 | 1120-026 | 6.68 |

**PACKAGE QUANTITIES: Letter Sizes**
**A-N: 12pcs. O-Z: 6 pcs.**

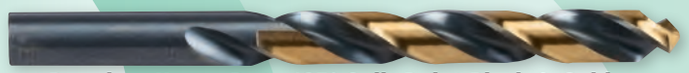
# Jobbers Length Drills – Heavy Duty

Look for ALLEGIANCE AMERICAN MADE

## High Speed Steel

Heavy Duty 135° Split Point

Titanium Nitride Coated Heavy Duty 135° Split Point



Premium Heavy Duty 135° Split Point Black & Gold

### Fractional Sizes

| FRAC. SIZES | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | [3] Pittsburg HEAVY DUTY ORDER NO. | [3] Pittsburg HEAVY DUTY PRICE EACH | [3] Allegiance HEAVY DUTY ORDER NO. | [3] Allegiance HEAVY DUTY PRICE EACH | [2] Allegiance TiN COATED HD ORDER NO. | [2] Allegiance TiN COATED HD PRICE EACH | [2] Allegiance HD BLACK & GOLD ORDER NO. | [2] Allegiance HD BLACK & GOLD PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/64 | 0.0469 | – | – | – | – | 1002-003 | $0.90 | – | – | – | – |
| 1/16 | 0.0625 | 7/8 | 1-7/8 | – | – | 1002-004 | 0.80 | 6326-204 | $2.07 | 9500-004 | $0.78 |
| 5/64 | 0.0781 | 1 | 2 | 1002-105 | $ 0.63 | 1002-005 | 0.80 | 6326-205 | 2.07 | 9500-005 | 0.78 |
| 3/32 | 0.0937 | 1-1/4 | 2-1/4 | 1002-106 | 0.62 | 1002-006 | 0.80 | 6326-206 | 2.07 | 9500-006 | 0.78 |
| 7/64 | 0.1094 | 1-1/2 | 2-5/8 | 1002-107 | 0.67 | 1002-007 | 0.90 | 6326-207 | 2.11 | 9500-007 | 0.87 |
| 1/8 | 0.1250 | 1-5/8 | 2-3/4 | 1002-108 | 0.71 | 1002-008 | 0.90 | 6326-208 | 2.27 | 9500-008 | 0.87 |
| 9/64 | 0.1406 | 1-3/4 | 2-7/8 | 1002-109 | 0.70 | 1002-009 | 0.94 | 6326-209 | 2.43 | 9500-009 | 0.93 |
| 5/32 | 0.1562 | 2 | 3-1/8 | 1002-110 | 0.72 | 1002-010 | 0.94 | 6326-210 | 2.81 | 9500-010 | 0.93 |
| 11/64 | 0.1719 | 2-1/8 | 3-1/4 | 1002-111 | 0.72 | 1002-011 | 1.00 | 6326-211 | 2.85 | 9500-011 | 0.96 |
| 3/16 | 0.1875 | 2-5/16 | 3-1/2 | 1002-112 | 0.86 | 1002-012 | 1.16 | 6326-212 | 2.97 | 9500-012 | 1.11 |
| 13/64 | 0.2021 | 2-7/16 | 3-5/8 | 1002-113 | 0.95 | 1002-013 | 1.24 | 6326-213 | 3.47 | 9500-013 | 1.23 |
| 7/32 | 0.2187 | 2-1/2 | 3-3/4 | 1002-114 | 1.06 | 1002-014 | 1.42 | 6326-214 | 3.58 | 9500-014 | 1.37 |
| 15/64 | 0.2344 | 2-5/8 | 3-7/8 | 1002-115 | 1.15 | 1002-015 | 1.56 | 6326-215 | 3.71 | 9500-015 | 1.52 |
| 1/4 | 0.2500 | 2-3/4 | 4 | 1002-116 | 1.22 | 1002-016 | 1.60 | 6326-216 | 3.82 | 9500-016 | 1.56 |
| 17/64 | 0.2656 | 2-7/8 | 4-1/8 | 1002-117 | 1.44 | 1002-017 | 2.00 | 6326-217 | 5.55 | 9500-017 | 1.95 |
| 9/32 | 0.2812 | 2-15/16 | 4-1/4 | 1002-118 | 1.53 | 1002-018 | 2.00 | 6326-218 | 5.73 | 9500-018 | 2.25 |
| 19/64 | 0.2969 | 3-1/16 | 4-3/8 | 1002-119 | 1.75 | 1002-019 | 2.36 | 6326-219 | 5.94 | 9500-019 | 2.45 |
| 5/16 | 0.3125 | 3-3/16 | 4-1/2 | 1002-120 | 1.89 | 1002-020 | 2.58 | 6326-220 | 6.55 | 9500-020 | 2.52 |
| 21/64 | 0.3281 | 3-5/16 | 4-5/8 | 1002-121 | 2.10 | 1002-021 | 2.88 | 6326-221 | 8.28 | 9500-021 | 2.80 |
| 11/32 | 0.3437 | 3-7/16 | 4-3/4 | 1002-122 | 2.27 | 1002-022 | 3.12 | 6326-222 | 8.69 | 9500-022 | 3.09 |
| 23/64 | 0.3594 | 3-1/2 | 4-7/8 | 1002-123 | 2.59 | 1002-023 | 3.54 | 6326-223 | 9.18 | 9500-023 | 3.45 |
| 3/8 | 0.3750 | 3-5/8 | 5 | 1002-124 | 2.75 | 1002-024 | 3.58 | 6326-224 | 9.56 | 9500-024 | 3.49 |
| 25/64 | 0.3906 | 3-3/4 | 5-1/8 | 1002-125 | 2.94 | 1002-025 | 4.18 | 6326-225 | 11.47 | 9500-025 | 4.09 |
| 13/32 | 0.4062 | 3-7/8 | 5-1/4 | 1002-126 | 3.13 | 1002-026 | 4.22 | 6326-226 | 11.47 | 9500-026 | 4.21 |
| 27/64 | 0.4219 | 3-15/16 | 5-3/8 | 1002-127 | 3.47 | 1002-027 | 4.84 | 6326-227 | 11.73 | 9500-027 | 4.69 |
| 7/16 | 0.4375 | 4-1/16 | 5-1/2 | 1002-128 | 3.59 | 1002-028 | 4.94 | 6326-228 | 12.37 | 9500-028 | 5.01 |
| 29/64 | 0.4531 | 4-3/16 | 5-5/8 | 1002-129 | 3.62 | 1002-029 | 5.63 | 6326-229 | 12.98 | 9500-029 | 5.74 |
| 15/32 | 0.4687 | 4-5/16 | 5-3/4 | 1002-130 | 4.17 | 1002-030 | 5.85 | 6326-230 | 13.40 | 9500-030 | 5.88 |
| 31/64 | 0.4844 | 4-3/8 | 5-7/8 | 1002-131 | 4.62 | 1002-031 | 6.25 | 6326-231 | 13.91 | 9500-031 | 6.15 |
| 1/2 | 0.5000 | 4-1/2 | 6 | 1002-132 | 4.70 | 1002-032 | 6.21 | 6326-232 | 13.91 | 9500-032 | 6.07 |

PACKAGE QUANTITIES: Fractional Sizes
1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 33/34–11/16: 1 pcs.

### 3/8" Shank

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25/64 | 0.3906 | 3-3/4 | 5-1/8 | – | – | – | – | 6326-255† | $13.19 | 9500-255 | $5.19 |
| 13/32 | 0.4062 | 3-7/8 | 5-1/4 | – | – | – | – | 6326-256† | 13.19 | 9500-256 | 5.22 |
| 27/64 | 0.4219 | 3-15/16 | 5-3/8 | – | – | – | – | 6326-257† | 13.49 | 9500-257 | 5.81 |
| 7/16 | 0.4375 | 4-1/16 | 5-1/2 | – | – | – | – | – | – | 9500-258 | 5.91 |
| 29/64 | 0.4531 | 4-3/16 | 5-5/8 | – | – | – | – | 6326-259† | 14.93 | 9500-259 | 6.60 |
| 15/32 | 0.4687 | 4-5/16 | 5-3/4 | – | – | – | – | 6326-260† | 15.41 | 9500-260 | 6.76 |
| 31/64 | 0.4844 | 4-3/8 | 5-7/8 | – | – | – | – | 6326-261† | 16.00 | 9500-261 | 7.22 |
| 1/2 | 0.5000 | 4-1/2 | 6 | – | – | – | – | 6326-262† | 16.00 | 9500-262 | 7.17 |

† Limited Quantities

### Letter Sizes

| SIZE | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | [3] Allegiance HEAVY DUTY ORDER NO. | [3] Allegiance HEAVY DUTY PRICE EACH |
|---|---|---|---|---|---|
| A | .2340 | 2-5/8 | 3-7/8 | 1022-001 | $1.64 |
| B | .2380 | 2-3/4 | 4 | 1022-002 | 1.70 |
| C | .2420 | 2-3/4 | 4 | 1022-003 | 1.70 |
| D | .2460 | 2-3/4 | 4 | 1022-004 | 1.76 |
| E | .2500 | 2-3/4 | 4 | 1022-005 | 1.80 |
| F | .2570 | 2-7/8 | 4-1/8 | 1022-006 | 2.46 |
| G | .2610 | 2-7/8 | 4-1/8 | 1022-007 | 2.34 |
| H | .2660 | 2-7/8 | 4-1/8 | 1022-008 | 2.38 |
| I | .2720 | 2-7/8 | 4-1/8 | 1022-009 | 2.50 |
| J | .2770 | 2-7/8 | 4-1/8 | 1022-010 | 2.56 |
| K | .2810 | 2-15/16 | 4-1/4 | 1022-011 | 2.60 |
| L | .2900 | 2-15/16 | 4-1/4 | 1022-012 | 2.70 |
| M | .2950 | 3-1/16 | 4-3/8 | 1022-013 | 2.86 |

| SIZE | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | [3] Allegiance HEAVY DUTY ORDER NO. | [3] Allegiance HEAVY DUTY PRICE EACH |
|---|---|---|---|---|---|
| N | .3020 | 3-1/16 | 4-3/8 | 1022-014 | $2.94 |
| O | .3160 | 3-3/16 | 4-1/2 | 1022-015 | 3.20 |
| P | .3230 | 3-5/16 | 4-5/8 | 1022-016 | 3.44 |
| Q | .3320 | 3-7/16 | 4-3/4 | 1022-017 | 3.56 |
| R | .3390 | 3-7/16 | 4-3/4 | 1022-018 | 3.72 |
| S | .3480 | 3-1/2 | 4-7/8 | 1022-019 | 3.84 |
| T | .3580 | 3-1/2 | 4-7/8 | 1022-020 | 4.08 |
| U | .3680 | 3-5/8 | 5 | 1022-021 | 4.40 |
| V | .3770 | 3-5/8 | 5 | 1022-022 | 4.56 |
| W | .3860 | 3-3/4 | 5-1/8 | 1022-023 | 4.88 |
| X | .3970 | 3-3/4 | 5-1/8 | 1022-024 | 5.11 |
| Y | .4040 | 3-7/8 | 5-1/4 | 1022-025 | 5.39 |
| Z | .4130 | 3-7/8 | 5-1/4 | 1022-026 | 5.47 |

### Wire Gage Sizes

| WIRE GAGE SIZES | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | [3] Allegiance HEAVY DUTY ORDER NO. | [3] Allegiance HEAVY DUTY PRICE EACH |
|---|---|---|---|---|---|
| 1 | .2280 | 2-5/8 | 3-7/8 | 1012-001 | $1.64 |
| 2 | .2210 | 2-5/8 | 3-7/8 | 1012-002 | 1.64 |
| 3 | .2130 | 2-1/2 | 3-1/4 | 1012-003 | 1.56 |
| 4 | .2090 | 2-1/2 | 3-1/4 | 1012-004 | 1.56 |
| 5 | .2055 | 2-1/2 | 3-1/4 | 1012-005 | 1.50 |
| 6 | .2040 | 2-1/2 | 3-1/4 | 1012-006 | 1.50 |
| 7 | .2010 | 2-7/16 | 3-5/8 | 1012-007 | 1.38 |
| 8 | .1990 | 2-7/16 | 3-5/8 | 1012-008 | 1.38 |
| 9 | .1960 | 2-7/16 | 3-5/8 | 1012-009 | 1.38 |
| 10 | .1935 | 2-7/16 | 3-5/8 | 1012-010 | 1.38 |
| 11 | .1910 | 2-5/16 | 3-1/2 | 1012-011 | 1.28 |
| 12 | .1890 | 2-5/16 | 3-1/2 | 1012-012 | 1.28 |
| 13 | .1850 | 2-5/16 | 3-1/2 | 1012-013 | 1.28 |
| 14 | .1820 | 2-3/16 | 3-3/8 | 1012-014 | 1.28 |
| 15 | .1800 | 2-3/16 | 3-3/8 | 1012-015 | 1.28 |
| 16 | .1770 | 2-3/16 | 3-3/8 | 1012-016 | 1.28 |
| 17 | .1730 | 2-3/16 | 3-3/8 | 1012-017 | 1.28 |
| 18 | .1695 | 2-1/8 | 3-1/4 | 1012-018 | 1.08 |
| 19 | .1660 | 2-1/8 | 3-1/4 | 1012-019 | 1.08 |
| 20 | .1610 | 2-1/8 | 3-1/4 | 1012-020 | 1.00 |
| 21 | .1590 | 2-1/8 | 3-1/4 | 1012-021 | 0.96 |
| 22 | .1570 | 2 | 3-1/8 | 1012-022 | 0.96 |
| 23 | .1540 | 2 | 3-1/8 | 1012-023 | 0.96 |
| 24 | .1520 | 2 | 3-1/8 | 1012-024 | 0.96 |
| 25 | .1495 | 1-7/8 | 3 | 1012-025 | 0.96 |
| 26 | .1470 | 1-7/8 | 3 | 1012-026 | 0.96 |
| 27 | .1440 | 1-7/8 | 3 | 1012-027 | 0.96 |
| 28 | .1405 | 1-3/4 | 2-7/8 | 1012-028 | 0.88 |
| 29 | .1360 | 1-3/4 | 2-7/8 | 1012-029 | 0.88 |
| 30 | .1285 | 1-5/8 | 2-3/4 | 1012-030 | 0.88 |
| 31 | .1200 | 1-5/8 | 2-3/4 | 1012-031 | 0.88 |
| 32 | .1160 | 1-5/8 | 2-3/4 | 1012-032 | 0.88 |
| 33 | .1130 | 1-1/2 | 2-5/8 | 1012-033 | 0.88 |
| 34 | .1110 | 1-1/2 | 2-5/8 | 1012-034 | 0.88 |
| 35 | .1100 | 1-1/2 | 2-5/8 | 1012-035 | 0.88 |
| 36 | .1065 | 1-7/16 | 2-1/2 | 1012-036 | 0.88 |
| 37 | .1040 | 1-7/16 | 2-1/2 | 1012-037 | 0.88 |
| 38 | .1015 | 1-7/16 | 2-1/2 | 1012-038 | 0.88 |
| 39 | .0995 | 1-3/8 | 2-3/8 | 1012-039 | 0.88 |
| 40 | .0980 | 1-3/8 | 2-3/8 | 1012-040 | 0.88 |
| 41 | .0960 | 1-3/8 | 2-3/8 | 1012-041 | 0.88 |
| 42 | .0935 | 1-1/4 | 2-1/4 | 1012-042 | 0.88 |
| 43 | .0890 | 1-1/4 | 2-1/4 | 1012-043 | 0.88 |
| 44 | .0860 | 1-1/8 | 2-1/8 | 1012-044 | 0.88 |
| 45 | .0820 | 1-1/8 | 2-1/8 | 1012-045 | 0.88 |
| 46 | .0810 | 1-1/8 | 2-1/8 | 1012-046 | 0.88 |
| 47 | .0785 | 1 | 2 | 1012-047 | 0.88 |
| 48 | .0760 | 1 | 2 | 1012-048 | 0.88 |
| 49 | .0730 | 1 | 2 | 1012-049 | 0.88 |
| 50 | .0700 | 1 | 2 | 1012-050 | 0.88 |
| 51 | .0670 | 1 | 2 | 1012-051 | 0.92 |
| 52 | .0635 | 7/8 | 1-7/8 | 1012-052 | 0.92 |
| 53 | .0595 | 7/8 | 1-7/8 | 1012-053 | 0.92 |
| 54 | .0550 | 7/8 | 1-7/8 | 1012-054 | 0.92 |
| 55 | .0520 | 7/8 | 1-7/8 | 1012-055 | 0.92 |
| 56 | .0465 | 3/4 | 1-3/4 | 1012-056 | 0.92 |
| 57 | .0430 | 3/4 | 1-3/4 | 1012-057 | 0.92 |
| 58 | .0420 | 11/16 | 1-5/8 | 1012-058 | 0.92 |
| 59 | .0410 | 11/16 | 1-5/8 | 1012-059 | 0.92 |
| 60 | .0400 | 11/16 | 1-5/8 | 1012-060 | 0.92 |

PACKAGE QUANTITIES: Wire Gage Sizes
1-100: 12 pcs.

# Left Hand Jobber Drills

Look for ALLEGIANCE® AMERICANMADE

2

## High Speed Steel – Fractional , Wire Gage, and Letter Sizes

### Fractional Sizes

| DIA. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY IMPORT ORDER NO.. | PRICE EACH | ALLEGIANCE® AMERICAN MADE USA ORDER NO.. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/64 | 3/16 | 3/4 | – | – | 1131-001 | $ 6.11 |
| 1/32 | 1/2 | 1-3/8 | 1130-002 | $ 2.62 | 1131-002 | 3.68 |
| 3/64 | 3/4 | 1-3/4 | 1130-003 | 1.72 | 1131-003 | 2.42 |
| 1/16 | 7/8 | 1-7/8 | 1130-004 | 1.72 | 1131-004 | 2.42 |
| 5/64 | 1 | 2 | 1130-005 | 1.72 | 1131-005 | 2.42 |
| 3/32 | 1-1/4 | 2-1/4 | 1130-006 | 1.78 | 1131-006 | 2.52 |
| 7/64 | 1-1/2 | 2-5/8 | 1130-007 | 1.86 | 1131-007 | 2.63 |
| 1/8 | 1-5/8 | 2-3/4 | 1130-008 | 1.86 | 1131-008 | 2.63 |
| 9/64 | 1-3/4 | 2-7/8 | 1130-009 | 1.92 | 1131-009 | 2.72 |
| 5/32 | 2 | 3-1/8 | 1130-010 | 2.16 | 1131-010 | 3.04 |
| 11/64 | 2-1/8 | 3-1/4 | 1130-011 | 2.44 | 1131-011 | 3.54 |
| 3/16 | 2-5/16 | 3-1/2 | 1130-012 | 2.70 | 1131-012 | 3.81 |
| 13/64 | 2-7/16 | 3-5/8 | 1130-013 | 2.70 | 1131-013 | 3.93 |
| 7/32 | 2-1/2 | 3-3/4 | 1130-014 | 2.70 | 1131-014 | 3.81 |
| 15/64 | 2-5/8 | 3-7/8 | 1130-015 | 3.72 | 1131-015 | 5.46 |
| 1/4 | 2-3/4 | 4 | 1130-016 | 3.72 | 1131-016 | 5.25 |
| 17/64 | 2-7/8 | 4-1/8 | 1130-017 | 3.96 | 1131-017 | 5.77 |
| 9/32 | 2-15/16 | 4-1/4 | 1130-018 | 4.08 | 1131-018 | 5.75 |
| 19/64 | 3-1/16 | 4-3/8 | 1130-019 | 4.48 | 1131-019 | 6.52 |
| 5/16 | 3-3/16 | 4-1/2 | 1130-020 | 4.78 | 1131-020 | 6.71 |
| 21/64 | 3-5/16 | 4-5/8 | 1130-021 | 5.14 | 1131-021 | 7.58 |
| 11/32 | 3-7/16 | 4-3/4 | 1130-022 | 5.88 | 1131-022 | 8.26 |
| 23/64 | 3-1/2 | 4-7/8 | 1130-023 | 6.84 | 1131-023 | 9.97 |
| 3/8 | 3-5/8 | 5 | 1130-024 | 7.20 | 1131-024 | 10.10 |
| 25/64 | 3-3/4 | 5-1/8 | 1130-025 | 7.90 | 1131-025 | 11.47 |
| 13/32 | 3-7/8 | 5-1/4 | 1130-026 | 8.20 | 1131-026 | 11.50 |
| 27/64 | 3-15/16 | 5-3/8 | 1130-027 | 9.24 | 1131-027 | 13.44 |
| 7/16 | 4-1/16 | 5-1/2 | 1130-028 | 9.66 | 1131-028 | 13.55 |
| 29/64 | 4-3/16 | 5-5/8 | 1130-029 | 11.02 | 1131-029 | 16.03 |
| 15/32 | 4-5/16 | 5-3/4 | 1130-030 | 11.70 | 1131-030 | 16.43 |
| 31/64 | 4-3/8 | 5-7/8 | 1130-031 | 12.36 | 1131-031 | 18.00 |
| 1/2 | 4-1/2 | 6 | 1130-032 | 12.36 | 1131-032 | 17.36 |

### Letter Sizes

| SIZES | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY IMPORT ORDER NO.. | PRICE EACH | ALLEGIANCE® AMERICAN MADE USA ORDER NO.. | PRICE EACH |
|---|---|---|---|---|---|---|
| A | 2-5/8 | 3-7/8 | 1150-001 | $4.20 | 1151-001 | $ 6.60 |
| B | 2-3/4 | 4 | 1150-002 | 3.88 | 1151-002 | 6.60 |
| C | 2-3/4 | 4 | 1150-003 | 3.88 | 1151-003 | 6.60 |
| D | 2-3/4 | 4 | 1150-004 | 3.88 | 1151-004 | 6.60 |
| E | 2-3/4 | 4 | 1150-005 | 3.60 | 1151-005 | 5.78 |
| F | 2-7/8 | 4-1/8 | 1150-006 | 3.84 | 1151-006 | 7.09 |
| G | 2-7/8 | 4-1/8 | 1150-007 | 4.24 | 1151-007 | 7.09 |
| H | 2-7/8 | 4-1/8 | 1150-008 | 4.24 | 1151-008 | 7.09 |
| I | 2-7/8 | 4-1/8 | 1150-009 | 4.24 | 1151-009 | 7.09 |
| J | 2-7/8 | 4-1/8 | 1150-010 | 4.56 | 1151-010 | 7.09 |
| K | 2-15/16 | 4-1/4 | 1150-011 | 4.74 | 1151-011 | 7.09 |
| L | 2-15/16 | 4-1/4 | 1150-012 | 4.74 | 1151-012 | 7.09 |
| M | 3-1/16 | 4-3/8 | 1150-013 | 4.80 | 1151-013 | 8.04 |
| N | 3-1/16 | 4-3/8 | 1150-014 | 4.80 | 1151-014 | 8.25 |
| O | 3-3/16 | 4-1/2 | 1150-015 | 4.80 | 1151-015 | 9.22 |
| P | 3-5/16 | 4-5/8 | 1150-016 | 5.38 | 1151-016 | 10.18 |
| Q | 3-7/16 | 4-3/4 | 1150-017 | 5.52 | 1151-017 | 10.51 |
| R | 3-7/16 | 4-3/4 | 1150-018 | 5.92 | 1151-018 | 10.51 |
| S | 3-1/2 | 4-7/8 | 1150-019 | 6.48 | 1151-019 | 12.32 |
| T | 3-1/2 | 4-7/8 | 1150-020 | 7.36 | 1151-020 | 12.44 |
| U | 3-5/8 | 5 | 1150-021 | 7.48 | 1151-021 | 12.96 |
| V | 3-5/8 | 5 | 1150-022 | 7.48 | 1151-022 | 14.13 |
| W | 3-3/4 | 5-1/8 | 1150-023 | 7.68 | 1151-023 | 14.36 |
| X | 3-3/4 | 5-1/8 | 1150-024 | 9.40 | 1151-024 | 14.36 |
| Y | 3-7/8 | 5-1/4 | 1150-025 | 10.56 | 1151-025 | 15.09 |
| Z | 3-7/8 | 5-1/4 | 1150-026 | 11.44 | 1151-026 | 16.56 |

### Wire Gage Sizes

| SIZES | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY IMPORT ORDER NO.. | PRICE EACH | ALLEGIANCE® AMERICAN MADE USA ORDER NO.. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1 | 2-5/8 | 3-7/8 | 1140-001 | $3.30 | 1141-001 | $4.89 |
| 2 | 2-5/8 | 3-7/8 | 1140-002 | 3.30 | 1141-002 | 4.89 |
| 3 | 2-1/2 | 3-3/4 | 1140-003 | 3.10 | 1141-003 | 4.61 |
| 4 | 2-1/2 | 3-3/4 | 1140-004 | 3.10 | 1141-004 | 4.61 |
| 5 | 2-1/2 | 3-3/4 | 1140-005 | 3.10 | 1141-005 | 4.61 |
| 6 | 2-1/2 | 3-3/4 | 1140-006 | 3.10 | 1141-006 | 4.61 |
| 7 | 2-7/16 | 3-5/8 | 1140-007 | 2.62 | 1141-007 | 3.88 |
| 8 | 2-7/16 | 3-5/8 | 1140-008 | 2.62 | 1141-008 | 3.88 |
| 9 | 2-7/16 | 3-5/8 | 1140-009 | 2.62 | 1141-009 | 3.88 |
| 10 | 2-7/16 | 3-5/8 | 1140-010 | 2.62 | 1141-010 | 3.88 |
| 11 | 2-5/16 | 3-1/2 | 1140-011 | 2.50 | 1141-011 | 3.74 |
| 12 | 2-5/16 | 3-1/2 | 1140-012 | 2.50 | 1141-012 | 3.74 |
| 13 | 2-5/16 | 3-1/2 | 1140-013 | 2.32 | 1141-013 | 3.47 |
| 14 | 2-3/16 | 3-3/8 | 1140-014 | 2.32 | 1141-014 | 3.47 |
| 15 | 2-3/16 | 3-3/8 | 1140-015 | 2.32 | 1141-015 | 3.47 |
| 16 | 2-3/16 | 3-3/8 | 1140-016 | 2.32 | 1141-016 | 3.47 |
| 17 | 2-3/16 | 3-3/8 | 1140-017 | 2.32 | 1141-017 | 3.47 |
| 18 | 2-1/8 | 3-1/4 | 1140-018 | 2.04 | 1141-018 | 3.05 |
| 19 | 2-1/8 | 3-1/4 | 1140-019 | 2.04 | 1141-019 | 3.05 |
| 20 | 2-1/8 | 3-1/4 | 1140-020 | 2.04 | 1141-020 | 3.05 |
| 21 | 2-1/8 | 3-1/4 | 1140-021 | 1.92 | 1141-021 | 2.90 |
| 22 | 2 | 3-1/8 | 1140-022 | 1.92 | 1141-022 | 2.90 |
| 23 | 2 | 3-1/8 | 1140-023 | 1.86 | 1141-023 | 2.78 |
| 24 | 2 | 3-1/8 | 1140-024 | 1.86 | 1141-024 | 2.78 |
| 25 | 1-7/8 | 3 | 1140-025 | 1.78 | 1141-025 | 2.67 |
| 26 | 1-7/8 | 3 | 1140-026 | 1.78 | 1141-026 | 2.67 |
| 27 | 1-7/8 | 3 | 1140-027 | 1.78 | 1141-027 | 2.67 |
| 28 | 1-3/4 | 2-7/8 | 1140-028 | 1.60 | 1141-028 | 2.37 |
| 29 | 1-3/4 | 2-7/8 | 1140-029 | 1.60 | 1141-029 | 2.37 |
| 30 | 1-3/4 | 2-7/8 | 1140-030 | 1.60 | 1141-030 | 2.37 |
| 31 | 1-5/8 | 2-3/4 | 1140-031 | 1.60 | 1141-031 | 2.37 |
| 32 | 1-5/8 | 2-3/4 | 1140-032 | 1.60 | 1141-032 | 2.37 |
| 33 | 1-1/2 | 2-5/8 | 1140-033 | 1.60 | 1141-033 | 2.37 |
| 34 | 1-1/2 | 2-5/8 | 1140-034 | 1.60 | 1141-034 | 2.37 |
| 35 | 1-1/2 | 2-5/8 | 1140-035 | 1.60 | 1141-035 | 2.37 |
| 36 | 1-7/16 | 2-1/2 | 1140-036 | 1.60 | 1141-036 | 2.37 |
| 37 | 1-7/16 | 2-1/2 | 1140-037 | 1.60 | 1141-037 | 2.37 |
| 38 | 1-7/16 | 2-1/2 | 1140-038 | 1.60 | 1141-038 | 2.37 |
| 39 | 1-3/8 | 2-3/8 | 1140-039 | 1.60 | 1141-039 | 2.37 |
| 40 | 1-3/8 | 2-3/8 | 1140-040 | 1.60 | 1141-040 | 2.37 |
| 41 | 1-3/8 | 2-3/8 | 1140-041 | 1.60 | 1141-041 | 2.37 |
| 42 | 1-1/4 | 2-1/4 | 1140-042 | 1.60 | 1141-042 | 2.37 |
| 43 | 1-1/4 | 2-1/4 | 1140-043 | 1.60 | 1141-043 | 2.37 |
| 44 | 1-1/8 | 2-1/8 | 1140-044 | 1.60 | 1141-044 | 2.37 |
| 45 | 1-1/8 | 2-1/8 | 1140-045 | 1.60 | 1141-045 | 2.37 |
| 46 | 1-1/8 | 2-1/8 | 1140-046 | 1.60 | 1141-046 | 2.37 |
| 47 | 1 | 2 | 1140-047 | 1.60 | 1141-047 | 2.37 |
| 48 | 1 | 2 | 1140-048 | 1.60 | 1141-048 | 2.37 |
| 49 | 1 | 2 | 1140-049 | 1.60 | 1141-049 | 2.37 |
| 50 | 1 | 2 | 1140-050 | 1.60 | 1141-050 | 2.37 |
| 51 | 1 | 2 | 1140-051 | 1.62 | 1141-051 | 2.42 |
| 52 | 7/8 | 1-7/8 | 1140-052 | 1.62 | 1141-052 | 2.42 |
| 53 | 7/8 | 1-7/8 | 1140-053 | 1.62 | 1141-053 | 2.42 |
| 54 | 7/8 | 1-7/8 | 1140-054 | 1.62 | 1141-054 | 2.42 |
| 55 | 7/8 | 1-7/8 | 1140-055 | 1.62 | 1141-055 | 2.42 |
| 56 | 3/4 | 1-3/4 | 1140-056 | 1.62 | 1141-056 | 2.42 |
| 57 | 3/4 | 1-3/4 | 1140-057 | 1.62 | 1141-057 | 2.42 |
| 58 | 11/16 | 1-5/8 | 1140-058 | 1.62 | 1141-058 | 2.42 |
| 59 | 11/16 | 1-5/8 | 1140-059 | 1.62 | 1141-059 | 2.42 |
| 60 | 11/16 | 1-5/8 | 1140-060 | 1.62 | 1141-060 | 2.42 |
| 61 | 11/16 | 1-5/8 | 1140-061† | 3.00 | 1141-061 | 2.57 |
| 62 | 5/8 | 1-1/2 | 1140-062† | 3.00 | 1141-062 | 5.14 |
| 63 | 5/8 | 1-1/2 | 1140-063† | 3.00 | 1141-063 | 5.14 |
| 64 | 5/8 | 1-1/2 | 1140-064† | 3.00 | 1141-064 | 5.14 |
| 65 | 5/8 | 1-1/2 | 1140-065† | 3.00 | 1141-065 | 5.14 |
| 66 | 1/2 | 1-3/8 | 1140-066† | 3.00 | 1141-066 | 5.14 |
| 67 | 1/2 | 1-3/8 | 1140-067† | 3.00 | 1141-067 | 5.14 |
| 68 | 1/2 | 1-3/8 | 1140-068† | 3.00 | 1141-068 | 5.14 |
| 69 | 1/2 | 1-3/8 | 1140-069† | 3.20 | 1141-069 | 5.47 |
| 70 | 3/8 | 1-1/4 | 1140-070† | 3.20 | 1141-070 | 5.47 |
| 71 | 3/8 | 1-1/4 | - | - | 1141-071 | 5.47 |
| 72 | 5/16 | 1-1/8 | - | - | 1141-072 | 5.47 |
| 73 | 5/16 | 1-1/8 | - | - | 1141-073 | 5.47 |
| 74 | 1/4 | 1 | - | - | 1141-074 | 5.47 |
| 75 | 1/4 | 1 | - | - | 1141-075 | 5.47 |
| 76 | 3/16 | 7/8 | - | - | 1141-076 | 5.47 |
| 77 | 3/16 | 7/8 | - | - | 1141-077 | 5.47 |
| 78 | 3/16 | 7/8 | - | - | 1141-078 | 5.47 |
| 79 | 1/8 | 3/4 | - | - | 1141-079 | 6.38 |
| 80 | 1/8 | 3/4 | - | - | 1141-080 | 6.38 |

# Specialty Drills

## Mechanics Length Drills
### High Speed Steel – 3 Flats On Shank

- Flats on shank give positive grip in chucks
- Gold surface treated for max. lubricity
- Reduced overall length provides rigidity
- Self-centering 135° split point

**PACKAGE QUANTITIES: Fractional Sizes**
1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 33/34–11/16: 1 pcs.

Look for ALLEGIANCE® AMERICAN MADE

| DIAM. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/16 | 7/8 | 1-7/8 | 1211-404 | $0.67 |
| 5/64 | 1 | 2 | 1211-405 | 0.71 |
| 3/32 | 1-1/4 | 2-1/4 | 1211-406 | 0.71 |
| 7/64 | 1-5-16 | 2-3/8 | 1211-407 | 0.78 |
| 1/8 | 1-7/16 | 2-1/2 | 1211-408 | 0.82 |
| 9/64 | 1-9/16 | 2-5/8 | 1211-409 | 0.89 |
| 5/32 | 1-11/16 | 2-3/4 | 1211-410 | 1.04 |
| 11/64 | 1-13/16 | 2-7/8 | 1211-411 | 1.09 |
| 3/16 | 1-7/8 | 3 | 1211-412 | 1.28 |
| 13/64 | 1-15/16 | 3-1/8 | 1211-413 | 1.35 |
| 7/32 | 2 | 3-1/4 | 1211-414 | 1.44 |
| 15/64 | 2-1/16 | 3-3/8 | 1211-415 | 1.56 |
| 1/4 | 2 | 3-1/2 | 1211-416 | 1.69 |

| DIAM. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 17/64 | 2-1/8 | 3-5/8 | 1211-417 | $2.07 |
| 9/32 | 2-1/4 | 3-3/4 | 1211-418 | 2.11 |
| 19/64 | 2-3/8 | 3-7/8 | 1211-419 | 2.50 |
| 5/16 | 2-1/2 | 4 | 1211-420 | 2.58 |
| 21/64 | 2-9/16 | 4-1/16 | 1211-421 | 2.73 |
| 11/32 | 2-5/8 | 4-1/8 | 1211-422 | 3.25 |
| 23/64 | 2-11/16 | 4-3/16 | 1211-423 | 3.63 |
| 3/8 | 2-11/16 | 4-1/4 | 1211-424 | 3.87 |
| 25/64 | 2-3/4 | 4-5/16 | 1211-425 | 4.25 |
| 13/32 | 2-13/16 | 4-3/8 | 1211-426 | 4.47 |
| 27/64 | 2-7/8 | 4-7/16 | 1211-427 | 4.70 |
| 7/16 | 2-15/16 | 4-1/2 | 1211-428 | 4.93 |
| 29/64 | 3 | 4-5/8 | 1211-429 | 5.51 |

| DIAM. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 15/32 | 3-1/8 | 4-3/4 | 1211-430 | $5.90 |
| 31/64 | 3-1/4 | 4-7/8 | 1211-431 | 6.13 |
| 1/2 | 3-3/8 | 5 | 1211-432 | 6.33 |
| **3/8" SHANK** | | | | |
| 27/64 | 2-7/8 | 4-7/16 | 1211-527 | 5.40 |
| 7/16 | 2-15/16 | 4-1/2 | 1211-528 | 5.65 |
| 29/64 | 3 | 4-5/8 | 1211-529 | 6.35 |
| 15/32 | 3-1/8 | 4-3/4 | 1211-530 | 6.80 |
| 31/34 | 3-1/4 | 4-7/8 | 1211-531 | 7.05 |
| 1/2 | 3-3/8 | 5 | 1211-532 | 7.30 |

## Mechanics Length Drill Bits
### Left Hand – Cobalt

- *8% Cobalt alloyed for higher heat and abrasion resistance*
- *Shorter drill for additional strength*
- *Heavy-duty web construction for strength and durability*

*Applications:*
*Tough metal drilling, made for drilling into hardened steel bolts for creating pilot holes for screw extractors*
*Finish: Gold Oxide*
*Tip Geometry: 135º Split Point*

| SIZE | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 5/64 | 1 | 2 | 1211-605 | $ 3.11 |
| 7/64 | 1-5-16 | 2-3/8 | 1211-607 | 3.31 |
| 1/8 | 1-7/16 | 2-1/2 | 1211-608 | 4.03 |
| 5/32 | 1-11/16 | 2-3/4 | 1211-610 | 4.55 |
| 3/16 | 1-7/8 | 3 | 1211-612 | 5.15 |
| 7/32 | 2 | 3-1/4 | 1211-614 | 7.21 |
| 1/4 | 2 | 3-1/2 | 1211-616 | 8.33 |
| 9/32 | 2 | 3-9/16 | 1211-618 | 9.57 |
| 19/64 | 2-1/16 | 3-5/8 | 1211-619 | 9.90 |
| 5/16 | 2-1/8 | 3-3/4 | 1211-620 | 10.70 |
| 11/32 | 2-1/4 | 3-15/16 | 1211-622 | 10.98 |
| 3/8 | 2-3/8 | 4-1/8 | 1211-624 | 13.03 |
| 13/32 | 2-1/2 | 4-3/8 | 1211-626 | 15.10 |
| 7/16 | 2-5/8 | 4-9/16 | 1211-628 | 17.82 |
| 15/32 | 2-3/4 | 4-3/4 | 1211-630 | 19.88 |
| 1/2 | 2-7/8 | 5 | 1211-632 | 21.97 |

## TURBOMAX® HSS Fractional–Straight Shank
### Jobbers Length Drill Bits

**Finish:**
Black Oxide/Gold Oxide

**Tip Geometry:** JET POINT®

- High speed steel features a black body and gold flute
- Three flatted shank on 3/16" and above for better chuck grip
- Self-centering (won't "walk")
- Precision ground to stay sharp longer & drill faster
- For portable drills
- For harder materials
- Requires less force than 118°

| DIA. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/16 | 7/8 | 1-7/8 | 1073-104 | $ 0.92 |
| 5/64 | 1 | 2 | 1073-105 | 0.92 |
| 3/32 | 1-1/8 | 2-1/4 | 1073-106 | 0.96 |
| 7/64 | 1-1/2 | 2-5/8 | 1073-107 | 0.96 |
| 1/8 | 1-5/8 | 2-3/4 | 1073-108 | 1.46 |
| 9/64 | 1-3/4 | 2-7/8 | 1073-109 | 1.59 |
| 5/32 | 2 | 3-1/8 | 1073-110 | 1.67 |
| 11/64 | 2-1/8 | 3-1/4 | 1073-111 | 1.95 |
| 3/16 | 2-5/16 | 3-1/2 | 1073-112 | 2.15 |
| 13/64 | 2-7/16 | 3-5/8 | 1073-113 | 2.55 |
| 7/32 | 2-1/2 | 3-3/4 | 1073-114 | 2.57 |
| 15/64 | 2-5/8 | 3-7/8 | 1073-115 | 2.92 |
| 1/4 | 2-3/4 | 4 | 1073-116 | 3.17 |
| 17/64 | 2-7/8 | 4-1/8 | 1073-117 | 4.02 |
| 9/32 | 2-15/16 | 4-1/4 | 1073-118 | 4.46 |
| 19/64 | 3-1/16 | 4-3/8 | 1073-119 | 5.02 |
| 5/16 | 3-3/16 | 4-1/2 | 1073-120 | 5.22 |
| 21/64 | 3-5/16 | 4-5/8 | 1073-121 | 5.81 |
| 11/32 | 3-7/16 | 4-3/4 | 1073-122 | 6.18 |
| 23/64 | 3-1/2 | 4-7/8 | 1073-123 | 7.02 |
| 3/8 | 3-5/8 | 5 | 1073-124 | 7.27 |
| 25/64 | 3-3/4 | 5-1/8 | 1073-125 | 8.80 |
| 13/32 | 3-7/8 | 5-1/4 | 1073-126 | 8.92 |
| 27/64 | 3-15/16 | 5-3/8 | 1073-127 | 10.59 |
| 7/16 | 4-1/16 | 5-1/2 | 1073-128 | 10.71 |
| 29/64 | 4-3/16 | 5-5/8 | 1073-129 | 11.98 |
| 15/32 | 4-5/16 | 5-3/4 | 1073-130 | 11.99 |
| 31/64 | 4-3/8 | 5-7/8 | 1073-131 | 13.80 |
| 1/2 | 4-1/2 | 6 | 1073-132 | 13.82 |
| **3/8" SHANK** | | | | |
| 25/64 | 3-3/4 | 5-1/8 | 1073-625 | 9.13 |
| 13/32 | 3-7/8 | 5-1/4 | 1073-626 | 9.25 |
| 27/64 | 3-15/16 | 5-3/8 | 1073-627 | 11.02 |
| 7/16 | 4-1/16 | 5-1/2 | 1073-628 | 11.13 |
| 29/64 | 4-3/16 | 5-5/8 | 1073-629 | 12.46 |
| 15/32 | 4-5/16 | 5-3/4 | 1073-630 | 12.46 |
| 31/64 | 4-3/8 | 5-7/8 | 1073-631 | 14.37 |
| 1/2 | 4-1/2 | 6 | 1073-632 | 14.44 |

### IRWIN® Speedbor 6" Length

- Application: For use on wood
- Blue-Groove point and cutting edge for faster chip removal - 4x faster than standard spade bits
- Double cutting spurs scribe the outside of the hole reducing breakout
- 10% larger shank for added durability
- Grooved hex shank prevents slipping in drill chuck or bit extension
- Fits all standard quick change chucks

| LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|
| 3/8" | 1073-724 | $3.34 |
| 7/16" | 1073-728 | 3.34 |
| 1/2" | 1073-732 | 3.34 |
| 9/16" | 1073-736 | 3.50 |
| 5/8" | 1073-740 | 3.68 |
| 11/16" | 1073-744 | 3.68 |
| 3/4" | 1073-748 | 3.68 |
| 13/16" | 1073-752 | 3.86 |
| 7/8" | 1073-756 | 3.86 |
| 15/26" | 1073-760 | 4.06 |
| 1" | 1073-764 | 4.06 |
| 1-1/8" | 1073-772 | 5.88 |
| 1-1/4" | 1073-780 | 5.88 |

# Jobbers Length Parabolic Drills

## High Speed Steel, Cobalt, TiALN – Fractional Sizes

**130° Notch Thinned or Split Point**

| COATED | | | Pittsburg® HIGH SPEED STEEL | | BROOKE COBALT | | COBALT TiALN | |
|---|---|---|---|---|---|---|---|---|
| FRAC. SIZES | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/16 | 7/8 | 1-7/8 | 1705-004 | $ 1.35 | 1705-304 | $ 3.13 | 1705-604 | $ 6.14 |
| 5/64 | 1 | 2 | 1705-005 | 1.35 | 1705-305 | 3.31 | 1705-605 | 6.14 |
| 3/32 | 1-1/4 | 2-1/4 | 1705-006 | 1.35 | 1705-306 | 3.41 | 1705-606 | 5.59 |
| 7/64 | 1-1/2 | 2-5/8 | 1705-007 | 1.50 | 1705-307 | 3.73 | 1705-607 | 5.59 |
| 1/8 | 1-5/8 | 2-3/4 | 1705-008 | 1.50 | 1705-308 | 3.88 | 1705-608 | 6.31 |
| 9/64 | 1-3/4 | 2-7/8 | 1705-009 | 1.55 | 1705-309 | 4.41 | 1705-609 | 6.31 |
| 5/32 | 2 | 3-1/8 | 1705-010 | 1.60 | 1705-310 | 4.62 | 1705-610 | 6.70 |
| 11/64 | 2-1/8 | 3-1/4 | 1705-011 | 1.80 | 1705-311 | 5.07 | 1705-611 | 6.67 |
| 3/16 | 2-5/16 | 3-1/2 | 1705-012 | 1.90 | 1705-312 | 5.49 | 1705-612 | 7.57 |
| 13/64 | 2-7/16 | 3-5/8 | 1705-013 | 2.20 | 1705-313 | 5.60 | 1705-613 | 8.34 |
| 7/32 | 2-1/2 | 3-3/4 | 1705-014 | 2.40 | 1705-314 | 6.60 | 1705-614 | 10.76 |
| 15/64 | 2-5/8 | 3-7/8 | 1705-015 | 2.70 | 1705-315 | 6.97 | 1705-615 | 11.13 |
| 1/4 | 2-3/4 | 4 | 1705-016 | 2.80 | 1705-316 | 7.95 | 1705-616 | 15.75 |
| 17/64 | 2-7/8 | 4-1/8 | 1705-017 | 3.35 | 1705-317 | 8.70 | 1705-617 | 16.85 |
| 9/32 | 2-15/16 | 4-1/4 | 1705-018 | 3.35 | 1705-318 | 9.41 | 1705-618 | 17.26 |
| 19/64 | 3-1/16 | 4-3/8 | 1705-019 | 4.00 | 1705-319 | 10.45 | 1705-619 | 20.50 |
| 5/16 | 3-3/16 | 4-1/2 | 1705-020 | 4.30 | 1705-320 | 10.45 | 1705-620 | 18.56 |
| 21/64 | 3-5/16 | 4-5/8 | 1705-021 | 4.90 | 1705-321 | 11.21 | 1705-621 | 17.83 |
| 11/32 | 3-7/16 | 4-3/4 | 1705-022 | 5.35 | 1705-322 | 14.15 | 1705-622 | 18.77 |
| 23/64 | 3-1/2 | 4-7/8 | 1705-023 | 6.25 | 1705-323 | 13.57 | 1705-623 | 20.27 |
| 3/8 | 3-5/8 | 5 | 1705-024 | 6.10 | 1705-324 | 15.08 | 1705-624 | 22.00 |
| 25/64 | 3-3/4 | 5-1/8 | 1705-025 | 7.15 | 1705-325 | 14.99 | 1705-625 | 22.00 |
| 13/32 | 3-7/8 | 5-1/4 | 1705-026 | 7.15 | 1705-326 | 17.63 | 1705-626 | 29.13 |
| 27/64 | 3-15/16 | 5-3/8 | 1705-027 | 8.20 | 1705-327 | 17.81 | 1705-627 | 29.13 |
| 7/16 | 4-1/16 | 5-1/2 | 1705-028 | 8.20 | 1705-328 | 18.29 | 1705-628 | 30.81 |
| 29/64 | 4-3/16 | 5-5/8 | 1705-029 | 9.65 | 1705-329 | 22.99 | 1705-629 | 31.74 |
| 15/32 | 4-5/16 | 5-3/4 | 1705-030 | 9.90 | 1705-330 | 21.26 | 1705-630 | 33.89 |
| 31/64 | 4-3/8 | 5-7/8 | 1705-031 | 10.75 | 1705-331 | 26.15 | 1705-631 | 37.05 |
| 1/2 | 4-1/2 | 6 | 1705-032 | 10.40 | 1705-332 | 26.52 | 1705-632 | 39.44 |
| 33/64 | 4-13/16 | 6-5/8 | – | – | 1705-333 | 28.02 | 1705-633 | 38.73 |
| 17/32 | 4-13/16 | 6-5/8 | – | – | 1705-334 | 29.21 | 1705-634 | 38.73 |
| 35/64 | 4-13/16 | 6-5/8 | – | – | 1705-335 | 30.88 | 1705-635 | 38.73 |
| 9/16 | 4-13/16 | 6-5/8 | – | – | 1705-336 | 45.26 | 1705-636 | 55.64 |
| 37/64 | 4-13/16 | 6-5/8 | – | – | 1705-337 | 45.26 | 1705-637 | 55.64 |
| 19/32 | 5-3/16 | 7-1/8 | – | – | 1705-338 | 46.24 | 1705-638 | 64.66 |
| 39/64 | 5-3/16 | 7-1/8 | – | – | 1705-339 | 55.57 | 1705-639 | 65.97 |
| 5/8 | 5-3/16 | 7-1/8 | – | – | 1705-340 | 55.24 | 1705-640 | 65.64 |

## Wire Gage Sizes

| | | Pittsburg® HIGH SPEED STEEL | | BROOKE COBALT | | COBALT TiALN COATED | |
|---|---|---|---|---|---|---|---|
| DIA. | DECIMAL EQUIV. | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1 | .2280 | 1705-101 | $2.95 | 1705-401 | $ 7.22 | 1705-701 | $ 11.49 |
| 2 | .2210 | 1705-102 | 2.95 | 1705-402 | 7.22 | 1705-702 | 11.49 |
| 3 | .2130 | 1705-103 | 2.65 | 1705-403 | 6.48 | 1705-703 | 10.89 |
| 4 | .2090 | 1705-104 | 2.65 | 1705-404 | 6.48 | 1705-704 | 10.70 |
| 5 | .2055 | 1705-105 | 2.65 | 1705-405 | 6.48 | 1705-705 | 9.92 |
| 6 | .2040 | 1705-106 | 2.65 | 1705-406 | 6.48 | 1705-706 | 9.92 |
| 7 | .2010 | 1705-107 | 2.35 | 1705-407 | 6.48 | 1705-707 | 8.53 |
| 8 | .1990 | 1705-108 | 2.35 | 1705-408 | 6.48 | 1705-708 | 8.53 |
| 9 | .1960 | 1705-109 | 2.35 | 1705-409 | 5.51 | 1705-709 | 7.59 |
| 10 | .1935 | 1705-110 | 2.35 | 1705-410 | 5.51 | 1705-710 | 7.59 |
| 11 | .1910 | 1705-111 | 2.20 | 1705-411 | 5.51 | 1705-711 | 7.59 |
| 12 | .1890 | 1705-112 | 2.20 | 1705-412 | 5.51 | 1705-712 | 7.59 |
| 13 | .1850 | 1705-113 | 2.15 | 1705-413 | 5.23 | 1705-713 | 7.31 |
| 14 | .1820 | 1705-114 | 2.15 | 1705-414 | 5.23 | 1705-714 | 7.31 |
| 15 | .1800 | 1705-115 | 2.15 | 1705-415 | 5.07 | 1705-715 | 7.15 |
| 16 | .1770 | 1705-116 | 2.15 | 1705-416 | 5.10 | 1705-716 | 7.16 |
| 17 | .1730 | 1705-117 | 2.15 | 1705-417 | 5.07 | 1705-717 | 7.15 |
| 18 | .1695 | 1705-118 | 1.75 | 1705-418 | 5.07 | 1705-718 | 9.23 |
| 19 | .1660 | 1705-119 | 1.75 | 1705-419 | 4.76 | 1705-719 | 6.84 |
| 20 | .1610 | 1705-120 | 1.75 | 1705-420 | 4.76 | 1705-720 | 6.84 |
| 21 | .1590 | 1705-121 | 1.65 | 1705-421 | 4.90 | 1705-721 | 6.84 |
| 22 | .1570 | 1705-122 | 1.65 | 1705-422 | 4.71 | 1705-722 | 6.79 |
| 23 | .1540 | 1705-123 | 1.60 | 1705-423 | 4.71 | 1705-723 | 6.79 |
| 24 | .1520 | 1705-124 | 1.60 | 1705-424 | 4.66 | 1705-724 | 6.74 |
| 25 | .1495 | 1705-125 | 1.60 | 1705-425 | 4.66 | 1705-725 | 6.74 |
| 26 | .1470 | 1705-126 | 1.60 | 1705-426 | 4.50 | 1705-726 | 6.58 |
| 27 | .1440 | 1705-127 | 1.60 | 1705-427 | 4.50 | 1705-727 | 6.58 |
| 28 | .1405 | 1705-128 | 1.45 | 1705-428 | 4.50 | 1705-728 | 6.31 |
| 29 | .1360 | 1705-129 | 1.45 | 1705-429 | 4.37 | 1705-729 | 6.45 |
| 30 | .1285 | 1705-130 | 1.45 | 1705-430 | 4.00 | 1705-730 | 5.59 |

| | | Pittsburg® HIGH SPEED STEEL | | BROOKE COBALT | | COBALT TiALN COATED | |
|---|---|---|---|---|---|---|---|
| DIA. | DECIMAL EQUIV. | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 31 | .1200 | 1705-131 | $ 1.45 | 1705-431 | $ 3.96 | 1705-731 | $ 6.04 |
| 32 | .1160 | 1705-132 | 1.45 | 1705-432 | 3.79 | 1705-732 | 5.59 |
| 33 | .1130 | 1705-133 | 1.45 | 1705-433 | 3.75 | 1705-733 | 5.59 |
| 34 | .1110 | 1705-134 | 1.45 | 1705-434 | 3.75 | 1705-734 | 5.59 |
| 35 | .1100 | 1705-135 | 1.45 | 1705-435 | 3.75 | 1705-735 | 5.59 |
| 36 | .1065 | 1705-136 | 1.45 | 1705-436 | 3.91 | 1705-736 | 5.59 |
| 37 | .1040 | 1705-137 | 1.45 | 1705-437 | 4.11 | 1705-737 | 5.59 |
| 38 | .1015 | 1705-138 | 1.45 | 1705-438 | 3.96 | 1705-738 | 5.59 |
| 39 | .0995 | 1705-139 | 1.45 | 1705-439 | 3.96 | 1705-739 | 5.59 |
| 40 | .0980 | 1705-140 | 1.45 | 1705-440 | 3.80 | 1705-740 | 5.59 |
| 41 | .0960 | 1705-141 | 1.45 | 1705-441 | 3.80 | 1705-741 | 5.59 |
| 42 | .0935 | 1705-142 | 1.45 | 1705-442 | 3.80 | 1705-742 | 5.59 |
| 43 | .0890 | 1705-143 | 1.45 | 1705-443 | 3.48 | 1705-743 | 5.59 |
| 44 | .0860 | 1705-144 | 1.45 | 1705-444 | 3.56 | 1705-744 | 5.59 |
| 45 | .0820 | 1705-145 | 1.45 | 1705-445 | 3.45 | 1705-745 | 5.59 |
| 46 | .0810 | 1705-146 | 1.45 | 1705-446 | 3.45 | 1705-746 | 5.59 |
| 47 | .0785 | 1705-147 | 1.45 | 1705-447 | 3.38 | 1705-747 | 5.59 |
| 48 | .0760 | 1705-148 | 1.45 | 1705-448 | 3.38 | 1705-748 | 5.59 |
| 49 | .0730 | 1705-149 | 1.45 | 1705-449 | 3.11 | 1705-749 | 5.59 |
| 50 | .0700 | 1705-150 | 1.45 | 1705-450 | 3.11 | 1705-750 | 5.59 |
| 51 | .0670 | 1705-151 | 1.45 | 1705-451 | 2.99 | 1705-751 | 5.59 |
| 52 | .0635 | 1705-152 | 1.45 | 1705-452 | 3.09 | 1705-752 | 5.59 |
| 53 | .0595 | – | – | 1705-453 | 3.32 | 1705-753 | 5.59 |
| 54 | .0550 | – | – | 1705-454 | 3.09 | 1705-754 | 5.59 |
| 55 | .0520 | – | – | 1705-455 | 3.09 | 1705-755 | 5.59 |
| 56 | .0465 | – | – | 1705-456 | 3.09 | 1705-756 | 5.59 |
| 57 | .0430 | – | – | 1705-457 | 3.09 | 1705-757 | 5.59 |
| 58 | .0420 | – | – | 1705-458 | 3.09 | 1705-758 | 5.59 |
| 59 | .0410 | – | – | 1705-459 | 3.35 | 1705-759 | 5.59 |
| 60 | .0400 | – | – | 1705-460 | 3.09 | 1705-760 | 5.59 |

# Jobbers Length Drills – Carbide Tipped

## Straight Shank

### Fractional Sizes

| DIA. | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH | ROCK RIVER ORDER NO. | ROCK RIVER PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/8 | .1250 | 1-5/8 | 2-3/4 | 2990-008 | $ 8.49 | 2990-308 | $ 10.75 |
| 9/64 | .1406 | 1-3/4 | 2-7/8 | 2990-009 | 9.16 | 2990-309 | 11.60 |
| 5/32 | .1562 | 2 | 3-1/8 | 2990-010 | 9.01 | 2990-310 | 11.40 |
| 11/64 | .1719 | 2-1/8 | 3-1/4 | 2990-011 | 9.84 | 2990-311 | 12.45 |
| 3/16 | .1875 | 2-5/16 | 3-1/2 | 2990-012 | 9.56 | 2990-312 | 12.10 |
| 13/64 | .2031 | 2-7/16 | 3-5/8 | 2990-013 | 10.51 | 2990-313 | 13.30 |
| 7/32 | .2187 | 2-1/2 | 3-3/4 | 2990-014 | 10.51 | 2990-314 | 13.30 |
| 15/64 | .2344 | 2-5/8 | 3-7/8 | 2990-015 | 11.30 | 2990-315 | 14.30 |
| 1/4 | .2500 | 2-3/4 | 4 | 2990-016 | 11.30 | 2990-316 | 14.30 |
| 17/64 | .2656 | 2-7/8 | 4-1/8 | 2990-017 | 12.56 | 2990-317 | 15.90 |
| 9/32 | .2812 | 2-15/16 | 4-1/4 | 2990-018 | 13.31 | 2990-318 | 16.85 |
| 19/64 | .2969 | 3-1/16 | 4-3/8 | 2990-019 | 14.73 | 2990-319 | 18.65 |
| 5/16 | .3125 | 3-3/16 | 4-1/2 | 2990-020 | 14.42 | 2990-320 | 18.25 |
| 21/64 | .3281 | 3-5/16 | 4-5/8 | 2990-021 | 15.29 | 2990-321 | 19.35 |
| 11/32 | .3437 | 3-7/16 | 4-3/4 | 2990-022 | 15.29 | 2990-322 | 19.35 |
| 23/64 | .3594 | 3-1/2 | 4-7/8 | 2990-023 | 16.27 | 2990-323 | 20.60 |
| 3/8 | .3750 | 3-5/8 | 5 | 2990-024 | 16.27 | 2990-324 | 20.60 |
| 25/64 | .3906 | 3-3/4 | 5-1/8 | 2990-025 | 17.70 | 2990-325 | 22.40 |
| 13/32 | .4062 | 3-7/8 | 5-1/4 | 2990-026 | 17.70 | 2990-326 | 22.40 |
| 27/64 | .4219 | 3-15/16 | 5-3/8 | 2990-027 | 19.28 | 2990-327 | 24.40 |
| 7/16 | .4375 | 4-1/16 | 5-1/2 | 2990-028 | 19.28 | 2990-328 | 24.40 |
| 29/64 | .4531 | 4-3/16 | 5-5/8 | 2990-029 | 22.12 | 2990-329 | 28.00 |
| 15/32 | .4687 | 4-5/16 | 5-3/4 | 2990-030 | 21.65 | 2990-330 | 27.40 |
| 31/64 | .4844 | 4-3/8 | 5-7/8 | 2990-031 | 24.21 | 2990-331 | 30.65 |
| 1/2 | .5000 | 4-1/2 | 6 | 2990-032 | 26.62 | 2990-332 | 33.70 |

[2]

### Wire Gage Sizes

| DIA. | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | .2280 | 2-5/8 | 3-7/8 | 2990-101 | $13.60 |
| 2 | .2210 | 2-5/8 | 3-7/8 | 2990-102 | 13.85 |
| 3 | .2130 | 2-1/2 | 3-3/4 | 2990-103 | 13.30 |
| 4 | .2090 | 2-1/2 | 3-3/4 | 2990-104 | 13.15 |
| 5 | .2055 | 2-1/2 | 3-3/4 | 2990-105 | 13.30 |
| 6 | .2040 | 2-1/2 | 3-3/4 | 2990-106 | 13.15 |
| 7 | .2010 | 2-7/16 | 3-5/8 | 2990-107 | 12.90 |
| 8 | .1990 | 2-7/16 | 3-5/8 | 2990-108 | 12.90 |
| 9 | .1960 | 2-7/16 | 3-5/8 | 2990-109 | 12.90 |
| 10 | .1935 | 2-7/16 | 3-5/8 | 2990-110 | 12.65 |
| 11 | .1910 | 2-5/16 | 3-1/2 | 2990-111 | 12.90 |
| 12 | .1890 | 2-5/16 | 3-1/2 | 2990-112 | 13.95 |
| 13 | .1850 | 2-5/16 | 3-1/2 | 2990-113 | 13.35 |
| 14 | .1820 | 2-3/16 | 3-3/8 | 2990-114 | 12.10 |
| 15 | .1800 | 2-3/16 | 3-3/8 | 2990-115 | 12.65 |
| 16 | .1770 | 2-3/16 | 3-3/8 | 2990-116 | 12.10 |
| 17 | .1730 | 2-3/16 | 3-3/8 | 2990-117 | 12.45 |
| 18 | .1695 | 2-1/8 | 3-1/4 | 2990-118 | 12.45 |
| 19 | .1660 | 2-1/8 | 3-1/4 | 2990-119 | 12.45 |
| 20 | .1610 | 2-1/8 | 3-1/4 | 2990-120 | 12.45 |
| 21 | .1590 | 2-1/8 | 3-1/4 | 2990-121 | 12.10 |
| 22 | .1570 | 2 | 3-1/8 | 2990-122 | 12.65 |
| 23 | .1540 | 2 | 3-1/8 | 2990-123 | 11.45 |
| 24 | .1520 | 2 | 3-1/8 | 2990-124 | 11.75 |
| 25 | .1495 | 1-7/8 | 3 | 2990-125 | 10.90 |
| 26 | .1470 | 1-7/8 | 3 | 2990-126 | 10.90 |
| 27 | .1440 | 1-7/8 | 3 | 2990-127 | 11.75 |
| 28 | .1405 | 1-3/4 | 2-7/8 | 2990-128 | 11.45 |
| 29 | .1360 | 1-3/4 | 2-7/8 | 2990-129 | 11.35 |
| 30 | .1285 | 1-5/8 | 2-3/4 | 2990-130 | 10.95 |
| 31 | .1200 | 1-5/8 | 2-3/4 | 2990-131 | 10.45 |
| 32 | .1160 | 1-5/8 | 2-3/4 | 2990-132 | 11.60 |

*METRIC*

*CARBIDE TIPPED – METRIC – JOBBERS LENGTH DRILLS*

*SEE PAGE - 9*

# Die Drills

Pittsburg® [2]

## Carbide Tipped

| DIA. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3/16 | 1-1/2 | 3-1/2 | 2991-012 | $23.40 |
| 13/64 | 1-3/4 | 3-3/4 | 2991-013 | 23.40 |
| 7/32 | 1-3/4 | 3-3/4 | 2991-014 | 24.15 |
| 15/64 | 2 | 4 | 2991-015 | 24.95 |
| 1/4 | 2 | 4 | 2991-016 | 24.95 |
| 17/64 | 2-1/4 | 4-1/4 | 2991-017 | 26.35 |
| 9/32 | 2-1/4 | 4-1/4 | 2991-018 | 26.35 |
| 19/64 | 2-1/2 | 4-1/2 | 2991-019 | 27.60 |
| 5/16 | 2-1/2 | 4-1/2 | 2991-020 | 27.60 |
| 21/64 | 2-3/4 | 4-3/4 | 2991-021 | 29.40 |
| 11/32 | 2-3/4 | 4-3/4 | 2991-022 | 29.40 |
| 23/64 | 3 | 5 | 2991-023 | 31.60 |
| 3/8 | 3 | 5 | 2991-024 | 31.60 |
| 25/64 | 3 | 5-1/4 | 2991-025 | 35.65 |
| 13/32 | 3 | 5-1/4 | 2991-026 | 37.00 |
| 27/64 | 3 | 5-1/2 | 2991-027 | 39.95 |
| 7/16 | 3 | 5-1/2 | 2991-028 | 42.95 |
| 29/64 | 3-1/4 | 5-3/4 | 2991-029 | 45.05 |
| 15/32 | 3-1/4 | 5-3/4 | 2991-030 | 47.15 |
| 31/64 | 3-1/2 | 6 | 2991-031 | 57.20 |
| 1/2 | 3-1/2 | 6 | 2991-032 | 55.35 |
| 17/32 | 3-1/2 | 6 | 2991-034 | 63.40 |
| 9/16 | 3-1/2 | 6 | 2991-036 | 65.60 |
| 19/32 | 4 | 7 | 2991-038 | 69.45 |
| 5/8 | 4 | 7 | 2991-040 | 71.55 |
| 21/32 | 4-1/2 | 7-1/2 | 2991-042 | 76.60 |
| 11/16 | 4-1/2 | 7-1/2 | 2991-044 | 78.65 |
| 23/32 | 4-3/4 | 8 | 2991-046 | 82.40 |
| 3/4 | 4-3/4 | 8 | 2991-048 | 84.65 |

## Solid Carbide

- For work hardened and abrasive materials, such as stainless steel and heat treated alloys • 140° notched Drill Point

| DIA. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/32 | 1/2 | 1-1/2 | 2962-002 | $ 8.75 |
| 3/64 | 3/8 | 1-1/2 | 2962-003 | 8.75 |
| 1/16 | 3/8 | 1-1/2 | 2962-004 | 8.25 |
| 5/64 | 11/16 | 1-11/6 | 2962-005 | 8.25 |
| 3/32 | 3/4 | 1-3/4 | 2962-006 | 8.60 |
| 7/64 | 13/16 | 1-13/16 | 2962-007 | 9.30 |
| 1/8 | 7/8 | 1-7/8 | 2962-008 | 9.75 |
| 9/64 | 15/16 | 1-15/16 | 2962-009 | 10.55 |
| 5/32 | 1 | 2-1/16 | 2962-010 | 11.55 |
| 11/64 | 1-1/16 | 2-1/8 | 2962-011 | 13.05 |
| 3/16 | 1-1/8 | 2-3/16 | 2962-012 | 14.10 |
| 13/64 | 1-3/16 | 2-1/4 | 2962-013 | 15.65 |
| 7/32 | 1-1/4 | 2-3/8 | 2962-014 | 16.15 |
| 15/64 | 1-5/16 | 2-7/16 | 2962-015 | 19.45 |
| 1/4 | 1-3/8 | 2-1/2 | 2962-016 | 18.10 |
| 17/64 | 1-7/16 | 2-5/8 | 2962-017 | 21.90 |
| 9/32 | 1-1/2 | 2-11/16 | 2962-018 | 22.85 |
| 19/64 | 1-9/16 | 2-3/4 | 2962-019 | 24.70 |
| 5/16 | 1-5/8 | 2-13/16 | 2962-020 | 24.85 |
| 21/64 | 1-11/16 | 2-15/16 | 2962-021 | 25.60 |
| 11/32 | 1-11/16 | 3 | 2962-022 | 29.75 |
| 23/64 | 1-3/4 | 3-1/16 | 2962-023 | 31.75 |
| 3/8 | 1-13/16 | 3-1/8 | 2962-024 | 35.35 |
| 25/64 | 1-7/8 | 3-1/4 | 2962-025 | 38.05 |
| 13/32 | 1-15/16 | 3-5/16 | 2962-026 | 44.30 |
| 27/64 | 2 | 3-3/8 | 2962-027 | 48.25 |
| 7/16 | 2-1/16 | 3-7/16 | 2962-028 | 52.90 |
| 29/64 | 2-1/8 | 3-9/16 | 2962-029 | 58.15 |
| 15/32 | 2-1/8 | 3-5/8 | 2962-030 | 59.60 |
| 31/64 | 2-3/16 | 3-11/16 | 2962-031 | 60.20 |
| 1/2 | 2-1/4 | 3-3/4 | 2962-032 | 63.95 |

### Letter Sizes

| SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| A | .2340 | 2-5/8 | 3-7/8 | 2990-201 | $15.05 |
| B | .2380 | 2-3/4 | 4 | 2990-202 | 15.05 |
| C | .2420 | 2-3/4 | 4 | 2990-203 | 15.05 |
| D | .2460 | 2-3/4 | 4 | 2990-204 | 14.70 |
| E | .2500 | 2-3/4 | 4 | 2990-205 | 14.30 |
| F | .2570 | 2-7/8 | 4-1/8 | 2990-206 | 16.90 |
| G | .2610 | 2-7/8 | 4-1/8 | 2990-207 | 17.35 |
| H | .2660 | 2-7/8 | 4-1/8 | 2990-208 | 17.70 |
| I | .2720 | 2-7/8 | 4-1/8 | 2990-209 | 17.35 |
| J | .2770 | 2-7/8 | 4-1/8 | 2990-210 | 17.70 |
| K | .2810 | 2-15/16 | 4-1/4 | 2990-211 | 17.70 |
| L | .2900 | 2-15/16 | 4-1/4 | 2990-212 | 17.70 |
| M | .2950 | 3-1/16 | 4-3/8 | 2990-213 | 19.50 |
| N | .3020 | 3-1/16 | 4-3/8 | 2990-214 | 19.05 |
| O | .3160 | 3-3/16 | 4-1/2 | 2990-215 | 18.75 |
| P | .3230 | 3-5/16 | 4-5/8 | 2990-216 | 20.00 |
| Q | .3320 | 3-7/16 | 4-3/4 | 2990-217 | 20.40 |
| R | .3390 | 3-7/16 | 4-3/4 | 2990-218 | 20.00 |
| S | .3480 | 3-1/2 | 4-7/8 | 2990-219 | 21.50 |
| T | .3580 | 3-1/2 | 4-7/8 | 2990-220 | 21.95 |
| U | .3680 | 3-5/8 | 5 | 2990-221 | 21.10 |
| V | .3770 | 3-5/8 | 5 | 2990-222 | 21.50 |
| W | .3860 | 3-3/4 | 5-1/8 | 2990-223 | 23.65 |
| X | .3970 | 3-3/4 | 5-1/8 | 2990-224 | 22.65 |
| Y | .4040 | 3-7/8 | 5-1/4 | 2990-225 | 23.65 |
| Z | .4130 | 3-7/8 | 5-1/4 | 2990-226 | 26.15 |

# Solid Carbide Jobbers Length Drills

Look for ALLEGIANCE® AMERICANMADE 3

## Fractional Sizes

| SIZE | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/32 | 5/16 | 1-1/4 | 2960-002 | $ 8.65 |
| 3/64 | 3/4 | 1-1/2 | 2960-003 | 7.80 |
| 1/16 | 3/4 | 1-1/2 | 2960-004 | 7.50 |
| 5/64 | 7/8 | 1-3/4 | 2960-005 | 7.35 |
| 3/32 | 1 | 2 | 2960-006 | 6.95 |
| 7/64 | 1-1/4 | 2-1/4 | 2960-007 | 7.80 |
| 1/8 | 1-1/4 | 2-1/4 | 2960-008 | 8.10 |
| 9/64 | 1-3/8 | 2-1/2 | 2960-009 | 8.90 |
| 5/32 | 1-3/8 | 2-1/2 | 2960-010 | 9.80 |
| 11/64 | 1-5/8 | 2-3/4 | 2960-011 | 12.05 |
| 3/16 | 1-5/8 | 2-3/4 | 2960-012 | 11.85 |
| 13/64 | 1-3/4 | 3 | 2960-013 | 12.90 |
| 7/32 | 1-3/4 | 3 | 2960-014 | 15.25 |
| 15/64 | 2 | 3-1/4 | 2960-015 | 16.55 |
| 1/4 | 2 | 3-1/4 | 2960-016 | 18.50 |
| 17/64 | 2-1/8 | 3-1/2 | 2960-017 | 20.45 |
| 9/32 | 2-1/8 | 3-1/2 | 2960-018 | 22.30 |
| 19/64 | 2-3/8 | 3-3/4 | 2960-019 | 25.40 |
| 5/16 | 2-3/8 | 4 | 2960-020 | 25.65 |
| 21/64 | 2-1/2 | 4 | 2960-021 | 28.20 |
| 11/32 | 2-1/2 | 4 | 2960-022 | 29.60 |
| 23/64 | 2-1/2 | 4 | 2960-023 | 34.00 |
| 3/8 | 2-3/4 | 4-1/4 | 2960-024 | 34.40 |
| 25/64 | 2-7/8 | 4-1/2 | 2960-025 | 41.25 |
| 13/32 | 2-7/8 | 4-1/2 | 2960-026 | 44.60 |
| 27/64 | 2-7/8 | 4-1/2 | 2960-027 | 48.80 |
| 7/16 | 2-7/8 | 4-1/2 | 2960-028 | 52.15 |
| 29/64 | 3 | 4-3/4 | 2960-029 | 59.55 |
| 15/32 | 3 | 4-3/4 | 2960-030 | 60.55 |
| 31/64 | 3 | 4-3/4 | 2960-031 | 63.55 |
| 1/2 | 3 | 4-3/4 | 2960-032 | 63.40 |
| 17/32 | 4 | 6 | 2960-034 | 97.90 |
| 9/16 | 4 | 6 | 2960-036 | 108.10 |
| 19/32 | 4 | 6 | 2960-038 | 119.90 |
| 5/8 | 4 | 6 | 2960-040 | 125.55 |
| 21/32 | 4 | 6 | 2960-042 | 138.20 |
| 11/16 | 4 | 6 | 2960-044 | 142.55 |
| 3/4 | 4 | 6 | 2960-046 | 169.70 |
| 7/8 | 4 | 6 | 2960-056 | 199.10 |
| 1 | 4 | 6 | 2960-064 | 223.95 |

## Letter Sizes

| SIZE | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| A | 2 | 3-1/4 | 2960-201 | $16.55 |
| B | 2 | 3-1/4 | 2960-202 | 18.50 |
| C | 2 | 3-1/4 | 2960-203 | 18.50 |
| D | 2 | 3-1/4 | 2960-204 | 18.50 |
| E | 2 | 3-1/4 | 2960-205 | 18.50 |
| F | 2 | 3-1/4 | 2960-206 | 20.45 |
| G | 2-1/8 | 3-1/2 | 2960-207 | 20.45 |
| H | 2-1/8 | 3-1/2 | 2960-208 | 22.30 |
| I | 2-1/8 | 3-1/2 | 2960-209 | 22.30 |
| J | 2-1/8 | 3-1/2 | 2960-210 | 22.30 |
| K | 2-1/8 | 3-1/2 | 2960-211 | 22.30 |
| L | 2-1/8 | 3-1/2 | 2960-212 | 25.40 |
| M | 2-3/8 | 4 | 2960-213 | 25.40 |
| N | 2-3/8 | 4 | 2960-214 | 25.65 |
| O | 2-3/8 | 4 | 2960-215 | 28.20 |
| P | 2-3/8 | 4 | 2960-216 | 28.20 |
| Q | 2-1/2 | 4 | 2960-217 | 30.55 |
| R | 2-1/2 | 4 | 2960-218 | 30.55 |
| S | 2-1/2 | 4 | 2960-219 | 34.00 |
| T | 2-3/4 | 4-1/4 | 2960-220 | 34.00 |
| U | 2-3/4 | 4-1/4 | 2960-221 | 35.00 |
| V | 2-3/4 | 4-1/4 | 2960-222 | 41.25 |
| W | 2-7/8 | 4-1/2 | 2960-223 | 41.25 |
| X | 2-7/8 | 4-1/2 | 2960-224 | 45.10 |
| Y | 2-7/8 | 4-1/2 | 2960-225 | 45.10 |
| Z | 2-7/8 | 4-1/2 | 2960-226 | 48.80 |

## Wire Gage Sizes

| DIA. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1 | 11-3/4 | 3 | 2960-101 | $16.55 |
| 2 | 11-3/4 | 3 | 2960-102 | 16.55 |
| 3 | 1-3/4 | 3 | 2960-103 | 15.25 |
| 4 | 1-3/4 | 3 | 2960-104 | 15.25 |
| 5 | 1-3/4 | 3 | 2960-105 | 15.25 |
| 6 | 1-3/4 | 3 | 2960-106 | 15.25 |
| 7 | 1-3/4 | 3 | 2960-107 | 12.90 |
| 8 | 1-3/4 | 3 | 2960-108 | 12.90 |
| 9 | 1-3/4 | 3 | 2960-109 | 12.90 |
| 10 | 1-5/8 | 2-3/4 | 2960-110 | 12.90 |
| 11 | 1-5/8 | 2-3/4 | 2960-111 | 12.90 |
| 12 | 1-5/8 | 2-3/4 | 2960-112 | 12.90 |
| 13 | 1-5/8 | 2-3/4 | 2960-113 | 12.30 |
| 14 | 1-5/8 | 2-3/4 | 2960-114 | 12.30 |
| 15 | 1-5/8 | 2-3/4 | 2960-115 | 12.30 |
| 16 | 1-5/8 | 2-3/4 | 2960-116 | 12.30 |
| 17 | 1-5/8 | 2-3/4 | 2960-117 | 12.30 |
| 18 | 1-5/8 | 2-3/4 | 2960-118 | 12.05 |
| 19 | 1-5/8 | 2-3/4 | 2960-119 | 12.05 |
| 20 | 1-3/8 | 2-1/2 | 2960-120 | 12.05 |
| 21 | 1-3/8 | 2-1/2 | 2960-121 | 12.05 |
| 22 | 1-3/8 | 2-1/2 | 2960-122 | 12.05 |
| 23 | 1-3/8 | 2-1/2 | 2960-123 | 10.15 |
| 24 | 1-3/8 | 2-1/2 | 2960-124 | 10.15 |
| 25 | 1-3/8 | 2-1/2 | 2960-125 | 10.15 |
| 26 | 1-3/8 | 2-1/2 | 2960-126 | 10.15 |
| 27 | 1-3/8 | 2-1/2 | 2960-127 | 10.15 |
| 28 | 1-3/8 | 2-1/2 | 2960-128 | 8.90 |
| 29 | 1-3/8 | 2-1/2 | 2960-129 | 8.90 |
| 30 | 1-1/4 | 2-1/4 | 2960-130 | 8.90 |
| 31 | 1-1/4 | 2-1/4 | 2960-131 | 8.75 |
| 32 | 1-1/4 | 2-1/4 | 2960-132 | 8.75 |
| 33 | 1-1/4 | 2-1/4 | 2960-133 | 8.75 |
| 34 | 1-1/4 | 2-1/4 | 2960-134 | 8.75 |
| 35 | 1-1/4 | 2-1/4 | 2960-135 | 8.75 |
| 36 | 1-1/4 | 2-1/4 | 2960-136 | 8.30 |
| 37 | 1-1/4 | 2-1/4 | 2960-137 | 8.30 |
| 38 | 1-1/4 | 2-1/4 | 2960-138 | 8.30 |
| 39 | 1-1/4 | 2-1/4 | 2960-139 | 8.30 |
| 40 | 1 | 2 | 2960-140 | 8.30 |

## Metric Sizes

| SIZE | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1.00 | 5/8 | 1-1/2 | 2961-010 | $ 9.35 |
| 1.50 | 3/4 | 1-1/2 | 2961-015 | 7.95 |
| 2.00 | 7/8 | 1-3/4 | 2961-020 | 7.20 |
| 2.50 | 1 | 2 | 2961-025 | 7.80 |
| 3.00 | 1-1/4 | 2-1/4 | 2961-030 | 8.25 |
| 3.50 | 1-3/8 | 2-1/2 | 2961-035 | 8.90 |
| 4.00 | 1-3/8 | 2-1/2 | 2961-040 | 12.05 |
| 4.50 | 1-5/8 | 2-3/4 | 2961-045 | 12.30 |
| 5.00 | 1-3/4 | 3 | 2961-050 | 12.90 |
| 5.50 | 1-3/4 | 3 | 2961-055 | 15.25 |
| 6.00 | 2 | 3-1/4 | 2961-060 | 18.50 |
| 6.50 | 2 | 3-1/4 | 2961-065 | 20.45 |
| 7.00 | 2-1/8 | 3-1/2 | 2961-070 | 22.30 |
| 7.50 | 2-3/8 | 4 | 2961-075 | 25.40 |
| 8.00 | 2-3/8 | 4 | 2961-080 | 28.20 |
| 8.50 | 2-1/2 | 4 | 2961-085 | 30.55 |
| 9.00 | 2-3/4 | 4-1/4 | 2961-090 | 34.00 |
| 9.50 | 2-3/4 | 4-1/4 | 2961-095 | 35.00 |
| 10.00 | 2-7/8 | 4-1/2 | 2961-100 | 45.10 |
| 10.50 | 2-7/8 | 4-1/2 | 2961-105 | 48.80 |
| 11.00 | 2-7/8 | 4-1/2 | 2961-110 | 52.15 |
| 11.50 | 3 | 4-3/4 | 2961-115 | 59.55 |
| 12.00 | 3 | 4-3/4 | 2961-120 | 63.55 |
| 12.50 | 3 | 4-3/4 | 2961-125 | 64.35 |

## Wire Gage Sizes (Continued)

| DIA. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 41 | 1 | 2 | 2960-141 | $8.30 |
| 42 | 1 | 2 | 2960-142 | 7.55 |
| 43 | 1 | 2 | 2960-143 | 7.55 |
| 44 | 1 | 2 | 2960-144 | 7.55 |
| 45 | 7/8 | 1-3/4 | 2960-145 | 7.55 |
| 46 | 7/8 | 1-3/4 | 2960-146 | 7.55 |
| 47 | 7/8 | 1-3/4 | 2960-147 | 7.55 |
| 48 | 7/8 | 1-3/4 | 2960-148 | 7.80 |
| 49 | 7/8 | 1-3/4 | 2960-149 | 7.80 |
| 50 | 7/8 | 1-3/4 | 2960-150 | 7.80 |
| 51 | 3/4 | 1-1/2 | 2960-151 | 7.80 |
| 52 | 3/4 | 1-1/2 | 2960-152 | 7.80 |
| 53 | 3/4 | 1-1/2 | 2960-153 | 7.95 |
| 54 | 3/4 | 1-1/2 | 2960-154 | 7.95 |
| 55 | 3/4 | 1-1/2 | 2960-155 | 7.95 |
| 56 | 3/4 | 1-1/2 | 2960-156 | 8.30 |
| 57 | 3/4 | 1-1/2 | 2960-157 | 8.30 |
| 58 | 3/4 | 1-1/2 | 2960-158 | 8.30 |
| 59 | 3/4 | 1-1/2 | 2960-159 | 8.30 |
| 60 | 3/4 | 1-1/2 | 2960-160 | 8.30 |
| 61 | 5/8 | 1-1/2 | 2960-161 | 8.70 |
| 62 | 5/8 | 1-1/2 | 2960-162 | 8.70 |
| 63 | 5/8 | 1-1/2 | 2960-163 | 8.70 |
| 64 | 5/8 | 1-1/2 | 2960-164 | 8.90 |
| 65 | 5/8 | 1-1/2 | 2960-165 | 8.90 |
| 66 | 1/2 | 1-1/2 | 2960-166 | 9.20 |
| 67 | 1/2 | 1-1/2 | 2960-167 | 9.20 |
| 68 | 1/2 | 1-1/2 | 2960-168 | 9.55 |
| 69 | 1/2 | 1-1/2 | 2960-169 | 9.55 |
| 70 | 1/2 | 1-1/2 | 2960-170 | 9.55 |
| 71 | 5/16 | 1 | 2960-171 | 13.10 |
| 72 | 5/16 | 1 | 2960-172 | 13.10 |
| 73 | 1/4 | 7/8 | 2960-173 | 13.60 |
| 74 | 1/4 | 7/8 | 2960-174 | 13.60 |
| 75 | 1/4 | 7/8 | 2960-175 | 13.60 |
| 76 | 1/4 | 7/8 | 2960-176 | 13.60 |
| 77 | 3/16 | 3/4 | 2960-177 | 13.60 |
| 78 | 3/16 | 3/4 | 2960-178 | 14.05 |
| 79 | 1/8 | 3/4 | 2960-179 | 14.05 |
| 80 | 1/8 | 3/4 | 2960-180 | 14.05 |

# Spade Drills

## Solid Carbide

| DIA. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3/64 | | | 2963-003 | $7.80 |
| 1/16 | 3/8 | 1-1/2 | 2963-004 | 7.50 |
| 3/32 | 7/16 | 1-1/2 | 2963-006 | 7.50 |
| 1/8 | 1/2 | 1-1/2 | 2963-008 | 7.20 |
| 5/32 | 9/16 | 1-1/2 | 2963-010 | 8.65 |
| 3/16 | 11/16 | 2 | 2963-012 | 9.70 |
| 7/32 | 11/16 | 2 | 2963-014 | 12.55 |
| 1/4 | 13/16 | 2 | 2963-016 | 13.75 |
| 9/32 | 7/8 | 2 | 2963-018 | 17.15 |
| 5/16 | 7/8 | 2-1/2 | 2963-020 | 19.60 |
| 11/32 | 15/16 | 2-1/2 | 2963-022 | 22.85 |
| 3/8 | 1-1/8 | 2-1/2 | 2963-024 | 22.95 |
| 13/32 | 1-1/8 | 2-1/2 | 2963-026 | 29.70 |
| 7/16 | 1-3/16 | 2-1/2 | 2963-028 | 27.45 |
| 15/32 | 1-3/16 | 2-1/2 | 2963-030 | 38.85 |
| 1/2 | 1/2 | 2-1/2 | 2963-032 | 34.20 |

# Drills

## NC Spotting Drills

### Right Hand– High Speed Steel [3]

| BODY DIA. | OAL | POINT ANGLE | FLUTE LG'TH. | KEO ORDER NO. | KEO PRICE EACH | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 2-1/2 | 90 | 3/4 | 1909-902 | $24.14 | 1485-102 | $6.75 |
| | 2-1/2 | 120 | 3/4 | 1909-904 | 24.14 | 1485-104 | 6.75 |
| | 4 | 90 | 3/4 | 1909-906 | 34.74 | 1485-106 | 9.20 |
| | 4 | 120 | 3/4 | 1909-908 | 34.74 | 1485-108 | 9.20 |
| | 6 | 90 | 3/4 | 1909-910 | 47.71 | 1485-110 | 12.00 |
| | 6 | 120 | 3/4 | 1909-912 | 47.71 | 1485-112 | 12.00 |
| 3/8 | 3-1/8 | 90 | 1-1/8 | 1909-914 | 26.06 | 1485-114 | 8.52 |
| | 3-1/8 | 120 | 1-1/8 | 1909-916 | 26.06 | 1485-116 | 8.52 |
| | 5 | 90 | 1-3/8 | 1909-918 | 37.03 | 1485-118 | 12.21 |
| | 5 | 120 | 1-1/8 | 1909-920 | 37.03 | 1485-120 | 12.21 |
| | 7 | 90 | 1-1/8 | 1909-922 | 51.32 | 1485-122 | 16.96 |
| | 7 | 120 | 1-1/8 | 1909-924 | 51.32 | 1485-124 | 16.96 |
| 1/2 | 3-3/4 | 90 | 1-3/8 | 1909-926 | 33.40 | 1485-126 | 10.91 |
| | 3-3/4 | 120 | 1-3/8 | 1909-928 | 33.40 | 1485-128 | 10.91 |
| | 6 | 90 | 1-3/8 | 1909-930 | 46.32 | 1485-130 | 15.24 |
| | 6 | 120 | 1-3/8 | 1909-932 | 46.32 | 1485-132 | 15.24 |
| | 8 | 90 | 1-3/8 | 1909-934 | 62.99 | 1485-134 | 20.59 |
| | 8 | 120 | 1-3/8 | 1909-936 | 62.99 | 1485-136 | 20.59 |
| 5/8 | 4-3/8 | 90 | 1-5/8 | 1909-938 | 43.48 | 1485-138 | 14.28 |
| | 4-3/8 | 120 | 1-5/8 | 1909-940 | 43.48 | 1485-140 | 14.28 |
| | 7 | 90 | 1-5/8 | 1909-942 | 58.54 | 1485-142 | 19.54 |
| | 7 | 120 | 1-5/8 | 1909-943 | 58.54 | 1485-143 | 19.54 |
| | 9 | 90 | 1-5/8 | 1909-944 | 80.93 | 1485-144 | 26.70 |
| | 9 | 120 | 1-5/8 | 1909-946 | 80.93 | 1485-146 | 26.70 |
| 3/4 | 5 | 90 | 1-7/8 | 1909-948 | 59.49 | 1485-148 | 24.25 |
| | 5 | 120 | 1-7/8 | 1909-950 | 59.49 | 1485-150 | 24.25 |
| | 8 | 90 | 1-7/8 | 1909-952 | 80.42 | 1485-152 | 34.86 |
| | 8 | 120 | 1-7/8 | 1909-954 | 80.42 | 1485-154 | 34.86 |
| | 10 | 90 | 1-/78 | 1909-956 | 107.48 | 1485-156 | 46.76 |
| | 10 | 120 | 1-7/8 | 1909-958 | 107.48 | 1485-158 | 46.76 |
| 1 | 6 | 90 | 2-1/4 | 1909-960 | 102.34 | 1485-160 | 40.95 |
| | 6 | 120 | 2-1/4 | 1909-962 | 102.34 | 1485-162 | 40.95 |
| | 8 | 90 | 2-1/4 | 1909-964 | 108.93 | 1485-164 | 44.40 |
| | 8 | 120 | 2-1/4 | 1909-966 | 108.93 | 1485-166 | 44.40 |
| | 10 | 90 | 2-1/4 | 1909-968 | 134.06 | 1485-168 | 57.33 |
| | 10 | 120 | 2-1/4 | 1909-970 | 134.06 | 1485-170 | 57.33 |

## Center Drills

### High Speed Steel [4]

| DIAM. | DEC. EQUIV. | FLUTE L'GTH | OVERALL L'GTH | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH |
|---|---|---|---|---|---|
| #40 | .0890 | 13/16 | 1-1/4 | 1484-040 | $ 0.57 |
| #30 | .1285 | 13/16 | 1-1/4 | 1484-030 | 0.64 |
| 1/16 | .0625 | 3/4 | 1-1/4 | 1480-004 | 0.58 |
| 5/64 | .0781 | 3/4 | 1-1/4 | 1480-005 | 0.58 |
| 3/32 | .0938 | 3/4 | 1-1/4 | 1480-006 | 0.58 |
| 7/64 | .1094 | 3/4 | 1-1/4 | 1480-007 | 0.61 |
| 1/8 | .1250 | 3/4 | 1-1/4 | 1480-008 | 0.69 |
| 9/64 | .1406 | 3/4 | 1-1/4 | 1480-009 | 0.69 |
| 5/32 | .1562 | 1 | 1-1/2 | 1480-010 | 0.80 |
| 11/64 | .1719 | 1 | 1-1/2 | 1480-011 | 0.84 |
| 3/16 | .1875 | 1 | 1-1/2 | 1480-012 | 0.96 |
| 13/64 | .2031 | 1 | 1-1/2 | 1480-013 | 1.12 |
| 7/32 | .2188 | 1 | 1-1/2 | 1480-014 | 1.19 |
| 1/4 | .2500 | 1 | 1-1/2 | 1480-016 | 1.42 |
| 9/32 | .2812 | 1 | 1-1/2 | 1480-018 | 1.92 |
| 5/16 | .3125 | 1 | 1-1/2 | 1480-020 | 2.23 |

## Double End Drills

### 135° Split Point– High Speed Steel

[2] [3]

| DIAM. | DEC. EQUIV. | Pittsburg® ORDER NO. [2] | Pittsburg® PRICE EACH [2] | Allegiance® American Made ORDER NO. [3] | Allegiance® American Made PRICE EACH [3] |
|---|---|---|---|---|---|
| 7/64 | .1094 | – | – | 1486-307 | $1.00 |
| 1/8 | .1250 | 1486-008 | $0.80 | 1486-308 | 1.04 |
| 9/64 | .1406 | – | – | 1486-309 | 1.10 |
| 5/32 | .1562 | – | – | 1486-310 | 1.26 |
| 3/16 | .1875 | – | – | 1486-312 | 1.60 |
| 7/32 | .2188 | – | – | 1486-314 | 2.20 |
| 1/4 | .2500 | – | – | 1486-316 | 2.28 |
| 11 | .1910 | – | – | 1486-411 | 1.86 |
| 20 | .1610 | – | – | 1486-420 | 1.48 |
| 30 | .1285 | 1486-130 | 0.80 | 1486-430 | 1.04 |

## Spotting & Center Drills
## High Speed Steel [2]

Left Hand Spiral

Right Hand Spiral

| DIAM. | DEC. EQUIV. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® RIGHT HAND ORDER NO. | Pittsburg® RIGHT HAND PRICE EACH | Pittsburg® LEFT HAND ORDER NO. | Pittsburg® LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3/8 | .3750 | 1 | 2 | 1480-024 | $ 2.71 | 1481-024 | $ 5.70 |
| 7/16 | .4375 | 1 | 2 | 1480-028 | 4.03 | 1481-028 | 8.45 |
| 1/2 | .5000 | 1 | 2 | 1480-032 | 4.67 | 1481-032 | 9.81 |
| 5/8 | .6250 | 1-1/8 | 2-1/4 | 1480-040 | 7.45 | 1481-040 | 15.64 |
| 3/4 | .7500 | 1-1/8 | 2-1/4 | 1480-048 | 10.60 | 1481-048 | 22.25 |
| 7/8 | .8750 | 1-1/4 | 2-1/2 | 1480-056 | 15.05 | 1481-056 | 31.59 |
| 1 | 1.000 | 1-1/4 | 2-1/2 | 1480-064 | 17.11 | 1481-064 | 35.94 |
| 1-1/4 | 1.250 | 2 | 4 | 1480-080 | 30.81 | 1481-080 | 64.71 |
| 1-1/2 | 1.500 | 2-1/2 | 5 | 1480-096 | 49.10 | 1481-096 | 103.11 |
| 1-3/4 | 1.750 | 2-3/4 | 5-1/2 | 1480-112 | 68.79 | 1481-112 | 144.46 |

# Jobbers Length Drills– High Speed Steel

## Fast Spiral, & Straight Flute

### Straight Flute

- *For brass an non-ferrous materials*
- ***Discontinued, Limited Quantities!***

### Fast Spiral

- *For low tensile materials such as aluminum and other soft materials*

**PACKAGE QUANTITIES: Fractional Sizes 1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 33/34–11/16: 1 pcs.**

| FRACTIONAL SIZES | FLUTE LENGTH | OAL | Pittsburg® ALLEGHANY FAST SPIRAL ORDER NO. | PRICE EACH | Pittsburg® ALLEGHANY STRAIGHT FLUTE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/64 | 3/16 | 3/4 | 1070-001 | $1.40 | – | – |
| 1/32 | 1/2 | 1-3/8 | 1070-002 | 1.40 | – | – |
| 3/64 | 3/4 | 1-3/4 | 1070-003 | 0.86 | – | – |
| 1/16 | 7/8 | 1-7/8 | 1070-004 | 0.86 | – | – |
| 5/64 | 1 | 2 | 1070-005 | 0.86 | 1701-005 | $1.46 |
| 3/32 | 1-1/4 | 2-1/4 | 1070-006 | 0.86 | 1701-006 | 1.46 |
| 7/64 | 1-1/2 | 2-5/8 | 1070-007 | 0.86 | 1701-007 | 1.52 |
| 1/8 | 1-5/8 | 2-3/4 | 1070-008 | 0.86 | 1701-008 | 1.53 |
| 9/64 | 1-3/4 | 2-7/8 | 1070-009 | 0.86 | 1701-009 | 1.64 |
| 5/32 | 2 | 3-1/8 | 1070-010 | 0.95 | 1701-010 | 1.66 |
| 11/64 | 2-1/8 | 3-1/4 | 1070-011 | 1.13 | 1701-011 | 1.73 |
| 3/16 | 2-5/16 | 3-1/2 | 1070-012 | 1.28 | 1701-012 | 1.85 |
| 13/64 | 2-7/16 | 3-5/8 | 1070-013 | 1.41 | 1701-013 | 2.61 |
| 7/32 | 2-1/2 | 3-3/4 | 1070-014 | 1.60 | 1701-014 | 2.75 |
| 15/64 | 2-5/8 | 3-7/8 | 1070-015 | 1.66 | 1701-015 | 2.92 |
| 1/4 | 2-3/4 | 4 | 1070-016 | 1.78 | 1701-016 | 3.14 |
| 17/64 | 2-7/8 | 4-1/8 | 1070-017 | 2.20 | 1701-017 | 3.37 |
| 9/32 | 2-15/16 | 4-1/4 | 1070-018 | 2.36 | 1701-018 | 3.60 |
| 19/64 | 3-1/16 | 4-3/8 | 1070-019 | 2.54 | 1701-019 | 3.90 |
| 5/16 | 3-3/16 | 4-1/2 | 1070-020 | 2.81 | 1701-020 | 4.25 |
| 21/64 | 3-5/16 | 4-5/8 | 1070-021 | 2.99 | 1701-021 | 4.64 |
| 11/32 | 3-7/16 | 4-3/4 | 1070-022 | 3.39 | 1701-022 | 5.07 |
| 23/64 | 3-1/2 | 4-7/8 | 1070-023 | 3.96 | 1701-023 | 5.46 |
| 3/8 | 3-5/8 | 5 | 1070-024 | 4.15 | 1701-024 | 5.38 |
| 25/64 | 3-3/4 | 5-1/8 | 1070-025 | 4.58 | 1701-025 | 5.56 |
| 13/32 | 3-7/8 | 5-1/4 | 1070-026 | 4.78 | 1701-026 | 5.74 |
| 27/64 | 3-15/16 | 5-3/8 | 1070-027 | 5.35 | 1701-027 | 5.92 |
| 7/16 | 4-1/16 | 5-1/2 | 1070-028 | 5.61 | 1701-028 | 5.98 |
| 29/64 | 4-3/16 | 5-5/8 | 1070-029 | 5.78 | 1701-029 | 6.20 |
| 15/32 | 4-5/16 | 5-3/4 | 1070-030 | 6.15 | 1701-030 | 7.36 |
| 31/64 | 4-3/8 | 5-7/8 | 1070-031 | 6.55 | 1701-031 | 8.02 |
| 1/2 | 4-1/2 | 6 | 1070-032 | 6.55 | 1701-032 | 8.29 |

| WIRE GAGE SIZES | | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY FAST SPIRAL ORDER NO. | PRICE EACH | Pittsburg® ALLEGHANY STR. FLUTE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1 | .2280 | 2-5/8 | 3-7/8 | 1080-001 | $1.81 | 1702-001 | $2.92 |
| 2 | .2210 | 2-5/8 | 3-7/8 | 1080-002 | 1.81 | 1702-002 | 2.92 |
| 3 | .2130 | 2-1/2 | 3-3/4 | 1080-003 | 1.71 | 1702-003 | 2.75 |
| 4 | .2090 | 2-1/2 | 3-3/4 | 1080-004 | 1.71 | 1702-004 | 2.75 |
| 5 | .2055 | 2-1/2 | 3-3/4 | 1080-005 | 1.71 | 1702-005 | 2.75 |
| 6 | .2040 | 2-1/2 | 3-3/4 | 1080-006 | 1.71 | 1702-006 | 2.75 |
| 7 | .2010 | 2-7/16 | 3-5/8 | 1080-007 | 1.46 | – | – |
| 8 | .1990 | 2-7/16 | 3-5/8 | 1080-008 | 1.46 | 1702-008 | 2.61 |
| 9 | .1960 | 2-7/16 | 3-5/8 | 1080-009 | 1.46 | 1702-009 | 2.61 |
| 10 | .1935 | 2-7/16 | 3-5/8 | 1080-010 | 1.46 | 1702-010 | 2.61 |
| 11 | .1910 | 2-5/16 | 3-1/2 | 1080-011 | 1.38 | 1702-011 | 2.61 |
| 12 | .1890 | 2-5/16 | 3-1/2 | 1080-012 | 1.38 | 1702-012 | 1.85 |
| 13 | .1850 | 2-5/16 | 3-1/2 | 1080-013 | 1.28 | 1702-013 | 1.73 |
| 14 | .1820 | 2-3/16 | 3-3/8 | 1080-014 | 1.28 | 1702-014 | 1.73 |
| 15 | .1800 | 2-3/16 | 3-3/8 | 1080-015 | 1.28 | 1702-015 | 1.73 |
| 16 | .1770 | 2-3/16 | 3-3/8 | 1080-016 | 1.28 | 1702-016 | 1.73 |
| 17 | .1730 | 2-3/16 | 3-3/8 | 1080-017 | 1.28 | 1702-017 | 1.73 |
| 18 | .1695 | 2-1/8 | 3-1/4 | 1080-018 | 1.15 | 1702-018 | 1.66 |
| 19 | .1660 | 2-1/8 | 3-1/4 | 1080-019 | 1.15 | 1702-019 | 1.66 |
| 20 | .1610 | 2-1/8 | 3-1/4 | 1080-020 | 1.15 | 1702-020 | 1.66 |
| 21 | .1590 | 2-1/8 | 3-1/4 | 1080-021 | 1.03 | 1702-021 | 1.66 |
| 22 | .1570 | 2 | 3-1/8 | 1080-022 | 1.03 | 1702-022 | 1.66 |
| 23 | .1540 | 2 | 3-1/8 | 1080-023 | 0.96 | 1702-023 | 1.64 |
| 24 | .1520 | 2 | 3-1/8 | 1080-024 | 0.96 | 1702-024 | 1.64 |
| 25 | .1495 | 1-7/8 | 3 | 1080-025 | 0.96 | 1702-025 | 1.64 |
| 26 | .1470 | 1-7/8 | 3 | 1080-026 | 0.96 | 1702-026 | 1.64 |
| 27 | .1440 | 1-7/8 | 3 | 1080-027 | 0.96 | 1702-027 | 1.64 |
| 28 | .1405 | 1-3/4 | 2-7/8 | 1080-028 | 0.89 | 1702-028 | 1.53 |
| 29 | .1360 | 1-3/4 | 2-7/8 | 1080-029 | 0.89 | 1702-029 | 1.53 |
| 30 | .1285 | 1-5/8 | 2-3/4 | 1080-030 | 0.89 | 1702-030 | 1.53 |
| 31 | .1200 | 1-5/8 | 2-3/4 | 1080-031 | 0.89 | 1702-031 | 1.52 |
| 32 | .1160 | 1-5/8 | 2-3/4 | 1080-032 | 0.89 | 1702-032 | 1.52 |
| 33 | .1701 | 1-1/2 | 2-5/8 | 1080-033 | 0.89 | 1702-033 | 1.52 |
| 34 | .1110 | 1-1/2 | 2-5/8 | 1080-034 | 0.89 | 1702-034 | 1.52 |
| 35 | .1100 | 1-1/2 | 2-5/8 | 1080-035 | 0.89 | 1702-035 | 1.52 |
| 36 | .1065 | 1-7/16 | 2-1/2 | 1080-036 | 0.89 | 1702-036 | 1.46 |
| 37 | .1040 | 1-7/16 | 2-1/2 | 1080-037 | 0.89 | 1702-037 | 1.46 |
| 38 | .1015 | 1-7/16 | 2-1/2 | 1080-038 | 0.89 | 1702-038 | 1.46 |
| 39 | .0995 | 1-3/8 | 2-3/8 | 1080-039 | 0.89 | 1702-039 | 1.46 |
| 40 | .0980 | 1-3/8 | 2-3/8 | 1080-040 | 0.89 | 1702-040 | 1.46 |

| WIRE GAGE SIZES | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY FAST SPIRAL ORDER NO. | PRICE EACH | Pittsburg® ALLEGHANY STR. FLUTE ORDER NO. | PRICE EAC |
|---|---|---|---|---|---|---|---|
| 41 | .0960 | 1-3/8 | 2-3/8 | 1080-041 | $0.91 | 1702-041 | $1.46 |
| 42 | .0935 | 1-1/4 | 2-1/4 | 1080-042 | 0.91 | – | – |
| 43 | .0890 | 1-1/4 | 2-1/4 | 1080-043 | 0.91 | 1702-043 | 1.46 |
| 44 | .0860 | 1-1/8 | 2-1/8 | 1080-044 | 0.91 | 1702-044 | 1.46 |
| 45 | .0820 | 1-1/8 | 2-1/8 | 1080-045 | 0.91 | 1702-045 | 1.46 |
| 46 | .0810 | 1-1/8 | 2-1/8 | 1080-046 | 0.91 | 1702-046 | 1.46 |
| 47 | .0785 | 1 | 2 | 1080-047 | 0.91 | 1702-047 | 1.46 |
| 48 | .0760 | 1 | 2 | 1080-048 | 0.91 | 1702-048 | 1.46 |
| 49 | .0730 | 1 | 2 | 1080-049 | 0.91 | – | – |
| 50 | .0700 | 1 | 2 | 1080-050 | 0.91 | 1702-050 | 1.46 |
| 51 | .0670 | 1 | 2 | 1080-051 | 0.91 | 1702-051 | 1.46 |
| 52 | .0635 | 7/8 | 1-7/8 | 1080-052 | 0.91 | 1702-052 | 1.46 |
| 53 | .0595 | 7/8 | 1-7/8 | 1080-053 | 0.91 | 1702-053 | 1.43 |
| 54 | .0550 | 7/8 | 1-7/8 | 1080-054 | 0.91 | 1702-054 | 1.43 |
| 55 | .0520 | 7/8 | 1-7/8 | 1080-055 | 0.91 | 1702-055 | 1.43 |
| 56 | .0465 | 3/4 | 1-3/4 | 1080-056 | 0.91 | 1702-056 | 1.43 |
| 57 | .0430 | 3/4 | 1-3/4 | 1080-057 | 0.91 | 1702-057 | 1.43 |
| 58 | .0420 | 11/16 | 1-5/8 | 1080-058 | 0.91 | 1702-058 | 1.43 |
| 59 | .0410 | 11/16 | 1-5/8 | 1080-059 | 0.91 | 1702-059 | 1.43 |
| 60 | .0400 | 11/16 | 1-5/8 | 1080-060 | 0.91 | 1702-060 | 1.43 |
| 61 | .0390 | 11/16 | 1-5/8 | 1080-061 | 0.91 | – | – |
| 62 | .0380 | 5/8 | 1-1/2 | 1080-062 | 0.91 | – | – |
| 63 | .0370 | 5/8 | 1-1/2 | 1080-063 | 0.91 | – | – |
| 64 | .0360 | 5/8 | 1-1/2 | 1080-064 | 0.91 | – | – |
| 65 | .0350 | 5/8 | 1-1/2 | 1080-065 | 0.91 | – | – |
| 66 | .0330 | 1/2 | 1-3/8 | 1080-066 | 0.91 | – | – |
| 67 | .0320 | 1/2 | 1-3/8 | 1080-067 | 0.91 | – | – |
| 68 | .0310 | 1/2 | 1-3/8 | 1080-068 | 0.91 | – | – |
| 69 | .0292 | 1/2 | 1-3/8 | 1080-069 | 1.00 | – | – |
| 70 | .0280 | 3/8 | 1-1/4 | 1080-070 | 1.00 | – | – |
| 71 | .0260 | 3/8 | 1-1/4 | 1080-071 | 1.31 | – | – |
| 72 | .0250 | 5/16 | 1-1/8 | 1080-072 | 1.31 | – | – |
| 73 | .0240 | 5/16 | 1-1/8 | 1080-073 | 1.31 | – | – |
| 74 | .0225 | 1/4 | 1 | 1080-074 | 1.31 | – | – |
| 75 | .0210 | 1/4 | 1 | 1080-075 | 1.31 | – | – |
| 76 | .0200 | 3/16 | 7/8 | 1080-076 | 1.31 | – | – |
| 77 | .0180 | 3/16 | 7/8 | 1080-077 | 1.31 | – | – |
| 78 | .0160 | 3/16 | 7/8 | 1080-078 | 1.31 | – | – |
| 79 | .0145 | 1/8 | 3/4 | 1080-079 | 1.58 | – | – |
| 80 | .0135 | 1/8 | 3/4 | 1080-080 | 1.58 | – | – |

# Jobbers Length Drills

## High Speed Steel, Fast Spiral, Straight Flute

**PACKAGE QUANTITIES: Letter Sizes A-N: 12pcs. O-Z: 6 pcs.**

### Letter Sizes [2]

| SIZE | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® FAST SPIRAL ORDER NO. | FAST SPIRAL PRICE EACH | Pittsburg® STR. FLUTE ORDER NO. | STR. FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| A | .2340 | 2-5/8 | 3-7/8 | 1090-001 | $1.93 | 1703-001 | $2.92 |
| B | .2380 | 2-3/4 | 4 | 1090-002 | 1.93 | 1703-002 | 3.14 |
| C | .2420 | 2-3/4 | 4 | 1090-003 | 1.93 | – | – |
| D | .2460 | 2-3/4 | 4 | 1090-004 | 1.93 | 1703-004 | 3.14 |
| E | .2500 | 2-3/4 | 4 | 1090-005 | 1.78 | 1703-005 | 3.14 |
| F | .2570 | 2-7/8 | 4-1/8 | 1090-006 | 2.21 | – | – |
| G | .2610 | 2-7/8 | 4-1/8 | 1090-007 | 2.35 | 1703-007 | 3.37 |
| H | .2660 | 2-7/8 | 4-1/8 | 1090-008 | 2.35 | 1703-008 | 3.60 |
| I | .2720 | 2-7/8 | 4-1/8 | 1090-009 | 2.35 | 1703-009 | 3.60 |
| J | .2770 | 2-7/8 | 4-1/8 | 1090-010 | 2.48 | 1703-010 | 3.60 |
| K | .2810 | 2-15/16 | 4-1/4 | 1090-011 | 2.76 | 1703-011 | 3.60 |
| L | .2900 | 2-15/16 | 4-1/4 | 1090-012 | 2.73 | 1703-012 | 3.90 |
| M | .2950 | 3-1/16 | 4-3/8 | 1090-013 | 2.93 | 1703-013 | 3.90 |

| SIZE | DECM'L EQUIV. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® FAST SPIRAL ORDER NO. | FAST SPIRAL PRICE EACH | Pittsburg® STR. FLUTE ORDER NO. | STR. FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| N | .3020 | 3-1/16 | 4-3/8 | 1090-014 | $2.93 | 1703-014 | $4.25 |
| O | .3160 | 3-3/16 | 4-1/2 | 1090-015 | 2.93 | 1703-015 | 4.64 |
| P | .3230 | 3-5/16 | 4-5/8 | 1090-016 | 3.33 | 1703-016 | 4.64 |
| Q | .3320 | 3-7/16 | 4-3/4 | 1090-017 | 3.33 | 1703-017 | 5.07 |
| R | .3390 | 3-7/16 | 4-3/4 | 1090-018 | 3.33 | 1703-018 | 5.07 |
| S | .3480 | 3-1/2 | 4-7/8 | 1090-019 | 3.76 | 1703-019 | 5.46 |
| T | .3580 | 3-1/2 | 4-7/8 | 1090-020 | 4.33 | 1703-020 | 5.46 |
| U | .3680 | 3-5/8 | 5 | 1090-021 | 4.33 | 1703-021 | 5.38 |
| V | .3770 | 3-5/8 | 5 | 1090-022 | 4.66 | 1703-022 | 5.56 |
| W | .3860 | 3-3/4 | 5-1/8 | 1090-023 | 4.78 | 1703-023 | 5.56 |
| X | .3970 | 3-3/4 | 5-1/8 | 1090-024 | 5.46 | 1703-024 | 5.74 |
| Y | .4040 | 3-7/8 | 5-1/4 | 1090-025 | 6.38 | 1703-025 | 5.74 |
| Z | .4130 | 3-7/8 | 5-1/4 | 1090-026 | 6.59 | 1703-026 | 5.92 |

# Standard Step Drills

## High Speed Steel – Jobbers Length

Look for ALLEGIANCE® AMERICANMADE [1]

### For Drilling and Counterboring Cap Screw Clearance Holes

| SCREW SIZE | MINOR DIAM. | MAJOR DIAM. | STEP LENGTH | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| No. 6 | .150 | 1/4 | 1/2 | 2-3/4 | 4 | 2864-005 | $10.15 |
| No. 8 | .178 | L | 1/2 | 2-15/16 | 4-1/4 | 2864-010 | 11.60 |
| No. 10 | .204 | 0 | 5/8 | 3-7/16 | 4-3/4 | 2864-015 | 12.70 |
| 1/4 | 9/32 | 13/32 | 11/16 | 3-7/8 | 5-1/4 | 2864-020 | 14.65 |
| 5/16 | 11/32 | 1/2 | 3/4 | 4-1/2 | 6 | 2864-025 | 19.45 |
| 3/8 | 13/32 | 19/32 | 7/8 | 5-3/16 | 7-1/8 | 2864-030 | 31.10 |
| 1/2 | 17/32 | 25/32 | 1 | 3-1/4 | 5-1/8 | 2864-035 | 51.15 |

*Shorter than Jobber's Length

### For Drilling and Countersinking 82° Flat Head Machine Screws

| SCREW SIZE | MINOR DIAM. | MAJOR DIAM. | STEP LENGTH | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| No. 6 | .142 | 9/32 | 1/2 | 2-15/16 | 4-1/4 | 2864-105 | $11.20 |
| No. 8 | .169 | Q | 1/2 | 3-7/16 | 4-3/4 | 2864-110 | 13.25 |
| No. 10 | .196 | W | 5/8 | 3-3/4 | 5-1/8 | 2864-115 | 14.45 |
| 1/4 | .257 | 1/2 | 11/16 | 4-13/16 | 6-5/8 | 2864-120 | 17.90 |
| 5/16 | .320 | 5/8 | 3/4 | 5-3/16 | 7-1/8 | 2864-125 | 28.05 |
| 3/8 | .383 | 3/4 | 7/8 | 5-5/8 | 7-5/8 | 2864-130 | 38.85 |
| 1/2 | .510 | 7/8 | 1 | 3-1/2 | 5-1/2 | 2864-135 | 55.85 |

*Shorter than Jobber's Length

### For Drilling 45° Chamfered Holes To-Be-Tapped (To produce approx. 70% thread.)

| TAP SIZE | MINOR DIAM. | MAJOR DIAM. | STEP LENGTH | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 5-40 | .101 | 9/64 | 1/2 | 1-3/4 | 2-7/8 | 2864-205 | $9.45 |
| 6-32 | .109 | 5/32 | 1/2 | 2 | 3-1/8 | 2864-210 | 9.55 |
| 8-32 | .136 | 3/16 | 1/2 | 2-5/16 | 3-1/2 | 2864-215 | 9.80 |
| 8-36 | .136 | 3/16 | 1/2 | 2-5/16 | 3-1/2 | 2864-220 | 9.95 |
| 10-24 | .152 | 1/4 | 5/8 | 2-3/4 | 4 | 2864-225 | 10.45 |
| 10-32 | .161 | 1/4 | 5/8 | 2-3/4 | 4 | 2864-230 | 10.45 |
| 1/4-20 | .204 | 21/64 | 13/16 | 3-5/16 | 4-5/8 | 2864-235 | 12.85 |
| 1/4-28 | .218 | 21/64 | 13/16 | 3-5/16 | 4-5/8 | 2864-240 | 13.10 |
| 5/16-18 | .261 | 13/32 | 15/16 | 3-7/8 | 5-1/4 | 2864-245 | 14.65 |
| 5/16-24 | .272 | 13/32 | 15/16 | 3-7/8 | 5-1/4 | 2864-250 | 14.85 |
| 3/8-16 | .316 | 31/64 | 1 | 4-3/8 | 5-7/8 | 2864-255 | 19.40 |
| 3/8-24 | .339 | 31/64 | 1 | 4-3/8 | 5-7/8 | 2864-260 | 19.75 |
| 7/16-14 | .375 | 17/32 | 1-1/16 | 4-13/16 | 6-5/8 | 2864-265 | 33.75 |
| 7/16-20 | .390 | 17/32 | 1-1/16 | 4-13/16 | 6-5/8 | 2864-270 | 33.75 |
| 1/2-13 | .437 | 5/8 | 1-1/16 | 5-3/16 | 7-1/8 | 2864-280 | 39.00 |
| 1/2-20 | .452 | 5/8 | 1-1/16 | 5-3/16 | 7-1/8 | 2864-285 | 39.45 |

**CAP SCREW SET**
**No. 6 thru 3/8 Screw Sizes**
**(6 tools in wood stand)**
**Order No. 2864-000**

**SET PRICE……$99.60**

**FLAT HEAD SET**
**No. 6 thru 3/8 Screw Sizes**
**(6 tools in wood stand)**
**Order No. 2864-100**

**SET PRICE……$123.70**

**TAP DRILL SET**
**No. 6 thru 3/8 NC TAP Sizes**
**(6 tools in wood stand)**
**Order No. 2864-200**

**SET PRICE……$76.70**

# Screw Machine Length Drills

## Right & Left Hand– High Speed Steel, Cobalt, Carbide Tipped

**• Right Hand Spiral**

135° Split Point 3/64"–1/2"
118° 33/64"-3"

**• Cobalt RHS**

135° Split Point 3/64"–1/2"

**• Left Hand Spiral**

118° Point

**• Carbide Tipped RHS**

118° Point

| | | | [4] HI SPEED STEEL RH Pittsburg® | | [3] HI SPEED STEEL RH Allegiance® American Made | | [2] HI SPEED STEEL LH Pittsburg® | | [2] COBALT Allegiance® American Made | | [2] CARBIDE TIPPED Rock River | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FRAC. SIZES | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 3/64 | 1/2 | 1-3/8 | 1160-003 | $ 0.55 | – | – | 1190-003 | $1.43 | – | – | – | – |
| 1/16 | 5/8 | 1-5/8 | 1160-004 | 0.53 | 1162-004 | $ 0.80 | 1190-004 | 1.64 | 1211-104 | $0.93 | – | – |
| 5/64 | 11/16 | 1-11/16 | 1160-005 | 0.53 | 1162-005 | 0.80 | 1190-005 | 1.64 | 1211-105 | 0.93 | – | – |
| 3/32 | 3/4 | 1-3/4 | 1160-006 | 0.55 | 1162-006 | 0.80 | 1190-006 | 1.64 | 1211-106 | 0.93 | – | – |
| 7/64 | 13/16 | 1-13/16 | 1160-007 | 0.53 | 1162-007 | 0.80 | 1190-007 | 1.64 | 1211-107 | 0.99 | – | – |
| 1/8 | 7/8 | 1-7/8 | 1160-008 | 0.53 | 1162-008 | 0.80 | 1190-008 | 1.64 | 1211-108 | 1.15 | 3025-208 | $12.10 |
| 9/64 | 15/16 | 1-15/16 | 1160-009 | 0.53 | 1162-009 | 0.90 | 1190-009 | 1.64 | 1211-109 | 1.24 | 3025-209 | 14.65 |
| 5/32 | 1 | 2-1/16 | 1160-010 | 0.58 | 1162-010 | 0.92 | 1190-010 | 1.92 | 1211-110 | 1.28 | 3025-210 | 12.85 |
| 11/64 | 1-1/16 | 2-1/8 | 1160-011 | 0.62 | 1162-011 | 1.00 | 1190-011 | 2.09 | 1211-111 | 1.41 | 3025-211 | 17.45 |
| 3/16 | 1-1/8 | 2-3/16 | 1160-012 | 0.67 | 1162-012 | 1.08 | 1190-012 | 2.36 | 1211-112 | 1.66 | 3025-212 | 13.50 |
| 13/64 | 1-3/16 | 2-1/4 | 1160-013 | 0.71 | 1162-013 | 1.24 | 1190-013 | 2.65 | 1211-113 | 1.90 | 3025-213 | 17.45 |
| 7/32 | 1-1/4 | 2-3/8 | 1160-014 | 0.85 | 1162-014 | 1.26 | 1190-014 | 3.08 | 1211-114 | 2.10 | 3025-214 | 14.50 |
| 15/64 | 1-5/16 | 2-7/16 | 1160-015 | 0.85 | 1162-015 | 1.28 | 1190-015 | 3.26 | 1211-115 | 2.25 | 3025-215 | 16.10 |
| 1/4 | 1-3/8 | 2-1/2 | 1160-016 | 0.87 | 1162-016 | 1.32 | 1190-016 | 3.42 | 1211-116 | 2.33 | 3025-216 | 14.75 |
| 17/64 | 1-7/16 | 2-5/8 | 1160-017 | 1.04 | 1162-017 | 1.68 | 1190-017 | 4.21 | 1211-117 | 2.67 | 3025-217 | 17.95 |
| 9/32 | 1-1/2 | 2-11/16 | 1160-018 | 1.08 | 1162-018 | 1.80 | 1190-018 | 4.43 | 1211-118 | 2.90 | 3025-218 | 17.00 |
| 19/64 | 1-9/16 | 2-3/4 | 1160-019 | 1.20 | 1162-019 | 1.94 | 1190-019 | 5.00 | 1211-119 | 3.38 | 3025-219 | 20.55 |
| 5/16 | 1-5/8 | 2-13/16 | 1160-020 | 1.27 | 1162-020 | 2.06 | 1190-020 | 5.02 | 1211-120 | 3.74 | 3025-220 | 18.05 |
| 21/64 | 1-11/16 | 2-15/16 | 1160-021 | 1.43 | 1162-021 | 2.28 | 1190-021 | 5.64 | 1211-121 | 4.04 | 3025-221 | 22.30 |
| 11/32 | 1-11/16 | 3 | 1160-022 | 1.66 | 1162-022 | 2.33 | 1190-022 | 6.25 | 1211-122 | 4.45 | 3025-222 | 21.10 |
| 23/64 | 1-3/4 | 3-1/16 | 1160-023 | 1.84 | 1162-023 | 2.62 | 1190-023 | 7.18 | 1211-123 | 5.06 | 3025-223 | 23.00 |
| 3/8 | 1-13/16 | 3-1/8 | 1160-024 | 1.96 | 1162-024 | 2.67 | 1190-024 | 7.68 | 1211-124 | 5.06 | 3025-224 | 21.60 |
| 25/64 | 3-1/4 | 3-1/4 | 1160-025 | 2.13 | 1162-025 | 3.00 | 1190-025 | 8.83 | 1211-125 | 5.77 | 3025-225 | 25.60 |
| 13/32 | 1-15/16 | 3-5/16 | 1160-026 | 2.28 | 1162-026 | 3.26 | 1190-026 | 8.82 | 1211-126 | 5.99 | 3025-226 | 25.60 |
| 27/64 | 2 | 3-3/8 | 1160-027 | 2.46 | 1162-027 | 3.44 | 1190-027 | 9.65 | 1211-127 | 6.75 | 3025-227 | 28.40 |
| 7/16 | 2-1/16 | 3-7/16 | 1160-028 | 2.53 | 1162-028 | 3.65 | 1190-028 | 10.05 | 1211-128 | 6.94 | 3025-228 | 27.40 |
| 29/64 | 2-1/8 | 3-9/16 | 1160-029 | 2.99 | 1162-029 | 4.00 | 1190-029 | 11.62 | 1211-129 | 8.27 | – | – |
| 15/32 | 2-1/8 | 3-5/8 | 1160-030 | 3.17 | 1162-030 | 4.34 | 1190-030 | 12.53 | 1211-130 | 8.40 | 3025-230 | 38.95 |
| 31/64 | 2-3/16 | 3-11/16 | 1160-031 | 3.31 | 1162-031 | 4.54 | 1190-031 | 12.85 | 1211-131 | 8.68 | – | – |
| 1/2 | 2-1/4 | 3-3/4 | 1160-032 | 3.11 | 1162-032 | 4.66 | 1190-032 | 12.85 | 1211-132 | 8.74 | 3025-232 | 37.30 |
| 33/64 | 2-3/8 | 3-7/8 | 1160-033 | 6.73 | – | – | 1190-033 | 21.49 | – | – | – | – |
| 17/32 | 2-3/8 | 3-7/8 | 1160-034 | 7.02 | – | – | 1190-034 | 24.36 | – | – | 3025-234 | 46.45 |
| 35/64 | 2-1/2 | 4 | 1160-035 | 7.36 | – | – | 1190-035 | 21.88 | – | – | – | – |
| 9/16 | 2-1/2 | 4 | 1160-036 | 7.36 | – | – | 1190-036 | 24.36 | – | – | 3025-236 | 46.45 |
| 37/64 | 2-5/8 | 4-1/8 | 1160-037 | 8.40 | – | – | 1190-037 | 25.74 | – | – | – | – |
| 19/32 | 2-5/8 | 4-1/8 | 1160-038 | 8.40 | – | – | 1190-038 | 29.19 | – | – | 3025-238 | 53.30 |
| 39/64 | 2-3/4 | 4-1/4 | 1160-039 | 8.80 | – | – | 1190-039 | 27.07 | – | – | – | – |
| 5/8 | 2-3/4 | 4-1/4 | 1160-040 | 8.51 | – | – | 1190-040 | 30.70 | – | – | 3025-240 | 53.30 |
| 41/64 | 2-7/8 | 4-1/2 | 1160-041 | 9.72 | – | – | 1190-041 | 28.57 | – | – | – | – |
| 21/32 | 2-7/8 | 4-1/2 | 1160-042 | 9.72 | – | – | 1190-042 | 32.38 | – | – | 3025-242 | 64.05 |
| 43/64 | 2-7/8 | 4-5/8 | 1160-043 | 10.75 | – | – | 1190-043 | 32.15 | – | – | – | – |
| 11/16 | 2-7/8 | 4-5/8 | 1160-044 | 10.75 | – | – | 1190-044 | 36.46 | – | – | 3025-244 | 65.80 |
| 45/64 | 3 | 4-3/4 | 1160-045 | 11.73 | – | – | 1190-045 | 36.63 | – | – | – | – |
| 23/32 | 3 | 4-3/4 | 1160-046 | 11.73 | – | – | 1190-046 | 41.53 | – | – | – | – |
| 47/64 | 3-1/8 | 5 | 1160-047 | 12.59 | – | – | 1190-047 | 38.02 | – | – | – | – |
| 3/4 | 3-1/8 | 5 | 1160-048 | 12.36 | – | – | 1190-048 | 43.11 | – | – | 3025-248 | 74.75 |
| 49/64 | 3-1/4 | 5-1/8 | 1160-049 | 13.63 | – | – | 1190-049 | 40.15 | – | – | – | – |
| 25/32 | 3-1/4 | 5-1/8 | 1160-050 | 13.63 | – | – | 1190-050 | 40.15 | – | – | – | – |
| 51/64 | 3-3/8 | 5-1/4 | 1160-051 | 14.61 | – | – | 1190-051 | 45.97 | – | – | – | – |
| 13/16 | 3-3/8 | 5-1/4 | 1160-052 | 14.32 | – | – | 1190-052 | 45.97 | – | – | 3025-252 | 92.45 |

**(Continued)**

# Screw Machine Length Drills

## Fractional & Letter Sizes

**• Right Hand Spiral**
135° Split Point 3/64"–1/2", A-Z
118° Point 33/64"-3"

**• Left Hand Spiral**
118° Point

**• Carbide Tipped RHS**
118° Point

### Fractional Sizes, Continued

| | | | [4] HIGH SPEED STEEL RH Pittsburg® | | [2] HIGH SPEED STEEL LH Pittsburg® | | [2] CARBIDE TIPPED ROCK RIVER | |
|---|---|---|---|---|---|---|---|---|
| FRAC. SIZES | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 53/64 | 3-1/2 | 5-3/8 | 1160-053 | $15.18 | 1190-053 | $47.50 | – | – |
| 27/32 | 3-1/2 | 5-3/8 | 1160-054 | 15.18 | 1190-054 | 47.50 | – | – |
| 55/64 | 3-1/2 | 5-1/2 | 1160-055 | 15.76 | 1190-055 | 49.43 | – | – |
| 7/8 | 3-1/2 | 5-1/2 | 1160-056 | 15.76 | 1190-056 | 49.43 | 3025-256 | $101.40 |
| 57/64 | 3-5/8 | 5-5/8 | 1160-057 | 16.33 | 1190-057 | 51.70 | – | – |
| 29/32 | 3-5/8 | 5-5/8 | 1160-058 | 16.33 | 1190-058 | 51.70 | – | – |
| 59/64 | 3-3/4 | 5-3/4 | 1160-059 | 18.00 | 1190-059 | 54.91 | – | – |
| 15/16 | 3-3/4 | 5-3/4 | 1160-060 | 18.00 | 1190-060 | 54.91 | 3025-260 | 108.85 |
| 61/64 | 3-7/8 | 5-7/8 | 1160-061 | 19.61 | 1190-061 | 59.17 | – | – |
| 31/32 | 3-7/8 | 5-7/8 | 1160-062 | 19.61 | 1190-062 | 59.17 | – | – |
| 63/64 | 4 | 6 | 1160-063 | 20.76 | 1190-063 | 60.31 | – | – |
| 1 | 4 | 6 | 1160-064 | 20.36 | 1190-064† | 71.27 | 3025-264 | 115.05 |
| 1-1/64 | 4 | 6-1/4 | 1160-065 | 27.66 | 1190-065† | 43.73 | – | – |
| 1-1/32 | 4 | 6-1/4 | 1160-066 | 28.00 | 1190-066† | 46.78 | – | – |
| 1-3/64 | 4 | 6-1/4 | 1160-067 | 28.32 | 1190-067† | 49.65 | – | – |
| 1-1/16 | 4 | 6-1/4 | 1160-068 | 22.05 | 1190-068 | 71.02 | 3025-268 | 144.10 |
| 1-5/64 | 4 | 6-3/8 | 1160-069 | 30.94 | 1190-069† | 52.35 | – | – |
| 1-3/32 | 4 | 6-3/8 | 1160-070 | 31.28 | 1190-070† | 55.39 | – | – |
| 1-7/64 | 4 | 6-3/8 | 1160-071 | 31.80 | 1190-071† | 58.32 | – | – |
| 1-1/8 | 4 | 6-3/8 | 1160-072 | 24.95 | 1190-072 | 82.42 | 3025-272 | 160.00 |
| 1-9/64 | 4-1/4 | 6-5/8 | 1160-073 | 35.88 | 1190-073 | 62.25 | – | – |
| 1-5/32 | 4-1/4 | 6-5/8 | 1160-074 | 36.28 | 1190-074† | 62.51 | – | – |
| 1-11/64 | 4-1/4 | 6-5/8 | 1160-075 | 36.28 | 1190-075† | 64.13 | – | – |
| 1-3/16 | 4-1/4 | 6-5/8 | 1160-076 | 29.00 | 1190-076 | 94.78 | 3025-276 | 195.30 |
| 1-13/64 | 4-3/8 | 6-3/4 | 1160-077 | 36.28 | 1190-077† | 67.29 | – | – |
| 1-7/32 | 4-3/8 | 6-3/4 | 1160-078 | 36.88 | 1190-078† | 67.99 | – | – |
| 1-15/64 | 4-3/8 | 6-3/4 | 1160-079 | 37.20 | 1190-079† | 70.95 | 3025-280 | 195.30 |
| 1-1/4 | 4-3/8 | 6-3/4 | 1160-080 | 25.95 | 1190-080 | 107.26 | – | – |
| 1-17/64 | 4-3/8 | 7 | 1160-081 | 47.40 | 1190-081† | 80.76 | – | – |
| 1-9/32 | 4-3/8 | 7 | 1160-082 | 47.74 | 1190-082† | 83.41 | – | – |
| 1-19/6 | 4-3/8 | 7 | 1160-083 | 48.06 | 1190-083† | 84.39 | – | – |
| 1-5/16 | 4-3/8 | 7 | 1160-084 | 37.85 | 1190-084 | 122.76 | – | – |
| 1-21/64 | 4-1/2 | 7-7/8 | 1160-085 | 50.70 | 1190-085† | 88.53 | – | – |
| 1-11/32 | 4-1/2 | 7-1/8 | 1160-086 | 51.02 | 1190-086† | 90.57 | – | – |
| 1-23/64 | 4-1/2 | 7-1/8 | 1160-087 | 51.48 | 1190-087† | 92.99 | – | – |
| 1-3/8 | 4-1/2 | 7-1/8 | 1160-088 | 40.90 | 1190-088 | 130.41 | – | – |
| 1-25/64 | 4-3/4 | 7-3/8 | 1160-089 | 54.64 | 1190-089† | 95.97 | – | – |
| 1-13/32 | 4-3/4 | 7-3/8 | 1160-090 | 54.96 | 1190-090† | 99.28 | – | – |
| 1-27/64 | 4-3/4 | 7-3/8 | 1160-091 | 55.32 | 1190-091† | 101.31 | – | – |
| 1-7/16 | 4-3/4 | 7-3/8 | 1160-092 | 43.85 | 1190-092 | 139.39 | – | – |
| 1-29/64 | 4-7/8 | 7-1/2 | 1160-093 | 57.28 | 1190-093† | 102.19 | – | – |
| 1-15/32 | 4-7/8 | 7-1/2 | 1160-094 | 57.74 | 1190-094† | 103.77 | – | – |
| 1-31/64 | 4-7/8 | 7-1/2 | 1160-095 | 57.92 | 1190-095† | 105.35 | – | – |
| 1-1/2 | 4-7/8 | 7-1/2 | 1160-096 | 46.20 | 1190-096 | 148.29 | – | – |
| 1-33/64 | 4-7/8 | 7-3/4 | 1160-097 | 61.80 | 1190-097† | 110.11 | – | – |
| 1-17/32 | 4-7/8 | 7-3/4 | 1160-098 | 63.84 | 1190-098† | 112.30 | – | – |
| 1-35/64 | 4-7/8 | 7-3/4 | 1160-099 | 65.72 | – | – | – | – |
| 1-9/16 | 4-7/8 | 7-3/4 | 1160-100 | 52.20 | 1190-100† | 105.13 | – | – |
| 1-37/64 | 4-7/8 | 7-3/4 | 1160-101 | 67.80 | – | – | – | – |
| 1-19/32 | 4-7/8 | 7-3/4 | 1160-102 | 70.58 | 1190-102† | 127.03 | – | – |
| 1-39/64 | 4-7/8 | 7-3/4 | 1160-103 | 73.76 | – | – | – | – |
| 1-5/8 | 4-7/8 | 7-3/4 | 1160-104 | 58.60 | 1190-104† | 116.30 | – | – |
| 1-21/32 | 5-1/8 | 8 | 1160-106 | 78.90 | 1190-106† | 139.19 | – | – |
| 1-11/16 | 5-1/8 | 8 | 1160-108 | 65.85 | 1190-108† | 132.32 | – | – |
| 1-23/32 | 5-1/8 | 8 | 1160-110 | 86.52 | 1190-110† | 152.59 | – | – |
| 1-3/4 | 5-1/8 | 8 | 1160-112 | 69.15 | 1190-112† | 133.49 | – | – |
| 1-25/32 | 5-3/8 | 8-1/4 | 1160-114 | 92.22 | 1190-114† | 158.81 | – | – |
| 1-13/16 | 5-3/8 | 8-1/4 | 1160-116 | 75.15 | 1190-116† | 160.97 | – | – |
| 1-27/32 | 5-3/8 | 8-1/4 | 1160-118 | 95.98 | 1190-118† | 163.76 | – | – |

† Discontinued, Limited Quantities

| | | | [4] HIGH SPEED STEEL RH Pittsburg® | | [2] HIGH SPEED STEEL LH Pittsburg® | |
|---|---|---|---|---|---|---|
| FRAC. SIZES | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1-7/8 | 5-3/8 | 8-1/4 | 1160-120 | $78.30 | 1190-120† | $149.33 |
| 1-29/32 | 5-3/8 | 8-1/4 | 1160-122 | 101.10 | 1190-122† | 170.54 |
| 1-15/16 | 5-5/8 | 8-1/4 | 1160-124 | 83.10 | 1190-124† | 164.69 |
| 1-31/32 | 5-5/8 | 8-1/2 | 1160-126 | 107.04 | 1190-126† | 173.87 |
| 2 | 5-5/8 | 8-1/2 | 1160-128 | 87.30 | 1190-128† | 176.77 |
| 2-1/16 | 5-5/8 | 8-1/2 | 1160-132 | 120.58 | – | – |
| 2-1/8 | 5-5/8 | 8-1/2 | 1160-136 | 120.58 | – | – |
| 2-3/16 | 5-5/8 | 8-1/2 | 1160-140 | 131.14 | – | – |
| 2-1/4 | 5-5/8 | 8-1/2 | 1160-144 | 131.14 | – | – |
| 2-5/16 | 5-5/8 | 8-1/2 | 1160-148 | 141.77 | – | – |
| 2-3/8 | 5-5/8 | 8-1/2 | 1160-152 | 141.77 | – | – |
| 2-7/16 | 5-5/8 | 8-1/2 | 1160-156 | 152.45 | – | – |
| 2-1/2 | 5-5/8 | 8-1/2 | 1160-160 | 152.45 | – | – |
| 2-5/8 | 5-5/8 | 8-1/2 | 1160-168 | POA | – | – |
| 2-3/4 | 5-5/8 | 8-1/2 | 1160-176 | POA | – | – |
| 2-7/8 | 5-5/8 | 8-1/2 | 1160-184 | POA | – | |
| 3 | 5-5/8 | 8-1/2 | 1160-192 | POA | – | – |

**PACKAGE QUANTITIES: Fractional Sizes**
**1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 33/34–11/16: 1 pcs.**

† Discontinued, Limited Quantities

### Letter Sizes

| | | | [4] Pittsburg® HIGH SPEED STEEL RH | | [2] Allegiance® American Made HIGH SPEED STEEL RH | | [2] Allegiance® American Made U.S.A. COBALT | |
|---|---|---|---|---|---|---|---|---|
| LETTER SIZE | FLUTE LG'TH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| A | 1-5/16 | 2-7/16 | 1180-001 | $1.27 | 1182-001 | $1.54 | 1211-301 | $2.90 |
| B | 1-3/8 | 2-1/2 | 1180-002 | 1.27 | 1182-002 | 1.54 | 1211-302 | 3.08 |
| C | 1-3/8 | 2-1/2 | 1180-003 | 1.27 | 1182-003 | 1.54 | 1211-303 | 3.08 |
| D | 1-3/8 | 2-1/2 | 1180-004 | 1.27 | 1182-004 | 1.54 | 1211-304 | 3.08 |
| E | 1-3/8 | 2-1/2 | 1180-005 | 1.15 | 1182-005 | 1.66 | 1211-305 | 2.81 |
| F | 1-7/16 | 2-5/8 | 1180-006 | 1.40 | 1182-006 | 1.82 | 1211-306 | 3.26 |
| G | 1-7/16 | 2-5/8 | 1180-007 | 1.50 | 1182-007 | 1.92 | 1211-307 | 3.26 |
| H | 1-1/2 | 2-11/16 | 1180-008 | 1.50 | 1182-008 | 1.98 | 1211-308 | 3.45 |
| I | 1-1/2 | 2-11/16 | 1180-009 | 1.50 | 1182-009 | 2.00 | 1211-309 | 3.45 |
| J | 1-1/2 | 2-11/16 | 1180-010 | 1.61 | 1182-010 | 2.04 | 1211-310 | 3.45 |
| K | 1-1/2 | 2-11/16 | 1180-011 | 1.70 | 1182-011 | 2.11 | 1211-311 | 3.45 |
| L | 1-9/16 | 2-3/4 | 1180-012 | 1.70 | 1182-012 | 2.12 | 1211-312 | 4.09 |
| M | 1-9/16 | 2-3/4 | 1180-013 | 1.89 | 1182-013 | 2.30 | 1211-313 | 4.09 |
| N | 1-5/8 | 2-13/16 | 1180-014 | 1.89 | 1182-014 | 2.30 | 1211-314 | 4.40 |
| O | 1-11/16 | 2-15/16 | 1180-015 | 1.89 | 1182-015 | 2.62 | 1211-315 | 4.87 |
| P | 1-11/16 | 2-15/16 | 1180-016 | 2.09 | 1182-016 | 2.66 | 1211-316 | 4.87 |
| Q | 1-11/16 | 3 | 1180-017 | 2.09 | 1182-017 | 2.78 | 1211-317 | 5.27 |
| R | 1-11/16 | 3 | 1180-018 | 2.09 | 1182-018 | 2.84 | 1211-318 | 5.27 |
| S | 1-3/4 | 3-1/16 | 1180-019 | 2.44 | 1182-019 | 2.98 | 1211-319 | 6.56 |
| T | 1-3/4 | 3-1/16 | 1180-020 | 2.83 | 1182-020 | 3.47 | 1211-320 | 6.56 |
| U | 1-13/16 | 3-1/8 | 1180-021 | 2.83 | 1182-021 | 3.47 | 1211-321 | 6.56 |
| V | 1-7/8 | 3-1/4 | 1180-022 | 2.99 | 1182-022 | 3.69 | 1211-322 | 7.28 |
| W | 1-7/8 | 3-1/4 | 1180-023 | 3.11 | 1182-023 | 3.89 | 1211-323 | 7.28 |
| X | 1-15/16 | 3-5/16 | 1180-024 | 3.63 | 1182-024 | 4.51 | 1211-324 | 7.28 |
| Y | 1-15/16 | 3-5/16 | 1180-025 | 4.30 | 1182-025 | 5.33 | 1211-325 | 7.28 |
| Z | 2 | 3-3/8 | 1180-026 | 4.30 | 1182-026 | 5.33 | 1211-326 | 8.34 |

**PACKAGE QUANTITIES: Letter Sizes**
**A-N: 12pcs. O-Z: 6 pcs.**

Left Hand Letter Sizes available on request.

# Screw Machine Length Drills

- **Right Hand Spiral**
  135° Split Point: No. 1–52
  135° No Split Point: No. 53–60

- **Left Hand Spiral**
  118° Point

- **Cobalt RHS**
  135° Split Point: No. 1–52
  135° No Split Point: No. 53–60

## Wire Gage Sizes

| | | | HIGH SPEED STEEL RH [4] | | HIGH SPEED STEEL RH [3] | | HIGH SPEED STEEL LH [2] | | COBALT [2] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pittsburg® | | Allegiance® American Made | | Pittsburg® | | Allegiance® American Made | |
| WIRE GAGE SIZES | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1 | 1-5/16 | 2-7/16 | 1170-001 | $0.92 | 1172-001 | $1.46 | - | - | 1211-201 | $2.59 |
| 2 | 1-5/16 | 2-7/16 | 1170-002 | 0.92 | 1172-002 | 1.46 | 1200-002† | $2.05 | 1211-202 | 2.59 |
| 3 | 1-1/4 | 2-3/8 | 1170-003 | 0.85 | 1172-003 | 1.38 | 1200-003† | 1.91 | 1211-203 | 2.59 |
| 4 | 1-1/4 | 2-3/8 | 1170-004 | 0.85 | 1172-004 | 1.38 | 1200-004† | 1.91 | 1211-204 | 2.31 |
| 5 | 1-1/4 | 2-3/8 | 1170-005 | 0.85 | 1172-005 | 1.38 | 1200-005† | 1.91 | 1211-205 | 2.31 |
| 6 | 1-1/4 | 2-3/8 | 1170-006 | 0.85 | 1172-006 | 1.38 | 1200-006† | 1.91 | 1211-206 | 2.31 |
| 7 | 1-3/16 | 2-1/4 | 1170-007 | 0.71 | 1172-007 | 1.14 | 1200-007† | 1.61 | 1211-207 | 1.84 |
| 8 | 1-3/16 | 2-1/4 | 1170-008 | 0.71 | 1172-008 | 1.14 | 1200-008† | 1.61 | 1211-208 | 1.78 |
| 9 | 1-3/16 | 2-1/4 | 1170-009 | 0.71 | 1172-009 | 1.14 | 1200-009† | 1.61 | 1211-209 | 1.78 |
| 10 | 1-3/16 | 2-1/4 | 1170-010 | 0.71 | 1172-010 | 1.14 | 1200-010† | 1.61 | 1211-210 | 1.78 |
| 11 | 1-3/16 | 2-1/4 | 1170-011 | 0.69 | 1172-011 | 1.14 | 1200-011† | 1.55 | 1211-211 | 1.75 |
| 12 | 1-3/16 | 2-1/4 | 1170-012 | 0.69 | 1172-012 | 1.14 | 1200-012† | 1.55 | 1211-212 | 1.75 |
| 13 | 1-1/8 | 2-3/16 | 1170-013 | 0.71 | 1172-013 | 1.14 | 1200-013† | 1.43 | 1211-213 | 1.74 |
| 14 | 1-1/8 | 2-3/16 | 1170-014 | 0.71 | 1172-014 | 1.14 | 1200-014† | 1.43 | 1211-214 | 1.74 |
| 15 | 1-1/8 | 2-3/16 | 1170-015 | 0.71 | 1172-015 | 1.14 | 1200-015† | 1.43 | 1211-215 | 1.74 |
| 16 | 1-1/8 | 2-3/16 | 1170-016 | 0.71 | 1172-016 | 1.14 | 1200-016† | 1.43 | 1211-216 | 1.73 |
| 17 | 1-1/8 | 2-3/16 | 1170-017 | 0.71 | 1172-017 | 1.14 | 1200-017† | 1.43 | 1211-217 | 1.66 |
| 18 | 1-1/16 | 2-1/8 | 1170-018 | 0.62 | 1172-018 | 0.96 | 1200-018† | 1.28 | 1211-218 | 1.52 |
| 19 | 1-1/16 | 2-1/8 | 1170-019 | 0.62 | 1172-019 | 0.96 | 1200-019† | 1.28 | 1211-219 | 1.48 |
| 20 | 1-1/16 | 2-1/8 | 1170-020 | 0.62 | 1172-020 | 0.96 | 1200-020† | 1.28 | 1211-220 | 1.43 |
| 21 | 1-1/16 | 2-1/8 | 1170-021 | 0.60 | 1172-021 | 0.92 | 1200-021† | 1.17 | 1211-221 | 1.43 |
| 22 | 1-1/16 | 2-1/8 | 1170-022 | 0.60 | 1172-022 | 0.92 | 1200-022† | 1.17 | 1211-222 | 1.43 |
| 23 | 1 | 2-1/16 | 1170-023 | 0.60 | 1172-023 | 0.92 | 1200-023† | 1.17 | 1211-223 | 1.43 |
| 24 | 1 | 2-1/16 | 1170-024 | 0.60 | 1172-024 | 0.92 | 1200-024† | 1.17 | 1211-224 | 1.43 |
| 25 | 1 | 2-1/16 | 1170-025 | 0.58 | 1172-025 | 0.92 | – | – | 1211-225 | 1.35 |
| 26 | 1 | 2-1/16 | 1170-026 | 0.58 | 1172-026 | 0.92 | – | – | 1211-226 | 1.35 |
| 27 | 1 | 2-1/16 | 1170-027 | 0.58 | 1172-027 | 0.92 | 1200-027† | 1.10 | 1211-227 | 1.30 |
| 28 | 15/16 | 1-15/16 | 1170-028 | 0.52 | 1172-028 | 0.82 | – | – | 1211-228 | 1.30 |
| 29 | 15/16 | 1-15/16 | 1170-029 | 0.52 | 1172-029 | 0.82 | 1200-029† | 1.00 | 1211-229 | 1.26 |
| 30 | 15/16 | 1-15/16 | 1170-030 | 0.52 | 1172-030 | 0.82 | 1200-030† | 1.00 | 1211-230 | 1.24 |
| 31 | 7/8 | 1-7/8 | 1170-031 | 0.53 | 1172-031 | 0.82 | 1200-031† | 1.00 | 1211-231 | 1.24 |
| 32 | 7/8 | 1-7/8 | 1170-032 | 0.53 | 1172-032 | 0.82 | – | – | 1211-232 | 1.24 |
| 33 | 7/8 | 1-7/8 | 1170-033 | 0.53 | 1172-033 | 0.82 | 1200-033† | 1.00 | 1211-233 | 1.24 |
| 34 | 7/8 | 1-7/8 | 1170-034 | 0.53 | 1172-034 | 0.82 | 1200-034† | 1.00 | 1211-234 | 1.24 |
| 35 | 7/8 | 1-7/8 | 1170-035 | 0.53 | 1172-035 | 0.82 | 1200-035† | 1.00 | 1211-235 | 1.24 |
| 36 | 13/16 | 1-13/16 | 1170-036 | 0.53 | 1172-036 | 0.82 | 1200-036† | 1.00 | 1211-236 | 1.24 |
| 37 | 13/16 | 1-13/16 | 1170-037 | 0.52 | 1172-037 | 0.82 | 1200-037† | 1.00 | 1211-237 | 1.24 |
| 38 | 13/16 | 1-13/16 | 1170-038 | 0.53 | 1172-038 | 0.82 | – | – | 1211-238 | 1.22 |
| 39 | 13/16 | 1-13/16 | 1170-039 | 0.53 | 1172-039 | 0.82 | 1200-039† | 1.00 | 1211-239 | 1.22 |
| 40 | 13/16 | 1-13/16 | 1170-040 | 0.53 | 1172-040 | 0.82 | 1200-040† | 1.00 | 1211-240 | 1.08 |
| 41 | 13/16 | 1-13/16 | 1170-041 | 0.52 | 1172-041 | 0.82 | 1200-041† | 1.00 | 1211-241 | 1.11 |
| 42 | 3/4 | 1-3/4 | 1170-042 | 0.52 | 1172-042 | 0.92 | – | – | 1211-242 | 1.13 |
| 43 | 3/4 | 1-3/4 | 1170-043 | 0.52 | 1172-043 | 0.92 | 1200-043† | 1.00 | 1211-243 | 1.13 |
| 44 | 3/4 | 1-3/4 | 1170-044 | 0.52 | 1172-044 | 0.92 | 1200-044† | 1.00 | 1211-244 | 1.13 |
| 45 | 3/4 | 1-3/4 | 1170-045 | 0.52 | 1172-045 | 0.92 | 1200-045† | 1.00 | 1211-245 | 1.13 |
| 46 | 3/4 | 1-3/4 | 1170-046 | 0.52 | 1172-046 | 0.92 | 1200-046† | 1.00 | 1211-246 | 1.13 |
| 47 | 3/4 | 1-3/4 | 1170-047 | 0.52 | 1172-047 | 0.92 | – | – | 1211-247 | 1.13 |
| 48 | 11/16 | 1-11/16 | 1170-048 | 0.52 | 1172-048 | 0.92 | 1200-048† | 1.00 | 1211-248 | 1.13 |
| 49 | 11/16 | 1-11/16 | 1170-049 | 0.52 | 1172-049 | 0.92 | 1200-049† | 1.00 | 1211-249 | 1.02 |
| 50 | 11/16 | 1-11/16 | 1170-050 | 0.52 | 1172-050 | 0.92 | 1200-050† | 1.00 | 1211-250 | 1.02 |
| 51 | 11/16 | 1-11/16 | 1170-051 | 0.52 | 1172-051 | 0.92 | 1200-051† | 1.00 | 1211-251 | 1.02 |
| 52 | 11/16 | 1-11/16 | 1170-052 | 0.52 | 1172-052 | 0.92 | 1200-052† | 1.00 | 1211-252 | 1.02 |
| 53 | 5/8 | 1-5/8 | 1170-053 | 0.52 | 1172-053 | 0.92 | 1200-053† | 1.00 | 1211-253 | 1.08 |
| 54 | 5/8 | 1-5/8 | 1170-054 | 0.52 | 1172-054 | 0.92 | 1200-054† | 1.00 | 1211-254 | 1.08 |
| 55 | 5/8 | 1-5/8 | 1170-055 | 0.52 | 1172-055 | 0.92 | 1200-055† | 1.00 | 1211-255 | 1.08 |
| 56 | 1/2 | 1-3/8 | 1170-056 | 0.52 | 1172-056 | 0.92 | 1200-056† | 1.00 | 1211-256 | 1.08 |
| 57 | 1/2 | 1-3/8 | 1170-057 | 0.52 | 1172-057 | 0.92 | 1200-057† | 1.00 | 1211-257 | 1.08 |
| 58 | 1/2 | 1-3/8 | 1170-058 | 0.52 | 1172-058 | 0.92 | 1200-058† | 1.00 | 1211-258 | 1.16 |
| 59 | 1/2 | 1-3/8 | 1170-059 | 0.52 | 1172-059 | 0.92 | 1200-059† | 1.00 | 1211-259 | 1.16 |
| 60 | 1/2 | 1-3/8 | 1170-060 | 0.52 | 1172-060 | 0.92 | 1200-060† | 1.00 | 1211-260 | 1.16 |

**PACKAGE QUANTITIES: Wire Gage Sizes**
**1-100: 12 pcs.**

† Discontinued, Limited Quantities

# Parabolic Drills– Screw Machine Length



## Fractional & Wire Gage Sizes– Cobalt & Cobalt TiALN Coated

- Parabolic Cobalt
  130° Notched Thinned or Split Point

### Fractional Sizes

| | | | PARABOLIC COBALT | | PARABOLIC COBALT TiALN | |
|---|---|---|---|---|---|---|
| | | | BROOKE | | | |
| FRAC. SIZES | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/16 | 5/8 | 1-5/8 | 1704-304 | $2.45 | 1704-604 | $5.11 |
| 5/64 | 11/16 | 1-11/16 | 1704-305 | 2.49 | 1704-605 | 5.11 |
| 3/32 | 3/4 | 1-3/4 | 1704-306 | 2.47 | 1704-606 | 4.65 |
| 7/64 | 13/16 | 1-13/16 | 1704-307 | 2.76 | 1704-607 | 4.65 |
| 1/8 | 7/8 | 1-7/8 | 1704-308 | 3.24 | 1704-608 | 5.22 |
| 9/64 | 15/16 | 1-15/16 | 1704-309 | 3.72 | 1704-609 | 5.80 |
| 5/32 | 1 | 2-1/16 | 1704-310 | 3.91 | 1704-610 | 5.99 |
| 11/64 | 1-1/16 | 2-1/8 | 1704-311 | 4.16 | 1704-611 | 6.24 |
| 3/16 | 1-1/8 | 2-3/16 | 1704-312 | 4.48 | 1704-612 | 6.56 |
| 13/64 | 1-3/16 | 2-1/4 | 1704-313 | 4.71 | 1704-613 | 6.77 |
| 7/32 | 1-1/4 | 2-3/8 | 1704-314 | 5.35 | 1704-614 | 7.43 |
| 15/64 | 1-5/16 | 2-7/16 | 1704-315 | 5.60 | 1704-615 | 7.68 |
| 1/4 | 1-3/8 | 2-1/2 | 1704-316 | 5.90 | 1704-616 | 10.04 |
| 17/64 | 1-7/16 | 2-5/8 | 1704-317 | 6.19 | 1704-617 | 10.35 |
| 9/32 | 1-1/2 | 2-11/16 | 1704-318 | 7.11 | 1704-618 | 11.27 |
| 19/64 | 1-9/16 | 2-3/4 | 1704-319 | 7.89 | 1704-619 | 12.05 |
| 5/16 | 1-5/8 | 2-13/16 | 1704-320 | 7.95 | 1704-620 | 12.11 |
| 21/64 | 1-11/16 | 2-15/16 | 1704-321 | 8.12 | 1704-621 | 15.49 |
| 11/32 | 1-11/16 | 3 | 1704-322 | 10.35 | 1704-622 | 14.09 |
| 23/64 | 1-3/4 | 3-1/16 | 1704-323 | 9.92 | 1704-623 | 15.73 |
| 3/8 | 1-13/16 | 3-1/8 | 1704-324 | 11.50 | 1704-624 | 19.39 |
| 25/64 | 3-1/4 | 3-1/4 | 1704-325 | 11.23 | 1704-625 | 19.67 |
| 13/32 | 1-15/16 | 3-5/16 | 1704-326 | 13.41 | 1704-626 | 26.09 |
| 27/64 | 2 | 3-3/8 | 1704-327 | 15.83 | 1704-627 | 26.09 |
| 7/16 | 2-1/16 | 3-7/16 | 1704-328 | 15.47 | 1704-628 | 27.56 |
| 29/64 | 2-1/8 | 3-9/16 | 1704-329 | 16.65 | 1704-629 | 30.32 |
| 15/32 | 2-1/8 | 3-5/8 | 1704-330 | 15.57 | 1704-630 | 30.32 |
| 31/64 | 2-3/16 | 3-11/16 | 1704-331 | 20.12 | 1704-631 | 30.32 |
| 1/2 | 2-1/4 | 3-3/4 | 1704-332 | 20.12 | 1704-632 | 35.28 |
| 33/64 | 2-3/8 | 3-7/8 | 1704-333 | 22.94 | 1704-633 | 51.05 |
| 17/32 | 2-3/8 | 3-7/8 | 1704-334 | 23.06 | 1704-634 | 51.05 |
| 35/64 | 2-1/2 | 4 | 1704-335 | 23.95 | 1704-635 | 51.05 |

- Parabolic TiALN
  130° Notched Thinned or Split Point

### Wire Gage Sizes

| | | | PARABOLIC COBALT | | PARABOLIC COBALT TiALN | |
|---|---|---|---|---|---|---|
| | | | BROOKE | | | |
| WIRE GAGE SIZES | FLT. LG'TH. | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1 | 1-5/16 | 2-7/16 | 1704-401 | $5.80 | 1704-701 | $7.88 |
| 2 | 1-5/16 | 2-7/16 | 1704-402 | 5.56 | 1704-702 | 7.63 |
| 3 | 1-1/4 | 2-3/8 | 1704-403 | 5.56 | 1704-703 | 7.64 |
| 4 | 1-1/4 | 2-3/8 | 1704-404 | 5.53 | 1704-704 | 7.61 |
| 5 | 1-1/4 | 2-3/8 | 1704-405 | 4.87 | 1704-705 | 7.21 |
| 6 | 1-1/4 | 2-3/8 | 1704-406 | 4.91 | 1704-706 | 7.21 |
| 7 | 1-3/16 | 2-1/4 | 1704-407 | 4.91 | 1704-707 | 7.21 |
| 8 | 1-3/16 | 2-1/4 | 1704-408 | 4.98 | 1704-708 | 7.21 |
| 9 | 1-3/16 | 2-1/4 | 1704-409 | 4.59 | 1704-709 | 6.67 |
| 10 | 1-3/16 | 2-1/4 | 1704-410 | 4.59 | 1704-710 | 6.67 |
| 11 | 1-3/16 | 2-1/4 | 1704-411 | 4.57 | 1704-711 | 6.65 |
| 12 | 1-3/16 | 2-1/4 | 1704-412 | 4.57 | 1704-712 | 6.65 |
| 13 | 1-1/8 | 2-3/16 | 1704-413 | 4.32 | 1704-713 | 6.38 |
| 14 | 1-1/8 | 2-3/16 | 1704-414 | 4.32 | 1704-714 | 6.38 |
| 15 | 1-1/8 | 2-3/16 | 1704-415 | 4.37 | 1704-715 | 6.45 |
| 16 | 1-1/8 | 2-3/16 | 1704-416 | 4.27 | 1704-716 | 6.35 |
| 17 | 1-1/8 | 2-3/16 | 1704-417 | 4.25 | 1704-717 | 6.33 |
| 18 | 1-1/16 | 2-1/8 | 1704-418 | 4.25 | 1704-718 | 6.33 |
| 19 | 1-1/16 | 2-1/8 | 1704-419 | 4.14 | 1704-719 | 6.20 |
| 20 | 1-1/16 | 2-1/8 | 1704-420 | 4.12 | 1704-720 | 6.20 |
| 21 | 1-1/16 | 2-1/8 | 1704-421 | 4.12 | 1704-721 | 6.20 |
| 22 | 1-1/16 | 2-1/8 | 1704-422 | 4.02 | 1704-722 | 6.10 |
| 23 | 1 | 2-1/16 | 1704-423 | 4.02 | 1704-723 | 6.10 |
| 24 | 1 | 2-1/16 | 1704-424 | 3.98 | 1704-724 | 6.06 |
| 25 | 1 | 2-1/16 | 1704-425 | 3.98 | 1704-725 | 6.06 |
| 26 | 1 | 2-1/16 | 1704-426 | 3.88 | 1704-726 | 5.94 |
| 27 | 1 | 2-1/16 | 1704-427 | 3.86 | 1704-727 | 5.94 |
| 28 | 15/16 | 1-15/16 | 1704-428 | 3.72 | 1704-728 | 5.80 |
| 29 | 15/16 | 1-15/16 | 1704-429 | 3.73 | 1704-729 | 5.81 |
| 30 | 15/16 | 1-15/16 | 1704-430 | 3.36 | 1704-730 | 5.01 |
| 31 | 7/8 | 1-7/8 | 1704-431 | 3.32 | 1704-731 | 4.65 |
| 32 | 7/8 | 1-7/8 | 1704-432 | 3.18 | 1704-732 | 4.65 |
| 33 | 7/8 | 1-7/8 | 1704-433 | 2.79 | 1704-733 | 4.65 |
| 34 | 7/8 | 1-7/8 | 1704-434 | 2.79 | 1704-734 | 4.65 |
| 35 | 7/8 | 1-7/8 | 1704-435 | 2.79 | 1704-735 | 4.65 |
| 36 | 13/16 | 1-13/16 | 1704-436 | 2.84 | 1704-736 | 4.65 |
| 37 | 13/16 | 1-13/16 | 1704-437 | 3.11 | 1704-737 | 4.65 |
| 38 | 13/16 | 1-13/16 | 1704-438 | 3.11 | 1704-738 | 4.65 |
| 39 | 13/16 | 1-13/16 | 1704-439 | 3.11 | 1704-739 | 4.65 |
| 40 | 13/16 | 1-13/16 | 1704-440 | 2.76 | 1704-740 | 4.65 |
| 41 | 7/8 | 1-7/8 | 1704-441 | 2.76 | 1704-741 | 4.65 |
| 42 | 7/8 | 1-7/8 | 1704-442 | 2.52 | 1704-742 | 4.65 |
| 43 | 7/8 | 1-7/8 | 1704-443 | 2.49 | 1704-743 | 4.65 |
| 44 | 7/8 | 1-7/8 | 1704-444 | 2.54 | 1704-744 | 4.65 |
| 45 | 7/8 | 1-7/8 | 1704-445 | 2.47 | 1704-745 | 4.65 |
| 46 | 13/16 | 1-13/16 | 1704-446 | 2.47 | 1704-746 | 4.65 |
| 47 | 13/16 | 1-13/16 | 1704-447 | 2.54 | 1704-747 | 4.65 |
| 48 | 13/16 | 1-13/16 | 1704-448 | 2.54 | 1704-748 | 4.65 |
| 49 | 13/16 | 1-13/16 | 1704-449 | 2.54 | 1704-749 | 4.65 |
| 50 | 13/16 | 1-13/16 | 1704-450 | 2.52 | 1704-750 | 4.65 |
| 51 | 7/8 | 1-7/8 | 1704-451 | 2.97 | 1704-751 | 4.65 |
| 52 | 7/8 | 1-7/8 | 1704-452 | 2.51 | 1704-752 | 4.65 |
| 53 | 7/8 | 1-7/8 | 1704-453 | 2.51 | 1704-753 | 4.65 |
| 54 | 7/8 | 1-7/8 | 1704-454 | 2.58 | 1704-754 | 4.65 |
| 55 | 7/8 | 1-7/8 | 1704-455 | 3.06 | 1704-755 | 4.65 |
| 56 | 13/16 | 1-13/16 | 1704-456 | 2.65 | 1704-756 | 4.65 |
| 57 | 13/16 | 1-13/16 | 1704-457 | 2.44 | 1704-757 | 4.65 |
| 58 | 13/16 | 1-13/16 | 1704-458 | 2.37 | 1704-758 | 4.65 |
| 59 | 13/16 | 1-13/16 | 1704-459 | 2.28 | 1704-759 | 4.65 |
| 60 | 13/16 | 1-13/16 | 1704-460 | 2.28 | 1704-760 | 4.65 |

# Step Drills

## Step Drills

[1] [1] [3]

| NO OF HOLES | HOLE SIZES | SHANK SIZE | STEP THICK. | MODEL | Unibit® STEP DRILLS ORDER NO. | PRICE EACH | Unibit® TIN COATED MODEL | ORDER NO. | PRICE EACH | Pittsburg® ALLEGHANY HSS ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fractional Sizes | | | | | | |
| 13 | 1/8-1/2 x 32nds | 1/4 | 1/8 | 1 | 3255-301 | $22.96 | 1T | 3255-321 | $30.59 | 1911-013 | $12.88 |
| 6 | 3/16-1/2 x 16ths | 1/4 | 3/8 | 2 | 3255-303 | 22.96 | 2T | 3255-322 | 30.59 | 1911-006 | 12.88 |
| 9 | 1/4-3/4 x 16ths | 3/8 | 1/8 | 3 | 3255-305 | 41.38 | 3T | 3255-323 | 55.17 | 1911-009 | 23.25 |
| 12 | 3/16-7/8 x 16ths | 3/8 | 1/8 | 4 | 3255-307 | 48.90 | 4T | 3255-324 | 65.19 | 1911-012 | 27.74 |
| 10 | 1/4-1-3/8 x 8ths | 7/16 | 1/8 | 5 | 3255-309 | 86.69 | – | – | – | 1911-010 | 51.14 |
| Self Starting Single Hole Sizes | | | | | | | | | | | |
| | 1/2 | 1/4 | – | 10 | 3255-311 | $22.26 | – | – | – | – | – |
| | 7/8 | 3/8 | – | 11 | 3255-312 | 45.92 | – | – | – | – | – |
| 1 | 3/8 | 1/4 | – | 12 | 3255-313 | 17.91 | – | – | – | – | – |
| | 1-1/8 | 7/16 | – | 13 | 3255-315 | 59.16 | – | – | – | – | – |
| | 1-7/32 | 7/16 | – | 14 | 3255-316 | 67.23 | – | – | – | – | – |
| Hole Enlarging Bits | | | | | | | | | | | |
| 8 | 9/16-1 x 16ths | 7/16 | 1/8 | 20 | 3255-317 | $47.30 | – | – | – | 1911-018 | 26.60 |
| 10 | 13/16-1-3/8 x 16ths | 7/16 | 1/8 | 21 | 3255-319 | 96.06 | – | – | – | 1911-020 | 54.05 |
| | | | | | Metric | | | | | | |
| 9 | 4-12MM x 1MM | 1/4 | 5MM | 1M | 3255-302 | $22.96 | 1MT | 3255-325 | $30.38 | – | – |
| 5 | 4-12MM x 2MM | 1/4 | 11MM | 2M | 3255-304 | 22.96 | 2MT | 3255-326 | 30.59 | – | – |
| 7 | 6-18MM x 2MM | 3/8 | 5MM | 3M | 3255-306 | 41.38 | 3MT | 3255-327 | 55.17 | – | – |
| 10 | 4-22MM x 2MM | 3/8 | 5MM | 4M | 3255-308 | 48.90 | 4MT | 3255-328 | 65.19 | – | – |
| 13 | 5-35MM x 2-3MM | 7/16 | 3.5MM | 5M | 3255-310 | 86.69 | – | – | – | – | – |
| Self Starting Single Hole Sizes | | | | | | | | | | | |
| 1 | 8MM | 1/4 | | 12M | 3255-314 | $12.36 | – | – | – | – | – |
| Hole Enlarging Bits | | | | | | | | | | | |
| 6 | 14-24MM x 2MM | 7/16 | 5MM | 20M | 3255-318 | $47.30 | – | – | – | – | – |
| 8 | 20-34MM x 2MM | 7/16 | 5MM | 21M | 3255-320 | 96.06 | – | – | – | – | – |

IRWIN Unibit®

[1]

| SET DESCRIPTION | TYPE | CONTENTS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3-pc. Set | HSS | #1,2,3 | 3255-358 | $ 84.67 |
| 3-pc. Set | TiN coated | #1T,2T,3T | 3255-359 | 112.85 |
| 4-pc. Set | HSS w/#1 TiN | #1,2,3 + #1T | 3255-360 | 100.91 |
| 4-pc. Set | HSS | #1,2,4 & 21 | 3255-361 | 185.18 |

Pittsburg® ALLEGHANY

## Step Drill Set

Self starting, Multiple Hole Sizes in plastic pouch.

[3]

| SET DESC. | TYPE | CONTENTS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3-pc. Set | HSS | 1/8-1/2 x 32nds, 13 hole, 3/16-1/2 x 16ths, 6 hole, 1/4-3/4 x 16ths, 9 hole | 1911-000 | $49.84 |

# Silver & Deming Drills– 1/2" Shank

## 118° Split Point

High Speed Steel

Cobalt

Carbide Tipped

| | [3] | | [3] | | [3] | | [3] | | [3] | | [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pittsburg | | Allegiance American Made | | | | Pittsburg | | Allegiance American Made | | ROCK RIVER | |
| | HSS | | HSS | | 1/2" FLATTED SHANK | | COBALT | | COBALT | | CARBIDE TIPPED | |
| DIAM. | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/2 | 1440-032 | $4.77 | – | – | – | – | – | – | – | – | 2995-032 | $47.50 |
| 33/64 | 1440-033 | 5.09 | 1441-033 | $10.50 | 1441-233 | $17.45 | 1442-033 | $21.85 | 1445-033 | $25.40 | – | – |
| 17/32 | 1440-034 | 5.09 | 1441-034 | 10.50 | 1441-234 | 16.95 | 1442-034 | 19.70 | 1445-034 | 25.40 | 2995-034 | 69.50 |
| 35/64 | 1440-035 | 5.38 | 1441-035 | 11.20 | 1441-235 | 18.55 | 1442-035 | 21.85 | 1445-035 | 26.10 | – | – |
| 9/16 | 1440-036 | 5.38 | 1441-036 | 11.10 | 1441-236 | 18.05 | 1442-036 | 20.70 | 1445-036 | 26.10 | 2995-036 | 72.00 |
| 37/64 | 1440-037 | 5.79 | 1441-037 | 12.00 | 1441-237 | 19.95 | 1442-037 | 24.60 | 1445-037 | 29.50 | – | – |
| 19/32 | 1440-038 | 5.79 | 1441-038 | 12.00 | 1441-238 | 19.40 | 1442-038 | 23.80 | 1445-038 | 30.30 | 2995-038 | 74.95 |
| 39/64 | 1440-039 | 6.07 | 1441-039 | 12.50 | 1441-239 | 20.90 | 1442-039 | 24.60 | 1445-039 | 31.40 | – | – |
| 5/8 | 1440-040 | 6.07 | 1441-040 | 12.50 | 1441-240 | 20.30 | 1442-040 | 23.65 | 1445-040 | 31.10 | 2995-040 | 83.20 |
| 41/64 | 1440-041 | 6.45 | 1441-041 | 13.20 | 1441-241 | 22.30 | 1442-041 | 27.00 | 1445-041 | 35.20 | – | – |
| 21/32 | 1440-042 | 6.45 | 1441-042 | 13.20 | 1441-242 | 21.70 | 1442-042 | 24.35 | 1445-042 | 32.60 | 2995-042 | 90.20 |
| 43/64 | 1440-043 | 6.75 | 1441-043 | 13.80 | 1441-243 | 23.15 | 1442-043 | 27.55 | 1445-043 | 37.20 | – | – |
| 11/16 | 1440-044 | 6.75 | 1441-044 | 13.80 | 1441-244 | 22.55 | 1442-044 | 24.35 | 1445-044 | 33.30 | 2995-044 | 93.75 |
| 45/64 | 1440-045 | 7.11 | 1441-045 | 14.50 | 1441-245 | 23.45 | 1442-045 | 30.10 | 1445-045 | 39.70 | – | – |
| 23/32 | 1440-046 | 7.11 | 1441-046 | 14.50 | 1441-246 | 22.85 | 1442-046 | 27.15 | 1445-046 | 35.40 | 2995-046 | 97.25 |
| 47/64 | 1440-047 | 7.41 | 1441-047 | 15.10 | 1441-247 | 25.55 | 1442-047 | 30.10 | 1445-047 | 39.70 | – | – |
| 3/4 | 1440-048 | 7.41 | 1441-048 | 15.10 | 1441-248 | 24.85 | 1442-048 | 25.45 | 1445-048 | 37.80 | 2995-048 | 101.90 |
| 49/64 | 1440-049 | 7.82 | 1441-049 | 15.90 | 1441-249 | 27.25 | 1442-049 | 33.70 | 1445-049 | 44.90 | – | – |
| 25/32 | 1440-050 | 7.82 | 1441-050 | 15.90 | 1441-250 | 26.55 | 1442-050 | 32.55 | 1445-050 | 41.80 | 2995-050 | 112.40 |
| 51/64 | 1440-051 | 8.19 | 1441-051 | 17.00 | 1441-251 | 32.00 | 1442-051 | 34.05 | 1445-051 | 47.00 | – | – |
| 13/16 | 1440-052 | 8.19 | 1441-052 | 17.00 | 1441-252 | 27.85 | 1442-052 | 30.40 | 1445-052 | 42.80 | 2995-052 | 112.60 |
| 53/64 | 1440-053 | 8.48 | 1441-053 | 17.80 | 1441-253 | 33.10 | 1442-053 | 36.50 | 1445-053 | 51.20 | – | – |
| 27/32 | 1440-054 | 8.48 | 1441-054 | 17.80 | 1441-254 | 28.85 | 1442-054 | 34.95 | 1445-054 | 48.50 | 2995-054 | 112.60 |
| 55/64 | 1440-055 | 8.79 | 1441-055 | 18.30 | 1441-255 | 34.35 | 1442-055 | 36.50 | 1445-055 | 51.20 | – | – |
| 7/8 | 1440-056 | 8.79 | 1441-056 | 18.30 | 1441-256 | 29.95 | 1442-056 | 32.60 | 1445-056 | 48.50 | 2995-056 | 117.15 |
| 57/64 | 1440-057 | 9.20 | 1441-057 | 19.30 | 1441-257 | 35.90 | 1442-057 | 40.85 | 1445-057 | 53.90 | – | – |
| 29/32 | 1440-058 | 9.20 | 1441-058 | 19.30 | 1441-258 | 31.25 | 1442-058 | 39.05 | 1445-058 | 51.20 | 2995-058 | 119.95 |
| 59/64 | 1440-059 | 9.87 | 1441-059 | 20.80 | 1441-259 | 38.40 | 1442-059 | 40.85 | 1445-059 | 53.90 | – | – |
| 15/16 | 1440-060 | 9.87 | 1441-060 | 20.80 | 1441-260 | 33.45 | 1442-060 | 36.45 | 1445-060 | 52.20 | 2995-060 | 121.20 |
| 61/64 | 1440-061 | 10.41 | 1441-061 | 22.60 | 1441-261 | 40.55 | 1442-061 | 48.00 | 1445-061 | 60.20 | – | – |
| 31/32 | 1440-062 | 10.41 | 1441-062 | 22.60 | 1441-262 | 35.35 | 1442-062 | 45.95 | 1445-062 | 54.40 | 2995-062 | 125.35 |
| 63/64 | 1440-063 | 11.57 | 1441-063 | 23.80 | 1441-263 | 45.15 | 1442-063 | 48.05 | 1445-063 | 65.40 | – | – |
| 1 | 1440-064 | 11.57 | 1441-064 | 23.80 | 1441-264 | 42.15 | 1442-064 | 42.90 | 1445-064 | 56.00 | 2995-064 | 127.95 |
| 1-1/64 | 1440-065 | 13.77 | – | – | – | – | – | – | – | – | – | – |
| 1-1/32 | 1440-066 | 13.77 | 1441-066 | 32.80 | 1441-266 | 48.00 | 1442-066 | 50.45 | – | – | 2995-066 | 123.55 |
| 1-3/64 | 1440-067 | 13.77 | – | – | – | – | – | – | – | – | – | – |
| 1-1/16 | 1440-068 | 13.77 | 1441-068 | 35.00 | 1441-268 | 46.20 | 1442-068 | 53.55 | 1445-068 | 87.70 | 2995-068 | 133.95 |
| 1-5/64 | 1440-069 | 15.46 | – | – | – | – | – | – | – | – | – | – |
| 1-3/32 | 1440-070 | 15.46 | 1441-070 | 36.30 | 1441-270 | 51.15 | 1442-070 | 61.70 | – | – | 2995-070 | 137.15 |
| 1-7/64 | 1440-071 | 15.46 | – | – | | | – | – | – | – | – | – |
| 1-1/8 | 1440-072 | 15.46 | 1441-072 | 38.30 | 1441-272 | 52.50 | 1442-072 | 60.90 | 1445-072 | 91.80 | 2995-072 | 139.85 |
| 1-9/64 | 1440-073 | 16.93 | – | – | – | – | – | – | – | – | – | – |
| 1-5/32 | 1440-074 | 16.93 | 1441-074 | 40.80 | 1441-274 | 54.55 | 1442-074 | 63.55 | – | – | 2995-074 | 169.70 |
| 1-11/64 | 1440-075 | 16.93 | – | – | – | – | – | – | – | – | – | – |
| 1-3/16 | 1440-076 | 16.93 | 1441-076 | 40.80 | 1441-276 | 57.65 | 1442-076 | 66.50 | 1445-076 | 122.40 | 2995-076 | 172.75 |
| 1-13/64 | 1440-077 | 18.75 | – | – | – | – | – | – | – | – | – | – |
| 1-7/32 | 1440-078 | 18.75 | 1441-078 | 44.90 | 1441-278 | 64.45 | – | – | – | – | 2995-078 | 181.45 |
| 1-15/64 | 1440-079 | 18.75 | – | – | – | – | – | – | – | – | – | – |
| 1-1/4 | 1440-080 | 18.75 | 1441-080 | 44.70 | 1441-280 | 63.80 | 1442-080 | 70.35 | 1445-080 | 124.30 | 2995-080 | 165.65 |
| 1-17/64 | 1440-081 | 22.40 | – | – | – | – | – | – | – | – | – | – |
| 1-9/32 | 1440-082 | 22.40 | 1441-082 | 50.70 | 1441-282 | 74.50 | – | – | – | – | – | – |
| 1-19/64 | 1440-083 | 22.40 | – | – | – | – | – | – | – | – | – | – |
| 1-5/16 | 1440-084 | 22.40 | 1441-084 | 54.00 | 1441-284 | 79.00 | 1442-084 | 79.90 | 1445-084 | 176.20 | – | – |
| 1-21/64 | 1440-085 | 23.85 | – | – | – | – | – | – | – | – | – | – |
| 1-11/32 | 1440-086 | 23.85 | 1441-086 | 58.20 | 1441-286 | 85.70 | – | – | – | – | – | – |
| 1-23/64 | 1440-087 | 23.85 | – | – | – | – | – | – | – | – | – | – |
| 1-3/8 | 1440-088 | 23.85 | 1441-088 | 61.70 | 1441-288 | 90.85 | 1442-088 | 79.95 | 1445-088 | 178.80 | – | – |
| 1-25/64 | 1440-089 | 26.68 | – | – | – | – | – | – | – | – | – | – |
| 1-13/32 | 1440-090 | 26.68 | 1441-090 | 71.90 | 1441-290 | 105.70 | – | – | – | – | – | – |
| 1-27/64 | 1440-091 | 26.68 | – | – | – | – | – | – | – | – | – | – |
| 1-7/16 | 1440-092 | 26.68 | 1441-092 | 67.90 | 1441-292 | 99.90 | 1442-092 | 86.35 | 1445-092 | 193.20 | – | – |
| 1-29/64 | 1440-093 | 28.10 | – | – | – | – | – | – | – | – | – | – |
| 1-15/32 | 1440-094 | 28.10 | 1441-094 | 79.00 | 1441-294 | 116.30 | – | – | – | – | – | – |
| 1-31/64 | 1440-095 | 28.10 | – | – | – | – | – | – | – | – | – | – |
| 1-1/2 | 1440-096 | 28.10 | 1441-096 | 74.70 | 1441-296 | 109.90 | 1442-096 | 87.25 | 1445-096 | 197.00 | – | – |

# Silver & Deming Drills

## Silver & Deming Drills– 1/2" Shank - Metric Sizes

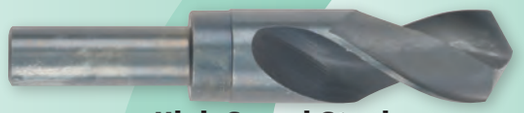
### 3-1/8" Flute x 6" OAL

Cobalt

High Speed Steel [3]

| DIAM. MM. | HIGH SPEED ORDER NO. | HIGH SPEED PRICE EACH | COBALT ORDER NO. | COBALT PRICE EACH |
|---|---|---|---|---|
| 13.00 | 1443-130 | $10.45 | 1444-130 | $18.23 |
| 13.50 | 1443-135 | 10.50 | 1444-135 | 20.24 |
| 14.00 | 1443-140 | 11.70 | 1444-140 | 20.24 |
| 14.50 | 1443-145 | 11.70 | 1444-145 | 22.93 |
| 15.00 | 1443-150 | 11.70 | 1444-150 | 22.93 |
| 15.50 | 1443-155 | 11.70 | 1444-155 | 23.14 |
| 16.00 | 1443-160 | 12.40 | 1444-160 | 25.07 |
| 16.50 | 1443-165 | 12.55 | 1444-165 | 25.07 |
| 17.00 | 1443-170 | 12.55 | 1444-170 | 25.98 |
| 17.50 | 1443-175 | 12.55 | 1444-175 | 28.92 |
| 18.00 | 1443-180 | 14.30 | 1444-180 | 28.92 |
| 18.50 | 1443-185 | 14.30 | 1444-185 | 29.47 |
| 19.00 | 1443-190 | 14.20 | 1444-190 | 29.47 |
| 19.50 | 1443-195 | 14.70 | 1444-195 | 33.60 |
| 20.00 | 1443-200 | 16.40 | 1444-200 | 35.80 |
| 20.50 | 1443-205 | 16.25 | 1444-205 | 35.80 |
| 21.00 | 1443-210 | 16.25 | 1444-210 | 36.35 |
| 21.50 | 1443-215 | 16.25 | 1444-215 | 37.73 |
| 22.00 | 1443-220 | 17.20 | 1444-220 | 37.73 |
| 22.50 | 1443-225 | 17.20 | 1444-225 | 38.41 |
| 23.00 | 1443-230 | 18.15 | 1444-230 | 38.41 |
| 23.50 | 1443-235 | 18.20 | 1444-235 | 41.38 |
| 24.00 | 1443-240 | 23.05 | 1444-240 | 43.99 |
| 24.50 | 1443-245 | 23.45 | 1444-245 | 43.99 |
| 25.00 | 1443-250 | 23.50 | 1444-250 | 45.08 |
| 25.50 | 1443-255 | 23.60 | 1444-255 | 50.53 |
| 26.00 | 1443-260 | 24.80 | 1444-260 | 50.53 |
| 26.50 | 1443-265 | 24.80 | 1444-265 | 50.53 |
| 27.00 | 1443-270 | 24.80 | 1444-270 | 54.44 |
| 27.50 | 1443-275 | 24.80 | 1444-275 | 54.44 |
| 28.00 | 1443-280 | 27.45 | 1444-280 | 54.44 |
| 28.50 | 1443-285 | 27.75 | 1444-285 | 60.50 |
| 29.00 | 1443-290 | 27.75 | 1444-290 | 60.50 |
| 29.50 | 1443-295 | 31.90 | 1444-295 | 60.50 |
| 30.00 | 1443-300 | 34.50 | 1444-300 | 68.70 |
| 30.50 | 1443-305 | 34.40 | 1444-305 | 68.70 |
| 31.00 | 1443-310 | 34.50 | 1444-310 | 68.70 |
| 31.50 | 1443-315 | 34.40 | 1444-315 | 79.03 |
| 32.00 | 1443-320 | 36.15 | 1444-320 | 79.03 |
| 32.50 | 1443-325 | 36.15 | 1444-325 | 79.03 |
| 33.00 | 1443-330 | 36.15 | 1444-330 | 79.03 |
| 33.50 | 1443-335 | 38.90 | 1444-335 | 81.55 |
| 34.00 | 1443-340 | 42.65 | 1444-340 | 81.55 |
| 34.50 | 1443-345 | 42.65 | 1444-345 | 81.55 |
| 35.00 | 1443-350 | 42.65 | 1444-350 | 91.28 |
| 35.50 | 1443-355 | 46.50 | 1444-355 | 91.28 |
| 36.00 | 1443-360 | 46.90 | 1444-360 | 91.28 |
| 36.50 | 1443-365 | 46.90 | 1444-365 | 94.99 |
| 37.00 | 1443-370 | 46.90 | 1444-370 | 94.99 |
| 37.50 | 1443-375 | 52.30 | 1444-375 | 94.99 |
| 38.00 | 1443-380 | 52.30 | 1444-380 | 94.99 |

## 3/4" Shank Drills



High Speed Steel

Cobalt - 135° Notched Point

| DIAM. | Pittsburg® ALLEGHANY HSS - 118° [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE HSS - 118° [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE COBALT - 135° [3] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 25/32 | – | – | 1470-450 | $ 35.30 | 1470-650 | $ 70.70 |
| 13/16 | – | – | 1470-452 | 37.00 | 1470-652 | 73.45 |
| 27/32 | – | – | 1470-454 | 39.80 | 1470-654 | 77.75 |
| 7/8 | – | – | 1470-456 | 41.20 | 1470-656 | 80.90 |
| 29/32 | – | – | 1470-458 | 42.55 | 1470-658 | 88.45 |
| 15/16 | – | – | 1470-460 | 45.60 | 1470-660 | 94.70 |
| 31/32 | – | – | 1470-462 | 47.35 | 1470-662 | 100.05 |
| 1 | 1470-064 | $ 18.65 | 1470-464 | 48.35 | 1470-664 | 103.90 |
| 1-1/32 | – | – | 1470-466 | 57.85 | 1470-666 | 133.35 |
| 1-1/16 | 1470-068 | 21.90 | 1470-468 | 57.85 | 1470-668 | 141.55 |
| 1-3/32 | – | – | 1470-470 | 61.70 | 1470-670 | 153.10 |
| 1-1/8 | 1470-072 | 23.45 | 1470-472 | 64.55 | 1470-672 | 158.65 |
| 1-5/32 | – | – | 1470-474 | 65.75 | 1470-674 | 164.75 |
| 1-3/16 | 1470-076 | 25.75 | 1470-476 | 72.20 | 1470-676 | 180.05 |
| 1-7/32 | – | – | 1470-478 | 78.05 | 1470-678 | 184.65 |
| 1-1/4 | 1470-080 | 27.70 | 1470-480 | 79.60 | 1470-680 | 193.05 |
| 1-9/32 | – | – | 1470-482 | 89.50 | 1470-682 | 267.65 |
| 1-5/16 | 1470-084 | 33.95 | 1470-484 | 93.05 | 1470-684 | 267.65 |
| 1-11/32 | – | – | 1470-486 | 99.15 | 1470-686 | 270.00 |
| 1-3/8 | 1470-088 | 41.00 | 1470-488 | 103.00 | 1470-688 | 270.00 |
| 1-13/32 | – | – | 1470-490 | 108.85 | 1470-690 | 291.70 |
| 1-7/16 | 1470-092 | 43.00 | 1470-492 | 114.80 | 1470-692 | 291.70 |
| 1-15/32 | – | – | 1470-494 | 119.55 | 1470-694 | 300.50 |
| 1-1/2 | 1470-096 | 47.20 | 1470-496 | 122.95 | 1470-696 | 300.50 |
| 1-9/16 | 1470-100 | 53.45 | 1470-500 | 131.85 | 1470-700 | 330.00 |
| 1-5/8 | 1470-104 | 60.00 | 1470-504 | 146.60 | 1470-704 | 368.55 |
| 1-11/16 | 1470-108 | 68.65 | 1470-508 | 168.15 | 1470-708 | 375.55 |
| 1-3/4 | 1470-112 | 71.05 | 1470-512 | 170.00 | 1470-712 | 428.50 |
| 1-13/16 | 1470-116 | 77.85 | 1470-516 | 190.50 | 1470-716 | 471.25 |
| 1-7/8 | 1470-120 | 80.10 | 1470-520 | 194.60 | 1470-720 | 492.65 |
| 1-15/16 | 1470-124 | 85.00 | 1470-524 | 204.50 | 1470-724 | 514.00 |
| 2 | 1470-128 | 89.30 | 1470-528 | 212.25 | 1470-728 | 548.25 |

*32nd sizes available on request

# Taper Length Drills– Long Series

## Straight Shank, High Speed Steel

Carbide Tipped

Regular Spiral

Fast Spiral

Cobalt

Parabolic

### Fractional Sizes

| | | | [3] | | [2] | | [3] | | [3] | | [2] | | [2] | | [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pittsburg® | | Allegiance® American Made | | Pittsburg® | | Pittsburg® | | Pittsburg® | | Pittsburg® | | BROOKE | |
| | | | REG. SPIRAL | | REG. SPIRAL | | FAST SPIRAL | | COBALT | | CARBIDE TIPPED | | PARABOLIC HSS | | PARABOLIC COBALT | |
| FRAC. SIZES | FLUTE LG'TH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/64 | | | – | – | 1222-001 | $5.25 | – | – | – | – | – | – | – | – | – | – |
| 1/32 | 3/4 | 2 | – | – | 1222-002 | 3.83 | – | – | – | – | – | – | – | – | – | – |
| 3/64 | 1-1/8 | 2-1/4 | 1220-003 | $1.10 | 1222-003 | 1.81 | 1260-003 | $1.87 | – | – | – | – | – | – | – | – |
| 1/16 | 1-3/4 | 3 | 1220-004 | 1.10 | 1222-004 | 1.88 | 1260-004 | 1.97 | 1290-004 | $3.55 | – | – | 1706-004 | $ 4.20 | 1706-304 | $ 7.22 |
| 5/64 | 2 | 3-3/4 | 1220-005 | 1.28 | 1222-005 | 2.20 | 1260-005 | 2.31 | 1290-005 | 4.15 | – | – | 1706-005 | 4.50 | 1706-305 | 7.22 |
| 3/32 | 2-1/4 | 4-1/4 | 1220-006 | 1.54 | 1222-006 | 2.63 | 1260-006 | 2.80 | 1290-006 | 5.00 | – | – | 1706-006 | 5.35 | 1706-306 | 7.22 |
| 7/64 | 2-1/2 | 4-5/8 | 1220-007 | 1.96 | 1222-007 | 3.33 | 1260-007 | 3.45 | 1290-007 | 6.25 | – | – | 1706-007 | 5.80 | 1706-307 | 6.32 |
| 1/8 | 2-3/4 | 5-1/8 | 1220-008 | 2.00 | 1222-008 | 3.38 | 1260-008 | 3.57 | 1290-008 | 6.40 | 2992-008 | $14.45 | 1706-008 | 6.60 | 1706-308 | 8.38 |
| 9/64 | 3 | 5-3/8 | 1220-009 | 2.66 | 1222-009 | 4.10 | 1260-009 | 4.78 | 1290-009 | 7.80 | 2992-009 | 16.65 | 1706-009 | 8.85 | 1706-309 | 9.38 |
| 5/32 | 3 | 5-3/8 | 1220-010 | 2.42 | 1222-010 | 4.10 | 1260-010 | 4.33 | 1290-010 | 7.80 | 2992-010 | 15.30 | 1706-010 | 8.00 | 1706-310 | 9.38 |
| 11/64 | 3-3/8 | 5-3/4 | 1220-011 | 2.86 | 1222-011 | 4.14 | 1260-011 | 5.10 | 1290-011 | 7.80 | 2992-011 | 15.55 | 1706-011 | 9.35 | 1706-311 | 10.57 |
| 3/16 | 3-3/8 | 5-3/4 | 1220-012 | 2.44 | 1222-012 | 4.10 | 1260-012 | 4.33 | 1290-012 | 7.80 | 2992-012 | 15.55 | 1706-012 | 8.00 | 1706-312 | 11.24 |
| 13/64 | 3-5/8 | 6 | 1220-013 | 3.28 | 1222-013 | 4.84 | 1260-013 | 5.81 | 1290-013 | 9.10 | 2992-013 | 16.45 | 1706-013 | 10.75 | 1706-313 | 12.37 |
| 7/32 | 3-5/8 | 6 | 1220-014 | 3.48 | 1222-014 | 4.79 | 1260-014 | 6.20 | 1290-014 | 9.10 | 2992-014 | 16.45 | 1706-014 | 11.60 | 1706-314 | 12.37 |
| 15/64 | 3-3/4 | 6-1/8 | 1220-015 | 3.48 | 1222-015 | 4.84 | 1260-015 | 6.20 | 1290-015 | 9.45 | 2992-015 | 18.65 | 1706-015 | 11.60 | 1706-315 | 13.30 |
| 1/4 | 3-3/4 | 6-1/8 | 1220-016 | 2.86 | 1222-016 | 4.79 | 1260-016 | 5.10 | 1290-016 | 9.10 | 2992-016 | 18.65 | 1706-016 | 9.85 | 1706-316 | 14.18 |
| 17/64 | 3-7/8 | 6-1/4 | 1220-017 | 3.67 | 1222-017 | 5.91 | 1260-017 | 6.47 | 1290-017 | 11.45 | 2992-017 | 20.90 | 1706-017 | 12.15 | 1706-317 | 15.47 |
| 9/32 | 3-7/8 | 6-1/4 | 1220-018 | 3.48 | 1222-018 | 5.85 | 1260-018 | 6.20 | 1290-018 | 11.05 | 2992-018 | 20.90 | 1706-018 | 11.55 | 1706-318 | 17.54 |
| 19/64 | 4 | 6-3/8 | 1220-019 | 3.98 | 1222-019 | 5.99 | 1260-019 | 7.08 | 1290-019 | 11.45 | 2992-019 | 22.50 | 1706-019 | 13.15 | 1706-319 | 17.54 |
| 5/16 | 4 | 6-3/8 | 1220-020 | 3.48 | 1222-020 | 5.93 | 1260-020 | 6.20 | 1290-020 | 11.05 | 2992-020 | 22.50 | 1706-020 | 11.55 | 1706-320 | 20.99 |
| 21/64 | 4-1/8 | 6-1/2 | 1220-021 | 4.11 | 1222-021 | 6.86 | 1260-021 | 7.25 | 1290-021 | 13.15 | 2992-021 | 24.80 | 1706-021 | 13.45 | 1706-321 | 22.15 |
| 11/32 | 4-1/8 | 6-1/2 | 1220-022 | 3.98 | 1222-022 | 6.80 | 1260-022 | 7.08 | 1290-022 | 12.75 | 2992-022 | 24.80 | 1706-022 | 13.45 | 1706-322 | 23.98 |
| 23/64 | 4-1/4 | 6-3/4 | 1220-023 | 4.71 | 1222-023 | 8.08 | 1260-023 | 8.35 | 1290-023 | 15.55 | 2992-023 | 27.95 | 1706-023 | 16.10 | 1706-323 | 25.41 |
| 3/8 | 4-1/4 | 6-3/4 | 1220-024 | 4.71 | 1222-024 | 8.00 | 1260-024 | 8.35 | 1290-024 | 15.00 | 2992-024 | 27.95 | 1706-024 | 15.70 | 1706-324 | 32.05 |
| 25/64 | 4-3/8 | 7 | 1220-025 | 4.97 | 1222-025 | 8.43 | 1260-025 | 8.78 | 1290-025 | 16.15 | 2992-025 | 30.00 | 1706-025 | 16.65 | 1706-325 | 27.61 |
| 13/32 | 4-3/8 | 7 | 1220-026 | 4.91 | 1222-026 | 8.35 | 1260-026 | 8.73 | 1290-026 | 15.60 | 2992-026 | 30.00 | 1706-026 | 16.85 | 1706-326 | 29.29 |
| 27/64 | 4-5/8 | 7-1/4 | 1220-027 | 5.32 | 1222-027 | 9.10 | 1260-027 | 9.44 | 1290-027 | 17.50 | 2992-027 | 34.60 | 1706-027 | 16.25 | 1706-327 | 30.71 |
| 7/16 | 4-5/8 | 7-1/4 | 1220-028 | 5.43 | 1222-028 | 9.19 | 1260-028 | 9.61 | 1290-028 | 17.25 | 2992-028 | 34.60 | 1706-028 | 19.55 | 1706-328 | 34.01 |
| 29/64 | 4-3/4 | 7-1/2 | 1220-029 | 6.03 | 1222-029 | 10.29 | 1260-029 | 10.64 | 1290-029 | 19.90 | 2992-029 | 38.10 | 1706-029 | 21.20 | 1706-329 | 37.57 |
| 15/32 | 4-3/4 | 7-1/2 | 1220-030 | 6.36 | 1222-030 | 10.82 | 1260-030 | 11.30 | 1290-030 | 20.20 | 2992-030 | 38.10 | 1706-030 | 21.35 | 1706-330 | 38.79 |
| 31/64 | 4-3/4 | 7-3/4 | 1220-031 | 7.00 | 1222-031 | 11.40 | 1260-031 | 12.35 | 1290-031 | 21.95 | 2992-031 | 40.00 | 1706-031 | 23.15 | 1706-331 | 41.85 |
| 1/2 | 4-3/4 | 7-3/4 | 1220-032 | 6.69 | 1222-032 | 11.29 | 1260-032 | 11.80 | 1290-032 | 21.20 | 2992-032 | 40.00 | 1706-032 | 23.05 | 1706-332 | 46.98 |
| 33/64 | 4-3/4 | 8 | 1220-033 | 8.51 | 1222-033 | 16.80 | 1260-033 | 8.53 | 1290-033 | 28.25 | 2992-033 | 44.95 | – | – | – | – |
| 17/32 | 4-3/4 | 8 | 1220-034 | 8.27 | 1222-034 | 16.63 | – | – | 1290-034 | 27.20 | 2992-034 | 45.95 | 1706-034 | 36.05 | – | – |
| 35/64 | 4-7/8 | 8-1/4 | 1220-035 | 9.50 | 1222-035 | 17.66 | – | – | 1290-035 | 30.50 | 2992-035 | 46.40 | – | – | – | – |
| 9/16 | 4-7/8 | 8-1/4 | 1220-036 | 8.76 | 1222-036 | 16.82 | – | – | 1290-036 | 29.40 | 2992-036 | 46.40 | 1706-036 | 37.65 | – | – |
| 37/64 | 4-7/8 | 8-3/4 | 1220-037 | 10.23 | 1222-037 | 20.64 | – | – | 1290-037 | 35.60 | 2992-037 | 48.90 | – | – | – | – |
| 19/32 | 4-7/8 | 8-3/4 | 1220-038 | 10.23 | 1222-038 | 20.64 | 1260-038† | 10.25 | 1290-038 | 34.35 | 2992-038 | 49.80 | 1706-038 | 43.45 | – | – |
| 39/64 | 4-7/8 | 8-3/4 | 1220-039 | 10.74 | 1222-039 | 21.36 | 1260-039† | 10.76 | 1290-039 | 35.60 | 2992-039 | 56.45 | – | – | – | – |
| 5/8 | 4-7/8 | 8-3/4 | 1220-040 | 10.23 | 1222-040 | 20.34 | 1260-040† | 10.25 | 1290-040 | 34.35 | 2992-040 | 56.45 | 1706-040 | 45.80 | – | – |
| 41/64 | 5-1/8 | 9 | 1220-041 | 12.14 | 1222-041 | 25.75 | 1260-041† | 12.17 | 1290-041 | 39.30 | 2992-041 | 58.55 | – | – | – | – |
| 21/32 | 5-1/8 | 9 | 1220-042 | 11.68 | 1222-042 | 24.58 | 1260-042† | 11.71 | 1290-042 | 37.85 | 2992-042 | 57.55 | 1706-042 | 59.15 | – | – |
| 43/64 | 5-3/8 | 9-1/4 | 1220-043 | 13.75 | 1222-043 | 30.24 | 1260-043† | 13.77 | 1290-043 | 45.95 | 2992-043 | 60.55 | – | – | – | – |
| 11/16 | 5-3/8 | 9-1/4 | 1220-044 | 13.22 | 1222-044 | 28.12 | 1260-044† | 13.25 | 1290-044 | 44.30 | 2992-044 | 58.50 | 1706-044 | 59.20 | – | – |
| 45/64 | 5-5/8 | 9-1/2 | 1220-045 | 14.70 | 1222-045 | 31.84 | 1260-045† | 14.72 | 1290-045 | 50.30 | 2992-045 | 59.10 | – | – | – | – |
| 23/32 | 5-5/8 | 9-1/2 | 1220-046 | 14.45 | 1222-046 | 30.40 | 1260-046† | 14.47 | 1290-046 | 48.50 | 2992-046 | 59.70 | 1706-046 | 62.65 | – | – |
| 47/64 | 5-7/8 | 9-3/4 | 1220-047 | 16.06 | 1222-047 | 34.24 | 1260-047† | 16.08 | 1290-047 | 53.20 | 2992-047 | 60.05 | – | – | – | – |
| 3/4 | 5-7/8 | 9-3/4 | 1220-048 | 15.33 | 1222-048 | 30.83 | – | – | 1290-048 | 51.35 | 2992-048 | 61.00 | 1706-048 | 68.40 | – | – |
| 49/64 | 6 | 9-7/8 | 1220-049 | 16.90 | 1222-049 | 37.60 | 1260-049† | 16.92 | – | – | 2992-049 | 77.50 | – | – | – | – |
| 25/32 | 6 | 9-7/8 | 1220-050 | 16.90 | 1222-050 | 35.90 | 1260-050† | 16.92 | – | – | 2992-050 | 77.50 | – | – | – | – |
| 51/64 | 6-1/8 | 10 | 1220-051 | 18.19 | 1222-051 | 40.44 | 1260-051† | 18.21 | – | – | 2992-051 | 77.80 | – | – | – | – |
| 13/16 | 6-1/8 | 10 | 1220-052 | 17.86 | 1222-052 | 36.77 | – | – | – | – | 2992-052 | 66.55 | – | – | – | – |
| 53/64 | 6-1/8 | 10 | 1220-053 | 18.81 | 1222-053 | 43.75 | 1260-053† | 18.83 | – | – | 2992-053 | 77.80 | – | – | – | – |
| 27/32 | 6-1/8 | 10 | 1220-054 | 18.81 | 1222-054 | 40.64 | 1260-054† | 18.83 | – | – | 2992-054 | 77.80 | – | – | – | – |
| 55/64 | 6-1/8 | 10 | 1220-055 | 19.76 | 1222-055 | 45.95 | 1260-055† | 19.78 | – | – | 2992-055 | 82.35 | – | – | – | – |
| 7/8 | 6-1/8 | 10 | 1220-056 | 19.54 | 1222-056 | 41.05 | 1260-056† | 19.56 | – | – | 2992-056 | 70.45 | – | – | – | – |
| 57/64 | 6-1/8 | 10 | 1220-057 | 20.59 | 1222-057 | 47.88 | 1260-057† | 20.61 | – | – | 2992-057 | 85.15 | – | – | – | – |
| 29/32 | 6-1/8 | 10 | 1220-058 | 20.59 | 1222-058 | 44.47 | 1260-058† | 20.61 | – | – | 2992-058 | 85.15 | – | – | – | – |
| 59/64 | 6-1/8 | 10-3/4 | 1220-059 | 22.57 | 1222-059 | 52.10 | 1260-059† | 22.08 | – | – | 2992-059 | 86.40 | – | – | – | – |
| 15/16 | 6-1/8 | 10-3/4 | 1220-060 | 22.42 | 1222-060 | 46.53 | 1260-060† | 22.44 | – | – | 2992-060 | 73.95 | – | – | – | – |
| 61/64 | 6-3/8 | 11 | 1220-061 | 24.75 | 1222-061 | 57.48 | 1260-061† | 24.77 | – | – | 2992-061 | 90.50 | – | – | – | – |
| 31/32 | 6-3/8 | 11 | 1220-062 | 24.75 | 1222-062 | 53.38 | 1260-062† | 24.77 | – | – | 2992-062 | 90.50 | – | – | – | – |
| 63/64 | 6-3/8 | 11 | 1220-063 | 26.03 | 1222-063 | 59.92 | 1260-063† | 26.05 | – | – | 2992-063 | 93.35 | – | – | – | – |
| 1 | 6-3/8 | 11 | 1220-064 | 25.78 | 1222-064 | 53.51 | 1260-064† | 25.81 | – | – | 2992-064 | 79.80 | – | – | – | – |

† Discontinued, Limited Quantities

(Continued)

# Taper Length Drills– Long Series

## Straight Shank, High Speed Steel

### Regular Spiral

#### Fractional Sizes (cont'd) [3] [2] [3]

| FRAC. SIZES | FLUTE LG'TH | OVERALL LENGTH | Pittsburg® REG. SPIRAL ORDER NO. | Pittsburg® REG. SPIRAL PRICE EACH | Allegiance® American Made REG. SPIRAL ORDER NO. | Allegiance® American Made REG. SPIRAL PRICE EACH | Pittsburg® FAST SPIRAL ORDER NO. | Pittsburg® FAST SPIRAL PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1-1/64 | 6-1/2 | 11-1/8 | 1220-065 | $32.98 | 1222-065 | $70.51 | 1260-065† | $33.00 |
| 1-1/32 | 6-1/2 | 11-1/8 | 1220-066 | 32.98 | 1222-066 | 62.33 | 1260-066† | POA |
| 1-3/64 | 6-5/8 | 11-1/4 | 1220-067 | 34.19 | 1222-067 | 72.93 | 1260-067† | 34.22 |
| 1-1/16 | 6-5/8 | 11-1/4 | 1220-068 | 34.19 | 1222-068 | 60.16 | 1260-068† | 34.22 |
| 1-5/64 | 6-7/8 | 11-1/2 | 1220-069 | 39.42 | 1222-069 | 78.24 | 1260-069† | 39.45 |
| 1-3/32 | 6-7/8 | 11-1/2 | 1220-070 | 39.42 | 1222-070 | 69.15 | 1260-070† | 39.45 |
| 1-7/64 | 7-1/8 | 11-3/4 | 1220-071 | 39.42 | 1222-071 | 81.20 | 1260-071† | 39.45 |
| 1-1/8 | 7-1/8 | 11-3/4 | 1220-072 | 40.90 | 1222-072 | 63.94 | 1260-072† | 40.92 |
| 1-9/64 | 7-1/4 | 11-7/8 | 1220-073 | 41.56 | 1222-073 | 81.73 | 1260-073† | 41.58 |
| 1-5/32 | 7-1/4 | 11-7/8 | 1220-074 | 41.56 | 1222-074 | 78.11 | 1260-074† | POA |
| 1-11/64 | 7-3/8 | 12 | 1220-075 | 46.18 | 1222-075 | 88.00 | 1260-075† | 46.20 |
| 1-3/16 | 7-3/8 | 12 | 1220-076 | 47.94 | 1222-076 | 74.93 | 1260-076† | 47.96 |
| 1-13/64 | 7-1/2 | 12-1/8 | 1220-077 | 50.01 | 1222-077 | 90.63 | 1260-077† | 50.03 |
| 1-7/32 | 7-1/2 | 12-1/8 | 1220-078 | 50.03 | 1222-078 | 82.67 | 1260-078† | 50.06 |
| 1-15/64 | 7-7/8 | 12-1/2 | 1220-079 | 50.45 | 1222-079 | 94.26 | 1260-079† | 50.47 |
| 1-1/4 | 7-7/8 | 12-1/2 | 1220-080 | 51.33 | 1222-080 | 80.27 | 1260-080† | 51.35 |
| 1-17/64 | 8-1/2 | 14-1/8 | 1220-081 | POA | – | – | – | – |
| 1-9/32 | 8-1/2 | 14-1/8 | 1220-082 | 58.67 | 1222-082 | 99.82 | – | – |
| 1-19/64 | 8-5/8 | 14-1/4 | 1220-083 | POA | – | – | – | – |
| 1-5/16 | 8-5/8 | 14-1/4 | 1220-084 | 60.80 | 1222-084 | 100.32 | 1260-084† | 74.92 |
| 1-21/64 | 8-3/4 | 14-3/8 | 1220-085 | POA | – | – | – | – |
| 1-11/32 | 8-3/4 | 14-3/8 | 1220-086 | 62.84 | 1222-086 | 110.57 | – | – |
| 1-23/64 | 8-7/8 | 14-1/2 | 1220-087 | POA | – | – | – | – |
| 1-3/8 | 8-7/8 | 14-1/2 | 1220-088 | 65.20 | 1222-088 | 107.60 | 1260-088† | 75.68 |
| 1-25/64 | 9 | 14-5/8 | 1220-089 | POA | – | – | – | – |
| 1-13/32 | 9 | 14-5/8 | 1220-090 | 68.73 | – | – | – | – |
| 1-27/64 | 9-1/8 | 14-3/4 | 1220-091 | POA | 1222-090 | 120.39 | – | – |
| 1-7/16 | 9-1/8 | 14-3/4 | 1220-092 | 71.04 | 1222-092 | 117.25 | 1260-092† | 87.56 |
| 1-29/64 | 9-1/4 | 14-7/8 | 1220-093 | POA | 1222-094 | 130.83 | – | – |
| 1-15/32 | 9-1/4 | 14-7/8 | 1220-094 | 77.10 | – | – | – | – |
| 1-31/64 | 9-3/8 | 15 | 1220-095 | POA | – | – | – | – |
| 1-1/2 | 9-3/8 | 15 | 1220-096 | 79.64 | 1222-096 | 131.44 | 1260-096† | 96.80 |
| 1-17/32 | 9-5/8 | 15-1/4 | 1220-098 | POA | – | – | – | – |
| 1-9/16 | 9-5/8 | 15-1/4 | 1220-100 | 89.12 | 1222-100 | 157.58 | – | – |
| 1-19/32 | 9-7/8 | 15-1/4 | 1220-102 | POA | – | – | – | – |
| 1-5/8 | 9-7/8 | 15-5/8 | 1220-104 | 100.63 | 1222-104 | 177.93 | – | – |
| 1-21/32 | 10 | 15-3/4 | 1220-106 | POA | – | – | – | – |
| 1-11/16 | 10 | 15-3/4 | 1220-108 | 110.92 | 1222-108 | 205.54 | – | – |
| 1-23/32 | 10-1/2 | 16-1/4 | 1220-110 | POA | – | – | – | – |
| 1-3/4 | 10-1/2 | 16-1/4 | 1220-112 | 121.25 | 1222-112 | 214.41 | – | – |
| 1-25/32 | 10-1/2 | 16-1/4 | 1220-114 | POA | – | – | – | – |
| 1-13/16 | 10-1/2 | 16-1/4 | 1220-116 | 128.35 | 1222-116 | 255.78 | – | – |
| 1-27/32 | 10-3/4 | 16-1/2 | 1220-118 | POA | 1222-120 | 280.29 | – | – |
| 1-7/8 | 10-3/4 | 16-1/2 | 1220-120 | 134.21 | – | – | – | – |
| 1-29/32 | 10-3/4 | 16-5/8 | 1220-122 | POA | – | – | – | – |
| 1-15/16 | 10-3/4 | 16-5/8 | 1220-124 | 144.51 | 1222-124 | 289.54 | – | – |
| 1-31/32 | 10-3/4 | 16-5/8 | 1220-126 | POA | – | – | – | – |
| 2 | 10-3/4 | 16-5/8 | 1220-128 | 148.86 | 1222-128 | 295.20 | – | – |
| 2-1/64 | 10-3/8 | 17-3/8 | 1220-129 | POA | – | – | – | – |
| 2-1/32 | 10-3/8 | 17-3/8 | 1220-130 | POA | – | – | – | – |
| 2-1/16 | 10-3/8 | 17-3/8 | 1220-132 | POA | – | – | – | – |
| 2-5/64 | 10-1/4 | 17-3/8 | 1220-133 | POA | – | – | – | – |
| 2-7/64 | 10-1/4 | 17-3/8 | 1220-135 | POA | – | – | – | – |
| 2-1/8 | 10-1/4 | 17-3/8 | 1220-136 | POA | – | – | – | – |
| 2-5/32 | 10-1/4 | 17-3/8 | 1220-138 | POA | – | – | – | – |
| 2-3/16 | 10-1/4 | 17-3/8 | 1220-140 | POA | – | – | – | – |
| 2-7/32 | 10-1/8 | 17-3/8 | 1220-142 | POA | – | – | – | – |
| 2-1/4 | 10-1/8 | 17-3/8 | 1220-144 | POA | – | – | – | – |

### Fast Spiral

#### Fractional Sizes (cont'd)

| FRAC. SIZES | DECIMAL EQUIV. | FLUTE LG'TH | OVERALL LENGTH | Pittsburg® REG. SPIRAL ORDER NO. | Pittsburg® REG. SPIRAL PRICE EACH |
|---|---|---|---|---|---|
| 2-17/64 | 2.2656 | 10-1/8 | 17-3/8 | 1220-145 | POA |
| 2-9/32 | 2.2812 | 10-1/8 | 17-3/8 | 1220-146 | POA |
| 2-5/16 | 2.3125 | 10-1/8 | 17-3/8 | 1220-148 | POA |
| 2-11/32 | 2.3438 | 10-1/8 | 17-3/8 | 1220-150 | POA |
| 2-3/8 | 2.3750 | 10-1/8 | 17-3/8 | 1220-152 | POA |
| 2-13/32 | 2.4062 | 11-1/4 | 18-3/4 | 1220-154 | POA |
| 2-7/16 | 2.4375 | 11-1/4 | 18-3/4 | 1220-156 | POA |
| 2-15/32 | 2.4688 | 11-1/4 | 18-3/4 | 1220-158 | POA |
| 2-1/2 | 2.5000 | 11-1/4 | 18-3/4 | 1220-160 | POA |
| 2-17/32 | 2.5312 | 11-7/8 | 19-1/2 | 1220-162 | POA |
| 2-9/16 | 2.5625 | 11-7/8 | 19-1/2 | 1220-164 | POA |
| 2-37/64 | 2.5781 | 11-7/8 | 19-1/2 | 1220-165 | POA |
| 2-19/32 | 2.6250 | 11-7/8 | 19-1/2 | 1220-166 | POA |
| 2-5/8 | 2.6300 | 11-7/8 | 19-1/2 | 1220-168 | POA |
| 2-21/32 | 2.6562 | 12-3/4 | 19-1/2 | 1220-170 | POA |
| 2-11/16 | 2.6875 | 12-3/4 | 20-3/8 | 1220-172 | POA |
| 2-3/4 | 2.7500 | 12-3/4 | 20-3/8 | 1220-176 | POA |
| 2-25/32 | 2.7812 | 13-3/8 | 21-1/8 | 1220-178 | POA |
| 2-13/16 | 2.8125 | 13-3/8 | 21-1/8 | 1220-180 | POA |
| 2-27/32 | 2.8438 | 13-3/8 | 21-1/8 | 1220-182 | POA |
| 2-7/8 | 2.8750 | 13-3/8 | 21-1/8 | 1220-184 | POA |
| 2-29/32 | 2.9062 | 14 | 21-3/4 | 1220-186 | POA |
| 2-15/16 | 2.9375 | 14 | 21-3/4 | 1220-188 | POA |
| 2-31/32 | 2.9688 | 14 | 21-3/4 | 1220-190 | POA |
| 3 | 3.0000 | 14 | 21-3/4 | 1220-192 | POA |

#### Letter Sizes [3] [2] [3]

| LETTER SIZES | FLUTE LG'TH | OVERALL LENGTH | Pittsburg® REG. SPIRAL ORDER NO. | Pittsburg® REG. SPIRAL PRICE EACH | Allegiance® American Made USA REG. SPIRAL ORDER NO. | Allegiance® American Made USA REG. SPIRAL PRICE EACH | Pittsburg® FAST SPIRAL ORDER NO. | Pittsburg® FAST SPIRAL PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| A | 3-3/4 | 6-1/8 | 1240-001 | $4.73 | 1241-001 | $8.56 | 1280-001 | $8.18 |
| B | 3-3/4 | 6-1/8 | 1240-002 | 4.73 | 1241-002 | 8.56 | 1280-002 | 8.59 |
| C | 3-3/4 | 6-1/8 | 1240-003 | 4.73 | 1241-003 | 8.56 | 1280-003 | 8.59 |
| D | 3-3/4 | 6-1/8 | 1240-004 | 4.76 | 1241-004 | 8.65 | 1280-004 | 8.59 |
| E | 3-3/4 | 6-1/8 | 1240-005 | 2.88 | 1241-005 | 5.60 | 1280-005 | 6.85 |
| F | 3-7/8 | 6-1/4 | 1240-006 | 5.19 | 1241-006 | 9.06 | 1280-006 | 9.36 |
| G | 3-7/8 | 6-1/4 | 1240-007 | 5.19 | 1241-007 | 9.40 | 1280-007 | 9.36 |
| H | 3-7/8 | 6-1/4 | 1240-008 | 5.36 | 1241-008 | 9.77 | 1280-008 | 9.73 |
| I | 3-7/8 | 6-1/4 | 1240-009 | 5.36 | 1241-009 | 9.77 | 1280-009 | 9.73 |
| J | 3-7/8 | 6-1/4 | 1240-010 | 5.36 | 1241-010 | 9.77 | 1280-010 | 9.73 |
| K | 3-7/8 | 6-1/4 | 1240-011 | 5.36 | 1241-011 | 9.77 | 1280-011 | 9.73 |
| L | 4 | 6-3/8 | 1240-012 | 5.76 | 1241-012 | 10.46 | 1280-012 | 10.30 |
| M | 4 | 6-3/8 | 1240-013 | 5.76 | 1241-013 | 10.46 | 1280-013 | 10.30 |
| N | 4 | 6-3/8 | 1240-014 | 5.85 | 1241-014 | 10.66 | 1280-014 | 10.52 |
| O | 4-1/8 | 6-1/2 | 1240-015 | 5.85 | 1241-015 | 10.66 | 1280-015 | 10.52 |
| P | 4-1/8 | 6-1/2 | 1240-016 | 5.85 | 1241-016 | 10.66 | 1280-016 | 10.52 |
| Q | 4-1/8 | 6-1/2 | 1240-017 | 5.85 | 1241-017 | 10.66 | 1280-017 | 10.52 |
| R | 4-1/8 | 6-1/2 | 1240-018 | 6.17 | 1241-018 | 11.23 | 1280-018 | 11.03 |
| S | 4-1/4 | 6-3/4 | 1240-019 | 6.17 | 1241-019 | 11.23 | 1280-019 | 11.03 |
| T | 4-1/4 | 6-3/4 | 1240-020 | 6.17 | 1241-020 | 11.23 | 1280-020 | 11.03 |
| U | 4-1/4 | 6-3/4 | 1240-021 | 6.49 | 1241-021 | 11.80 | 1280-021 | 11.47 |
| V | 4-3/8 | 7 | 1240-022 | 6.49 | 1241-022 | 11.80 | 1280-022 | 11.47 |
| W | 4-3/8 | 7 | 1240-023 | 6.49 | 1241-023 | 11.80 | 1280-023 | 11.47 |
| X | 4-3/8 | 7 | 1240-024 | 6.69 | 1241-024 | 12.16 | 1280-024 | 11.89 |
| Y | 4-3/8 | 7 | 1240-025 | 6.69 | 1241-025 | 12.16 | 1280-025 | 11.89 |
| Z | 4-5/8 | 7-1/4 | 1240-026 | 6.95 | 1241-026 | 12.62 | 1280-026 | 12.30 |

† Limited Quantities

(continued)

# Taper Length Drills– Long Series

## Straight Shank, High Speed Steel

### Regular Spiral

### Fast Spiral

**Wire Gage Sizes**

| WIRE FRAC. SIZES | FLUTE LG'TH | OVERALL LENGTH | Pittsburg® REG. SPIRAL [3] ORDER NO. | PRICE EACH | Allegiance® American Made REG. SPIRAL [2] ORDER NO. | PRICE EACH | Pittsburg® FAST SPIRAL [3] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1 | 3-3/4 | 6-1/8 | 1230-001 | $4.09 | 1231-001 | $7.64 | 1270-001 | $7.41 |
| 2 | 3-3/4 | 6-1/8 | 1230-002 | 4.09 | 1231-002 | 7.64 | 1270-002 | 7.41 |
| 3 | 3-5/8 | 6 | 1230-003 | 3.94 | 1231-003 | 7.40 | 1270-003 | 6.86 |
| 4 | 3-5/8 | 6 | 1230-004 | 3.94 | 1231-004 | 7.40 | 1270-004 | 6.86 |
| 5 | 3-5/8 | 6 | 1230-005 | 3.94 | 1231-005 | 7.40 | 1270-005 | 6.86 |
| 6 | 3-5/8 | 6 | 1230-006 | 3.94 | 1231-006 | 7.40 | 1270-006 | 6.86 |
| 7 | 3-5/8 | 6 | 1230-007 | 3.94 | 1231-007 | 7.40 | 1270-007 | 6.86 |
| 8 | 3-5/8 | 6 | 1230-008 | 3.94 | 1231-008 | 7.40 | 1270-008 | 6.86 |
| 9 | 3-5/8 | 6 | 1230-009 | 3.94 | 1231-009 | 7.40 | 1270-009 | 6.86 |
| 10 | 3-5/8 | 6 | 1230-010 | 3.94 | 1231-010 | 7.40 | 1270-010 | 6.86 |
| 11 | 3-5/8 | 6 | 1230-011 | 3.94 | 1231-011 | 7.40 | 1270-011 | 6.86 |
| 12 | 3-5/8 | 6 | 1230-012 | 3.94 | 1231-012 | 7.40 | 1270-012 | 6.86 |
| 13 | 3-3/8 | 5-3/4 | 1230-013 | 3.59 | 1231-013 | 6.71 | 1270-013 | 5.54 |
| 14 | 3-3/8 | 5-3/4 | 1230-014 | 3.59 | 1231-014 | 6.71 | 1270-014 | 5.54 |
| 15 | 3-3/8 | 5-3/4 | 1230-015 | 3.59 | 1231-015 | 6.71 | 1270-015 | 5.54 |
| 16 | 3-3/8 | 5-3/4 | 1230-016 | 3.59 | 1231-016 | 6.71 | 1270-016 | 5.54 |
| 17 | 3-3/8 | 5-3/4 | 1230-017 | 3.59 | 1231-017 | 6.71 | 1270-017 | 5.54 |
| 18 | 3-3/8 | 5-3/4 | 1230-018 | 3.59 | 1231-018 | 6.71 | 1270-018 | 6.37 |
| 19 | 3-3/8 | 5-3/4 | 1230-019 | 3.59 | 1231-019 | 6.71 | 1270-019 | 6.37 |
| 20 | 3-3/8 | 5-3/4 | 1230-020 | 3.59 | 1231-020 | 6.71 | 1270-020 | 6.37 |
| 21 | 3-3/8 | 5-3/4 | 1230-021 | 3.59 | 1231-021 | 6.71 | 1270-021 | 6.37 |
| 22 | 3-3/8 | 5-3/4 | 1230-022 | 3.59 | 1231-022 | 6.71 | 1270-022 | 6.37 |
| 23 | 3 | 5-3/8 | 1230-023 | 3.59 | 1231-023 | 6.71 | 1270-023 | 5.54 |
| 24 | 3 | 5-3/8 | 1230-024 | 3.59 | 1231-024 | 6.71 | 1270-024 | 5.54 |
| 25 | 3 | 5-3/8 | 1230-025 | 3.59 | 1231-025 | 6.71 | 1270-025 | 5.54 |
| 26 | 3 | 5-3/8 | 1230-026 | 3.59 | 1231-026 | 6.71 | 1270-026 | 5.54 |
| 27 | 3 | 5-3/8 | 1230-027 | 3.59 | 1231-027 | 6.71 | 1270-027 | 5.54 |
| 28 | 3 | 5-3/8 | 1230-028 | 3.62 | 1231-028 | 6.71 | 1270-028 | 5.54 |
| 29 | 3 | 5-3/8 | 1230-029 | 3.62 | 1231-029 | 6.71 | 1270-029 | 5.60 |
| 30 | 3 | 5-3/8 | 1230-030 | 3.62 | 1231-030 | 6.71 | 1270-030 | 5.60 |
| 31 | 2-3/4 | 5-1/8 | 1230-031 | 3.51 | 1231-031 | 6.61 | 1270-031 | 5.06 |
| 32 | 2-3/4 | 5-1/8 | 1230-032 | 3.51 | 1231-032 | 6.61 | 1270-032 | 5.06 |
| 33 | 2-3/4 | 5-1/8 | 1230-033 | 3.51 | 1231-033 | 6.61 | 1270-033 | 5.06 |
| 34 | 2-3/4 | 5-1/8 | 1230-034 | 3.51 | 1231-034 | 6.61 | 1270-034 | 5.06 |
| 35 | 2-3/4 | 5-1/8 | 1230-035 | 3.51 | 1231-035 | 6.61 | 1270-035 | 5.06 |
| 36 | 2-1/2 | 4-5/8 | 1230-036 | 2.64 | 1231-036 | 4.94 | 1270-036 | 4.11 |
| 37 | 2-1/2 | 4-5/8 | 1230-037 | 2.64 | 1231-037 | 4.94 | 1270-037 | 4.11 |
| 38 | 2-1/2 | 4-5/8 | 1230-038 | 2.64 | 1231-038 | 4.94 | 1270-038 | 4.11 |
| 39 | 2-1/2 | 4-5/8 | 1230-039 | 2.30 | 1231-039 | 4.29 | 1270-039 | 3.57 |
| 40 | 2-1/2 | 4-5/8 | 1230-040 | 2.30 | 1231-040 | 4.29 | 1270-040 | 3.57 |

| WIRE FRAC. SIZES | FLUTE LG'TH | OVERALL LENGTH | Pittsburg® REG. SPIRAL [3] ORDER NO. | PRICE EACH | Allegiance® American Made REG. SPIRAL [2] ORDER NO. | PRICE EACH | Pittsburg® FAST SPIRAL [3] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 41 | 2-1/2 | 4-5/8 | 1230-041 | $2.30 | 1231-041 | $4.29 | 1270-041 | $3.57 |
| 42 | 2-1/4 | 4-1/4 | 1230-042 | 1.96 | 1231-042 | 3.65 | 1270-042 | 3.18 |
| 43 | 2-1/4 | 4-1/4 | 1230-043 | 1.96 | 1231-043 | 3.65 | 1270-043 | 3.18 |
| 44 | 2-1/4 | 4-1/4 | 1230-044 | 1.96 | 1231-044 | 3.65 | 1270-044 | 3.18 |
| 45 | 2-1/4 | 4-1/4 | 1230-045 | 1.96 | 1231-045 | 3.65 | 1270-045 | 3.18 |
| 46 | 2-1/4 | 4-1/4 | 1230-046 | 1.96 | 1231-046 | 3.65 | 1270-046 | 3.18 |
| 47 | 2-1/4 | 4-1/4 | 1230-047 | 1.96 | 1231-047 | 3.65 | 1270-047 | 3.18 |
| 48 | 2 | 3-3/4 | 1230-048 | 1.53 | 1231-048 | 3.02 | 1270-048 | 2.47 |
| 49 | 2 | 3-3/4 | 1230-049 | 1.53 | 1231-049 | 3.02 | 1270-049 | 2.47 |
| 50 | 2 | 3-3/4 | 1230-050 | 1.53 | 1231-050 | 3.02 | 1270-050 | 2.47 |
| 51 | 2 | 3-3/4 | 1230-051 | 1.53 | 1231-051 | 3.02 | 1270-051 | 2.47 |
| 52 | 2 | 3-3/4 | 1230-052 | 1.53 | 1231-052 | 3.02 | 1270-052 | 2.47 |
| 53 | 1-3/4 | 3 | 1230-053 | 1.53 | 1231-053 | 3.02 | 1270-053 | 1.81 |
| 54 | 1-3/4 | 3 | 1230-054 | 1.53 | 1231-054 | 3.02 | 1270-054 | 1.81 |
| 55 | 1-3/4 | 3 | 1230-055 | 1.53 | 1231-055 | 3.02 | 1270-055 | 1.81 |
| 56 | 1-1/8 | 2-1/4 | 1230-056 | 1.53 | 1231-056 | 3.02 | 1270-056 | 1.92 |
| 57 | 1-1/8 | 2-1/4 | 1230-057 | 1.53 | 1231-057 | 3.02 | 1270-057 | 2.31 |
| 58 | 1-1/8 | 2-1/4 | 1230-058 | 1.53 | 1231-058 | 3.02 | 1270-058 | 2.31 |
| 59 | 1-1/8 | 2-1/4 | 1230-059 | 1.53 | 1231-059 | 3.02 | 1270-059 | 2.31 |
| 60 | 1-1/8 | 2-1/4 | 1230-060 | 1.53 | 1231-060 | 3.02 | 1270-060 | 3.78 |
| 61 | 1-1/8 | 2-1/4 | 1230-061 | 1.56 | 1231-061 | 2.92 | – | – |
| 62 | 3/4 | 2 | 1230-062 | 1.56 | 1231-062 | 3.67 | – | – |
| 63 | 3/4 | 2 | 1230-063 | 1.56 | 1231-063 | 3.67 | – | – |
| 64 | 3/4 | 2 | 1230-064 | 1.56 | 1231-064 | 3.67 | – | – |
| 65 | 3/4 | 2 | 1230-065 | 1.56 | 1231-065 | 3.67 | – | – |
| 66 | 3/4 | 2 | 1230-066 | 1.87 | 1231-066 | 3.67 | – | – |
| 67 | 3/4 | 2 | 1230-067 | 1.87 | 1231-067 | 3.67 | – | – |
| 68 | 3/4 | 2 | 1230-068 | 1.87 | 1231-068 | 3.67 | – | – |
| 69 | 3/4 | 2 | 1230-069 | 1.87 | 1231-069 | 3.67 | – | – |
| 70 | 3/4 | 2 | 1230-070 | 2.06 | 1231-070 | 3.88 | – | – |
| 71 | 3/4 | 2 | 1230-071 | 2.06 | 1231-071 | 3.88 | – | – |
| 72 | 5/16 | 1-1/2 | 1230-072 | 2.06 | 1231-072 | 3.88 | – | – |
| 73 | 5/16 | 1-1/2 | 1230-073 | 2.06 | 1231-073 | 3.88 | – | – |
| 74 | 5/16 | 1-1/2 | 1230-074 | 2.06 | 1231-074 | 3.88 | – | – |
| 75 | 5/16 | 1-1/2 | 1230-075 | 2.06 | 1231-075 | 3.88 | – | – |
| 76 | 5/16 | 1-1/2 | 1230-076 | 2.45 | 1231-076 | 4.64 | – | – |
| 77 | 5/16 | 1-1/2 | 1230-077 | 2.45 | 1231-077 | 4.69 | – | – |
| 78 | 5/16 | 1-1/2 | 1230-078 | 2.45 | 1231-078 | 4.69 | – | – |
| 79 | 5/16 | 1-1/2 | 1230-079 | 2.45 | 1231-079 | 4.69 | – | – |
| 80 | 5/16 | 1-1/2 | 1230-080 | 2.45 | 1231-080 | 4.69 | – | – |

# Aircraft Extension Drills

High Speed Steel

Cobalt

Carbide Tipped

## Fractional Sizes

•For drilling holes where reach is normally not accessible with jobbers or taper length drills 2

| | | Pittsburg® HIGH SPEED STEEL | | | | Allegiance® AMERICAN MADE HIGH SPEED STEEL | | | | Pittsburg® COBALT | | | | ROCK RIVER CARBIDE TIPPED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 6" OAL | | 12" OAL | | 6" OAL | | 12" OAL | | 6" OAL | | 12" OAL | | 6" OAL | | 12" OAL | |
| DIAM. | FLUTE LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 3/64 | 3/4 | 1550-003 | $2.41 | 1580-003 | $3.69 | – | – | – | – | 1601-003 | $3.20 | 1604-003 | $8.44 | – | – | – | – |
| 1/16 | 7/8 | 1550-004 | 1.35 | 1580-004 | 2.80 | 1550-104 | $1.97 | – | – | 1601-004 | 2.40 | 1604-004 | 6.33 | – | – | – | – |
| 5/64 | 1 | 1550-005 | 1.35 | 1580-005 | 2.68 | 1550-105 | 2.00 | – | – | 1601-005 | 2.40 | 1604-005 | 6.33 | – | – | – | – |
| 3/32 | 1-1/4 | 1550-006 | 1.05 | 1580-006 | 2.88 | 1550-106 | 2.04 | – | – | 1601-006 | 2.40 | 1604-006 | 5.01 | – | – | – | – |
| 7/64 | 1-1/2 | 1550-007 | 1.05 | 1580-007 | 2.99 | 1550-107 | 2.10 | – | – | 1601-007 | 2.16 | 1604-007 | 5.51 | – | – | – | – |
| 1/8 | 1-5/8 | 1550-008 | 1.05 | 1580-008 | 3.01 | 1550-108 | 2.12 | 1580-108 | $3.90 | 1601-008 | 2.04 | 1604-008 | 5.60 | 2997-008 | $15.80 | 2997-308 | $18.65 |
| 9/64 | 1-3/4 | 1550-009 | 1.29 | 1580-009 | 3.30 | 1550-109 | 2.19 | – | – | 1601-009 | 2.42 | 1604-009 | 6.33 | 2997-009 | 17.20 | 2997-309 | 20.15 |
| 5/32 | 2 | 1550-010 | 1.29 | 1580-010 | 3.59 | 1550-110 | 2.26 | – | – | 1601-010 | 2.42 | 1604-010 | 5.73 | 2997-010 | 16.80 | 2997-310 | 19.80 |
| 11/64 | 2-1/8 | 1550-011 | 1.52 | 1580-011 | 3.68 | 1550-111 | 2.34 | – | – | 1601-011 | 2.65 | 1604-011 | 6.23 | 2997-011 | 18.35 | 2997-311 | 21.55 |
| 3/16 | 2-5/16 | 1550-012 | 1.52 | 1580-012 | 3.80 | 1550-112 | 2.45 | 1580-112 | 4.66 | 1601-012 | 2.65 | 1604-012 | 6.23 | 2997-012 | 17.90 | 2997-312 | 21.10 |
| 13/64 | 2-7/16 | 1550-013 | 1.83 | 1580-013 | 4.16 | 1550-113 | 2.56 | – | – | 1601-013 | 3.30 | 1604-013 | 6.84 | 2997-013 | 19.65 | 2997-313 | 23.05 |
| 7/32 | 2-1/2 | 1550-014 | 2.16 | 1580-014 | 4.22 | 1550-114 | 2.65 | – | – | 1601-014 | 3.79 | 1604-014 | 7.57 | 2997-014 | 19.65 | 2997-314 | 23.05 |
| 15/64 | 2-5/8 | 1550-015 | 2.16 | 1580-015 | 4.46 | 1550-115 | 2.78 | – | – | 1601-015 | 3.79 | 1604-015 | 7.67 | 2997-015 | 21.10 | 2997-315 | 24.85 |
| 1/4 | 2-3/4 | 1550-016 | 2.45 | 1580-016 | 4.50 | 1550-116 | 2.91 | 1580-116 | 5.75 | 1601-016 | 4.40 | 1604-016 | 8.77 | 2997-016 | 21.10 | 2997-316 | 24.85 |
| 17/64 | 2-7/8 | 1550-017 | 3.22 | 1580-017 | 5.20 | 1550-117 | 4.78 | – | – | – | – | 1604-017 | 11.10 | 2997-017 | 22.55 | 2997-317 | 26.60 |
| 9/32 | 2-15/16 | 1550-018 | 3.25 | 1580-018 | 5.27 | 1550-118 | 5.51 | – | – | – | – | 1604-018 | 11.56 | 2997-018 | 22.55 | 2997-318 | 26.60 |
| 19/64 | 3-1/16 | 1550-019 | 4.15 | 1580-019 | 6.00 | 1550-119 | 6.22 | – | – | – | – | 1604-019 | 12.46 | 2997-019 | 24.55 | 2997-319 | 28.80 |
| 5/16 | 3-3/16 | 1550-020 | 4.15 | 1580-020 | 6.09 | 1550-120 | 6.61 | 1580-120 | 7.68 | – | – | 1604-020 | 12.72 | 2997-020 | 24.55 | 2997-320 | 28.80 |
| 21/64 | 3-5/16 | 1550-021 | 5.08 | 1580-021 | 6.86 | 1550-121 | 7.95 | – | – | – | – | 1604-021 | 13.81 | 2997-021 | 26.05 | 2997-321 | 30.70 |
| 11/32 | 3-7/16 | 1550-022 | 5.08 | 1580-022 | 7.05 | 1550-122 | 8.10 | – | – | – | – | 1604-022 | 15.41 | 2997-022 | 26.05 | 2997-322 | 30.70 |
| 23/64 | 3-1/2 | 1550-023 | 5.36 | 1580-023 | 7.95 | 1550-123 | 8.38 | – | – | – | – | 1604-023 | 17.12 | 2997-023 | 27.80 | 2997-323 | 32.60 |
| 3/8 | 3-5/8 | 1550-024 | 5.36 | 1580-024 | 7.95 | 1550-124 | 8.61 | 1580-124 | 9.59 | – | – | 1604-024 | 18.93 | 2997-024 | 27.80 | 2997-324 | 32.60 |
| 25/64 | 3-3/4 | 1550-025 | 5.74 | 1580-025 | 8.75 | 1550-125 | 9.29 | – | – | – | – | 1604-025 | 18.93 | 2997-025 | 28.50 | 2997-325 | 33.60 |
| 13/32 | 3-7/8 | 1550-026 | 5.97 | 1580-026 | 9.16 | 1550-126 | 9.63 | – | – | – | – | 1604-026 | 20.80 | 2997-026 | 28.10 | 2997-326 | 33.10 |
| 27/64 | 3-15/16 | 1550-027 | 6.69 | 1580-027 | 9.91 | 1550-127 | 10.16 | – | – | – | – | 1604-027 | 23.60 | 2997-027 | 30.90 | 2997-327 | 36.40 |
| 7/16 | 4-1/16 | 1550-028 | 6.85 | 1580-028 | 9.91 | 1550-128 | 11.41 | 1580-128 | 12.10 | – | – | 1604-028 | 25.68 | 2997-028 | 30.90 | 2997-328 | 36.40 |
| 29/64 | 4-1/16 | 1550-029 | 7.00 | 1580-029 | 10.64 | 1550-129 | 11.67 | – | – | – | – | 1604-029 | 27.89 | 2997-029 | 35.50 | 2997-329 | 41.85 |
| 15/32 | 4-5/16 | 1550-030 | 7.52 | 1580-030 | 11.24 | 1550-130 | 11.67 | – | – | – | – | 1604-030 | 27.89 | 2997-030 | 34.80 | 2997-330 | 40.95 |
| 31/64 | 4-3/8 | – | – | 1580-031 | 11.66 | – | – | – | – | – | – | 1604-031 | 32.59 | 2997-031 | 39.05 | 2997-331 | 45.90 |
| 1/2 | 4-1/2 | – | – | 1580-032 | 12.26 | – | – | 1580-132 | 14.34 | – | – | 1604-032 | 32.59 | 2997-032 | 39.05 | 2997-332 | 45.90 |

## Letter Sizes

| | | Pittsburg® HIGH SPEED STEEL | | | | ROCK RIVER CARBIDE TIPPED | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 6" OAL | | 12" OAL | | 6" OAL | | 12" OAL | |
| DIAM. | FLUTE LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| A | 2-5/8 | 1570-001 | $2.43 | 1600-001 | $5.22 | 2997-201 | $29.45 | 2997-501 | $34.60 |
| B | 2-3/4 | 1570-002 | 2.43 | 1600-002 | 5.22 | 2997-202 | 29.45 | 2997-502 | 34.60 |
| C | 2-3/4 | 1570-003 | 2.43 | 1600-003 | 5.22 | 2997-203 | 29.45 | 2997-503 | 34.60 |
| D | 2-3/4 | 1570-004 | 2.43 | 1600-004 | 5.22 | 2997-204 | 28.95 | 2997-504 | 34.05 |
| E | 2-3/4 | 1570-005 | 2.43 | 1600-005 | 5.22 | 2997-205 | 21.10 | 2997-505 | 24.85 |
| F | 2-7/8 | 1570-006 | 2.94 | 1600-006 | 6.58 | 2997-206 | 30.25 | 2997-506 | 35.55 |
| G | 2-7/8 | – | – | 1600-007 | 6.58 | 2997-207 | 30.90 | 2997-507 | 36.40 |
| H | 2-7/8 | – | – | 1600-008 | 6.58 | 2997-208 | 31.60 | 2997-508 | 37.20 |
| I | 2-7/8 | – | – | 1600-009 | 6.58 | 2997-209 | 30.90 | 2997-509 | 36.40 |
| J | 2-7/8 | – | – | 1600-010 | 6.58 | 2997-210 | 31.60 | 2997-510 | 37.20 |
| K | 2-15/16 | – | – | 1600-011 | 6.58 | 2997-211 | 31.60 | 2997-511 | 37.20 |
| L | 2-15/16 | – | – | 1600-012 | 7.00 | 2997-212 | 31.60 | 2997-512 | 37.20 |
| M | 3-1/16 | – | – | 1600-013 | 7.00 | 2997-213 | 34.80 | 2997-513 | 40.95 |
| N | 3-1/16 | – | – | 1600-014 | 7.28 | 2997-214 | 34.05 | 2997-514 | 40.05 |
| O | 3-1/16 | – | – | 1600-015 | 7.98 | 2997-215 | 32.35 | 2997-515 | 38.00 |
| P | 3-5/16 | – | – | 1600-016 | 7.98 | 2997-216 | 34.45 | 2997-516 | 40.50 |
| Q | 3-7/16 | – | – | 1600-017 | 8.44 | 2997-217 | 35.35 | 2997-517 | 41.55 |
| R | 3-7/16 | – | – | 1600-018 | 8.68 | 2997-218 | 34.45 | 2997-518 | 40.50 |
| S | 3-1/2 | – | – | 1600-019 | 9.19 | 2997-219 | 37.25 | 2997-519 | 43.75 |
| T | 3-1/2 | – | – | 1600-020 | 9.19 | 2997-220 | 38.15 | 2997-520 | 44.85 |
| U | 3-5/8 | – | – | 1600-021 | 9.19 | 2997-221 | 36.70 | 2997-521 | 43.25 |
| V | 3-5/8 | – | – | 1600-022 | 9.56 | 2997-222 | 37.25 | 2997-522 | 43.75 |
| W | 3-3/4 | – | – | 1600-023 | 9.56 | 2997-223 | 39.95 | 2997-523 | 47.00 |
| X | 3-3/4 | – | – | 1600-024 | 10.12 | 2997-224 | 37.80 | 2997-524 | 44.50 |
| Y | 3-7/8 | – | – | 1600-025 | 10.12 | 2997-225 | 39.25 | 2997-525 | 46.15 |
| Z | 3-7/8 | – | – | 1600-026 | 10.87 | 2997-226 | 44.30 | 2997-526 | 52.00 |

# Aircraft Extension Drills

**High Speed Steel**

**Cobalt**

**Carbide Tipped**

## Wire Gage Sizes

•For drilling holes where reach is normally not accessible with jobbers or taper length drills [2]

| | | Pittsburg® ALLEGHANY HIGH SPEED STEEL | | | | Pittsburg® ALLEGHANY COBALT | | | | ROCK RIVER CARBIDE TIPPED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 6" OAL | | 12" OAL | | 6" OAL | | 12" OAL | | 6" OAL | | 12" OAL | |
| DIAM. | FLUTE LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1 | 2-5/8 | 1560-001 | $2.40 | 1590-001 | $5.24 | – | – | – | – | 2997-101 | $24.55 | 2997-401 | $28.80 |
| 2 | 2-5/8 | 1560-002 | 2.40 | 1590-002 | 5.24 | – | – | – | – | 2997-102 | 24.80 | 2997-402 | 29.20 |
| 3 | 2-1/2 | 1560-003 | 2.05 | 1590-003 | 4.88 | – | – | – | – | 2997-103 | 25.20 | 2997-403 | 29.75 |
| 4 | 2-1/2 | 1560-004 | 2.05 | 1590-004 | 4.88 | – | – | – | – | 2997-104 | 23.75 | 2997-404 | 27.95 |
| 5 | 2-1/2 | 1560-005 | 2.05 | 1590-005 | 4.88 | – | – | – | – | 2997-105 | 25.20 | 2997-405 | 29.75 |
| 6 | 2-1/2 | 1560-006 | 2.05 | 1590-006 | 4.88 | – | – | – | – | 2997-106 | 25.95 | 2997-406 | 30.50 |
| 7 | 2-7/16 | 1560-007 | 2.05 | 1590-007 | 4.88 | 1602-007 | $3.38 | 1605-007 | $7.78 | 2997-107 | 25.20 | 2997-407 | 29.75 |
| 8 | 2-7/16 | 1560-008 | 2.05 | 1590-008 | 4.88 | – | – | – | – | 2997-108 | 25.20 | 2997-408 | 29.75 |
| 9 | 2-7/16 | 1560-009 | 1.88 | 1590-009 | 4.43 | – | – | – | – | 2997-109 | 25.20 | 2997-409 | 29.75 |
| 10 | 2-7/16 | 1560-010 | 1.68 | 1590-010 | 4.43 | 1602-010 | 3.02 | 1605-010 | 6.98 | 2997-110 | 24.90 | 2997-410 | 29.35 |
| 11 | 2-5/16 | 1560-011 | 1.68 | 1590-011 | 4.43 | – | – | – | – | 2997-111 | 25.20 | 2997-411 | 29.75 |
| 12 | 2-5/16 | 1560-012 | 1.68 | 1590-012 | 4.43 | – | – | – | – | 2997-112 | 24.90 | 2997-412 | 29.35 |
| 13 | 2-5/16 | 1560-013 | 1.68 | 1590-013 | 4.25 | – | – | – | – | 2997-113 | 23.90 | 2997-413 | 28.15 |
| 14 | 2-3/16 | 1560-014 | 1.68 | 1590-014 | 4.25 | – | – | – | – | 2997-114 | 23.90 | 2997-414 | 28.15 |
| 15 | 2-3/16 | 1560-015 | 1.68 | 1590-015 | 4.25 | – | – | – | – | 2997-115 | 24.70 | 2997-415 | 29.05 |
| 16 | 2-3/16 | 1560-016 | 1.55 | 1590-016 | 4.25 | – | – | – | – | 2997-116 | 23.90 | 2997-416 | 28.15 |
| 17 | 2-3/16 | 1560-017 | 1.55 | 1590-017 | 4.25 | – | – | – | – | 2997-117 | 24.55 | 2997-417 | 28.80 |
| 18 | 2-1/8 | 1560-018 | 1.55 | 1590-018 | 4.25 | – | – | – | – | 2997-118 | 24.55 | 2997-418 | 28.80 |
| 19 | 2-1/8 | 1560-019 | 1.55 | 1590-019 | 4.25 | – | – | – | – | 2997-119 | 24.55 | 2997-419 | 28.80 |
| 20 | 2-1/8 | 1560-020 | 1.42 | 1590-020 | 3.82 | 1602-020 | 2.55 | 1605-020 | 6.38 | 2997-120 | 24.55 | 2997-420 | 28.80 |
| 21 | 2-1/8 | 1560-021 | 1.42 | 1590-021 | 3.82 | – | – | – | – | 2997-121 | 23.90 | 2997-421 | 28.15 |
| 22 | 2 | 1560-022 | 1.42 | 1590-022 | 3.82 | – | – | – | – | 2997-122 | 24.70 | 2997-422 | 29.05 |
| 23 | 2 | 1560-023 | 1.42 | 1590-023 | 3.82 | – | – | – | – | 2997-123 | 22.55 | 2997-423 | 26.60 |
| 24 | 2 | 1560-024 | 1.42 | 1590-024 | 3.82 | – | – | – | – | 2997-124 | 23.05 | 2997-424 | 27.10 |
| 25 | 1-7/8 | 1560-025 | 1.42 | 1590-025 | 3.82 | – | – | – | – | 2997-125 | 22.55 | 2997-425 | 26.60 |
| 26 | 1-7/8 | 1560-026 | 1.42 | 1590-026 | 3.82 | – | – | – | – | 2997-126 | 22.55 | 2997-426 | 26.60 |
| 27 | 1-7/8 | 1560-027 | 1.42 | 1590-027 | 3.82 | – | – | – | – | 2997-127 | 23.05 | 2997-427 | 27.10 |
| 28 | 1-3/4 | 1560-028 | 1.42 | 1590-028 | 3.82 | – | – | – | – | 2997-128 | 22.55 | 2997-428 | 26.60 |
| 29 | 1-3/4 | 1560-029 | 1.42 | 1590-029 | 3.69 | – | – | – | – | 2997-129 | 22.20 | 2997-429 | 26.10 |
| 30 | 1-5/8 | 1560-030 | 1.16 | 1590-030 | 3.69 | 1602-030 | 2.06 | 1605-030 | 6.38 | 2997-130 | 21.50 | 2997-430 | 25.30 |
| 31 | 1-5/8 | 1560-031 | 1.16 | 1590-031 | 3.69 | – | – | – | – | 2997-131 | 20.40 | 2997-431 | 23.95 |
| 32 | 1-5/8 | 1560-032 | 1.16 | 1590-032 | 3.69 | – | – | – | – | 2997-132 | 22.80 | 2997-432 | 26.90 |
| 33 | 1-1/2 | 1560-033 | 1.16 | 1590-033 | 3.69 | – | – | – | – | – | – | – | – |
| 34 | 1-1/2 | 1560-034 | 1.16 | 1590-034 | 3.69 | – | – | – | – | – | – | – | – |
| 35 | 1-1/2 | 1560-035 | 1.16 | 1590-035 | 3.69 | – | – | – | – | – | – | – | – |
| 36 | 1-7/16 | 1560-036 | 1.19 | 1590-036 | 3.69 | – | – | – | – | – | – | – | – |
| 37 | 1-7/16 | 1560-037 | 1.19 | 1590-037 | 3.69 | – | – | – | – | – | – | – | – |
| 38 | 1-7/16 | 1560-038 | 1.19 | 1590-038 | 3.69 | – | – | – | – | – | – | – | – |
| 39 | 1-3/8 | 1560-039 | 1.23 | 1590-039 | 3.69 | – | – | – | – | – | – | – | – |
| 40 | 1-3/8 | 1560-040 | 1.17 | 1590-040 | 3.45 | 1602-040 | 2.16 | 1605-040 | 6.33 | – | – | – | – |
| 41 | 1-3/8 | 1560-041 | 1.21 | 1590-041 | 3.45 | – | – | – | – | – | – | – | – |
| 42 | 1-1/4 | 1560-042 | 1.21 | 1590-042 | 3.45 | – | – | – | – | – | – | – | – |
| 43 | 1-1/4 | 1560-043 | 1.40 | 1590-043 | 3.13 | – | – | – | – | – | – | – | – |
| 44 | 1-1/8 | 1560-044 | 1.40 | 1590-044 | 3.13 | – | – | – | – | – | – | – | – |
| 45 | 1-1/8 | 1560-045 | 1.40 | 1590-045 | 3.13 | – | – | – | – | – | – | – | – |
| 46 | 1-1/8 | 1560-046 | 1.40 | 1590-046 | 3.13 | – | – | – | – | – | – | – | – |
| 47 | 1 | 1560-047 | 1.40 | 1590-047 | 3.13 | – | – | – | – | – | – | – | – |
| 48 | 1 | 1560-048 | 1.40 | 1590-048 | 3.13 | – | – | – | – | – | – | – | – |
| 49 | 1 | 1560-049 | 1.40 | 1590-049 | 3.13 | – | – | – | – | – | – | – | – |
| 50 | 1 | 1560-050 | 1.40 | 1590-050 | 3.13 | 1602-050 | 2.34 | 1605-050 | 8.73 | – | – | – | – |
| 51 | 1 | 1560-051 | 1.40 | 1590-051 | 3.13 | – | – | – | – | – | – | – | – |
| 52 | 7/8 | 1560-052 | 1.40 | 1590-052 | 3.13 | – | – | – | – | – | – | – | – |
| 53 | 7/8 | 1560-053 | 2.66 | 1590-053 | 4.80 | – | – | – | – | – | – | – | – |
| 54 | 7/8 | 1560-054 | 2.66 | 1590-054 | 4.80 | – | – | – | – | – | – | – | – |
| 55 | 7/8 | 1560-055 | 2.66 | 1590-055 | 4.80 | – | – | – | – | – | – | – | – |
| 56 | 3/4 | 1560-056 | 2.66 | 1590-056 | 4.80 | – | – | – | – | – | – | – | – |
| 57 | 3/4 | 1560-057 | 2.66 | 1590-057 | 4.80 | – | – | – | – | – | – | – | – |
| 58 | 11/16 | 1560-058 | 2.66 | 1590-058 | 5.36 | – | – | – | – | – | – | – | – |
| 59 | 11/16 | 1560-059 | 2.66 | 1590-059 | 5.36 | – | – | – | – | – | – | – | – |
| 60 | 11/16 | 1560-060 | 2.66 | 1590-060 | 5.36 | – | – | – | – | – | – | – | – |

# Extra Long Drills
## Straight Shank

Look for ALLEGIANCE AMERICANMADE

### High Speed Steel - 118° Point

### Cobalt - 135° Split Point

| | 3 | | 3 | | 3 | | 3 | |
|---|---|---|---|---|---|---|---|---|
| | 8" OAL X 5-1/2" FLT | | | | 12" OAL X 9" FLT | | | |
| | HSS | | COBALT | | HSS | | COBALT | |
| DIAM. | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 3/32 | 1620-608 | $11.60 | 1660-608 | $27.80 | – | – | – | – |
| 7/64 | 1620-708 | 9.80 | 1660-708 | 22.35 | 1620-712 | $14.05 | – | – |
| 1/8 | 1620-808 | 9.30 | 1660-808 | 22.35 | 1620-812 | 14.05 | 1660-812 | $28.95 |
| 9/64 | 1620-908 | 8.90 | – | – | 1620-912 | 14.05 | – | – |
| 5/32 | 1621-008 | 10.20 | 1661-008 | 24.45 | 1621-012 | 15.25 | – | – |
| 11/64 | 1621-108 | 10.25 | – | – | 1621-112 | 15.55 | – | – |
| 3/16 | 1621-208 | 10.35 | 1661-208 | 24.85 | 1621-212 | 16.00 | 1661-212 | 32.75 |
| 13/64 | 1621-308 | 11.20 | – | – | 1621-312 | 16.55 | – | – |
| 7/32 | 1621-408 | 13.45 | – | – | 1621-412 | 17.15 | – | – |
| 15/64 | 1621-508 | 11.15 | – | – | 1621-512 | 17.35 | – | – |
| 1/4 | 1621-608 | 10.65 | 1661-608 | 25.55 | 1621-612 | 17.35 | 1661-612 | 36.55 |
| 17/64 | 1621-708 | 10.70 | – | – | 1621-712 | 18.40 | – | – |
| 9/32 | 1621-808 | 11.75 | 1661-808 | 28.20 | 1621-812 | 18.40 | – | – |
| 19/64 | 1621-908 | 12.20 | – | – | 1621-912 | 19.00 | – | – |
| 5/16 | 1622-008 | 12.50 | 1662-008 | 29.95 | 1622-012 | 19.00 | 1662-012 | 39.25 |
| 21/64 | 1622-108 | 16.00 | – | – | 1622-112 | 20.30 | – | – |
| 11/32 | 1622-208 | 15.05 | 1662-208 | 36.10 | 1622-212 | 20.30 | – | – |
| 23/64 | 1622-308 | 14.80 | – | – | 1622-312 | 20.65 | – | – |
| 3/8 | 1622-408 | 12.70 | 1662-408 | 30.45 | 1622-412 | 20.65 | 1662-412 | 42.15 |
| 25/64 | 1622-508 | 16.80 | – | – | 1622-512 | 22.85 | – | – |
| 13/32 | 1622-608 | 15.90 | 1662-608 | 38.20 | 1622-612 | 22.85 | – | – |
| 27/64 | 1622-708 | 21.20 | – | – | 1622-712 | 23.95 | – | – |
| 7/16 | 1622-808 | 17.95 | 1662-808 | 43.05 | 1622-812 | 23.95 | 1662-812 | 50.15 |
| 29/64 | 1622-908 | 18.30 | – | – | 1622-912 | 27.30 | – | – |
| 15/32 | 1623-008 | 20.85 | – | – | 1623-012 | 27.30 | – | – |
| 31/64 | 1623-108 | 24.50 | – | – | 1623-112 | 27.30 | – | – |
| 1/2 | 1623-208 | 18.45 | – | – | 1623-212 | 27.30 | 1663-212 | 56.30 |
| 33/64 | – | – | – | – | 1623-312 | 33.65 | – | – |
| 17/32 | – | – | – | – | 1623-412 | 33.65 | – | – |
| 35/64 | – | – | – | – | 1623-512 | 33.65 | – | – |
| 9/16 | – | – | – | – | 1623-612 | 33.65 | 1663-612 | 70.10 |
| 37/64 | – | – | – | – | 1623-712 | 36.30 | – | – |
| 19/32 | – | – | – | – | 1623-812 | 36.30 | – | – |
| 39/64 | – | – | – | – | 1623-912 | 38.00 | – | – |
| 5/8 | – | – | – | – | 1624-012 | 38.00 | 1664-012 | 79.10 |
| 41/64 | – | – | – | – | 1624-112 | 42.10 | – | – |
| 21/32 | – | – | – | – | 1624-212 | 42.10 | – | – |
| 43/64 | – | – | – | – | 1624-312 | 44.50 | – | – |
| 11/16 | – | – | – | – | 1624-412 | 44.50 | 1664-412 | 92.75 |
| 45/64 | – | – | – | – | 1624-512 | 48.30 | – | – |
| 23/32 | – | – | – | – | 1624-612 | 48.30 | – | – |
| 47/64 | – | – | – | – | 1624-712 | 50.15 | – | – |
| 3/4 | – | – | – | – | 1624-812 | 50.15 | – | – |
| 49/64 | – | – | – | – | 1624-912 | 54.65 | – | – |
| 25/32 | – | – | – | – | 1625-012 | 54.65 | – | – |
| 51/64 | – | – | – | – | 1625-112 | 59.40 | – | – |
| 13/16 | – | – | – | – | 1625-212 | 59.40 | – | – |
| 53/64 | – | – | – | – | 1625-312 | 66.10 | – | – |
| 27/32 | – | – | – | – | 1625-412 | 66.10 | – | – |
| 55/64 | – | – | – | – | 1625-512 | 71.25 | – | – |
| 7/8 | – | – | – | – | 1625-612 | 71.25 | – | – |
| 57/64 | – | – | – | – | 1625-712 | 79.20 | – | – |
| 29/32 | – | – | – | – | 1625-812 | 79.20 | – | – |
| 59/64 | – | – | – | – | 1625-912 | 82.10 | – | – |
| 15/16 | – | – | – | – | 1626-012 | 82.10 | – | – |
| 61/64 | – | – | – | – | 1626-112 | 85.40 | – | – |
| 31/32 | – | – | – | – | 1626-212 | 85.40 | – | – |
| 63/64 | – | – | – | – | 1626-312 | 85.40 | – | – |
| 1 | – | – | – | – | 1626-412 | 85.40 | – | – |

# Extra Long Drills– Straight Shank

## High Speed Steel, 6" thru 36" OAL



Pittsburg® ALLEGHANY

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1/32 | 6 | 1610-206 | $ 9.32 |
| 3/64 | 6 | 1610-306 | 8.07 |
| 1/16 | 6 | 1610-406 | 7.88 |
| 1/16 | 8 | 1610-408 | 9.94 |
| 5/64 | 6 | 1610-506 | 7.88 |
| 5/64 | 8 | 1610-508 | 9.94 |
| 3/32 | 6 | 1610-606 | 7.48 |
| 3/32 | 8 | 1610-608 | 7.99 |
| 3/32 | 10 | 1610-610 | 10.05 |
| 7/64 | 6 | 1610-706 | 7.12 |
| 7/64 | 8 | 1610-708 | 7.99 |
| 7/64 | 10 | 1610-710 | 10.05 |
| 7/64 | 12 | 1610-712 | 11.72 |
| 1/8 | 6 | 1610-806 | 5.39 |
| 1/8 | 8 | 1610-808 | 5.95 |
| 1/8 | 10 | 1610-810 | 7.69 |
| 1/8 | 12 | 1610-812 | 8.03 |
| 1/8 | 16 | 1610-816 | 19.63 |
| 1/8 | 18 | 1610-818 | 27.88 |
| 9/64 | 6 | 1610-906 | 5.52 |
| 9/64 | 8 | 1610-908 | 6.04 |
| 9/64 | 10 | 1610-910 | 6.67 |
| 9/64 | 12 | 1610-912 | 8.03 |
| 9/64 | 16 | 1610-916 | 19.63 |
| 9/64 | 18 | 1610-918 | 27.88 |
| 5/32 | 6 | 1611-006 | 5.52 |
| 5/32 | 8 | 1611-008 | 6.04 |
| 5/32 | 10 | 1611-010 | 6.67 |
| 5/32 | 12 | 1611-012 | 8.03 |
| 5/32 | 16 | 1611-016 | 13.57 |
| 5/32 | 18 | 1611-018 | 24.40 |
| 11/64 | 6 | 1611-106 | 6.04 |
| 11/64 | 8 | 1611-108 | 6.63 |
| 11/64 | 10 | 1611-110 | 7.44 |
| 11/64 | 12 | 1611-112 | 8.03 |
| 11/64 | 16 | 1611-116 | 14.08 |
| 11/64 | 18 | 1611-118 | 24.40 |
| 3/16 | 6 | 1611-206 | 6.04 |
| 3/16 | 8 | 1611-208 | 6.63 |
| 3/16 | 10 | 1611-210 | 7.44 |
| 3/16 | 12 | 1611-212 | 8.03 |
| 3/16 | 16 | 1611-216 | 13.01 |
| 3/16 | 18 | 1611-218 | 19.51 |
| 13/64 | 8 | 1611-308 | 6.63 |
| 13/64 | 10 | 1611-310 | 7.44 |
| 13/64 | 12 | 1611-312 | 8.03 |
| 13/64 | 16 | 1611-316 | 15.23 |
| 13/64 | 18 | 1611-318 | 15.90 |
| 7/32 | 8 | 1611-408 | 6.63 |
| 7/32 | 10 | 1611-410 | 7.44 |
| 7/32 | 12 | 1611-412 | 8.03 |
| 7/32 | 16 | 1611-416 | 15.23 |
| 7/32 | 18 | 1611-418 | 15.90 |
| 15/64 | 8 | 1611-508 | 6.72 |
| 15/64 | 10 | 1611-510 | 7.61 |
| 15/64 | 12 | 1611-512 | 8.03 |
| 15/64 | 16 | 1611-516 | 15.17 |
| 15/64 | 18 | 1611-518 | 15.90 |
| 1/4 | 8 | 1611-608 | 6.72 |
| 1/4 | 10 | 1611-610 | 7.61 |
| 1/4 | 12 | 1611-612 | 8.03 |
| 1/4 | 16 | 1611-616 | 16.42 |
| 1/4 | 18 | 1611-618 | 15.90 |
| 1/4 | 24 | 1611-624 | 41.00 |

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 17/64 | 8 | 1611-708 | $ 7.44 |
| 17/64 | 10 | 1611-710 | 8.33 |
| 17/64 | 12 | 1611-712 | 9.18 |
| 17/64 | 16 | 1611-716 | 15.42 |
| 17/64 | 18 | 1611-718 | 18.96 |
| 17/64 | 24 | 1611-724 | 50.60 |
| 9/32 | 8 | 1611-808 | 7.44 |
| 9/32 | 10 | 1611-810 | 8.33 |
| 9/32 | 12 | 1611-812 | 9.18 |
| 9/32 | 16 | 1611-816 | 15.42 |
| 9/32 | 18 | 1611-818 | 18.96 |
| 9/32 | 24 | 1611-824 | 50.60 |
| 19/64 | 8 | 1611-908 | 7.44 |
| 19/64 | 10 | 1611-910 | 8.71 |
| 19/64 | 12 | 1611-912 | 9.18 |
| 19/64 | 16 | 1611-916 | 16.88 |
| 19/64 | 18 | 1611-918 | 18.96 |
| 19/64 | 24 | 1611-924 | 50.60 |
| 5/16 | 8 | 1612-008 | 7.61 |
| 5/16 | 10 | 1612-010 | 8.80 |
| 5/16 | 12 | 1612-012 | 9.39 |
| 5/16 | 16 | 1612-016 | 16.88 |
| 5/16 | 18 | 1612-018 | 18.96 |
| 5/16 | 24 | 1612-024 | 42.17 |
| 21/64 | 8 | 1612-108 | 8.50 |
| 21/64 | 10 | 1612-110 | 9.61 |
| 21/64 | 12 | 1612-112 | 10.58 |
| 21/64 | 16 | 1612-116 | 17.66 |
| 21/64 | 18 | 1612-118 | 18.96 |
| 21/64 | 24 | 1612-124 | 51.80 |
| 11/32 | 8 | 1612-208 | 8.50 |
| 11/32 | 10 | 1612-210 | 9.61 |
| 11/32 | 12 | 1612-212 | 10.58 |
| 11/32 | 16 | 1612-216 | 17.66 |
| 11/32 | 18 | 1612-218 | 18.96 |
| 11/32 | 24 | 1612-224 | 51.80 |
| 23/64 | 8 | 1612-308 | 8.93 |
| 23/64 | 10 | 1612-310 | 9.95 |
| 23/64 | 12 | 1612-312 | 11.01 |
| 23/64 | 16 | 1612-316 | 18.49 |
| 23/64 | 18 | 1612-318 | 18.96 |
| 23/64 | 24 | 1612-324 | 51.80 |
| 3/8 | 8 | 1612-408 | 8.93 |
| 3/8 | 10 | 1612-410 | 9.95 |
| 3/8 | 12 | 1612-412 | 11.01 |
| 3/8 | 16 | 1612-416 | 18.49 |
| 3/8 | 18 | 1612-418 | 18.96 |
| 3/8 | 24 | 1612-424 | 43.17 |
| 25/64 | 8 | 1612-508 | 9.61 |
| 25/64 | 10 | 1612-510 | 10.88 |
| 25/64 | 12 | 1612-512 | 11.90 |
| 25/64 | 16 | 1612-516 | 18.68 |
| 25/64 | 18 | 1612-518 | 20.70 |
| 25/64 | 24 | 1612-524 | 60.54 |
| 13/32 | 8 | 1612-608 | 9.61 |
| 13/32 | 10 | 1612-610 | 10.88 |
| 13/32 | 12 | 1612-612 | 11.90 |
| 13/32 | 16 | 1612-616 | 18.68 |
| 13/32 | 18 | 1612-618 | 20.70 |
| 13/32 | 24 | 1612-624 | 60.54 |
| 27/64 | 8 | 1612-708 | 9.95 |
| 27/64 | 10 | 1612-710 | 11.01 |
| 27/64 | 12 | 1612-712 | 12.24 |
| 27/64 | 16 | 1612-716 | 19.50 |
| 27/64 | 18 | 1612-718 | 22.27 |
| 27/64 | 24 | 1612-724 | 60.54 |

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 7/16 | 8 | 1612-808 | $ 9.95 |
| 7/16 | 10 | 1612-810 | 11.01 |
| 7/16 | 12 | 1612-812 | 12.24 |
| 7/16 | 16 | 1612-816 | 19.50 |
| 7/16 | 18 | 1612-818 | 22.27 |
| 7/16 | 24 | 1612-824 | 50.44 |
| 7/16 | 30 | 1612-830 | POA |
| 7/16 | 36 | 1612-836 | POA |
| 29/64 | 8 | 1612-908 | 11.35 |
| 29/64 | 10 | 1612-910 | 12.62 |
| 29/64 | 12 | 1612-912 | 13.81 |
| 29/64 | 16 | 1612-916 | 21.11 |
| 29/64 | 18 | 1612-918 | 25.54 |
| 29/64 | 24 | 1612-924 | 70.04 |
| 15/32 | 8 | 1613-008 | 11.35 |
| 15/32 | 10 | 1613-010 | 12.62 |
| 15/32 | 12 | 1613-012 | 13.81 |
| 15/32 | 16 | 1613-016 | 21.11 |
| 15/32 | 18 | 1613-018 | 25.54 |
| 15/32 | 24 | 1613-024 | 70.04 |
| 31/64 | 8 | 1613-108 | 11.52 |
| 31/64 | 10 | 1613-110 | 12.96 |
| 31/64 | 12 | 1613-112 | 14.37 |
| 31/64 | 16 | 1613-116 | 24.89 |
| 31/64 | 18 | 1613-118 | 26.44 |
| 31/64 | 24 | 1613-124 | 70.04 |
| 1/2 | 8 | 1613-208 | 11.52 |
| 1/2 | 10 | 1613-210 | 12.96 |
| 1/2 | 12 | 1613-212 | 14.37 |
| 1/2 | 16 | 1613-216 | 24.89 |
| 1/2 | 18 | 1613-218 | 26.44 |
| 1/2 | 24 | 1613-224 | 58.36 |
| 1/2 | 30 | 1613-230 | POA |
| 1/2 | 36 | 1613-236 | POA |
| 33/64 | 10 | 1613-310 | 18.30 |
| 33/64 | 12 | 1613-312 | 19.98 |
| 33/64 | 16 | 1613-316 | 27.00 |
| 33/64 | 18 | 1613-318 | 33.96 |
| 33/64 | 24 | 1613-324 | 93.60 |
| 17/32 | 10 | 1613-410 | 18.30 |
| 17/32 | 12 | 1613-412 | 19.98 |
| 17/32 | 16 | 1613-416 | 27.00 |
| 17/32 | 18 | 1613-418 | 33.96 |
| 17/32 | 24 | 1613-424 | 93.60 |
| 35/64 | 10 | 1613-510 | 18.89 |
| 35/64 | 12 | 1613-512 | 20.06 |
| 35/64 | 16 | 1613-516 | 27.32 |
| 35/64 | 18 | 1613-518 | 36.38 |
| 35/64 | 24 | 1613-524 | 93.60 |
| 9/16 | 10 | 1613-610 | 18.89 |
| 9/16 | 12 | 1613-612 | 20.06 |
| 9/16 | 16 | 1613-616 | 27.32 |
| 9/16 | 18 | 1613-618 | 36.38 |
| 9/16 | 24 | 1613-624 | 78.00 |
| 9/16 | 30 | 1613-630 | POA |
| 9/16 | 36 | 1613-636 | POA |
| 37/64 | 12 | 1613-712 | 21.04 |
| 37/64 | 16 | 1613-716 | 32.57 |
| 37/64 | 18 | 1613-718 | 40.08 |
| 37/64 | 24 | 1613-724 | 101.92 |
| 19/32 | 12 | 1613-812 | 21.04 |
| 19/32 | 16 | 1613-816 | 32.57 |
| 19/32 | 18 | 1613-818 | 40.08 |
| 19/32 | 24 | 1613-824 | 101.92 |
| 39/64 | 12 | 1613-912 | 22.44 |
| 39/64 | 16 | 1613-916 | 36.39 |
| 39/64 | 18 | 1613-918 | 44.20 |
| 39/64 | 24 | 1613-924 | 101.92 |

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 5/8 | 12 | 1614-012 | $ 22.44 |
| 5/8 | 16 | 1614-016 | 36.39 |
| 5/8 | 18 | 1614-018 | 43.05 |
| 5/8 | 24 | 1614-024 | 84.93 |
| 5/8 | 30 | 1614-030 | POA |
| 5/8 | 36 | 1614-036 | POA |
| 41/64 | 12 | 1614-112 | 23.80 |
| 41/64 | 16 | 1614-116 | 38.73 |
| 41/64 | 18 | 1614-118 | 47.81 |
| 41/64 | 24 | 1614-124 | 118.94 |
| 21/32 | 12 | 1614-212 | 23.80 |
| 21/32 | 16 | 1614-216 | 38.73 |
| 21/32 | 18 | 1614-218 | 47.81 |
| 21/32 | 24 | 1614-224 | 118.94 |
| 43/64 | 12 | 1614-312 | 25.76 |
| 43/64 | 16 | 1614-316 | 40.89 |
| 43/64 | 18 | 1614-318 | 49.77 |
| 43/64 | 24 | 1614-324 | 118.94 |
| 11/16 | 12 | 1614-412 | 25.76 |
| 11/16 | 16 | 1614-416 | 40.89 |
| 11/16 | 18 | 1614-418 | 49.77 |
| 11/16 | 24 | 1614-424 | 99.12 |
| 11/16 | 30 | 1614-430 | POA |
| 11/16 | 36 | 1614-436 | POA |
| 45/64 | 12 | 1614-512 | 28.56 |
| 45/64 | 16 | 1614-516 | 45.63 |
| 45/64 | 18 | 1614-518 | 54.83 |
| 45/64 | 24 | 1614-524 | 137.24 |
| 23/32 | 12 | 1614-612 | 28.56 |
| 23/32 | 16 | 1614-616 | 45.63 |
| 23/32 | 18 | 1614-618 | 54.83 |
| 23/32 | 24 | 1614-624 | 137.24 |
| 47/64 | 12 | 1614-712 | 30.73 |
| 47/64 | 16 | 1614-716 | 48.25 |
| 47/64 | 18 | 1614-718 | 57.12 |
| 47/64 | 24 | 1614-724 | 137.24 |
| 3/4 | 12 | 1614-812 | 30.73 |
| 3/4 | 16 | 1614-816 | 48.25 |
| 3/4 | 18 | 1614-818 | 57.12 |
| 3/4 | 24 | 1614-824 | 114.37 |
| 49/64 | 12 | 1614-912 | 34.51 |
| 49/64 | 16 | 1614-916 | 50.60 |
| 49/64 | 18 | 1614-918 | 58.99 |
| 49/64 | 24 | 1614-924 | 143.10 |
| 25/32 | 12 | 1615-012 | 34.51 |
| 25/32 | 16 | 1615-016 | 50.60 |
| 25/32 | 18 | 1615-018 | 58.99 |
| 25/32 | 24 | 1615-024 | 119.65 |
| 51/64 | 12 | 1615-112 | 36.64 |
| 51/64 | 16 | 1615-116 | 52.72 |
| 51/64 | 18 | 1615-118 | 60.86 |
| 13/16 | 12 | 1615-212 | 36.64 |
| 13/16 | 16 | 1615-216 | 52.72 |
| 13/16 | 18 | 1615-218 | 60.86 |
| 13/16 | 24 | 1615-224 | 122.58 |
| 53/64 | 12 | 1615-312 | 38.68 |
| 53/64 | 16 | 1615-316 | 55.86 |
| 53/64 | 18 | 1615-318 | 63.16 |
| 27/32 | 12 | 1615-412 | 38.68 |
| 27/32 | 16 | 1615-416 | 55.86 |
| 27/32 | 18 | 1615-418 | 63.16 |
| 27/32 | 24 | 1615-424 | 128.74 |

(cont'd)

# Extra Long Drills– Straight Shank (Cont'd)

## High Speed Steel

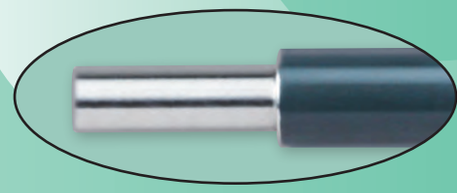
## (Continued)

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 55/64 | 12 | 1615-512 | $ 40.29 |
| 55/64 | 16 | 1615-516 | 57.27 |
| 55/64 | 18 | 1615-518 | 65.58 |
| 7/8 | 12 | 1615-612 | 40.29 |
| 7/8 | 16 | 1615-616 | 57.27 |
| 7/8 | 18 | 1615-618 | 65.58 |
| 7/8 | 24 | 1615-624 | 131.96 |
| 57/64 | 12 | 1615-712 | 41.35 |
| 57/64 | 16 | 1615-716 | 58.50 |
| 57/64 | 18 | 1615-718 | 66.00 |
| 29/32 | 12 | 1615-812 | 41.35 |
| 29/32 | 16 | 1615-816 | 58.50 |
| 29/32 | 18 | 1615-818 | 66.00 |
| 29/32 | 24 | 1615-824 | 165.40 |
| 59/64 | 12 | 1615-912 | 43.18 |
| 59/64 | 16 | 1615-916 | 59.34 |
| 59/64 | 18 | 1615-918 | 66.47 |
| 15/16 | 12 | 1616-012 | 43.18 |
| 15/16 | 16 | 1616-016 | 59.34 |
| 15/16 | 18 | 1616-018 | 66.47 |
| 15/16 | 24 | 1616-024 | 137.83 |
| 61/64 | 12 | 1616-112 | 45.94 |
| 61/64 | 16 | 1616-116 | 62.06 |
| 61/64 | 18 | 1616-118 | 69.02 |
| 61/64 | 24 | 1616-124 | 175.96 |
| 31/32 | 12 | 1616-212 | 45.94 |
| 31/32 | 16 | 1616-216 | 62.06 |
| 31/32 | 18 | 1616-218 | 69.02 |
| 31/32 | 24 | 1616-224 | 175.96 |
| 63/64 | 12 | 1616-312 | 51.64 |
| 63/64 | 16 | 1616-316 | 66.84 |
| 63/64 | 18 | 1616-318 | 72.04 |
| 63/64 | 24 | 1616-324 | 175.96 |
| 1 | 12 | 1616-412 | 51.64 |
| 1 | 16 | 1616-416 | 66.84 |
| 1 | 18 | 1616-418 | 72.04 |
| 1 | 24 | 1616-424 | 146.63 |
| 1-1/16 | 18 | 1616-818 | 84.11 |
| 1-1/16 | 24 | 1616-824 | 164.80 |
| 1-1/8 | 18 | 1617-218 | 84.11 |
| 1-1/8 | 24 | 1617-224 | 178.76 |
| 1-3/16 | 18 | 1617-618 | 112.16 |
| 1-3/16 | 24 | 1617-624 | 199.43 |
| 1-1/4 | 18 | 1618-018 | 134.60 |
| 1-1/4 | 24 | 1618-024 | 239.79 |

## Metric Sizes - 9" Loc x 12" OAL

| DIAM. MM. | ORDER NO. | PRICE EACH |
|---|---|---|
| 3.00 | 1643-030 | $ 9.23 |
| 3.50 | 1643-035 | 9.23 |
| 4.00 | 1643-040 | 9.23 |
| 4.50 | 1643-045 | 9.23 |
| 5.00 | 1643-050 | 9.23 |
| 5.50 | 1643-055 | 9.23 |
| 6.00 | 1643-060 | 9.23 |
| 6.50 | 1643-065 | 10.56 |
| 7.00 | 1643-070 | 10.56 |
| 7.50 | 1643-075 | 10.56 |
| 8.00 | 1643-080 | 12.17 |
| 8.50 | 1643-085 | 12.17 |
| 9.00 | 1643-090 | 12.66 |
| 9.50 | 1643-095 | 12.66 |
| 10.00 | 1643-100 | 13.69 |
| 10.50 | 1643-105 | 14.08 |
| 11.00 | 1643-110 | 14.08 |
| 11.50 | 1643-115 | 15.88 |
| 12.00 | 1643-120 | 16.53 |
| 12.50 | 1643-125 | 16.53 |
| 13.00 | 1643-130 | 22.98 |
| 13.50 | 1643-135 | 23.07 |
| 14.00 | 1643-140 | 23.07 |
| 14.50 | 1643-145 | 24.20 |
| 15.00 | 1643-150 | 24.20 |
| 15.50 | 1643-155 | 25.81 |
| 16.00 | 1643-160 | 27.37 |
| 16.50 | 1643-165 | 27.37 |
| 17.00 | 1643-170 | 29.62 |
| 17.50 | 1643-175 | 32.84 |
| 18.00 | 1643-180 | 32.84 |
| 18.50 | 1643-185 | 35.34 |
| 19.00 | 1643-190 | 35.34 |
| 19.50 | 1643-195 | 39.69 |
| 20.00 | 1643-200 | 42.14 |
| 20.50 | 1643-205 | 42.14 |
| 21.00 | 1643-210 | 44.48 |
| 21.50 | 1643-215 | 46.33 |
| 22.00 | 1643-220 | 46.33 |
| 22.50 | 1643-225 | 47.55 |
| 23.00 | 1643-230 | 47.55 |
| 23.50 | 1643-235 | 49.66 |
| 24.00 | 1643-240 | 52.83 |
| 24.50 | 1643-245 | 52.83 |
| 25.00 | 1643-250 | 59.39 |

## 1/2" Shank - 9" Loc x 12" OAL



| DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|
| 33/64 | 1653-312 | $23.98 |
| 17/32 | 1653-412 | 23.98 |
| 35/64 | 1653-512 | 24.07 |
| 9/16 | 1653-612 | 24.07 |
| 37/64 | 1653-712 | 25.25 |
| 19/32 | 1653-812 | 25.25 |
| 39/64 | 1653-912 | 26.93 |
| 5/8 | 1654-012 | 26.93 |
| 41/64 | 1654-112 | 28.56 |
| 21/32 | 1654-212 | 28.56 |
| 43/64 | 1654-312 | 30.91 |
| 11/16 | 1654-412 | 30.91 |
| 45/64 | 1654-512 | 34.27 |
| 23/32 | 1654-612 | 34.27 |
| 47/64 | 1654-712 | 36.88 |
| 3/4 | 1654-812 | 36.88 |
| 49/64 | 1654-912 | 41.41 |
| 25/32 | 1655-012 | 41.41 |
| 51/64 | 1655-112 | 43.97 |
| 13/16 | 1655-212 | 43.97 |
| 53/64 | 1655-312 | 46.42 |
| 27/32 | 1655-412 | 46.42 |
| 55/64 | 1655-512 | 48.35 |
| 7/8 | 1655-612 | 48.35 |
| 57/64 | 1655-712 | 49.62 |
| 29/32 | 1655-812 | 49.62 |
| 59/64 | 1655-912 | 51.82 |
| 15/16 | 1656-012 | 51.82 |
| 61/64 | 1656-112 | 55.13 |
| 31/32 | 1656-212 | 55.13 |
| 63/64 | 1656-312 | 61.97 |
| 1 | 1656-412 | 61.97 |

# Extra Long Drills – Straight Shank



## High Speed Steel

### Wire Gage Sizes

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1 | 8 | 1630-108 | $7.73 |
| 1 | 12 | 1630-112 | 9.23 |
| 2 | 8 | 1630-208 | 7.73 |
| 2 | 12 | 1630-212 | 9.23 |
| 3 | 8 | 1630-308 | 7.62 |
| 3 | 12 | 1630-312 | 9.23 |
| 4 | 8 | 1630-408 | 7.62 |
| 4 | 12 | 1630-412 | 9.23 |
| 5 | 8 | 1630-508 | 7.62 |
| 5 | 12 | 1630-512 | 9.23 |
| 6 | 8 | 1630-608 | 7.62 |
| 6 | 12 | 1630-612 | 9.23 |
| 7 | 8 | 1630-708 | 7.62 |
| 7 | 12 | 1630-712 | 9.23 |
| 8 | 8 | 1630-808 | 7.62 |
| 8 | 12 | 1630-812 | 9.23 |
| 9 | 8 | 1630-908 | 7.62 |
| 9 | 12 | 1630-912 | 9.23 |
| 10 | 8 | 1631-008 | 7.62 |
| 10 | 12 | 1631-012 | 9.23 |
| 11 | 8 | 1631-108 | 7.62 |
| 11 | 12 | 1631-112 | 9.23 |
| 12 | 8 | 1631-208 | 7.62 |
| 12 | 12 | 1631-212 | 9.23 |
| 13 | 6 | 1631-306 | 6.95 |
| 13 | 8 | 1631-308 | 7.62 |
| 13 | 12 | 1631-312 | 9.23 |
| 14 | 6 | 1631-406 | 6.95 |
| 14 | 8 | 1631-408 | 7.62 |
| 14 | 12 | 1631-412 | 9.23 |
| 15 | 6 | 1631-506 | 6.95 |
| 15 | 8 | 1631-508 | 7.62 |
| 15 | 12 | 1631-512 | 9.23 |
| 16 | 6 | 1631-606 | 6.95 |
| 16 | 8 | 1631-608 | 7.62 |
| 16 | 12 | 1631-612 | 9.23 |
| 17 | 6 | 1631-706 | 6.95 |
| 17 | 8 | 1631-708 | 7.62 |
| 17 | 12 | 1631-712 | 9.23 |
| 18 | 6 | 1631-806 | 6.95 |
| 18 | 8 | 1631-808 | 7.62 |
| 18 | 12 | 1631-812 | 9.23 |
| 19 | 6 | 1631-906 | 6.95 |
| 19 | 8 | 1631-908 | 7.62 |
| 19 | 12 | 1631-912 | 9.23 |
| 20 | 6 | 1632-006 | 6.95 |
| 20 | 8 | 1632-008 | 7.62 |
| 20 | 12 | 1632-012 | 9.23 |
| 21 | 6 | 1632-106 | $6.95 |
| 21 | 8 | 1632-108 | 7.62 |
| 21 | 12 | 1632-112 | 9.23 |
| 22 | 6 | 1632-206 | 6.95 |
| 22 | 8 | 1632-208 | 7.62 |
| 22 | 12 | 1632-212 | 9.23 |
| 23 | 6 | 1632-306 | 6.35 |
| 23 | 8 | 1632-308 | 6.95 |
| 23 | 12 | 1632-312 | 9.23 |
| 24 | 6 | 1632-406 | 6.35 |
| 24 | 8 | 1632-408 | 6.95 |
| 24 | 12 | 1632-412 | 9.23 |
| 25 | 6 | 1632-506 | 6.35 |
| 25 | 8 | 1632-508 | 6.95 |
| 25 | 12 | 1632-512 | 9.23 |
| 26 | 6 | 1632-606 | 6.35 |
| 26 | 8 | 1632-608 | 6.95 |
| 26 | 12 | 1632-612 | 9.23 |
| 27 | 6 | 1632-706 | 6.35 |
| 27 | 8 | 1632-708 | 6.95 |
| 27 | 12 | 1632-712 | 9.23 |
| 28 | 6 | 1632-806 | 6.35 |
| 28 | 12 | 1632-812 | 9.23 |
| 29 | 6 | 1632-906 | 6.35 |
| 29 | 8 | 1632-908 | 6.95 |
| 29 | 12 | 1632-912 | 9.23 |
| 30 | 6 | 1633-006 | 6.35 |
| 30 | 8 | 1633-008 | 6.95 |
| 30 | 12 | 1633-012 | 9.23 |
| 31 | 6 | 1633-106 | 6.20 |
| 31 | 8 | 1633-108 | 6.84 |
| 31 | 12 | 1633-112 | 9.23 |
| 32 | 6 | 1633-206 | 6.20 |
| 32 | 8 | 1633-208 | 6.84 |
| 33 | 6 | 1633-306 | 6.20 |
| 33 | 8 | 1633-308 | 6.84 |
| 34 | 6 | 1633-406 | 6.20 |
| 34 | 8 | 1633-408 | 6.84 |
| 35 | 6 | 1633-506 | 6.20 |
| 35 | 8 | 1633-508 | 6.84 |
| 36 | 6 | 1633-606 | 8.19 |
| 36 | 8 | 1633-608 | 9.19 |
| 37 | 6 | 1633-706 | 8.19 |
| 37 | 8 | 1633-708 | 9.19 |
| 38 | 6 | 1633-806 | 8.19 |
| 38 | 8 | 1633-808 | 9.19 |
| 39 | 6 | 1633-906 | 8.19 |
| 39 | 8 | 1633-908 | 9.19 |
| 40 | 6 | 1634-006 | 8.19 |
| 40 | 8 | 1634-008 | 9.19 |
| 41 | 6 | 1634-106 | $8.19 |
| 41 | 8 | 1634-108 | 9.19 |
| 42 | 6 | 1634-206 | 8.60 |
| 42 | 8 | 1634-208 | 9.19 |
| 43 | 6 | 1634-306 | 8.60 |
| 44 | 6 | 1634-406 | 8.60 |
| 45 | 6 | 1634-506 | 8.60 |
| 46 | 6 | 1634-606 | 8.60 |
| 47 | 6 | 1634-706 | 8.60 |
| 48 | 6 | 1634-806 | 9.06 |
| 49 | 6 | 1634-906 | 9.06 |
| 50 | 6 | 1635-006 | 9.06 |
| 51 | 6 | 1635-106 | 9.06 |
| 52 | 6 | 1635-206 | 9.06 |
| 53 | 3 1/2 | 1635-303 | 3.70 |
| 53 | 6 | 1635-306 | 9.06 |
| 54 | 3 1/2 | 1635-403 | 3.70 |
| 54 | 6 | 1635-406 | 9.06 |
| 55 | 3 3/8 | 1635-503 | 3.70 |
| 55 | 6 | 1635-506 | 9.06 |
| 56 | 3 1/4 | 1635-613 | 3.70 |
| 56 | 6 | 1635-606 | 9.28 |
| 57 | 3 1/4 | 1635-713 | 3.70 |
| 57 | 6 | 1635-706 | 9.28 |
| 58 | 3 1/4 | 1635-813 | 3.70 |
| 58 | 6 | 1635-806 | 9.28 |
| 59 | 3 1/8 | 1635-913 | 3.70 |
| 59 | 6 | 1635-906 | 9.28 |
| 60 | 3 1/8 | 1636-013 | 3.70 |
| 60 | 6 | 1636-006 | 9.28 |
| 61 | 3 | 1636-103 | 4.08 |
| 62 | 3 | 1636-203 | 4.08 |
| 63 | 3 | 1636-303 | 4.08 |
| 64 | 3 | 1636-403 | 4.08 |
| 65 | 3 | 1636-503 | 4.08 |
| 66 | 3 | 1636-603 | 4.08 |
| 67 | 3 | 1636-703 | 4.08 |
| 68 | 2 7/8 | 1636-802 | 4.08 |
| 69 | 2 3/4 | 1636-902 | 4.08 |
| 70 | 2 5/8 | 1637-002 | 4.08 |
| 71 | 2 5/8 | 1637-102 | 4.08 |
| 72 | 2 1/2 | 1637-202 | 4.08 |
| 73 | 2 3/8 | 1637-302 | 4.85 |
| 74 | 2 1/4 | 1637-402 | 4.85 |
| 75 | 2 1/8 | 1637-502 | 4.85 |
| 76 | 2 | 1637-602 | 4.85 |
| 77 | 1 7/8 | 1637-701 | 4.85 |
| 78 | 1 3/4 | 1637-801 | 4.85 |

### Letter Sizes

| DIAM. | OVERALL LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| A | 12 | 1640-112 | $9.23 |
| B | 8 | 1640-208* | 7.73 |
| B | 12 | 1640-212 | 9.23 |
| C | 10 | 1640-310* | 8.75 |
| C | 12 | 1640-312 | 9.23 |
| D | 8 | 1640-408* | 7.73 |
| D | 12 | 1640-412 | 9.23 |
| F | 6 | 1640-606* | 6.04 |
| F | 10 | 1640-610* | 9.58 |
| F | 12 | 1640-612 | 10.56 |
| G | 8 | 1640-708* | 8.56 |
| G | 10 | 1640-710* | 9.58 |
| G | 12 | 1640-712 | 10.56 |
| H | 12 | 1640-812 | 10.56 |
| I | 12 | 1640-912 | 10.56 |
| J | 10 | 1641-010* | 9.58 |
| J | 12 | 1641-012 | 10.56 |
| K | 12 | 1641-112 | 10.56 |
| L | 12 | 1641-212 | $10.56 |
| M | 8 | 1641-308* | 8.56 |
| M | 10 | 1641-310* | 10.02 |
| M | 12 | 1641-312 | 10.56 |
| N | 12 | 1641-412 | 10.80 |
| O | 12 | 1641-512 | 12.17 |
| P | 8 | 1641-608* | 9.78 |
| P | 12 | 1641-612 | 12.17 |
| Q | 6 | 1641-706* | 6.95 |
| Q | 12 | 1641-712 | 12.17 |
| R | 12 | 1641-812 | 12.17 |
| S | 8 | 1641-908* | 10.27 |
| S | 12 | 1641-912 | 12.66 |
| T | 8 | 1642-008* | 10.27 |
| T | 10 | 1642-010* | 11.44 |
| T | 12 | 1642-012 | 12.66 |
| U | 12 | 1642-112 | 12.66 |
| V | 8 | 1642-208* | 11.05 |
| V | 12 | 1642-212 | $13.69 |
| W | 12 | 1642-312 | 13.69 |
| X | 8 | 1642-408* | 11.05 |
| X | 12 | 1642-412 | 13.69 |
| Y | 10 | 1642-510* | 12.51 |
| Y | 12 | 1642-512 | 13.69 |
| Z | 12 | 1642-612 | 14.08 |

* Discontinued. Limited Quantities

# Taper Shank Drills

## High Speed Steel

### Metric Sizes † Limited Quantities

2

| DIAM. MM | DECM'L EQUIV. | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3.00 | .1181 | 1MT | 1330-300 | $3.80 |
| 3.50 | .1378 | 1MT | 1330-350 | 3.85 |
| 4.00 | .1575 | 1MT | 1330-400 | 3.85 |
| 4.50 | .1772 | 1MT | 1330-450 | 3.85 |
| 5.00 | .1969 | 1MT | 1330-500 | 4.30 |
| 5.50 | .2165 | 1MT | 1330-550 | 4.30 |
| 5.80 | .2283 | 1MT | 1330-580 | 4.50 |
| 6.00 | .2362 | 1MT | 1330-600 | 4.50 |
| 6.50 | .2559 | 1MT | 1330-650 | 4.75 |
| 7.00 | .2756 | 1MT | 1330-700 | 4.75 |
| 7.50 | .2953 | 1MT | 1330-750 | 4.90 |
| 8.00 | .3150 | 1MT | 1330-800 | 6.70 |
| 8.50 | .3346 | 1MT | 1330-850 | 7.15 |
| 8.80 | .3465 | 1MT | 1330-880† | 7.85 |
| 9.00 | .3543 | 1MT | 1330-900 | 7.85 |
| 9.50 | .3740 | 1MT | 1330-950 | 7.85 |
| 9.60 | .3780 | 1MT | 1330-960† | 7.85 |
| 10.00 | .3937 | 1MT | 1331-000 | 7.85 |
| 10.50 | .4134 | 1MT | 1331-050 | 8.40 |
| 11.00 | .4331 | 1MT | 1331-100 | 8.50 |
| 11.25 | .4429 | 1MT* | 1331-125 | 9.35 |
| 11.50 | .4528 | 1MT | 1331-150 | 9.35 |
| 11.75 | .4626 | 1MT | 1331-175† | 9.35 |
| 11.80 | .4646 | 1MT | 1331-180† | 9.80 |
| 12.00 | .4724 | 1MT | 1331-200 | 10.60 |
| 12.00 | .4724 | 2MT | 1351-200 | 10.60 |
| 12.20 | .4803 | 1MT | 1331-220† | 10.60 |
| 12.25 | .4626 | 1MT | 1331-225† | 10.60 |
| 12.50 | .4921 | 1MT | 1331-250 | 10.60 |
| 12.50 | .4921 | 2MT | 1351-250 | 10.60 |
| 13.00 | .5118 | 1MT | 1331-300 | 11.80 |
| 13.50 | .5315 | 1MT | 1331-350 | 12.90 |
| 13.50 | .5315 | 2MT | 1351-350 | 12.90 |
| 14.00 | .5512 | 1MT | 1331-400 | 12.90 |
| 14.00 | .5512 | 2MT | 1351-400 | 12.90 |
| 14.50 | .5709 | 2MT | 1331-450 | 13.75 |
| 15.00 | .5906 | 2MT | 1331-500 | 13.75 |
| 15.25 | .6004 | 2MT | 1331-525† | 14.10 |
| 15.50 | .6102 | 2MT | 1331-550 | 14.10 |
| 16.00 | .6299 | 2MT | 1331-600 | 15.60 |
| 16.50 | .6496 | 2MT | 1331-650 | 15.60 |
| 17.00 | .6693 | 2MT | 1331-700 | 16.40 |
| 17.50 | .6890 | 2MT | 1331-750 | 17.35 |
| 18.00 | .7087 | 2MT | 1331-800 | 17.35 |
| 18.50 | .7283 | 2MT | 1331-850 | 19.15 |
| 18.75 | .7382 | 2MT | 1331-875† | 19.15 |
| 19.00 | .7480 | 2MT | 1331-900 | 19.15 |
| 19.50 | .7677 | 2MT | 1331-950 | 22.80 |
| 20.00 | .7874 | 2MT | 1332-000 | 26.00 |
| 20.00 | .7874 | 3MT | 1352-000 | 23.65 |
| 20.50 | .8071 | 2MT | 1332-050 | 26.00 |
| 20.50 | .8071 | 3MT | 1352-050 | 23.65 |
| 20.75 | .8169 | 3MT | 1352-075 | 23.65 |
| 21.00 | .8268 | 2MT | 1332-100 | 28.80 |
| 21.50 | .8465 | 2MT | 1332-150 | 28.80 |
| 21.50 | .8465 | 3MT | 1352-150 | 26.20 |
| 22.00 | .8661 | 2MT | 1332-200 | 28.80 |
| 22.00 | .8661 | 3MT | 1352-200 | 26.20 |
| 22.50 | .8858 | 2MT | 1332-250 | 28.95 |
| 22.50 | .8858 | 3MT | 1352-250 | 26.30 |
| 22.75 | .8957 | 2MT | 1332-275† | 26.30 |
| 23.00 | .9055 | 2MT | 1332-300 | 28.95 |
| 23.00 | .9055 | 3MT | 1352-300 | 26.30 |
| 23.50 | .9252 | 3MT | 1332-350 | 26.30 |
| 24.00 | .9449 | 3MT | 1332-400 | 28.65 |
| 24.50 | .9646 | 3MT | 1332-450 | 28.65 |
| 24.75 | .9744 | 3MT | 1332-475† | 28.65 |
| 25.00 | .9843 | 3MT | 1332-500 | 30.55 |
| 25.25 | .9941 | 3MT | 1332-525† | 30.55 |
| 25.50 | 1.0039 | 3MT | 1332-550 | 32.00 |
| 26.00 | 1.0236 | 3MT | 1332-600 | 32.00 |
| 26.50 | 1.0433 | 3MT | 1332-650 | 35.55 |
| 27.00 | 1.0630 | 3MT | 1332-700 | 39.50 |
| 27.50 | 1.0827 | 3MT | 1332-750 | 43.45 |
| 27.50 | 1.0827 | 4MT | 1352-750† | 39.50 |
| 28.00 | 1.1024 | 3MT | 1332-800 | $45.65 |
| 28.00 | 1.1024 | 4MT | 1352-800 | 41.50 |
| 28.50 | 1.1220 | 3MT | 1332-850 | 45.65 |
| 29.00 | 1.1417 | 3MT | 1332-900 | 47.25 |
| 29.00 | 1.1417 | 4MT | 1352-900 | 42.95 |
| 29.50 | 1.1614 | 3MT | 1332-950 | 49.65 |
| 30.00 | 1.1811 | 3MT | 1333-000 | 49.65 |
| 30.00 | 1.1811 | 4MT | 1353-000 | 45.15 |
| 30.50 | 1.2008 | 3MT | 1333-050 | 53.75 |
| 31.00 | 1.2205 | 3MT | 1333-100 | 55.85 |
| 31.50 | 1.2402 | 3MT | 1333-150 | 55.85 |
| 31.50 | 1.2402 | 4MT | 1353-150 | 50.80 |
| 31.75 | 1.2500 | 3MT | 1333-175† | 50.80 |
| 32.00 | 1.2598 | 4MT | 1333-200 | 60.95 |
| 32.50 | 1.2795 | 4MT | 1333-250 | 60.95 |
| 33.00 | 1.2992 | 4MT | 1333-300 | 61.90 |
| 33.50 | 1.3189 | 4MT | 1333-350 | 65.40 |
| 34.00 | 1.3386 | 4MT | 1333-400 | 65.40 |
| 34.50 | 1.3583 | 4MT | 1333-450 | 69.10 |
| 35.00 | 1.3780 | 4MT | 1333-500 | 71.00 |
| 35.50 | 1.3976 | 4MT | 1333-550 | 71.00 |
| 36.00 | 1.4173 | 4MT | 1333-600 | 71.75 |
| 36.50 | 1.4370 | 4MT | 1333-650 | 71.75 |
| 37.00 | 1.4567 | 4MT | 1333-700 | 76.35 |
| 37.50 | 1.4764 | 4MT | 1333-750 | 76.35 |
| 38.00 | 1.4961 | 4MT | 1333-800 | 76.35 |
| 38.50 | 1.5157 | 4MT | 1333-850 | 92.40 |
| 39.00 | 1.5354 | 4MT | 1333-900 | 92.40 |
| 39.50 | 1.5551 | 4MT | 1333-950 | 109.80 |
| 40.00 | 1.5748 | 4MT | 1334-000 | 109.80 |
| 40.00 | 1.5748 | 5MT | 1354-000 | 99.85 |
| 40.50 | 1.5945 | 4MT | 1334-050 | 109.80 |
| 41.00 | 1.6142 | 4MT | 1334-100 | 109.80 |
| 41.00 | 1.6142 | 5MT | 1354-100 | 99.85 |
| 41.50 | 1.6339 | 4MT | 1334-150 | 118.05 |
| 42.00 | 1.6535 | 4MT | 1334-200 | 118.05 |
| 42.50 | 1.6732 | 4MT | 1334-250 | 126.95 |
| 43.00 | 1.6929 | 4MT | 1334-300 | 126.95 |
| 43.00 | 1.6929 | 5MT | 1354-300 | 115.45 |
| 43.50 | 1.7129 | 4MT | 1334-350 | 129.60 |
| 44.00 | 1.7323 | 4MT | 1334-400 | 129.60 |
| 44.50 | 1.7520 | 4MT | 1334-450 | 134.65 |
| 45.00 | 1.7717 | 4MT | 1334-500 | 134.65 |
| 45.00 | 1.7717 | 5MT | 1354-500 | 122.40 |
| 45.50 | 1.7913 | 4MT | 1334-550 | 138.15 |
| 46.00 | 1.8110 | 4MT | 1334-600 | 138.15 |
| 46.50 | 1.8307 | 4MT | 1334-650 | 144.55 |
| 47.00 | 1.8504 | 4MT | 1334-700 | 144.55 |
| 47.50 | 1.8701 | 4MT | 1334-750 | 150.80 |
| 48.00 | 1.8898 | 4MT | 1334-800 | 150.80 |
| 48.50 | 1.9094 | 4MT | 1334-850 | 155.50 |
| 49.00 | 1.9291 | 4MT | 1334-900 | 155.50 |
| 49.50 | 1.9488 | 4MT | 1334-950 | 158.85 |
| 50.00 | 1.9685 | 4MT | 1335-000 | 158.85 |
| 50.50 | 1.9882 | 4MT | 1335-050† | 169.55 |
| 51.00 | 2.0079 | 5MT | 1335-100 | 169.55 |
| 53.00 | 2.0866 | 5MT | 1335-300† | 168.18 |
| 53.50 | 2.1063 | 5MT | 1335-350† | 177.94 |
| 54.00 | 2.1260 | 5MT | 1335-400† | 177.94 |
| 54.50 | 2.1457 | 5MT | 1335-450† | 189.74 |
| 57.00 | 2.2441 | 5MT | 1335-700† | 200.04 |
| 58.00 | 2.2835 | 5MT | 1335-800† | 201.51 |
| 61.00 | 2.4016 | 5MT | 1336-100† | 223.61 |
| 62.00 | 2.4409 | 5MT | 1336-200† | 282.41 |
| 64.00 | 2.5197 | 5MT | 1336-400† | 291.56 |
| 66.00 | 2.5984 | 5MT | 1336-600† | 318.36 |
| 67.00 | 2.6378 | 5MT | 1336-700† | 341.48 |
| 68.00 | 2.6772 | 5MT | 1336-800† | 367.14 |
| 70.00 | 2.7559 | 5MT | 1337-000† | 413.34 |
| 71.00 | 2.7953 | 5MT | 1337-100† | 413.34 |
| 72.00 | 2.8346 | 5MT | 1337-200† | 436.49 |
| 73.00 | 2.8740 | 5MT | 1337-300† | 436.49 |

## Stub Length Drills

### High Speed Steel

3

| DIAM. | OAL | FLUTE LG'TH | 4MT ORDER NO. | 4MT PRICE EACH | 5MT ORDER NO. | 5MT PRICE EACH |
|---|---|---|---|---|---|---|
| 2 | 12 | 5 | 1371-284 | $ 95.45 | 1371-285 | $ 97.65 |
| 2-1/16 | 12 | 5 | 1371-324 | 103.35 | 1371-325 | 105.15 |
| 2-1/8 | 12 | 5 | 1371-364 | 105.75 | 1371-365 | 107.55 |
| 2-3/16 | 12 | 5 | 1371-404 | 119.05 | 1371-405 | 120.55 |
| 2-1/4 | 12 | 5 | 1371-444 | 124.15 | 1371-445 | 127.15 |
| 2-5/16 | 12 | 5 | 1371-484 | 127.55 | 1371-485 | 129.85 |
| 2-3/8 | 12 | 5 | 1371-524 | 134.55 | 1371-525 | 138.45 |
| 2-7/16 | 12 | 5 | 1371-564 | 160.95 | 1371-565 | 164.95 |
| 2-1/2 | 12 | 5 | 1371-604 | 164.95 | 1371-605 | 166.95 |
| 2-9/16 | 12 | 5 | 1371-644 | 168.95 | 1371-645 | 174.45 |
| 2-5/8 | 12 | 5 | 1371-684 | 168.95 | 1371-685 | 174.45 |
| 2-11/16 | 12 | 5 | 1371-724 | 195.95 | 1371-725 | 187.95 |
| 2-3/4 | 12 | 5 | 1371-764 | 195.95 | 1371-765 | 195.95 |
| 2-13/16 | 12 | 5 | 1371-804 | 238.95 | 1371-805 | 216.95 |
| 2-7/8 | 12 | 5 | 1371-844 | 238.95 | 1371-845 | 216.95 |
| 2-15/16 | 12 | 5 | 1371-884 | 264.95 | 1371-885 | 236.95 |
| 3 | 12 | 5 | 1371-924 | 264.95 | 1371-925 | 256.95 |
| 3-1/8 | 12 | 5 | – | – | 1372-005 | 288.95 |
| 3-1/4 | 12 | 5 | – | – | 1372-085 | 328.95 |
| 3-3/8 | 12 | 5 | – | – | 1372-165 | 338.95 |
| 3-1/2 | 12 | 5 | – | – | 1372-245 | 394.95 |

# Taper Shank Drills

## High Speed Steel, Cobalt, & Carbide Tipped

| | | | | HIGH SPEED STEEL | | | | COBALT | | CARBIDE TIPPED | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [3] Pittsburg® ALLEGHANY | | [2] ALLEGIANCE® AMERICAN MADE | | [2] Pittsburg® ALLEGHANY | | [2] Pittsburg® ALLEGHANY | |
| DIAM. | TAPER SHANK NO. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/16 | 1MT | 1-1/4 | 4-5/8 | 1301-004 | $3.20 | – | – | – | – | – | – |
| 5/64 | 1MT | 1-3/8 | 4-3/4 | 1301-005 | 3.20 | – | – | – | – | – | – |
| 3/32 | 1MT | 1-1/2 | 4-7/8 | 1301-006 | 3.20 | – | – | – | – | – | – |
| 7/64 | 1MT | 1-5/8 | 5 | 1301-007 | 3.30 | – | – | – | – | – | – |
| 1/8 | 1MT | 1-7/8 | 5-1/8 | 1301-008 | 3.30 | 1304-008 | $9.50 | 1360-081 | $15.60 | 3000-081† | $16.28 |
| 9/64 | 1MT | 2-1/8 | 5-3/8 | 1301-009 | 3.35 | 1304-009 | 10.00 | 1360-091† | 19.50 | 3000-091† | 17.15 |
| 5/32 | 1MT | 2-1/8 | 5-3/8 | 1301-010 | 3.35 | 1304-010 | 9.60 | 1360-101 | 15.60 | 3000-101† | 17.15 |
| 11/64 | 1MT | 2-1/2 | 5-3/4 | 1301-011 | 3.75 | 1304-011 | 10.00 | 1360-111† | 19.50 | 3000-111† | 18.75 |
| 3/16 | 1MT | 2-1/2 | 5-3/4 | 1301-012 | 3.75 | 1304-012 | 7.75 | 1360-121 | 15.60 | 3000-121† | 18.75 |
| 13/64 | 1MT | 2-3/4 | 6 | 1301-013 | 3.75 | 1304-013 | 8.65 | 1360-131† | 19.50 | 3000-131† | 20.27 |
| 7/32 | 1MT | 2-3/4 | 6 | 1301-014 | 3.75 | 1304-014 | 8.35 | 1360-141 | 15.60 | 3000-141† | 20.27 |
| 15/64 | 1MT | 2-7/8 | 6-1/8 | 1301-015 | 4.05 | 1304-015 | 9.90 | 1360-151† | 19.50 | 3000-151† | 20.71 |
| 1/4 | 1MT | 2-7/8 | 6-1/8 | 1301-016 | 4.05 | 1304-016 | 8.60 | 1360-161 | 12.95 | 3000-161 | 36.30 |
| 17/64 | 1MT | 3 | 6-1/4 | 1301-017 | 4.35 | 1304-017 | 9.60 | 1360-171† | 14.85 | 3000-171 | 37.15 |
| 17/64 | 2MT* | 3 | 6-7/8 | 1306-017 | 4.80 | – | – | – | – | – | – |
| 9/32 | 1MT | 3 | 6-1/4 | 1301-018 | 4.35 | 1304-018 | 9.20 | 1360-181 | 14.25 | 3000-181 | 37.15 |
| 9/32 | 2MT* | 3 | 6-7/8 | 1306-018 | 4.80 | – | – | – | – | – | – |
| 19/64 | 1MT | 3-1/8 | 6-3/8 | 1301-019 | 4.35 | 1304-019 | 11.85 | 1360-191† | 14.85 | 3000-191 | 37.15 |
| 19/64 | 2MT* | 3-1/8 | 7 | 1306-019 | 4.85 | – | – | – | – | – | – |
| 5/16 | 1MT | 3-1/8 | 6-3/8 | 1301-020 | 4.40 | 1304-020 | 9.20 | 1360-201 | 14.25 | 3000-201 | 37.15 |
| 21/64 | 1MT | 3-1/4 | 6-1/2 | 1301-021 | 5.10 | 1304-021 | 12.00 | 1360-211† | 17.45 | 3000-211 | 47.30 |
| 11/32 | 1MT | 3-1/4 | 6-1/2 | 1301-022 | 6.35 | 1304-022 | 12.55 | 1360-221 | 16.70 | 3000-221 | 47.30 |
| 11/32 | 2MT* | 3-1/4 | 7-1/8 | 1306-022 | 7.00 | – | – | – | – | – | – |
| 23/64 | 1MT | 3-1/2 | 6-3/4 | 1301-023 | 7.00 | 1304-023 | 13.90 | 1360-231† | 20.60 | 3000-231 | 47.30 |
| 23/64 | 2MT* | 3-1/2 | 7-3/8 | 1306-023 | 7.70 | – | – | – | – | – | – |
| 3/8 | 1MT | 3-1/2 | 6-3/4 | 1301-024 | 7.00 | 1304-024 | 13.25 | 1360-241 | 20.60 | 3000-241 | 47.30 |
| 3/8 | 2MT* | 3-1/2 | 7-3/8 | 1306-024 | 8.30 | 1306-124 | 16.80 | 1360-242 | 19.85 | – | – |
| 25/64 | 1MT | 3-5/8 | 7 | 1301-025 | 7.20 | 1304-025 | 14.40 | 1360-251† | 20.60 | 3000-251 | 54.70 |
| 25/64 | 2MT* | 3-5/8 | 7-1/2 | 1306-025 | 8.60 | 1306-125 | 18.45 | 1360-252† | 21.05 | – | – |
| 13/32 | 1MT | 3-5/8 | 7 | 1301-026 | 7.00 | 1304-026 | 13.40 | 1360-261† | 21.95 | 3000-261 | 54.70 |
| 13/32 | 2MT* | 3-5/8 | 7-1/2 | 1306-026 | 8.75 | 1306-126 | 17.50 | 1360-262 | 21.05 | – | – |
| 27/64 | 1MT | 3-7/8 | 7-1/4 | 1301-027 | 7.40 | 1304-027 | 15.35 | – | – | 3000-271 | 54.70 |
| 27/64 | 2MT* | 3-7/8 | 7-3/4 | 1306-027 | 8.65 | 1306-127 | 18.50 | 1360-272† | 22.70 | – | – |
| 7/16 | 1MT | 3-7/8 | 7-1/4 | 1301-028 | 7.55 | 1304-028 | 14.80 | – | – | 3000-281 | 47.90 |
| 7/16 | 2MT* | 3-7/8 | 7-3/4 | 1306-028 | 9.15 | 1306-128 | 20.10 | 1360-282 | 22.70 | – | – |
| 29/64 | 1MT | 4-1/8 | 7-1/2 | 1301-029 | 8.25 | 1304-029 | 16.90 | – | – | 3000-291 | 58.15 |
| 29/64 | 2MT* | 4-1/8 | 8 | 1306-029 | 9.45 | 1306-129 | 20.10 | 1360-292† | 25.45 | – | – |
| 15/32 | 1MT | 4-1/8 | 7-1/2 | 1301-030 | 8.65 | 1304-030 | 17.00 | – | – | 3000-301 | 58.15 |
| 15/32 | 2MT* | 4-1/8 | 8 | 1306-030 | 9.85 | 1306-130 | 20.00 | 1360-302 | 24.35 | – | – |
| 31/64 | 1MT* | 4-3/8 | 7-3/4 | 1303-031 | 9.75 | 1305-031 | 21.15 | – | – | – | – |
| 31/64 | 2MT | 4-3/8 | 8-1/4 | 1301-031 | 9.85 | 1304-031 | 19.10 | – | – | 3000-312 | 58.15 |
| 1/2 | 1MT* | 4-3/8 | 7-3/4 | 1303-032 | 8.85 | 1305-032 | 19.90 | – | – | – | – |
| 1/2 | 2MT | 4-3/8 | 8-1/4 | 1301-032 | 8.45 | 1304-032 | 16.15 | 1360-322 | 25.20 | 3000-322 | 45.75 |
| 33/64 | 1MT* | 4-5/8 | 8 | 1303-033 | 10.15 | 1305-033 | 23.20 | – | – | 3000-331† | 59.10 |
| 33/64 | 2MT | 4-5/8 | 8-1/2 | 1301-033 | 10.25 | 1304-033 | 20.85 | 1360-332† | 31.15 | 3000-332 | 59.10 |
| 17/32 | 1MT* | 4-5/8 | 8 | 1303-034 | 9.95 | 1305-034 | 22.95 | – | – | 3000-341† | 48.30 |
| 17/32 | 2MT | 4-5/8 | 8-1/2 | 1301-034 | 10.05 | 1304-034 | 19.45 | 1360-342 | 29.10 | 3000-342 | 48.30 |
| 35/64 | 1MT* | 4-7/8 | 8-1/4 | 1303-035 | 10.85 | 1305-035 | 24.80 | – | – | – | – |
| 35/64 | 2MT | 4-7/8 | 8-3/4 | 1301-035 | 10.90 | 1304-035 | 22.65 | 1360-352† | 32.40 | 3000-352 | 59.95 |
| 9/16 | 1MT* | 4-7/8 | 8-1/4 | 1303-036 | 10.75 | 1305-036 | 25.05 | – | – | – | – |
| 9/16 | 2MT | 4-7/8 | 8-3/4 | 1301-036 | 10.90 | 1304-036 | 20.40 | 1360-362 | 30.50 | 3000-362 | 48.70 |
| 37/64 | 1MT* | 4-7/8 | 8-1/4 | 1303-037 | 10.95 | 1305-037 | 26.25 | – | – | – | – |
| 37/64 | 2MT | 4-7/8 | 8-3/4 | 1301-037 | 11.25 | 1304-037 | 24.05 | 1360-372† | 34.90 | 3000-372 | 62.75 |
| 19/32 | 2MT | 4-7/8 | 8-3/4 | 1301-038 | 11.10 | 1304-038 | 22.80 | 1360-382 | 32.35 | 3000-382 | 50.85 |
| 39/64 | 2MT | 4-7/8 | 8-3/4 | 1301-039 | 11.80 | 1304-039 | 25.20 | 1360-392† | 37.10 | 3000-392 | 72.70 |
| 5/8 | 1MT* | 4-7/8 | 8-1/4 | 1303-040† | 10.65 | – | – | – | – | – | – |
| 5/8 | 2MT | 4-7/8 | 8-3/4 | 1301-040 | 10.80 | 1304-040 | 22.30 | 1360-402 | 34.70 | 3000-402 | 59.20 |
| 5/8 | 3MT* | 4-7/8 | 9-1/2 | 1306-040 | 13.20 | – | – | – | – | – | – |
| 41/64 | 2MT | 5-1/8 | 9 | 1301-041 | 12.15 | 1304-041 | 27.75 | – | – | 3000-412 | 73.85 |
| 41/64 | 3MT* | 5-1/8 | 9-3/4 | 1306-041 | 14.15 | 1306-141 | 35.25 | 1360-413† | 41.85 | – | – |
| 21/32 | 2MT | 5-1/8 | 9 | 1301-042 | 11.90 | 1304-042 | 25.80 | – | – | 3000-422 | 57.70 |
| 21/32 | 3MT* | 5-1/8 | 9-3/4 | 1306-042 | 14.45 | 1306-142 | 33.80 | 1360-423 | 39.65 | – | – |
| 43/64 | 2MT | 5-3/8 | 9-1/4 | 1301-043 | 12.90 | 1304-043 | 29.75 | – | – | 3000-432 | 74.70 |
| 43/64 | 3MT* | 5-3/8 | 10 | 1306-043 | 15.20 | 1306-143 | 37.85 | 1360-433† | 45.70 | – | – |
| 11/16 | 2MT | 5-3/8 | 9-1/4 | 1301-044 | 12.45 | 1304-044 | 26.65 | – | – | 3000-442 | 59.55 |
| 11/16 | 3MT* | 5-3/8 | 10 | 1306-044 | 15.75 | 1306-144 | 37.05 | 1360-443 | 42.30 | – | – |
| 45/64 | 2MT | 5-5/8 | 9-1/2 | 1301-045 | 13.80 | 1304-045 | 31.00 | – | – | 3000-452 | 76.80 |
| 45/64 | 3MT* | 5-5/8 | 10-1/4 | 1306-045 | 16.45 | 1306-145 | 40.95 | 1360-453† | 49.85 | – | – |
| 23/32 | 2MT | 5-5/8 | 9-1/2 | 1301-046 | 13.90 | 1304-046 | 28.80 | – | – | 3000-462 | 61.00 |
| 23/32 | 3MT* | 5-5/8 | 10-1/4 | 1306-046 | 16.85 | 1306-146 | 39.70 | 1360-463 | 46.15 | – | – |
| 47/64 | 2MT | 5-7/8 | 9-3/4 | 1301-047 | 15.45 | 1304-047 | 32.95 | – | – | 3000-472 | 78.30 |
| 47/64 | 3MT* | 5-7/8 | 10-1/2 | 1306-047 | 17.80 | 1306-147 | 44.30 | 1360-473† | 53.10 | – | – |
| 3/4 | 2MT | 5-7/8 | 9-3/4 | 1301-048 | 14.70 | 1304-048 | 32.10 | – | – | 3000-482 | 65.85 |
| 3/4 | 3MT* | 5-7/8 | 10-1/2 | 1306-048 | 18.00 | 1306-148 | 41.60 | 1360-483 | 49.05 | – | – |
| 49/64 | 2MT | 6 | 9-7/8 | 1301-049 | 17.35 | 1304-049 | 39.60 | – | – | 3000-492 | 83.30 |
| 49/64 | 3MT* | 6 | 10-5/8 | 1306-049 | 20.10 | 1306-149 | 49.25 | 1360-493† | 55.80 | – | – |

* Alternate Shank

† Limited Quantities

(Continued)

# Taper Shank Drills (cont'd.)

## High Speed Steel, Cobalt, & Carbide Tipped

| | | | | HIGH SPEED STEEL | | | | COBALT | | CARBIDE TIPPED | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | Pittsburg® ALLEGHANY | |
| DIAM. | TAPER SHANK NO. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 25/32 | 2MT | 6 | 9-7/8 | 1301-050 | $18.05 | 1304-050 | $37.85 | – | – | 3000-502 | $71.25 |
| 25/32 | 3MT* | 6 | 10-5/8 | 1306-050 | 20.10 | 1306-150 | 45.75 | 1360-503 | $51.60 | – | – |
| 51/64 | 2MT* | 6-1/8 | 10 | 1303-051 | 18.30 | 1305-051 | 45.35 | – | – | – | – |
| 51/64 | 3MT | 6-1/8 | 10-3/4 | 1301-051 | 19.00 | 1304-051 | 43.35 | 1360-513† | 57.50 | 3000-513 | 84.15 |
| 13/16 | 2MT* | 6-1/8 | 10 | 1303-052 | 19.35 | 1305-052 | 44.65 | – | – | – | – |
| 13/16 | 3MT | 6-1/8 | 10-3/4 | 1301-052 | 18.10 | 1304-052 | 38.70 | 1360-523 | 53.25 | 3000-523 | 72.05 |
| 53/64 | 2MT* | 6-1/8 | 10 | 1303-053 | 20.65 | 1305-053 | 48.30 | – | – | – | – |
| 53/64 | 3MT | 6-1/8 | 10-3/4 | 1301-053 | 20.10 | 1304-053 | 45.25 | 1360-533† | 62.80 | 3000-533 | 84.15 |
| 27/32 | 2MT* | 6-1/8 | 10 | 1303-054 | 20.65 | 1305-054 | 47.75 | – | – | – | – |
| 27/32 | 3MT | 6-1/8 | 10-3/4 | 1301-054 | 19.50 | 1304-054 | 43.65 | 1360-543 | 62.05 | 3000-543 | 73.55 |
| 55/64 | 2MT* | 6-1/8 | 10 | 1303-055 | 21.55 | 1305-055 | 50.35 | – | – | – | – |
| 55/64 | 3MT | 6-1/8 | 10-3/4 | 1301-055 | 20.80 | 1304-055 | 46.80 | 1360-553† | 69.40 | 3000-553 | 88.90 |
| 7/8 | 2MT* | 6-1/8 | 10 | 1303-056 | 20.00 | 1305-056 | 49.05 | – | – | – | – |
| 7/8 | 3MT | 6-1/8 | 10-3/4 | 1301-056 | 19.90 | 1304-056 | 44.25 | 1360-563 | 62.05 | 3000-563 | 78.20 |
| 57/64 | 2MT* | 6-1/8 | 10 | 1303-057 | 22.25 | 1305-057 | 51.95 | – | – | – | – |
| 57/64 | 3MT | 6-1/8 | 10-3/4 | 1301-057 | 21.30 | 1304-057 | 47.85 | 1360-573† | 75.15 | 3000-573 | 91.85 |
| 29/32 | 2MT* | 6-1/8 | 10 | 1303-058 | 22.05 | 1305-058 | 51.35 | – | – | – | – |
| 29/32 | 3MT | 6-1/8 | 10-3/4 | 1301-058 | 22.15 | 1304-058 | 47.10 | 1360-583 | 72.95 | 3000-583 | 84.10 |
| 59/64 | 3MT | 6-1/8 | 10-3/4 | 1301-059 | 21.55 | 1304-059 | 48.40 | 1360-593† | 78.95 | 3000-593 | 93.55 |
| 15/16 | 2MT* | 6-1/8 | 10 | 1303-060 | 20.75 | – | – | – | – | – | – |
| 15/16 | 3MT | 6-1/8 | 10-3/4 | 1301-060 | 20.20 | 1304-060 | 46.45 | 1360-603 | 72.95 | 3000-603 | 89.80 |
| 15/16 | 4MT* | 5-1/8 | 10-3/4 | 1306-060† | 22.20 | – | – | – | – | – | – |
| 61/64 | 2MT* | 6-1/4 | 10-1/4 | 1303-061† | 22.60 | – | – | – | – | – | – |
| 61/64 | 3MT | 6-3/8 | 11 | 1301-061 | 22.15 | 1304-061 | 49.75 | 1360-613† | 87.10 | 3000-613 | 98.10 |
| 31/32 | 3MT | 6-3/8 | 11 | 1301-062 | 21.90 | 1304-062 | 49.40 | 1360-623 | 82.50 | 3000-623 | 89.80 |
| 63/64 | 2MT* | 6-1/4 | 10-1/4 | 1303-063† | 23.80 | – | – | – | – | – | – |
| 63/64 | 3MT | 6-3/8 | 11 | 1301-063 | 23.50 | 1304-063 | 52.80 | 1360-633† | 90.20 | 3000-633 | 100.65 |
| 1 | 2MT* | 6-1/8 | 10 | 1303-064 | 17.75 | 1305-064 | 54.85 | – | – | – | – |
| 1 | 3MT | 6-3/8 | 11 | 1301-064 | 21.90 | 1304-064 | 48.65 | 1360-643 | 82.50 | 3000-643 | 88.35 |
| 1 | 4MT* | 6-3/8 | 12 | 1306-064 | 31.70 | 1306-164 | 66.60 | – | – | – | – |
| 1-1/64 | 3MT | 6-1/2 | 11-1/8 | 1301-065 | 28.70 | 1304-065 | 60.10 | – | – | – | – |
| 1-1/32 | 3MT | 6-1/2 | 11-1/8 | 1301-066 | 27.15 | 1304-066 | 54.55 | – | – | 3000-663 | 129.30 |
| 1-1/32 | 4MT* | 6-1/2 | 12-1/8 | 1306-066 | 33.45 | 1306-166 | 75.10 | 1360-664 | 114.85 | – | – |
| 1-3/64 | 2MT* | 6-5/8 | 10-5/8 | 1303-067† | 31.00 | – | – | – | – | – | – |
| 1-3/64 | 3MT | 6-5/8 | 11-1/4 | 1301-067 | 30.15 | 1304-067 | 63.15 | – | – | – | – |
| 1-1/16 | 3MT | 6-5/8 | 11-1/4 | 1301-068 | 28.70 | 1304-068 | 53.40 | 1360-683† | 118.35 | 3000-683 | 109.70 |
| 1-1/16 | 4MT* | 6-5/8 | 12-1/4 | 1306-068 | 37.40 | 1306-168 | 78.45 | 1360-684 | 105.70 | – | – |
| 1-5/64 | 3MT* | 6-7/8 | 11-1/2 | 1303-069 | 36.05 | 1305-069 | 80.35 | – | – | – | – |
| 1-5/64 | 4MT | 6-7/8 | 12-1/2 | 1301-069 | 34.80 | 1304-069 | 72.80 | – | – | 3000-694 | 143.80 |
| 1-3/32 | 3MT* | 6-7/8 | 11-1/2 | 1303-070 | 33.45 | 1305-070 | 78.00 | – | – | – | – |
| 1-3/32 | 4MT | 6-7/8 | 12-1/2 | 1301-070 | 33.45 | 1304-070 | 65.60 | 1360-704 | 125.30 | 3000-704 | 143.80 |
| 1-7/64 | 3MT* | 7-1/8 | 11-3/4 | 1303-071 | 36.65 | 1305-071 | 81.50 | – | – | – | – |
| 1-7/64 | 4MT | 7-1/8 | 12-3/4 | 1301-071 | 37.85 | 1304-071 | 75.70 | – | – | – | – |
| 1-1/8 | 3MT* | 7-1/8 | 11-3/4 | 1303-072 | 34.25 | 1305-072 | 81.00 | – | – | – | – |
| 1-1/8 | 4MT | 7-1/8 | 12-3/4 | 1301-072 | 36.80 | 1304-072 | 65.65 | 1360-724 | 115.65 | 3000-724 | 121.50 |
| 1-9/64 | 3MT* | 7-1/4 | 11-7/8 | 1303-073 | 38.45 | 1305-073 | 86.65 | – | – | – | – |
| 1-9/64 | 4MT | 7-1/4 | 12-7/8 | 1301-073 | 40.20 | 1304-073 | 80.25 | – | – | 3000-734 | 165.00 |
| 1-5/32 | 3MT* | 7-1/4 | 11-7/8 | 1303-074 | 38.15 | 1305-074 | 88.25 | – | – | – | – |
| 1-5/32 | 4MT | 7-1/4 | 12-7/8 | 1301-074 | 38.20 | 1304-074 | 71.35 | 1360-744 | 142.40 | 3000-744 | 165.00 |
| 1-11/64 | 3MT* | 7-3/8 | 12 | 1303-075 | 38.40 | 1305-075 | 89.50 | – | – | – | – |
| 1-11/64 | 4MT | 7-3/8 | 13 | 1301-075 | 40.60 | 1304-075 | 81.15 | – | – | 3000-754 | 165.00 |
| 1-3/16 | 3MT* | 7-3/8 | 12 | 1303-076 | 38.15 | 1305-076 | 90.05 | – | – | – | – |
| 1-3/16 | 4MT | 7-3/8 | 13 | 1301-076 | 40.20 | 1304-076 | 71.55 | 1360-764 | 131.10 | 3000-764 | 139.20 |
| 1-13/64 | 3MT* | 7-1/2 | 12-1/8 | 1303-077 | 41.35 | 1305-077 | 96.00 | – | – | – | – |
| 1-13/64 | 4MT | 7-1/2 | 13-1/8 | 1301-077 | 43.50 | 1304-077 | 86.80 | – | – | 3000-774 | 177.05 |
| 1-7/32 | 3MT* | 7-1/2 | 12-1/8 | 1303-078 | 41.00 | 1305-078 | 96.70 | – | – | – | – |
| 1-7/32 | 4MT | 7-1/2 | 13-1/8 | 1301-078 | 42.80 | 1304-078 | 79.95 | 1360-784 | 162.00 | 3000-784 | 177.05 |
| 1-15/64 | 3MT* | 7-7/8 | 12-1/2 | 1303-079 | 45.30 | 1305-079 | 104.65 | – | – | – | – |
| 1-15/64 | 4MT | 7-7/8 | 13-1/2 | 1301-079 | 47.45 | 1304-079 | 94.70 | – | – | 3000-794 | 177.05 |
| 1-1/4 | 3MT* | 7-7/8 | 12-1/2 | 1303-080 | 44.20 | 1305-080 | 106.15 | – | – | – | – |
| 1-1/4 | 4MT | 7-7/8 | 13-1/2 | 1301-080 | 45.20 | 1304-080 | 80.50 | 1360-804 | 149.40 | 3000-804 | 148.95 |
| 1-17/64 | 4MT | 8-1/2 | 14-1/8 | 1301-081 | 51.35 | 1304-081 | 109.15 | – | – | – | – |
| 1-9/32 | 4MT | 8-1/2 | 14-1/8 | 1301-082 | 52.35 | 1304-082 | 104.25 | 1360-824 | 208.80 | – | – |
| 1-19/64 | 4MT | 8-5/8 | 14-1/4 | 1301-083 | 57.45 | 1304-083 | 116.25 | – | – | – | – |
| 1-5/16 | 3MT* | 8-5/8 | 13-1/4 | 1303-084 | 51.45 | 1305-084 | 131.35 | – | – | – | – |
| 1-5/16 | 4MT | 8-5/8 | 14-1/4 | 1301-084 | 54.05 | 1304-084 | 101.05 | 1360-844 | 175.10 | – | – |
| 1-5/16 | 5MT | 8-5/8 | 14-1/4 | – | – | – | – | 1360-845 | 208.80 | – | – |
| 1-21/64 | 4MT | 8-3/4 | 14-3/8 | 1301-085 | 59.20 | 1304-085 | 120.15 | – | – | – | – |
| 1-11/32 | 4MT | 8-3/4 | 14-3/8 | 1301-086 | 58.15 | 1304-086 | 111.95 | 1360-864 | 224.10 | – | – |
| 1-23/64 | 3MT* | 8-7/8 | 13-1/2 | 1303-087† | POA | – | – | – | – | – | – |
| 1-23/64 | 4MT | 8-7/8 | 14-1/2 | 1301-087 | 58.35 | 1304-087 | 122.75 | – | – | – | – |
| 1-3/8 | 3MT* | 8-7/8 | 13-1/2 | 1303-088 | 55.20 | 1305-088 | 138.35 | – | – | – | – |
| 1-3/8 | 4MT | 8-7/8 | 14-1/2 | 1301-088 | 59.05 | 1304-088 | 108.35 | 1360-884 | 187.75 | 3000-884 | 236.15 |
| 1-3/8 | 5MT | 8-7/8 | 14-1/2 | – | – | – | – | 1360-885 | 224.10 | – | – |

* Alternate Shank

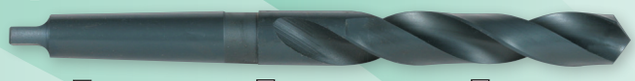


† Limited Quantities

(Continued)

# Taper Shank Drills (cont'd.)

## High Speed Steel, Cobalt, & Carbide Tipped



| | | | | HIGH SPEED STEEL [3] | | HIGH SPEED STEEL [2] | | COBALT [2] | | CARBIDE TIPPED [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | Pittsburg® ALLEGHANY | |
| DIAM. | TAPER SHANK NO. | FLUTE LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1-25/64 | 4MT | 9 | 14-5/8 | 1301-089 | $62.00 | 1304-089 | $126.15 | – | – | – | – |
| 1-13/32 | 3MT * | 9 | 13-5/8 | 1303-090† | 60.75 | – | – | – | – | – | – |
| 1-13/32 | 4MT | 9 | 14-5/8 | 1301-090 | 62.00 | 1304-090 | 121.60 | 1360-904 | $242.20 | – | – |
| 1-27/64 | 4MT | 9-1/8 | 14-3/4 | 1301-091 | 65.30 | 1304-091 | 130.65 | – | – | – | – |
| 1-7/16 | 3MT * | 9-1/8 | 13-3/4 | 1303-092 | 59.20 | 1305-092 | 152.60 | – | – | – | – |
| 1-7/16 | 4MT | 9-1/8 | 14-3/4 | 1301-092 | 62.85 | 1304-092 | 117.15 | 1360-924 | 202.95 | – | – |
| 1-7/16 | 5MT | 9-1/8 | 14-3/4 | – | – | – | – | 1360-925 | 242.20 | – | – |
| 1-29/64 | 3MT * | 9-1/4 | 13-7/8 | 1303-093† | 66.55e | – | – | – | – | – | – |
| 1-29/64 | 4MT | 9-1/4 | 14-7/8 | 1301-093 | 67.90 | 1304-093 | 137.40 | – | – | – | – |
| 1-15/32 | 3MT | 9-1/4 | 14-7/8 | – | – | 1305-094 | 166.75 | – | – | – | – |
| 1-15/32 | 4MT | 9-1/4 | 14-7/8 | 1301-094 | 67.05 | 1304-094 | 131.00 | 1360-944 | 260.00 | – | – |
| 1-31/64 | 4MT | 9-3/8 | 15 | 1301-095 | 69.55 | 1304-095 | 141.00 | – | – | – | – |
| 1-1/2 | 3MT * | 9-3/8 | 14 | 1303-096 | 63.75 | 1305-096 | 160.55 | – | – | – | – |
| 1-1/2 | 4MT | 9-3/8 | 15 | 1301-096 | 67.35 | 1304-096 | 124.55 | 1360-964 | 217.90 | 3000-964 | $270.30 |
| 1-1/2 | 5MT | 9-1/2 | 16-1/2 | – | – | – | – | 1360-965 | 260.00 | – | – |
| 1-33/64 | 4MT * | 9-3/8 | 15 | 1303-097 | 75.75 | 1305-097 | 168.60 | – | – | – | – |
| 1-33/64 | 5MT | 9-3/8 | 16-3/8 | 1301-097 | 78.60 | 1304-097 | 168.55 | – | – | – | – |
| 1-17/32 | 4MT * | 9-3/8 | 15 | 1303-098 | 79.25 | 1305-098 | 169.75 | – | – | – | – |
| 1-17/32 | 5MT | 9-3/8 | 16-3/8 | 1301-098 | 79.15 | 1304-098 | 150.95 | 1360-985 | 374.40 | – | – |
| 1-35/64 | 4MT * | 9-5/8 | 15-1/4 | 1303-099 | 83.40 | 1305-099 | 179.35 | – | – | – | – |
| 1-35/64 | 5MT | 9-5/8 | 16-5/8 | 1301-099 | 82.20 | 1304-099 | 179.20 | – | – | – | – |
| 1-9/16 | 4MT * | 9-5/8 | 15-1/4 | 1303-100 | 82.95 | 1305-100 | 181.60 | – | – | – | – |
| 1-9/16 | 5MT | 9-5/8 | 16-5/8 | 1301-100 | 82.95 | 1304-100 | 156.65 | 1361-005 | 374.40 | – | – |
| 1-37/64 | 4MT * | 9-7/8 | 15-1/2 | 1303-101 | 88.70 | 1305-101 | 190.60 | | | | |
| 1-37/64 | 5MT | 9-7/8 | 16-7/8 | 1301-101 | 88.90 | 1304-101 | 190.95 | – | – | – | – |
| 1-19/32 | 4MT * | 9-7/8 | 15-1/2 | 1303-102 | 88.65 | 1305-102 | 194.10 | – | – | – | – |
| 1-19/32 | 5MT | 9-7/8 | 16-7/8 | 1301-102 | 89.60 | 1304-102 | 170.85 | – | – | – | – |
| 1-39/64 | 4MT * | 10 | 15-5/8 | 1303-103 | 95.60 | 1305-103 | 197.95 | – | – | – | – |
| 1-39/64 | 5MT | 10 | 17 | 1301-103 | 90.95 | 1304-103 | 200.00 | – | – | – | – |
| 1-5/8 | 4MT * | 10 | 15-5/8 | 1303-104 | 92.90 | 1305-104 | 198.50 | – | – | – | – |
| 1-5/8 | 5MT | 10 | 17 | 1301-104 | 91.20 | 1304-104 | 169.20 | 1361-045 | 329.40 | – | – |
| 1-41/64 | 4MT * | 10-1/8 | 15-3/4 | 1303-105 | 99.30 | 1305-105 | 213.35 | – | – | – | – |
| 1-41/64 | 5MT | 10-1/8 | 17-1/8 | 1301-105 | 95.75 | 1304-105 | 213.05 | – | – | – | – |
| 1-21/32 | 4MT * | 10-1/8 | 15-3/4 | 1303-106 | 98.80 | 1305-106 | 222.40 | – | – | – | – |
| 1-21/32 | 5MT | 10-1/8 | 17-1/8 | 1301-106 | 96.35 | 1304-106 | 183.70 | – | – | – | – |
| 1-43/64 | 4MT * | 10-1/8 | 15-3/4 | 1303-107 | 103.10 | 1305-107 | 221.50 | – | – | – | – |
| 1-43/64 | 5MT | 10-1/8 | 17-1/8 | 1301-107 | 98.15 | 1304-107 | 221.35 | – | – | – | – |
| 1-11/16 | 4MT * | 10-1/8 | 15-3/4 | 1303-108 | 101.60 | 1305-108 | 222.55 | – | – | – | – |
| 1-11/16 | 5MT | 10-1/8 | 17-1/8 | 1301-108 | 98.75 | 1304-108 | 186.50 | 1361-084 | 380.70 | – | – |
| 1-45/64 | 4MT * | 10-1/8 | 15-3/4 | 1303-109 | 106.10 | 1305-109 | 228.10 | – | – | – | – |
| 1-45/64 | 5MT | 10-1/8 | 17-1/8 | 1301-109 | 102.95 | 1304-109 | 228.55 | – | – | – | – |
| 1-23/32 | 4MT * | 10-1/8 | 15-3/4 | 1303-110 | 101.15 | 1305-110 | 227.70 | – | – | – | – |
| 1-23/32 | 5MT | 10-1/8 | 17-1/8 | 1301-110 | 103.65 | 1304-110 | 197.65 | – | – | – | – |
| 1-47/64 | 4MT * | 10-3/8 | 16-1/4 | 1303-111 | 105.20 | 1305-111 | 220.05 | – | – | – | – |
| 1-47/64 | 5MT | 10-1/8 | 17-1/8 | 1301-111 | 104.95 | 1304-111 | 220.00 | – | – | – | – |
| 1-3/4 | 4MT * | 10-3/8 | 16-1/4 | 1303-112 | 102.55 | 1305-112 | 216.00 | – | – | – | – |
| 1-3/4 | 5MT | 10-1/8 | 17-1/8 | 1301-112 | 104.70 | 1304-112 | 199.75 | 1361-125 | 380.70 | – | – |
| 1-49/64 | 5MT | 10-1/8 | 17-1/8 | 1301-113 | 118.10 | – | – | – | – | – | – |
| 1-25/32 | 4MT * | 10-3/8 | 16-1/4 | 1303-114 | 105.30 | 1305-114 | 238.15 | – | – | – | – |
| 1-25/32 | 5MT | 10-1/8 | 17-1/8 | 1301-114 | 108.85 | 1304-114 | 209.50 | – | – | – | – |
| 1-51/64 | 5MT | 10-1/8 | 17-1/8 | 1301-115 | 139.05 | – | – | – | – | – | – |
| 1-13/16 | 4MT * | 10-3/8 | 16-1/4 | 1303-116 | 105.85 | 1305-116 | 238.15 | – | – | – | – |
| 1-13/16 | 5MT | 10-1/8 | 17-1/8 | 1301-116 | 111.85 | 1304-116 | 212.90 | 1361-165 | 406.80 | – | – |
| 1-53/64 | 5MT | 10-1/8 | 17-1/8 | 1301-117 | 130.85 | – | – | – | – | – | – |
| 1-27/32 | 4MT * | 10-3/8 | 16-1/4 | 1303-118 | 112.80 | 1305-118 | 253.80 | – | – | – | – |
| 1-27/32 | 5MT | 10-1/8 | 17-1/8 | 1301-118 | 116.65 | 1304-118 | 224.45 | – | – | – | – |
| 1-55/64 | 5MT | 10-1/8 | 17-3/8 | 1301-119 | 133.85 | – | – | – | – | – | – |
| 1-7/8 | 4MT * | 10-1/2 | 16-1/2 | 1303-120 | 109.85 | 1305-120 | 252.35 | – | – | – | – |
| 1-7/8 | 5MT | 10-3/8 | 17-3/8 | 1301-120 | 115.30 | 1304-120 | 222.75 | 1361-205 | 406.80 | – | – |
| 1-57/64 | 5MT * | 10-3/8 | 17-3/8 | 1301-121 | 135.85 | 1305-121 | 264.10 | – | – | – | – |
| 1-29/32 | 4MT * | 10-1/2 | 16-1/2 | 1303-122 | 110.20 | 1305-122 | 272.80 | – | – | – | – |
| 1-29/32 | 5MT | 10-3/8 | 17-3/8 | 1301-122 | 117.40 | 1304-122 | 234.70 | – | – | – | – |
| 1-59/64 | 5MT | 10-3/8 | 17-3/8 | 1301-123 | 141.95 | – | – | – | – | – | – |
| 1-15/16 | 4MT * | 10-5/8 | 16-5/8 | 1303-124 | 111.80 | 1305-124 | 269.20 | – | – | – | – |
| 1-15/16 | 5MT | 10-3/8 | 17-3/8 | 1301-124 | 121.25 | 1304-124 | 239.65 | 1361-245 | 475.65 | – | – |
| 1-61/64 | 5MT | 10-3/8 | 17-3/8 | 1301-125 | 145.70 | – | – | – | – | – | – |
| 1-31/32 | 4MT * | 10-5/8 | 16-5/8 | 1303-126 | 126.75 | 1305-126 | 277.55 | – | – | – | – |
| 1-31/32 | 5MT | 10-3/8 | 17-3/8 | 1301-126 | 124.70 | 1304-126 | 247.30 | – | – | – | – |
| 1-63/64 | 5MT | 10-3/8 | 17-3/8 | 1301-127 | 148.30 | – | – | – | – | – | – |
| 2 | 4MT * | 10-5/8 | 16-5/8 | 1303-128 | 129.85 | 1305-128 | 270.40 | – | – | – | – |
| 2 | 5MT | 10-3/8 | 17-3/8 | 1301-128 | 128.80 | 1304-128 | 248.90 | 1361-285 | 475.65 | – | – |
| 2-1/32 | 4MT | 10-1/4 | 17-3/8 | – | – | 1305-130 | 287.15 | – | – | – | – |
| 2-1/32 | 5MT | 10-1/4 | 17-3/8 | 1301-130 | 133.35 | 1304-130 | 263.95 | – | – | – | – |
| 2-1/16 | 4MT | 10-1/4 | 16-1/4 | 1303-132 | 142.10 | 1305-132 | 287.15 | – | – | – | – |
| 2-1/16 | 5MT | 10-1/4 | 17-3/8 | 1301-132 | 134.40 | 1304-132 | 263.40 | – | – | – | – |
| 2-3/32 | 4MT | 10-1/4 | 17-3/8 | – | – | 1305-134 | 312.50 | – | – | – | – |
| 2-3/32 | 5MT | 10-1/4 | 17-3/8 | 1301-134 | 142.20 | 1304-134 | 281.35 | – | – | – | – |
| 2-1/8 | 4MT | 10-1/4 | 16-1/4 | 1303-136 | 151.65 | 1305-136 | 312.50 | – | – | – | – |
| 2-1/8 | 5MT | 10-1/4 | 17-3/8 | 1301-136 | 142.20 | 1304-136 | 278.65 | – | – | – | – |
| 2-5/32 | 4MT | 10-1/4 | 17-3/8 | – | – | 1305-138 | 332.65 | – | – | – | – |

* Alternate Shank

† Limited Quantities

(Continued)

# Taper Shank Drills (cont'd.)

## High Speed Steel

| DIAM. | TAPER SHANK NO. | FLUTE LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY [3] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE [2] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 2-5/32 | 5MT | 10-1/4 | 17-3/8 | 1301-138 | $151.55 | 1304-138 | $300.05 |
| 2-3/16 | 4MT | 10-1/4 | 16-1/4 | 1303-140 | 166.35 | 1305-140 | 332.65 |
| 2-3/16 | 5MT | 10-1/4 | 17-3/8 | 1301-140 | 154.25 | 1304-140 | 302.35 |
| 2-7/32 | 4MT | 10-1/8 | 17-3/8 | – | – | 1305-142 | 350.40 |
| 2-7/32 | 5MT | 10-1/8 | 17-3/8 | 1301-142 | 159.85 | 1304-142 | 316.35 |
| 2-1/4 | 4MT | 10-1/8 | 16-1/8 | 1303-144 | 173.60 | 1305-144 | 350.40 |
| 2-1/4 | 5MT | 10-1/8 | 17-3/8 | 1301-144 | 161.05 | 1304-144 | 315.70 |
| 2-9/32 | 5MT | 10-1/8 | 17-3/8 | 1301-146 | 208.10 | 1304-146 | 350.35 |
| 2-5/16 | 4MT | 10-1/8 | 16-1/8 | 1303-148 | 185.25 | 1305-148 | 378.75 |
| 2-5/16 | 5MT | 10-1/8 | 17-3/8 | 1301-148 | 171.90 | 1304-148 | 340.30 |
| 2-11/32 | 5MT | 10-1/8 | 17-3/8 | 1301-150 | 178.60 | 1304-150 | 458.90 |
| 2-3/8 | 4MT | 10-1/8 | 16-1/8 | 1303-152 | 192.65 | 1305-152 | 384.95 |
| 2-3/8 | 5MT | 10-1/8 | 17-3/8 | 1301-152 | 178.60 | 1304-152 | 350.20 |
| 2-13/32 | 5MT | 11-1/4 | 18-3/4 | 1301-154 | 225.65 | 1304-154 | 472.40 |
| 2-7/16 | 4MT | 11-1/4 | 17-1/4 | 1303-156 | 243.25 | 1305-156 | 488.20 |
| 2-7/16 | 5MT | 11-1/4 | 18-3/4 | 1301-156 | 225.65 | 1304-156 | 446.65 |
| 2-15/32 | 5MT | 11-1/4 | 18-3/4 | 1301-158 | 232.90 | – | – |
| 2-1/2 | 4MT | 11-1/4 | 17-1/4 | 1303-160 | 253.10 | 1305-160 | 502.10 |
| 2-1/2 | 5MT | 11-1/4 | 18-3/4 | 1301-160 | 231.85 | 1304-160 | 456.65 |
| 2-9/16 | 5MT | 11-7/8 | 19-1/2 | 1301-164 | 241.20 | 1304-164 | 503.45 |
| 2-19/32 | 5MT | 11-7/8 | 19-1/2 | 1301-166 | 297.25 | 1304-166 | 603.10 |
| 2-5/8 | 4MT | 11-7/8 | 18 | 1303-168 | 363.20 | 1305-168 | 590.00 |
| 2-5/8 | 5MT | 11-7/8 | 19-1/2 | 1301-168 | 243.95 | 1304-168 | 534.85 |
| 2-11/16 | 5MT | 12-3/4 | 20-3/8 | 1301-172 | 273.45 | 1304-172 | 584.05 |
| 2-3/4 | 4MT | 12-3/4 | 19-1/8 | 1303-176 | 408.70 | 1305-176 | 663.90 |
| 2-3/4 | 5MT | 12-3/4 | 20-3/8 | 1301-176 | 297.85 | 1304-176 | 595.15 |
| 2-25/32 | 5MT | 13-3/8 | 21-1/8 | 1301-178 | 324.00 | 1304-178 | 677.75 |
| 2-13/16 | 5MT | 13-3/8 | 21-1/8 | 1301-180 | 322.95 | 1304-180 | 653.65 |
| 2-7/8 | 5MT | 13-3/8 | 21-1/8 | 1301-184 | 328.70 | 1304-184 | 683.60 |
| 2-15/16 | 5MT | 14 | 21-3/4 | 1301-188 | 334.95 | 1304-188 | 726.85 |
| 2-31-32 | 5MT | 14 | 21-3/4 | – | – | 1304-190 | 819.90 |
| 3 | 5MT | 14 | 21-3/4 | 1301-192 | 449.20 | 1304-192 | 751.95 |
| 3-1/16 | 5MT | 14-5/8 | 24-5/8 | – | – | 1305-196 | 1087.25 |
| 3-1/16 | 6MT | 14-5/8 | 24-5/8 | 1301-196 | 480.60 | 1304-196 | 997.10 |
| 3-1/8 | 5MT * | 14-5/8 | 22 | 1303-200 | 559.20 | 1305-200 | 1147.00 |
| 3-1/8 | 6MT | 14-1/4 | 24-1/2 | 1301-200 | 488.40 | 1304-200 | 997.10 |
| 3-3/16 | 5MT | 14-5/8 | 24-1/2 | – | – | 1305-204 | 1147.00 |
| 3-3/16 | 6MT | 14-5/8 | 24-1/2 | 1301-204 | 512.85 | 1304-204 | 1137.80 |
| 3-1/4 | 5MT * | 15-1/2 | 23 | 1303-208 | 635.20 | 1305-208 | 1147.00 |
| 3-1/4 | 6MT | 15-1/2 | 25-1/2 | 1301-208 | 529.75 | 1304-208 | 1137.80 |
| 3-5/16 | 5MT | 15-1/2 | 25-1/2 | – | – | 1305-212 | 1244.25 |
| 3-5/16 | 6MT | 15-1/2 | 25-1/2 | 1301-212 | 589.20 | 1304-212 | 1257.85 |
| 3-3/8 | 5MT | 15-1/2 | 25-1/2 | – | – | 1305-216 | 1315.20 |
| 3-3/8 | 6MT | 15-1/2 | 25-1/2 | 1301-216 | 598.75 | 1304-216 | 1345.45 |
| 3-7/16 | 5MT | 15-1/2 | 25-1/2 | – | – | 1305-220 | 1414.95 |
| 3-7/16 | 6MT | 15-1/2 | 25-1/2 | 1301-220 | 642.80 | 1304-220 | 1692.05 |
| 3-1/2 | 5MT * | 16-1/4 | 24 | 1303-224 | 847.50 | 1305-224 | 1528.55 |
| 3-1/2 | 6MT | 16-3/8 | 26-1/2 | 1301-224 | 664.15 | 1304-224 | 1553.65 |
| 3-5/8 | 6MT | 16-3/8 | 26-1/2 | 1301-232 | 1083.25 | 1304-232 | 1752.95 |
| 3-3/4 | 6MT | 16-3/8 | 26-1/2 | 1301-240 | 1166.30 | 1304-240 | 2148.10 |
| 3-7/8 | 6MT | 16-3/8 | 26-1/2 | 1301-248 | 1252.50 | 1304-248 | 2476.65 |
| 4 | 6MT | 17-3/8 | 27-1/2 | 1301-256 | 1366.00 | 1304-256 | 2706.40 |

* Alternate Shank

### Letter Sizes

| DIAM. | FLUTE LENGTH | OVERALL LENGTH | SHANK NO. | Pittsburg® ALLEGHANY [1] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| A | 2-7/8 | 6-1/8 | 1 | 1321-001 | $6.20 | 1322-001 | $11.20 |
| B | 2-7/8 | 6-1/8 | 1 | 1321-002 | 6.20 | 1322-002 | 11.20 |
| C | 2-7/8 | 6-1/8 | 1 | 1321-003 | 6.20 | 1322-003 | 11.20 |
| D | 2-7/8 | 6-1/8 | 1 | 1321-004 | 5.50 | 1322-004 | 9.95 |
| E | 2-7/8 | 6-1/8 | 1 | 1321-005 | POA | 1322-005 | 6.20 |
| F | 3 | 6-1/4 | 1 | 1321-006 | 5.45 | 1322-006 | 9.85 |
| G | 3 | 6-1/4 | 1 | 1321-007 | 6.50 | 1322-007 | 11.75 |
| H | 3 | 6-1/4 | 1 | 1321-008 | 6.50 | 1322-008 | 11.75 |
| I | 3 | 6-1/4 | 1 | 1321-009 | 6.50 | 1322-009 | 11.75 |
| J | 3 | 6-1/4 | 1 | 1321-010 | 6.00 | 1322-010 | 10.85 |
| K | 3 | 6-1/4 | 1 | 1321-011 | 6.85 | 1322-011 | 12.30 |
| L | 3-1/8 | 6-3/8 | 1 | 1321-012 | 6.85 | 1322-012 | 12.30 |
| M | 3-1/8 | 6-3/8 | 1 | 1321-013 | 6.85 | 1322-013 | 12.30 |
| N | 3-1/8 | 6-3/8 | 1 | 1321-014 | 6.85 | 1322-014 | 12.30 |
| O | 3-1/4 | 6-1/2 | 1 | 1321-015 | 8.10 | 1322-015 | 14.60 |
| P | 3-1/4 | 6-1/2 | 1 | 1321-016 | 8.10 | 1322-016 | 14.60 |
| Q | 3-1/4 | 6-1/2 | 1 | 1321-017 | 8.50 | 1322-017 | 15.35 |
| R | 3-1/4 | 6-1/2 | 1 | 1321-018 | 9.35 | 1322-018 | 16.85 |
| S | 3-1/2 | 6-3/4 | 1 | 1321-019 | 9.80 | 1322-019 | 17.70 |
| T | 3-1/2 | 6-3/4 | 1 | 1321-020 | 9.80 | 1322-020 | 17.70 |
| U | 3-1/2 | 6-3/4 | 1 | 1321-021 | 9.80 | 1322-021 | 17.70 |
| V | 3-5/8 | 7 | 1 | 1321-022 | 10.35 | 1322-022 | 18.65 |
| W | 3-5/8 | 7 | 1 | 1321-023 | 10.35 | 1322-023 | 18.65 |
| X | 3-5/8 | 7 | 1 | 1321-024 | 10.65 | 1322-024 | 19.20 |
| Y | 3-5/8 | 7 | 1 | 1321-025 | 10.65 | 1322-025 | 19.20 |
| Z | 3-7/8 | 7-1/4 | 1 | 1321-026 | 11.15 | 1322-026 | 20.05 |

### Wire Gage Sizes

| DIA. | SHANK NO. | Pittsburg® ALLEGHANY [1] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | 1 | 1311-001 | $6.00 | 1312-001 | $10.80 |
| 2 | 1 | 1311-002 | 6.00 | 1312-002 | 10.80 |
| 3 | 1 | 1311-003 | 6.00 | 1312-003 | 10.80 |
| 4 | 1 | 1311-004 | 6.00 | 1312-004 | 10.80 |
| 5 | 1 | 1311-005 | 6.00 | 1312-005 | 10.80 |
| 6 | 1 | 1311-006 | 6.00 | 1312-006 | 10.80 |
| 7 | 1 | 1311-007 | 5.70 | 1312-007 | 10.30 |
| 8 | 1 | 1311-008 | 5.70 | 1312-008 | 10.30 |
| 9 | 1 | 1311-009 | 5.70 | 1312-009 | 10.30 |
| 10 | 1 | 1311-010 | 5.70 | 1312-010 | 10.30 |
| 11 | 1 | 1311-011 | 5.70 | 1312-011 | 10.30 |
| 12 | 1 | 1311-012 | 5.70 | 1312-012 | 10.30 |
| 13 | 1 | 1311-013 | 5.70 | 1312-013 | 10.30 |
| 14 | 1 | 1311-014 | 5.70 | 1312-014 | 10.30 |
| 15 | 1 | 1311-015 | 5.70 | 1312-015 | 10.30 |
| 16 | 1 | 1311-016 | 5.70 | 1312-016 | 10.30 |
| 17 | 1 | 1311-017 | 5.70 | 1312-017 | 10.30 |
| 18 | 1 | 1311-018 | 5.70 | 1312-018 | 10.30 |

| DIA. | SHANK NO. | Pittsburg® ALLEGHANY [1] ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 19 | 1 | 1311-019 | $5.70 | 1312-019 | $10.30 |
| 20 | 1 | 1311-020 | 5.40 | 1312-020 | 9.65 |
| 21 | 1 | 1311-021 | 5.40 | 1312-021 | 9.65 |
| 22 | 1 | 1311-022 | 5.40 | 1312-022 | 9.65 |
| 23 | 1 | 1311-023 | 5.40 | 1312-023 | 9.65 |
| 24 | 1 | 1311-024 | 5.40 | 1312-024 | 9.65 |
| 25 | 1 | 1311-025 | 5.40 | 1312-025 | 9.65 |
| 26 | 1 | 1311-026 | 5.40 | 1312-026 | 9.65 |
| 27 | 1 | 1311-027 | 5.40 | 1312-027 | 9.65 |
| 28 | 1 | 1311-028 | 5.40 | 1312-028 | 9.65 |
| 29 | 1 | 1311-029 | 5.40 | 1312-029 | 9.65 |
| 30 | 1 | 1311-030 | 5.40 | 1312-030 | 9.65 |
| 31 | 1 | 1311-031 | 4.75 | – | – |
| 32 | 1 | 1311-032 | 4.75 | – | – |
| 33 | 1 | 1311-033 | 4.75 | – | – |
| 34 | 1 | 1311-034 | 4.75 | – | – |
| 35 | 1 | 1311-035 | 4.75 | – | – |
| 36 | 1 | 1311-036 | 4.75 | – | – |

# Taper Shank Drills – Extra Long

## High Speed Steel, 8" thru 36" OAL

| HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS: | | | | | | |
|---|---|---|---|---|---|---|
| | 10" | 12" | 16" | 18" | 30" | 36" |
| THEN APPROXIMATE FLUTE LENGTH IS (+/– 3/4") | | | | | | |
| MT1 | 6-3/4" | 8-3/4" | 12-3/4" | 14-3/4" | 26-3/4" | |
| MT2 | 6-1/4" | 8-1/4" | 12-1/4" | 14-1/4" | 26-1/4" | 32-1/4" |
| MT3 | | 7-5/8" | 11-5/8" | 13-5/8" | 25-5/8" | 31-5/8" |
| MT4 | | | 10-11/16" | 12-11/16" | 24-11/16" | 31-11/16" |
| MT5 | | | 8-1/2" | 11-1/2" | 23-1/2" | 29-1/2" |
| MT6 | | | | | 21" | 27" |

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/8 | 8 | 1MT | 1708-081† | $6.75 |
| 1/8 | 10 | 1MT | 1708-101† | 7.50 |
| 1/8 | 12 | 1MT | 1708-121 | 16.25 |
| 9/64 | 8 | 1MT | 1709-081† | 6.75 |
| 9/64 | 10 | 1MT | 1709-101† | 7.50 |
| 9/64 | 12 | 1MT | 1709-121† | 8.30 |
| 9/64 | 15 | 1MT | 1709-151† | 10.95 |
| 5/32 | 8 | 1MT | 1710-081† | 6.75 |
| 5/32 | 10 | 1MT | 1710-101† | 7.50 |
| 5/32 | 12 | 1MT | 1710-121† | 8.30 |
| 5/32 | 15 | 1MT | 1710-151† | 10.95 |
| 5/32 | 18 | 1MT | 1710-181† | 24.00 |
| 11/64 | 8 | 1MT | 1711-081† | 6.75 |
| 11/64 | 10 | 1MT | 1711-101† | 7.50 |
| 11/64 | 10 | 2MT | 1711-102† | 7.50 |
| 11/64 | 12 | 1MT | 1711-121† | 8.30 |
| 11/64 | 15 | 1MT | 1711-151† | 10.95 |
| 11/64 | 18 | 1MT | 1711-181† | 24.00 |
| 3/16 | 8 | 1MT | 1712-081† | 6.75 |
| 3/16 | 10 | 1MT | 1712-101† | 7.50 |
| 3/16 | 12 | 1MT | 1712-121 | 16.25 |
| 3/16 | 15 | 1MT | 1712-151 | 21.50 |
| 3/16 | 16 | 1MT | 1712-161† | 22.60 |
| 3/16 | 18 | 1MT | 1712-181 | 39.90 |
| 13/64 | 8 | 1MT | 1713-081† | 7.50 |
| 13/64 | 10 | 1MT | 1713-101† | 8.30 |
| 13/64 | 12 | 1MT | 1713-121 | 19.85 |
| 13/64 | 15 | 1MT | 1713-151 | 23.65 |
| 13/64 | 18 | 1MT | 1713-181† | 25.75 |
| 7/32 | 8 | 1MT | 1714-081† | 7.50 |
| 7/32 | 10 | 1MT | 1714-101† | 8.30 |
| 7/32 | 10 | 2MT | 1714-102† | 8.30 |
| 7/32 | 12 | 1MT | 1714-121 | 18.05 |
| 7/32 | 15 | 1MT | 1714-151 | 21.50 |
| 7/32 | 16 | 1MT | 1714-161† | 22.60 |
| 7/32 | 18 | 1MT | 1714-181 | 39.90 |
| 15/64 | 8 | 1MT | 1715-081† | 7.50 |
| 15/64 | 10 | 1MT | 1715-101† | 8.30 |
| 15/64 | 12 | 1MT | 1715-121 | 19.85 |
| 15/64 | 15 | 1MT | 1715-151 | 23.65 |
| 15/64 | 18 | 1MT | 1715-181† | 25.75 |
| 1/4 | 8 | 1MT | 1716-081† | 7.50 |
| 1/4 | 10 | 1MT | 1716-101† | 8.30 |
| 1/4 | 12 | 1MT | 1716-121 | 18.05 |
| 1/4 | 15 | 1MT | 1716-151 | 21.50 |
| 1/4 | 18 | 1MT | 1716-181 | 39.90 |
| 1/4 | 24 | 1MT | 1716-241 | 86.65 |
| 17/64 | 8 | 1MT | 1717-081† | 8.35 |
| 17/64 | 10 | 1MT | 1717-101† | 9.30 |
| 17/64 | 12 | 1MT | 1717-121 | 20.20 |
| 17/64 | 15 | 1MT | 1717-151 | 23.00 |
| 17/64 | 16 | 1MT | 1717-161† | 24.20 |
| 17/64 | 18 | 1MT | 1717-181 | 39.90 |
| 17/64 | 22 | 1MT | 1717-221† | 25.75 |
| 9/32 | 8 | 1MT | 1718-081† | 8.35 |
| 9/32 | 10 | 1MT | 1718-101† | 9.30 |
| 9/32 | 12 | 1MT | 1718-121 | 20.20 |
| 9/32 | 12 | 2MT* | 1718-122† | 20.20 |
| 9/32 | 15 | 1MT | 1718-151 | 24.20 |
| 9/32 | 18 | 1MT | 1718-181 | 39.90 |
| 9/32 | 24 | 1MT | 1718-241 | 86.65 |
| 9/32 | 30 | 1MT | 1718-301† | 51.35 |
| 19/64 | 8 | 1MT | 1719-081† | $8.90 |
| 19/64 | 10 | 1MT | 1719-101† | 9.90 |
| 19/64 | 12 | 1MT | 1719-121 | 21.50 |
| 19/64 | 15 | 1MT | 1719-151 | 24.20 |
| 19/64 | 16 | 1MT | 1719-161† | 25.40 |
| 19/64 | 18 | 1MT | 1719-181 | 39.90 |
| 19/64 | 24 | 1MT | 1719-241† | 48.50 |
| 5/16 | 8 | 1MT | 1720-081† | 8.90 |
| 5/16 | 12 | 1MT | 1720-121 | 21.50 |
| 5/16 | 15 | 1MT | 1720-151 | 24.20 |
| 5/16 | 16 | 1MT | 1720-161† | 25.40 |
| 5/16 | 18 | 1MT | 1720-181 | 39.90 |
| 5/16 | 24 | 1MT | 1720-241 | 86.65 |
| 21/64 | 8 | 1MT | 1721-081† | 9.30 |
| 21/64 | 10 | 1MT | 1721-101† | 10.35 |
| 21/64 | 12 | 1MT | 1721-121 | 22.50 |
| 21/64 | 15 | 1MT | 1721-151 | 25.15 |
| 21/64 | 16 | 1MT | 1721-161† | 26.40 |
| 21/64 | 18 | 1MT | 1721-181 | 39.90 |
| 11/32 | 8 | 1MT | 1722-081† | 9.30 |
| 11/32 | 12 | 1MT | 1722-121 | 22.50 |
| 11/32 | 15 | 1MT | 1722-151 | 25.15 |
| 11/32 | 18 | 1MT | 1722-181 | 39.90 |
| 11/32 | 24 | 1MT | 1722-241 | 86.65 |
| 23/64 | 8 | 1MT | 1723-081† | 9.85 |
| 23/64 | 12 | 1MT | 1723-121 | 23.80 |
| 23/64 | 15 | 1MT | 1723-151 | 28.00 |
| 23/64 | 18 | 1MT | 1723-181 | 44.20 |
| 3/8 | 10 | 1MT | 1724-101† | 10.95 |
| 3/8 | 12 | 1MT | 1724-121 | 23.80 |
| 3/8 | 15 | 1MT | 1724-151 | 28.00 |
| 3/8 | 18 | 1MT | 1724-181 | 44.20 |
| 3/8 | 24 | 1MT | 1724-241 | 66.65 |
| 25/64 | 8 | 1MT | 1725-081† | 9.85 |
| 25/64 | 10 | 1MT | 1725-101† | 10.95 |
| 25/64 | 12 | 1MT | 1725-121 | 23.80 |
| 25/64 | 15 | 1MT | 1725-151 | 28.00 |
| 25/64 | 16 | 1MT | 1725-161† | 29.40 |
| 25/64 | 18 | 1MT | 1725-181 | 44.20 |
| 25/64 | 24 | 1MT | 1725-241 | 66.65 |
| 13/32 | 8 | 1MT | 1726-081† | 9.85 |
| 13/32 | 10 | 1MT | 1726-101† | 10.95 |
| 13/32 | 12 | 1MT | 1726-121 | 23.80 |
| 13/32 | 15 | 1MT | 1726-151 | 28.00 |
| 13/32 | 16 | 1MT | 1726-161† | 29.40 |
| 13/32 | 18 | 1MT | 1726-181 | 44.20 |
| 13/32 | 24 | 1MT | 1726-241 | 66.65 |
| 13/32 | 30 | 1MT | 1726-301† | 52.40 |
| 13/32 | 36 | 1MT | 1726-361† | 94.85 |
| 27/64 | 12 | 1MT | 1727-121 | 23.80 |
| 27/64 | 15 | 1MT | 1727-151 | 28.00 |
| 27/64 | 18 | 1MT | 1727-181 | 44.20 |
| 27/64 | 18 | 2MT* | 1727-182† | 44.20 |
| 27/64 | 24 | 1MT | 1727-241 | 66.65 |
| 7/16 | 8 | 1MT | 1728-081† | 9.85 |
| 7/16 | 12 | 1MT | 1728-121 | 23.80 |
| 7/16 | 15 | 1MT | 1728-151 | 28.00 |
| 7/16 | 18 | 1MT | 1728-181 | 44.20 |
| 7/16 | 18 | 2MT* | 1728-182† | 44.20 |
| 7/16 | 24 | 1MT | 1728-241 | 67.85 |
| 7/16 | 30 | 1MT | 1728-301 | 58.40 |
| 7/16 | 36 | 1MT | 1728-361 | 102.45 |
| 29/64 | 8 | 1MT | 1729-081† | 10.50 |
| 29/64 | 10 | 1MT | 1729-101† | 11.70 |
| 29/64 | 12 | 1MT | 1729-121 | 25.40 |
| 29/64 | 15 | 1MT | 1729-151 | 28.00 |
| 29/64 | 16 | 1MT | 1729-161† | 29.40 |
| 29/64 | 18 | 1MT | 1729-181 | 44.20 |
| 29/64 | 20 | 1MT | 1729-201† | $24.40 |
| 29/64 | 24 | 1MT | 1729-241 | 67.85 |
| 15/32 | 8 | 1MT | 1730-081† | 10.50 |
| 15/32 | 10 | 1MT | 1730-101† | 11.70 |
| 15/32 | 12 | 1MT | 1730-121 | 25.40 |
| 15/32 | 12 | 2MT* | 1730-122† | 25.40 |
| 15/32 | 15 | 1MT | 1730-151 | 28.80 |
| 15/32 | 15 | 2MT* | 1730-152† | 28.80 |
| 15/32 | 16 | 1MT | 1730-161† | 30.30 |
| 15/32 | 18 | 1MT | 1730-181 | 44.20 |
| 15/32 | 18 | 2MT* | 1730-182† | 44.20 |
| 15/32 | 24 | 1MT | 1730-241 | 67.85 |
| 15/32 | 30 | 1MT | 1730-301 | 58.40 |
| 15/32 | 36 | 1MT | 1730-361† | 102.45 |
| 31/64 | 10 | 1MT | 1731-101† | 11.70 |
| 31/64 | 10 | 2MT | 1731-102† | 11.70 |
| 31/64 | 12 | 1MT* | 1731-121† | 25.40 |
| 31/64 | 12 | 2MT | 1731-122 | 25.40 |
| 31/64 | 15 | 1MT* | 1731-151† | 28.80 |
| 31/64 | 15 | 2MT | 1731-152 | 28.80 |
| 31/64 | 16 | 2MT | 1731-162† | 30.30 |
| 31/64 | 18 | 1MT* | 1731-181† | 44.20 |
| 31/64 | 18 | 2MT | 1731-182 | 45.00 |
| 31/64 | 24 | 1MT* | 1731-241† | 67.85 |
| 31/64 | 24 | 2MT | 1731-242 | 67.85 |
| 31/64 | 27-1/2 | 2MT | 1731-272† | 49.95 |
| 31/64 | 30 | 2MT | 1731-302 | 61.40 |
| 1/2 | 12 | 2MT | 1732-122 | 25.40 |
| 1/2 | 15 | 2MT | 1732-152 | 28.80 |
| 1/2 | 16 | 2MT | 1732-162† | 30.30 |
| 1/2 | 18 | 2MT | 1732-182 | 45.00 |
| 1/2 | 24 | 1MT* | 1732-241† | 67.85 |
| 1/2 | 24 | 2MT | 1732-242 | 67.85 |
| 1/2 | 30 | 2MT | 1732-302 | 62.15 |
| 1/2 | 36 | 2MT | 1732-362 | 109.45 |
| 33/64 | 10 | 1MT | 1733-101† | 12.50 |
| 33/64 | 10 | 2MT | 1733-102† | 12.50 |
| 33/64 | 12 | 2MT | 1733-122 | 27.20 |
| 33/64 | 15 | 2MT | 1733-152 | 36.10 |
| 33/64 | 18 | 2MT | 1733-182 | 46.75 |
| 33/64 | 20 | 2MT | 1733-202† | 26.50 |
| 33/64 | 24 | 2MT | 1733-242 | 70.45 |
| 33/64 | 30 | 2MT | 1733-302 | 62.15 |
| 17/32 | 12 | 2MT | 1734-122 | 27.20 |
| 17/32 | 15 | 2MT | 1734-152 | 36.10 |
| 17/32 | 18 | 1MT* | 1734-181† | 46.75 |
| 17/32 | 18 | 2MT | 1734-182 | 46.75 |
| 17/32 | 20 | 2MT | 1734-201† | 26.50 |
| 17/32 | 24 | 2MT | 1734-242 | 70.45 |
| 17/32 | 30 | 2MT | 1734-300† | 62.15 |
| 17/32 | 30 | 2MT | 1734-302 | 62.15 |
| 17/32 | 36 | 2MT | 1734-362 | 109.45 |
| 35/64 | 10 | 1MT | 1735-101† | 12.75 |
| 35/64 | 10 | 2MT | 1735-102† | 12.75 |
| 35/64 | 12 | 2MT | 1735-122 | 27.70 |
| 35/64 | 15 | 1MT* | 1735-151† | 36.10 |
| 35/64 | 15 | 2MT | 1735-152 | 36.10 |
| 35/64 | 16 | 1MT* | 1735-161† | 38.00 |
| 35/64 | 16 | 2MT | 1735-162† | 38.00 |
| 35/64 | 18 | 2MT | 1735-182 | 48.60 |
| 35/64 | 20 | 3MT | 1735-203† | 27.55 |
| 35/64 | 24 | 2MT | 1735-242 | 70.45 |
| 35/64 | 30 | 2MT | 1735-302 | 69.70 |

* Alternate Shank  † Limited Quantities

(Continued)

# Taper Shank Drills – Extra Long

## High Speed Steel, 8" thru 36" OAL

| HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS: | | | | | | |
|---|---|---|---|---|---|---|
| | 10" | 12" | 16" | 18" | 30" | 36" |
| THEN APPROXIMATE FLUTE LENGTH IS (+/– 3/4") | | | | | | |
| MT1 | 6-3/4" | 8-3/4" | 12-3/4" | 14-3/4" | 26-3/4" | |
| MT2 | 6-1/4" | 8-1/4" | 12-1/4" | 14-1/4" | 26-1/4" | 32-1/4" |
| MT3 | | 7-5/8" | 11-5/8" | 13-5/8" | 25-5/8" | 31-5/8" |
| MT4 | | | 10-11/16" | 12-11/16" | 24-11/16" | 31-11/16" |
| MT5 | | | 8-1/2" | 11-1/2" | 23-1/2" | 29-1/2" |
| MT6 | | | | | 21" | 27" |

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 9/16 | 12 | 2MT | 1736-122 | $27.70 |
| 9/16 | 15 | 2MT | 1736-152 | 36.10 |
| 9/16 | 16 | 2MT | 1736-162† | 38.00 |
| 9/16 | 18 | 2MT | 1736-182 | 48.60 |
| 9/16 | 24 | 2MT | 1736-242 | 70.45 |
| 9/16 | 30 | 2MT | 1736-302 | 77.55 |
| 9/16 | 36 | 2MT | 1736-362 | 126.75 |
| 37/64 | 10 | 2MT | 1737-102† | 12.75 |
| 37/64 | 12 | 2MT | 1737-122 | 27.70 |
| 37/64 | 15 | 2MT | 1737-152 | 36.10 |
| 37/64 | 16 | 2MT | 1737-162† | 38.00 |
| 37/64 | 18 | 2MT | 1737-182 | 48.60 |
| 37/64 | 20 | 2MT | 1737-202† | 27.55 |
| 37/64 | 24 | 2MT | 1737-242 | 70.45 |
| 37/64 | 30 | 2MT | 1737-302 | 77.55 |
| 19/32 | 12 | 2MT | 1738-122 | 27.70 |
| 19/32 | 15 | 2MT | 1738-152 | 36.10 |
| 19/32 | 16 | 2MT | 1738-162† | 38.00 |
| 19/32 | 18 | 2MT | 1738-182 | 48.60 |
| 19/32 | 24 | 2MT | 1738-242 | 70.45 |
| 19/32 | 30 | 2MT | 1738-300† | 74.00 |
| 19/32 | 30 | 2MT | 1738-302 | 82.20 |
| 19/32 | 36 | 2MT | 1738-362 | 126.75 |
| 39/64 | 12 | 2MT | 1739-122 | 29.35 |
| 39/64 | 15 | 2MT | 1739-152 | 38.35 |
| 39/64 | 18 | 2MT | 1739-182 | 52.40 |
| 39/64 | 20 | 2MT | 1739-202† | 29.70 |
| 39/64 | 24 | 2MT | 1739-242 | 70.45 |
| 39/64 | 30 | 2MT | 1739-302 | 82.20 |
| 5/8 | 12 | 2MT | 1740-122 | 29.35 |
| 5/8 | 15 | 2MT | 1740-152 | 38.35 |
| 5/8 | 16 | 2MT | 1740-162† | 40.30 |
| 5/8 | 18 | 2MT | 1740-182 | 52.40 |
| 5/8 | 24 | 2MT | 1740-242 | 70.45 |
| 5/8 | 30 | 2MT | 1740-302 | 110.15 |
| 5/8 | 36 | 2MT | 1740-362 | 150.10 |
| 41/64 | 10 | 2MT | 1741-102† | 13.50 |
| 41/64 | 12 | 2MT | 1741-122 | 29.35 |
| 41/64 | 15 | 2MT | 1741-152 | 38.35 |
| 41/64 | 16 | 2MT | 1741-162† | 40.30 |
| 41/64 | 18 | 2MT | 1741-182 | 52.40 |
| 41/64 | 24 | 2MT | 1741-242 | 70.45 |
| 41/64 | 30 | 2MT | 1741-302 | 110.15 |
| 21/32 | 12 | 2MT | 1742-122 | 29.35 |
| 21/32 | 15 | 2MT | 1742-152 | 38.35 |
| 21/32 | 18 | 2MT | 1742-182 | 52.40 |
| 21/32 | 24 | 2MT | 1742-242 | 70.45 |
| 21/32 | 30 | 2MT | 1742-302 | 110.15 |
| 21/32 | 36 | 2MT | 1742-362 | 150.10 |
| 43/64 | 10 | 2MT | 1743-102† | 13.95 |
| 43/64 | 12 | 2MT | 1743-122 | 30.35 |
| 43/64 | 15 | 2MT | 1743-152 | 38.35 |
| 43/64 | 18 | 2MT | 1743-182 | 52.40 |
| 43/64 | 20 | 2MT | 1743-202† | 29.70 |
| 43/64 | 24 | 2MT | 1743-242 | 73.20 |
| 43/64 | 30 | 2MT | 1743-302 | 110.15 |
| 11/16 | 12 | 2MT | 1744-122 | 30.35 |
| 11/16 | 15 | 2MT | 1744-152 | 38.35 |
| 11/16 | 18 | 2MT | 1744-182 | 52.40 |
| 11/16 | 24 | 2MT | 1744-242 | 73.20 |
| 11/16 | 30 | 2MT | 1744-302 | 110.15 |
| 11/16 | 36 | 2MT | 1744-362 | 150.10 |

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 45/64 | 12 | 2MT | 1745-122 | $30.35 |
| 45/64 | 15 | 2MT | 1745-152 | 38.35 |
| 45/64 | 16 | 2MT | 1745-162† | 40.30 |
| 45/64 | 18 | 2MT | 1745-182 | 52.40 |
| 45/64 | 24 | 2MT | 1745-242 | 75.65 |
| 45/64 | 30 | 2MT | 1745-302 | 110.15 |
| 23/32 | 12 | 2MT | 1746-122 | 30.35 |
| 23/32 | 15 | 2MT | 1746-152 | 38.35 |
| 23/32 | 18 | 2MT | 1746-182 | 52.40 |
| 23/32 | 24 | 2MT | 1746-242 | 75.65 |
| 23/32 | 30 | 2MT | 1746-302 | 128.75 |
| 23/32 | 36 | 2MT | 1746-362 | 194.30 |
| 47/64 | 12 | 2MT | 1747-122 | 35.10 |
| 47/64 | 12 | 3MT* | 1747-123† | 35.10 |
| 47/64 | 15 | 2MT | 1747-152 | 41.95 |
| 47/64 | 16 | 2MT | 1747-162† | 44.00 |
| 47/64 | 18 | 2MT | 1747-182 | 59.80 |
| 47/64 | 20 | 2MT | 1747-202† | 33.90 |
| 47/64 | 24 | 2MT | 1747-242 | 76.30 |
| 47/64 | 30 | 2MT | 1747-302 | 128.75 |
| 3/4 | 12 | 2MT | 1748-122 | 35.10 |
| 3/4 | 15 | 2MT | 1748-152 | 41.95 |
| 3/4 | 18 | 2MT | 1748-182 | 59.80 |
| 3/4 | 24 | 2MT | 1748-242 | 76.30 |
| 3/4 | 30 | 2MT | 1748-302 | 99.90 |
| 3/4 | 36 | 2MT | 1748-362 | 194.30 |
| 49/64 | 12 | 2MT | 1749-122 | 36.90 |
| 49/64 | 15 | 2MT | 1749-152 | 50.45 |
| 49/64 | 18 | 2MT | 1749-182 | 61.75 |
| 49/64 | 24 | 2MT | 1749-242 | 79.00 |
| 49/64 | 30 | 2MT | 1749-302 | 134.05 |
| 25/32 | 12 | 2MT | 1750-122 | 36.90 |
| 25/32 | 15 | 2MT | 1750-152 | 50.45 |
| 25/32 | 16 | 2MT | 1750-162† | 53.00 |
| 25/32 | 18 | 2MT | 1750-182 | 58.60 |
| 25/32 | 18 | 3MT* | 1750-183† | 58.60 |
| 25/32 | 24 | 2MT | 1750-242 | 79.00 |
| 25/32 | 30 | 2MT | 1750-302 | 134.05 |
| 25/32 | 36 | 2MT | 1750-362 | 196.10 |
| 51/64 | 12 | 3MT | 1751-123 | 39.25 |
| 51/64 | 15 | 3MT | 1751-153 | 50.45 |
| 51/64 | 16 | 3MT | 1751-163† | 53.00 |
| 51/64 | 18 | 2MT* | 1751-182† | 62.65 |
| 51/64 | 18 | 3MT | 1751-183 | 62.65 |
| 51/64 | 20 | 3MT | 1751-203† | 35.50 |
| 51/64 | 24 | 3MT | 1751-243 | 86.90 |
| 51/64 | 30 | 3MT | 1751-303 | 134.05 |
| 13/16 | 12 | 2MT* | 1752-122 | 42.20 |
| 13/16 | 12 | 3MT | 1752-123 | 39.25 |
| 13/16 | 15 | 3MT | 1752-153 | 50.45 |
| 13/16 | 18 | 2MT* | 1752-182 | 67.35 |
| 13/16 | 18 | 3MT | 1752-183 | 62.65 |
| 13/16 | 24 | 2MT* | 1752-242 | 93.40 |
| 13/16 | 24 | 3MT | 1752-243 | 86.90 |
| 13/16 | 30 | 3MT | 1752-303 | 108.55 |
| 13/16 | 36 | 2MT* | 1752-362† | 176.50 |
| 13/16 | 36 | 3MT | 1752-363 | 196.10 |
| 53/64 | 12 | 2MT* | 1753-122† | 39.25 |
| 53/64 | 12 | 3MT | 1753-123 | 39.25 |
| 53/64 | 15 | 3MT | 1753-153 | 50.45 |
| 53/64 | 16 | 3MT | 1753-163† | 53.00 |
| 53/64 | 18 | 2MT* | 1753-182† | 63.60 |
| 53/64 | 18 | 3MT | 1753-183 | 63.60 |
| 53/64 | 24 | 3MT | 1753-243 | 90.85 |
| 53/64 | 30 | 3MT | 1753-303 | 146.60 |
| 27/32 | 12 | 2MT* | 1754-122† | 39.25 |
| 27/32 | 12 | 3MT | 1754-123 | 39.25 |
| 27/32 | 15 | 3MT | 1754-153 | 50.45 |
| 27/32 | 18 | 3MT | 1754-183 | 63.60 |
| 27/32 | 20 | 3MT | 1754-203† | 36.05 |

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 27/32 | 24 | 3MT | 1754-243 | $90.85 |
| 27/32 | 30 | 3MT | 1754-303 | 146.60 |
| 27/32 | 36 | 3MT | 1754-363 | 206.95 |
| 55/64 | 12 | 2MT* | 1755-122† | 43.15 |
| 55/64 | 12 | 3MT | 1755-123 | 43.15 |
| 55/64 | 15 | 3MT | 1755-153 | 54.25 |
| 55/64 | 16 | 3MT | 1755-163† | 57.00 |
| 55/64 | 18 | 2MT* | 1755-182† | 65.45 |
| 55/64 | 18 | 3MT | 1755-183 | 65.45 |
| 55/64 | 24 | 3MT | 1755-243 | 95.00 |
| 55/64 | 30 | 3MT | 1755-303 | 146.60 |
| 7/8 | 12 | 2MT* | 1756-122 | 46.40 |
| 7/8 | 12 | 3MT | 1756-123 | 43.15 |
| 7/8 | 15 | 3MT | 1756-153 | 54.25 |
| 7/8 | 18 | 2MT* | 1756-182 | 70.35 |
| 7/8 | 18 | 3MT | 1756-183 | 65.45 |
| 7/8 | 24 | 2MT* | 1756-242 | 102.15 |
| 7/8 | 24 | 3MT | 1756-243 | 95.00 |
| 7/8 | 30 | 3MT | 1756-300† | 106.85 |
| 7/8 | 30 | 3MT | 1756-303 | 118.70 |
| 7/8 | 36 | 3MT | 1756-363 | 216.10 |
| 57/64 | 12 | 3MT | 1757-123† | 22.00 |
| 57/64 | 15 | 3MT | 1757-153 | 54.25 |
| 57/64 | 18 | 3MT | 1757-183 | 65.45 |
| 57/64 | 24 | 3MT | 1757-243 | 95.00 |
| 57/64 | 30 | 3MT | 1757-303 | 170.20 |
| 29/32 | 15 | 3MT | 1758-153 | 54.25 |
| 29/32 | 18 | 3MT | 1758-183 | 65.45 |
| 29/32 | 20 | 3MT | 1758-203† | 37.10 |
| 29/32 | 24 | 3MT | 1758-243 | 95.00 |
| 29/32 | 30 | 3MT | 1758-303 | 170.20 |
| 29/32 | 36 | 3MT | 1758-363 | 239.65 |
| 59/64 | 15 | 3MT | 1759-153 | 56.10 |
| 59/64 | 18 | 3MT | 1759-183 | 67.30 |
| 59/64 | 24 | 3MT | 1759-243 | 98.95 |
| 59/64 | 30 | 3MT | 1759-303 | 170.20 |
| 15/16 | 15 | 3MT | 1760-153 | 56.10 |
| 15/16 | 18 | 3MT | 1760-183 | 67.30 |
| 15/16 | 24 | 3MT | 1760-243 | 98.95 |
| 15/16 | 30 | 3MT | 1760-303 | 137.80 |
| 15/16 | 36 | 3MT | 1760-363 | 246.50 |
| 61/64 | 15 | 3MT | 1761-153 | 59.10 |
| 61/64 | 16 | 3MT | 1761-163† | 62.10 |
| 61/64 | 18 | 3MT | 1761-183 | 69.20 |
| 61/64 | 20 | 3MT | 1761-203† | 29.45 |
| 61/64 | 24 | 3MT | 1761-243 | 109.00 |
| 61/64 | 30 | 3MT | 1761-303 | 176.50 |
| 31/32 | 15 | 3MT | 1762-153 | 59.10 |
| 31/32 | 16 | 3MT | 1762-163† | 62.10 |
| 31/32 | 18 | 3MT | 1762-183 | 69.20 |
| 31/32 | 24 | 3MT | 1762-243 | 109.00 |
| 31/32 | 30 | 3MT | 1762-300† | 158.85 |
| 31/32 | 30 | 3MT | 1762-303 | 176.50 |
| 31/32 | 36 | 3MT | 1762-363 | 246.50 |
| 63/64 | 15 | 3MT | 1763-153 | 63.60 |
| 63/64 | 18 | 3MT | 1763-183 | 72.95 |
| 63/64 | 24 | 3MT | 1763-243 | 111.05 |
| 63/64 | 30 | 3MT | 1763-303 | 176.50 |
| 1 | 15 | 3MT | 1764-153 | 63.60 |
| 1 | 18 | 3MT | 1764-183 | 72.95 |
| 1 | 24 | 3MT | 1764-243 | 111.05 |
| 1 | 30 | 3MT | 1764-303 | 142.90 |
| 1 | 36 | 3MT | 1764-363 | 292.05 |
| 1-1/64 | 15 | 3MT | 1765-153 | 69.20 |
| 1-1/64 | 18 | 3MT | 1765-183 | 78.55 |
| 1-1/64 | 24 | 3MT | 1765-243 | 115.95 |
| 1-1/64 | 30 | 3MT | 1765-303 | 200.95 |
| 1-1/32 | 15 | 3MT | 1766-153 | 69.20 |
| 1-1/32 | 18 | 3MT | 1766-183 | 78.55 |

* Alternate Shank  † Limited Quantities

(Continued)

# Taper Shank Drills– Extra Long

## High Speed Steel, 8" thru 36" OAL

| HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS: | | | | | | |
|---|---|---|---|---|---|---|
| | 10" | 12" | 16" | 18" | 30" | 36" |
| THEN APPROXIMATE FLUTE LENGTH IS (+/– 3/4") | | | | | | |
| MT1 | 6-3/4" | 8-3/4" | 12-3/4" | 14-3/4" | 26-3/4" | |
| MT2 | 6-1/4" | 8-1/4" | 12-1/4" | 14-1/4" | 26-1/4" | 32-1/4" |
| MT3 | | 7-5/8" | 11-5/8" | 13-5/8" | 25-5/8" | 31-5/8" |
| MT4 | | | 10-11/16" | 12-11/16" | 24-11/16" | 31-11/16" |
| MT5 | | | 8-1/2" | 11-1/2" | 23-1/2" | 29-1/2" |
| MT6 | | | | | 21" | 27" |

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1-1/32 | 24 | 3MT | 1766-243 | $115.95 |
| 1-1/32 | 28 | 3MT | 1766-283† | 98.15 |
| 1-1/32 | 30 | 3MT | 1766-303 | 200.95 |
| 1-1/32 | 36 | 3MT | 1766-363 | 304.80 |
| 1-3/64 | 15 | 3MT | 1767-153 | 69.20 |
| 1-3/64 | 18 | 3MT | 1767-183 | 78.55 |
| 1-3/64 | 24 | 3MT | 1767-243 | 115.95 |
| 1-3/64 | 30 | 3MT | 1767-303 | 200.95 |
| 1-1/16 | 15 | 3MT | 1768-153 | 69.20 |
| 1-1/16 | 16 | 3MT | 1768-163† | 72.70 |
| 1-1/16 | 18 | 3MT | 1768-183 | 78.55 |
| 1-1/16 | 24 | 3MT | 1768-243 | 115.95 |
| 1-1/16 | 30 | 3MT | 1768-303 | 162.70 |
| 1-1/16 | 36 | 3MT | 1768-363 | 313.80 |
| 1-5/64 | 15 | 4MT | 1769-154 | 74.80 |
| 1-5/64 | 16 | 4MT | 1769-164† | 78.50 |
| 1-5/64 | 18 | 4MT | 1769-184 | 84.20 |
| 1-5/64 | 22 | 4MT | 1769-224† | 52.50 |
| 1-5/64 | 24 | 3MT* | 1769-243† | 127.40 |
| 1-5/64 | 24 | 4MT | 1769-244 | 127.40 |
| 1-5/64 | 30 | 4MT | 1769-304 | 214.75 |
| 1-3/32 | 15 | 4MT | 1770-154 | 74.80 |
| 1-3/32 | 18 | 3MT* | 1770-183† | 84.20 |
| 1-3/32 | 18 | 4MT | 1770-184 | 84.20 |
| 1-3/32 | 20 | 4MT | 1770-204† | 47.75 |
| 1-3/32 | 24 | 4MT | 1770-244 | 127.40 |
| 1-3/32 | 26 | 4MT | 1770-264† | 98.75 |
| 1-3/32 | 30 | 3MT* | 1770-303† | 214.75 |
| 1-3/32 | 30 | 4MT | 1770-304 | 214.75 |
| 1-3/32 | 36 | 4MT | 1770-364 | 338.80 |
| 1-7/64 | 15 | 4MT | 1771-154 | 74.80 |
| 1-7/64 | 18 | 4MT | 1771-184 | 84.20 |
| 1-7/64 | 24 | 4MT | 1771-244 | 127.40 |
| 1-7/64 | 30 | 4MT | 1771-304 | 214.75 |
| 1-1/8 | 15 | 4MT | 1772-154 | 74.80 |
| 1-1/8 | 18 | 3MT* | 1772-183 | 90.50 |
| 1-1/8 | 18 | 4MT | 1772-184 | 84.20 |
| 1-1/8 | 24 | 3MT* | 1772-243 | 136.95 |
| 1-1/8 | 24 | 4MT | 1772-244 | 127.40 |
| 1-1/8 | 30 | 3MT* | 1772-303 | 186.95 |
| 1-1/8 | 30 | 4MT | 1772-304 | 173.90 |
| 1-1/8 | 36 | 4MT | 1772-364 | 338.80 |
| 1-9/64 | 15 | 4MT | 1773-154 | 76.30 |
| 1-9/64 | 18 | 4MT | 1773-184 | 93.35 |
| 1-9/64 | 24 | 4MT | 1773-244 | 133.45 |
| 1-9/64 | 30 | 4MT | 1773-304 | 230.95 |
| 1-5/32 | 15 | 4MT | 1774-154 | 76.30 |
| 1-5/32 | 18 | 4MT | 1774-184 | 93.35 |
| 1-5/32 | 24 | 4MT | 1774-244 | 133.45 |
| 1-5/32 | 30 | 4MT | 1774-304 | 230.95 |
| 1-5/32 | 36 | 4MT | 1774-364 | 338.80 |
| 1-11/64 | 15 | 4MT | 1775-154 | 77.15 |
| 1-11/64 | 16 | 4MT | 1775-164† | 81.00 |
| 1-11/64 | 18 | 4MT | 1775-184 | 92.60 |
| 1-11/64 | 22 | 4MT | 1775-224† | 57.75 |
| 1-11/64 | 24 | 4MT | 1775-244 | 133.45 |
| 1-11/64 | 30 | 4MT | 1775-304 | 230.95 |
| 1-3/16 | 15 | 4MT | 1776-154 | 77.15 |
| 1-3/16 | 16 | 3MT* | 1776-163† | 81.00 |
| 1-3/16 | 18 | 3MT* | 1776-183 | $99.55 |
| 1-3/16 | 18 | 4MT | 1776-184 | 92.60 |
| 1-3/16 | 24 | 3MT* | 1776-243 | 143.45 |
| 1-3/16 | 24 | 4MT | 1776-244 | 133.45 |
| 1-3/16 | 30 | 3MT* | 1776-303 | 201.05 |
| 1-3/16 | 30 | 4MT | 1776-304 | 187.00 |
| 1-3/16 | 36 | 4MT | 1776-364 | 360.70 |
| 1-13/64 | 15 | 4MT | 1777-154 | 81.85 |
| 1-13/64 | 16 | 4MT | 1777-164† | 86.00 |
| 1-13/64 | 18 | 4MT | 1777-184 | 98.20 |
| 1-13/64 | 20 | 4MT | 1777-204† | 55.65 |
| 1-13/64 | 22 | 4MT | 1777-224† | 61.25 |
| 1-13/64 | 24 | 4MT | 1777-244 | 141.30 |
| 1-13/64 | 30 | 4MT | 1777-304 | 254.05 |
| 1-7/32 | 15 | 4MT | 1778-154 | 81.85 |
| 1-7/32 | 18 | 4MT | 1778-184 | 98.20 |
| 1-7/32 | 24 | 4MT | 1778-244 | 141.30 |
| 1-7/32 | 30 | 4MT | 1778-304 | 254.05 |
| 1-7/32 | 36 | 4MT | 1778-364 | 368.45 |
| 1-15/64 | 15 | 4MT | 1779-154 | 81.85 |
| 1-15/64 | 16 | 4MT | 1779-164† | 86.00 |
| 1-15/64 | 18 | 4MT | 1779-184 | 98.20 |
| 1-15/64 | 24 | 4MT | 1779-244 | 141.30 |
| 1-15/64 | 30 | 4MT | 1779-304 | 254.05 |
| 1-1/4 | 15 | 4MT | 1780-154 | 81.85 |
| 1-1/4 | 18 | 3MT* | 1780-183 | 105.55 |
| 1-1/4 | 18 | 4MT | 1780-184 | 98.20 |
| 1-1/4 | 24 | 3MT* | 1780-243 | 151.90 |
| 1-1/4 | 24 | 4MT | 1780-244 | 141.30 |
| 1-1/4 | 30 | 4MT | 1780-304 | 205.70 |
| 1-1/4 | 36 | 4MT | 1780-364 | 368.45 |
| 1-17/64 | 15 | 4MT | 1781-154 | 91.50 |
| 1-17/64 | 18 | 4MT | 1781-184 | 111.20 |
| 1-17/64 | 24 | 4MT | 1781-244 | 160.00 |
| 1-17/64 | 30 | 4MT | 1781-304 | 277.15 |
| 1-9/32 | 15 | 4MT | 1782-154 | 91.50 |
| 1-9/32 | 18 | 4MT | 1782-184 | 111.20 |
| 1-9/32 | 24 | 4MT | 1782-244 | 160.00 |
| 1-9/32 | 30 | 4MT | 1782-300** | 249.45 |
| 1-9/32 | 30 | 4MT | 1782-304 | 277.15 |
| 1-9/32 | 36 | 4MT | 1782-364 | 368.45 |
| 1-19/64 | 15 | 4MT | 1783-154 | 91.50 |
| 1-19/64 | 18 | 4MT | 1783-184 | 111.20 |
| 1-19/64 | 24 | 4MT | 1783-244 | 160.00 |
| 1-19/64 | 30 | 4MT | 1783-304 | 277.15 |
| 1-5/16 | 15 | 4MT | 1784-154 | 91.50 |
| 1-5/16 | 18 | 4MT | 1784-184 | 111.20 |
| 1-5/16 | 24 | 4MT | 1784-244 | 160.00 |
| 1-5/16 | 30 | 4MT | 1784-300** | 201.95 |
| 1-5/16 | 30 | 4MT | 1784-304 | 224.40 |
| 1-5/16 | 36 | 4MT | 1784-360** | 331.60 |
| 1-5/16 | 36 | 4MT | 1784-364 | 368.45 |
| 1-21/64 | 18 | 4MT | 1785-184 | 124.55 |
| 1-21/64 | 24 | 4MT | 1785-244 | 178.95 |
| 1-21/64 | 30 | 4MT | 1785-304 | 311.80 |
| 1-11/32 | 16 | 4MT | 1786-164† | 114.65 |
| 1-11/32 | 18 | 4MT | 1786-184 | 124.55 |
| 1-11/32 | 24 | 4MT | 1786-244 | 178.95 |
| 1-11/32 | 30 | 4MT | 1786-304 | 311.80 |
| 1-11/32 | 36 | 4MT | 1786-364 | 417.40 |
| 1-23/64 | 16 | 4MT | 1787-164† | 114.65 |
| 1-23/64 | 18 | 4MT | 1787-184 | 124.55 |
| 1-23/64 | 24 | 4MT | 1787-244 | 178.95 |
| 1-3/8 | 18 | 4MT | 1788-184 | 124.55 |
| 1-3/8 | 24 | 4MT | 1788-244 | 178.95 |
| 1-3/8 | 30 | 4MT | 1788-304 | 252.45 |
| 1-3/8 | 34 | 4MT | 1788-344† | 390.25 |
| 1-3/8 | 36 | 4MT | 1788-364 | 417.40 |
| 1-25/64 | 18 | 4MT | 1789-184 | $128.45 |
| 1-25/64 | 20 | 4MT | 1789-204† | 72.80 |
| 1-25/64 | 24 | 4MT | 1789-244 | 185.00 |
| 1-25/64 | 30 | 4MT | 1789-304 | 346.40 |
| 1-13/32 | 18 | 4MT | 1790-184 | 128.45 |
| 1-13/32 | 20 | 4MT | 1790-204† | 72.80 |
| 1-13/32 | 22 | 4MT | 1790-224† | 80.05 |
| 1-13/32 | 24 | 4MT | 1790-244 | 185.00 |
| 1-13/32 | 30 | 4MT | 1790-304 | 346.40 |
| 1-13/32 | 36 | 4MT | 1790-364 | 463.75 |
| 1-27/64 | 18 | 4MT | 1791-184 | 128.45 |
| 1-27/64 | 22 | 4MT | 1791-224† | 80.05 |
| 1-27/64 | 24 | 4MT | 1791-244 | 185.00 |
| 1-27/64 | 30 | 4MT | 1791-304 | 346.40 |
| 1-7/16 | 18 | 4MT | 1792-184 | 128.45 |
| 1-7/16 | 24 | 4MT | 1792-244 | 185.00 |
| 1-7/16 | 36 | 4MT | 1792-300** | 417.40 |
| 1-7/16 | 30 | 4MT | 1792-304 | 280.50 |
| 1-7/16 | 36 | 4MT | 1792-364 | 463.75 |
| 1-29/64 | 18 | 4MT | 1793-184 | 139.55 |
| 1-29/64 | 20 | 4MT | 1793-204† | 79.10 |
| 1-29/64 | 24 | 4MT | 1793-244 | 200.70 |
| 1-29/64 | 30 | 4MT | 1793-304 | 413.25 |
| 1-15/32 | 18 | 4MT | 1794-184 | 139.55 |
| 1-15/32 | 24 | 4MT | 1794-244 | 200.70 |
| 1-15/32 | 30 | 4MT | 1794-304 | 413.25 |
| 1-15/32 | 36 | 4MT | 1794-364 | 477.50 |
| 1-31/64 | 18 | 4MT | 1795-184 | 139.55 |
| 1-31/64 | 24 | 4MT | 1795-244 | 200.70 |
| 1-31/64 | 30 | 4MT | 1795-304 | 413.25 |
| 1-1/2 | 18 | 4MT | 1796-184 | 139.55 |
| 1-1/2 | 24 | 4MT | 1796-244 | 200.70 |
| 1-1/2 | 30 | 4MT | 1796-304 | 317.90 |
| 1-1/2 | 36 | 4MT | 1796-364 | 391.00 |
| 1-33/64 | 18 | 4MT* | 1797-184 | 201.50 |
| 1-33/64 | 24 | 5MT | 1797-245 | 289.70 |
| 1-33/64 | 30 | 4MT* | 1797-304 | 461.90 |
| 1-17/32 | 18 | 4MT* | 1798-184 | 166.65 |
| 1-17/32 | 18 | 5MT | 1798-185 | 155.00 |
| 1-17/32 | 24 | 5MT | 1798-245 | 222.85 |
| 1-17/32 | 30 | 5MT | 1798-305 | 461.90 |
| 1-17/32 | 36 | 5MT | 1798-365 | 568.15 |
| 1-35/64 | 18 | 4MT* | 1799-184 | 201.50 |
| 1-35/64 | 24 | 5MT | 1799-245 | 289.70 |
| 1-9/16 | 18 | 4MT* | 1800-184 | 166.65 |
| 1-9/16 | 18 | 5MT | 1800-185 | 155.00 |
| 1-9/16 | 24 | 4MT* | 1800-244 | 239.55 |
| 1-9/16 | 24 | 5MT | 1800-245 | 222.85 |
| 1-9/16 | 30 | 5MT | 1800-305 | 355.30 |
| 1-9/16 | 36 | 5MT | 1800-365 | 568.15 |
| 1-37/64 | 24 | 5MT | 1801-245 | 310.10 |
| 1-19/32 | 18 | 4MT* | 1802-184 | 177.70 |
| 1-19/32 | 18 | 5MT | 1802-185 | 165.30 |
| 1-19/32 | 24 | 5MT | 1802-245 | 238.55 |
| 1-19/32 | 30 | 5MT | 1802-305 | 461.90 |
| 1-19/32 | 36 | 5MT | 1802-365 | 568.15 |
| 1-39/64 | 24 | 5MT | 1803-245 | 310.10 |
| 1-5/8 | 18 | 4MT* | 1804-184 | 177.70 |
| 1-5/8 | 18 | 5MT | 1804-185 | 165.30 |
| 1-5/8 | 24 | 4MT* | 1804-244 | 256.45 |
| 1-5/8 | 24 | 5MT | 1804-245 | 238.55 |
| 1-5/8 | 30 | 4MT* | 1804-304 | 381.95 |
| 1-5/8 | 30 | 5MT | 1804-305 | 355.30 |
| 1-5/8 | 36 | 5MT | 1804-365 | 437.05 |
| 1-21/32 | 18 | 4MT* | 1806-184 | 189.75 |
| 1-21/32 | 24 | 4MT* | 1806-244† | 254.00 |
| 1-21/32 | 24 | 5MT | 1806-245 | 254.00 |
| 1-21/32 | 30 | 5MT | 1806-305 | 485.00 |
| 1-21/32 | 36 | 5MT | 1806-365 | 627.90 |

* Alternate Shank † Limited Quantities
** Limited Quantities, Alternate Shank

(Continued)

# Taper Shank Drills– Extra Long

## High Speed Steel, 8" thru 36" OAL

| HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS: | | | | | | |
|---|---|---|---|---|---|---|
| | 10" | 12" | 16" | 18" | 30" | 36" |
| THEN APPROXIMATE FLUTE LENGTH IS (+/– 3/4") | | | | | | |
| MT1 | 6-3/4" | 8-3/4" | 12-3/4" | 14-3/4" | 26-3/4" | |
| MT2 | 6-1/4" | 8-1/4" | 12-1/4" | 14-1/4" | 26-1/4" | 32-1/4" |
| MT3 | | 7-5/8" | 11-5/8" | 13-5/8" | 25-5/8" | 31-5/8" |
| MT4 | | | 10-11/16" | 12-11/16" | 24-11/16" | 31-11/16" |
| MT5 | | | 8-1/2" | 11-1/2" | 23-1/2" | 29-1/2" |
| MT6 | | | | | 21" | 27" |

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1-11/16 | 18 | 4MT* | 1808-184 | $189.75 |
| 1-11/16 | 18 | 5MT | 1808-185 | 176.50 |
| 1-11/16 | 24 | 4MT* | 1808-244 | 273.05 |
| 1-11/16 | 24 | 5MT | 1808-245 | 254.00 |
| 1-11/16 | 30 | 5MT | 1808-300** | 343.45 |
| 1-11/16 | 30 | 5MT | 1808-305 | 381.60 |
| 1-11/16 | 36 | 5MT | 1808-365 | 627.90 |
| 1-23/32 | 18 | 4MT* | 1810-184 | 211.55 |
| 1-23/32 | 24 | 5MT | 1810-245 | 283.90 |
| 1-23/32 | 30 | 5MT | 1810-305 | 510.50 |
| 1-23/32 | 36 | 5MT | 1810-365 | 627.90 |
| 1-3/4 | 18 | 4MT* | 1812-184 | 211.55 |
| 1-3/4 | 18 | 5MT | 1812-185 | 196.80 |
| 1-3/4 | 24 | 4MT* | 1812-244 | 305.20 |
| 1-3/4 | 24 | 5MT | 1812-245 | 283.90 |
| 1-3/4 | 30 | 4MT* | 1812-301** | 353.45 |
| 1-3/4 | 30 | 5MT | 1812-300** | 353.45 |
| 1-3/4 | 30 | 4MT* | 1812-304 | 422.15 |
| 1-3/4 | 30 | 5MT | 1812-305 | 392.70 |
| 1-3/4 | 36 | 5MT | 1812-360** | 434.70 |
| 1-3/4 | 36 | 5MT | 1812-365 | 483.00 |
| 1-25/32 | 18 | 4MT* | 1814-184 | 218.20 |
| 1-25/32 | 24 | 5MT | 1814-245 | 313.65 |
| 1-25/32 | 30 | 5MT | 1814-305 | 571.30 |
| 1-25/32 | 36 | 5MT | 1814-365 | 702.70 |
| 1-13/16 | 24 | 4MT* | 1816-244 | 337.15 |
| 1-13/16 | 24 | 5MT | 1816-245 | 313.65 |
| 1-13/16 | 30 | 4MT* | 1816-305 | 472.40 |
| 1-13/16 | 36 | 5MT | 1816-365 | 702.70 |
| 1-27/32 | 20 | 4MT | 1818-204† | 137.30 |
| 1-27/32 | 22 | 4MT | 1818-224† | 151.05 |
| 1-27/32 | 24 | 5MT | 1818-245 | 348.50 |
| 1-27/32 | 30 | 5MT | 1818-305 | 571.30 |
| 1-27/32 | 36 | 5MT | 1818-365 | 702.70 |
| 1-7/8 | 24 | 4MT* | 1820-244 | 374.65 |
| 1-7/8 | 24 | 5MT | 1820-245 | 348.50 |
| 1-7/8 | 30 | 5MT | 1820-300** | 395.50 |
| 1-7/8 | 30 | 4MT* | 1820-304 | 472.40 |
| 1-7/8 | 30 | 5MT | 1820-305 | 439.45 |
| 1-7/8 | 36 | 5MT | 1820-360** | 486.50 |
| 1-7/8 | 36 | 5MT | 1820-365 | 540.55 |
| 1-29/32 | 24 | 5MT | 1822-245 | 383.15 |
| 1-29/32 | 30 | 5MT | 1822-305 | 632.05 |
| 1-29/32 | 36 | 5MT | 1822-365 | 839.55 |
| 1-15/16 | 24 | 4MT* | 1824-244 | 411.90 |
| 1-15/16 | 24 | 5MT | 1824-245 | 383.15 |
| 1-15/16 | 30 | 5MT | 1824-305 | 486.20 |
| 1-15/16 | 36 | 5MT | 1824-365 | 839.55 |
| 1-31/32 | 24 | 5MT | 1826-245 | 415.25 |
| 1-31/32 | 30 | 5MT | 1826-305 | 650.20 |
| 1-31/32 | 36 | 5MT | 1826-365 | 839.55 |
| 2 | 24 | 4MT* | 1828-244 | 446.40 |
| 2 | 24 | 5MT | 1828-245 | 415.25 |
| 2 | 30 | 4MT* | 1828-300** | 483.90 |
| 2 | 30 | 4MT* | 1828-304 | 537.65 |
| 2 | 30 | 5MT | 1828-305 | 500.15 |
| 2 | 36 | 5MT | 1828-365 | 645.80 |
| 2-1/32 | 24 | 5MT | 1830-245 | 581.35 |
| 2-1/32 | 30 | 5MT | 1830-305 | 717.15 |
| 2-1/16 | 24 | 5MT | 1832-245 | 447.20 |
| 2-1/16 | 30 | 5MT | 1832-305 | 551.65 |
| 2-1/16 | 36 | 5MT | 1832-365 | 980.25 |

* Alternate Shank † Limited Quantities
** Limited Quantities, Alternate Shank

| DIAM. | OVERALL LENGTH | TAPER SHANK NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 2-3/32 | 24 | 5MT | 1834-245 | $581.35 |
| 2-3/32 | 30 | 5MT | 1834-305 | 717.15 |
| 2-1/8 | 24 | 5MT | 1836-245 | 447.20 |
| 2-1/8 | 30 | 5MT | 1836-305 | 551.65 |
| 2-1/8 | 36 | 5MT | 1836-365 | 754.05 |
| 2-5/32 | 24 | 5MT | 1838-245 | 639.00 |
| 2-5/32 | 30 | 5MT | 1838-305 | 769.75 |
| 2-3/16 | 24 | 5MT | 1840-245 | 491.55 |
| 2-3/16 | 30 | 5MT | 1840-305 | 592.10 |
| 2-3/16 | 36 | 5MT | 1840-365 | 980.25 |
| 2-7/32 | 24 | 5MT | 1842-245 | 639.00 |
| 2-7/32 | 30 | 5MT | 1842-305 | 769.75 |
| 2-1/4 | 24 | 5MT | 1844-245 | 491.55 |
| 2-1/4 | 30 | 5MT | 1844-305 | 592.10 |
| 2-1/4 | 36 | 5MT | 1844-365 | 754.05 |
| 2-9/32 | 24 | 5MT | 1846-245 | 696.80 |
| 2-9/32 | 30 | 5MT | 1846-305 | 839.30 |
| 2-5/16 | 24 | 5MT | 1848-245 | 536.00 |
| 2-5/16 | 30 | 5MT | 1848-305 | 645.60 |
| 2-5/16 | 36 | 5MT | 1848-365 | 1174.90 |
| 2-11/32 | 24 | 5MT | 1850-245 | 696.80 |
| 2-11/32 | 30 | 5MT | 1850-305 | 839.30 |
| 2-3/8 | 24 | 5MT | 1852-245 | 536.00 |
| 2-3/8 | 30 | 5MT | 1852-305 | 645.60 |
| 2-3/8 | 36 | 5MT | 1852-365 | 903.75 |
| 2-13/32 | 24 | 5MT | 1854-245 | 743.60 |
| 2-13/32 | 30 | 5MT | 1854-305 | 895.65 |
| 2-7/16 | 24 | 5MT | 1856-245 | 572.00 |
| 2-7/16 | 30 | 5MT | 1856-305 | 688.95 |
| 2-7/16 | 36 | 5MT | 1856-365 | 1259.00 |
| 2-29/64 | 24 | 5MT | 1857-245† | 280.30 |
| 2-15/32 | 24 | 5MT | 1858-245 | 743.60 |
| 2-15/32 | 30 | 5MT | 1858-305 | 895.65 |
| 2-1/2 | 24 | 5MT | 1860-245 | 572.00 |
| 2-1/2 | 30 | 5MT | 1860-300** | 620.05 |
| 2-1/2 | 30 | 5MT | 1860-305 | 688.95 |
| 2-1/2 | 36 | 5MT | 1860-365 | 968.45 |
| 2-17/32 | 24 | 5MT | 1862-245 | 790.15 |
| 2-17/32 | 30 | 5MT | 1862-305 | 951.85 |
| 2-9/16 | 24 | 5MT | 1864-245 | 607.80 |
| 2-9/16 | 30 | 5MT | 1864-305 | 951.85 |
| 2-9/16 | 36 | 5MT | 1864-365 | 1332.50 |
| 2-19/32 | 24 | 5MT | 1866-245 | 790.15 |
| 2-19/32 | 30 | 5MT | 1866-305 | 951.85 |
| 2-5/8 | 24 | 5MT | 1868-245 | 607.80 |
| 2-5/8 | 30 | 5MT | 1868-305 | 732.20 |
| 2-5/8 | 36 | 5MT | 1868-365 | 1025.00 |
| 2-21/32 | 24 | 5MT | 1870-245 | 855.75 |
| 2-21/32 | 30 | 5MT | 1870-305 | 1030.85 |
| 2-11/16 | 24 | 5MT | 1872-245 | 658.25 |
| 2-11/16 | 30 | 5MT | 1872-305 | 1109.95 |
| 2-11/16 | 36 | 5MT | 1872-365 | 1553.70 |
| 2-23/32 | 24 | 5MT | 1874-245 | 855.75 |
| 2-23/32 | 30 | 5MT | 1874-305 | 1030.85 |
| 2-3/4 | 24 | 5MT | 1876-245 | 658.25 |
| 2-3/4 | 30 | 5MT | 1876-305 | 792.95 |
| 2-3/4 | 36 | 5MT | 1876-365 | 1195.15 |
| 2-13/16 | 24 | 5MT | 1880-245 | 708.70 |
| 2-13/16 | 30 | 5MT | 1880-305 | 1109.95 |
| 2-13/16 | 36 | 5MT | 1880-365 | 1553.70 |
| 2-7/8 | 24 | 5MT | 1884-245 | 708.70 |
| 2-7/8 | 30 | 5MT | 1884-305 | 853.80 |
| 2-7/8 | 36 | 5MT | 1884-365 | 1195.15 |
| 2-15/16 | 24 | 5MT | 1888-245 | 810.05 |
| 2-15/16 | 30 | 5MT | 1888-305 | 1268.55 |
| 2-15/16 | 36 | 5MT | 1888-365 | 1775.80 |
| 3 | 24 | 5MT | 1892-245 | 810.05 |
| 3 | 30 | 5MT | 1892-305 | 975.80 |
| 3 | 36 | 5MT | 1892-365 | 1366.00 |

### Letter Sizes - Limited Quantities

| SIZE | OVERALL LENGTH | MTS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| B | 8 | 1 | 1672-081 | $14.10 |
| B | 10 | 1 | 1672-101 | 15.60 |
| B | 12 | 1 | 1672-121 | 17.30 |
| C | 8 | 1 | 1673-081 | 14.10 |
| C | 10 | 1 | 1673-101 | 15.60 |
| C | 12 | 1 | 1673-121 | 17.30 |
| D | 8 | 1 | 1674-081 | 14.10 |
| D | 10 | 1 | 1674-101 | 15.60 |
| D | 12 | 1 | 1674-121 | 17.30 |
| F | 8 | 1 | 1676-081 | 15.70 |
| F | 10 | 1 | 1676-101 | 17.40 |
| F | 12 | 1 | 1676-121 | 19.40 |
| G | 8 | 1 | 1677-081 | 15.70 |
| G | 10 | 1 | 1677-101 | 17.40 |
| G | 12 | 1 | 1677-121 | 19.40 |
| H | 8 | 1 | 1678-081 | 15.70 |
| H | 10 | 1 | 1678-101 | 17.40 |
| H | 12 | 1 | 1678-121 | 19.40 |
| I | 8 | 1 | 1679-081 | 15.70 |
| I | 10 | 1 | 1679-101 | 17.40 |
| I | 12 | 1 | 1679-121 | 19.40 |
| J | 8 | 1 | 1680-081 | 15.70 |
| J | 10 | 1 | 1680-101 | 17.40 |
| J | 12 | 1 | 1680-121 | 19.40 |
| L | 8 | 1 | 1682-081 | 16.70 |
| L | 10 | 1 | 1682-101 | 18.60 |
| L | 12 | 1 | 1682-121 | 20.60 |
| M | 8 | 1 | 1683-081 | 16.70 |
| M | 10 | 1 | 1683-101 | 18.60 |
| M | 12 | 1 | 1683-121 | 20.60 |
| N | 8 | 1 | 1684-081 | 16.70 |
| N | 10 | 1 | 1684-101 | 18.60 |
| N | 12 | 1 | 1684-121 | 20.60 |
| O | 8 | 1 | 1685-081 | 17.50 |
| O | 12 | 1 | 1685-121 | 21.60 |
| P | 12 | 1 | 1686-121 | 21.60 |
| R | 10 | 1 | 1688-101 | 19.50 |
| R | 12 | 1 | 1688-121 | 21.60 |
| S | 8 | 1 | 1689-081 | 18.50 |
| S | 10 | 1 | 1689-101 | 20.60 |
| S | 12 | 1 | 1689-121 | 22.80 |
| T | 8 | 1 | 1690-081 | 18.50 |
| T | 10 | 1 | 1690-101 | 20.60 |
| T | 12 | 1 | 1690-121 | 22.80 |
| U | 8 | 1 | 1691-081 | 18.50 |
| U | 10 | 1 | 1691-101 | 20.60 |
| U | 12 | 1 | 1691-121 | 22.80 |
| V | 8 | 1 | 1692-081 | 18.50 |
| V | 10 | 1 | 1692-101 | 20.60 |
| V | 12 | 1 | 1692-121 | 22.80 |
| W | 8 | 1 | 1693-081 | 18.50 |
| W | 10 | 1 | 1693-101 | 20.60 |
| W | 12 | 1 | 1693-121 | 22.80 |
| X | 8 | 1 | 1694-081 | 18.50 |
| X | 10 | 1 | 1694-101 | 20.60 |
| X | 12 | 1 | 1694-121 | 22.80 |
| Y | 8 | 1 | 1695-081 | 18.50 |
| Y | 10 | 1 | 1695-101 | 20.60 |
| Y | 12 | 1 | 1695-121 | 22.80 |
| Z | 8 | 1 | 1696-081 | 18.50 |
| Z | 10 | 1 | 1696-101 | 20.60 |
| Z | 12 | 1 | 1696-121 | 22.80 |

# Straight Shank Core Drills – High Speed Steel

Pittsburg® ALLEGHANY 2

## Three Flute

| DIAM. | DECIMAL EQUIV. | FLUTE LENGTH | OVERALL LENGTH | 3 FLUTE ORDER NO. | 3 FLUTE PRICE EACH | 4 FLUTE ORDER NO. | 4 FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | .2500 | 3-3/4 | 6-1/8 | – | – | 1390-016 | $10.86 |
| 17/64 | .2656 | 3-7/8 | 6-1/4 | – | – | 1390-017 | POA |
| 9/32 | .2812 | 3-7/8 | 6-1/4 | 1380-018† | $8.65 | 1390-018 | 10.95 |
| 19/64 | .2969 | 3-7/8 | 6-3/8 | – | – | 1390-019 | POA |
| 5/16 | .3125 | 4 | 6-3/8 | – | – | 1390-020 | 11.59 |
| 21/64 | .3281 | 4-1/8 | 6-1/2 | – | – | 1390-021 | POA |
| 11/32 | .3438 | 4-1/8 | 6-1/2 | – | – | 1390-022 | 14.44 |
| 23/64 | .3594 | 4-1/4 | 6-3/4 | – | – | 1390-023 | POA |
| 3/8 | .3750 | 4-1/4 | 6-3/4 | – | – | 1390-024 | 14.44 |
| 25/64 | .3906 | 4-3/8 | 7 | – | – | 1390-025 | POA |
| 13/32 | .4062 | 4-3/8 | 7 | – | – | 1390-026 | 14.49 |
| 27/64 | .4219 | 4-5/8 | 7 | – | – | 1390-027 | POA |
| 7/16 | .4375 | 4-5/8 | 7-1/4 | 1380-028† | 13.66 | 1390-028 | 14.49 |
| 29/64 | .4531 | 4-5/8 | 7-1/4 | – | – | 1390-029 | POA |
| 15/32 | .4688 | 4-3/4 | 7-1/2 | – | – | 1390-030 | 15.36 |
| 31/64 | .4844 | 4-3/4 | 7-3/4 | – | – | 1390-031 | POA |
| 1/2 | .5000 | 4-3/4 | 7-3/4 | 1380-032 | 12.21 | 1390-032 | 16.38 |
| 33/64 | .5156 | 4-3/4 | 8 | – | – | 1390-033 | POA |
| 17/32 | .5312 | 4-3/4 | 8 | – | – | 1390-034 | 17.48 |
| 35/64 | .5469 | 4-7/8 | 8-1/4 | – | – | 1390-035 | POA |
| 9/16 | .5625 | 4-7/8 | 8-1/4 | – | – | 1390-036 | 19.00 |
| 37/64 | .5781 | 4-7/8 | 8-3/4 | – | – | 1390-037 | POA |
| 19/32 | .5938 | 4-7/8 | 8-3/4 | 1380-038† | 14.85 | 1390-038 | 19.83 |
| 39/64 | .6094 | 4-7/8 | 8-3/4 | – | – | 1390-039 | POA |
| 5/8 | .6250 | 4-7/8 | 8-3/4 | – | – | 1390-040 | 20.79 |
| 41/64 | .6406 | 5-1/8 | 9 | – | – | 1390-041 | POA |
| 21/32 | .6562 | 5-1/8 | 9 | – | – | 1390-042 | 22.17 |
| 43/64 | .6719 | 5-1/8 | 9 | – | – | 1390-043 | POA |
| 11/16 | .6875 | 5-3/8 | 9-1/4 | 1380-044† | 18.04 | 1390-044 | 24.10 |
| 45/64 | .7031 | 5-5/8 | 9-1/2 | – | – | 1390-045 | POA |
| 23/32 | .7188 | 5-5/8 | 9-1/2 | 1380-046† | 19.17 | 1390-046 | 25.58 |
| 47/64 | .7344 | 5-7/8 | 9-3/4 | – | – | 1390-047 | POA |
| 3/4 | .7500 | 5-7/8 | 9-3/4 | 1380-048† | 20.49 | 1390-048 | 27.32 |
| 49/64 | .7650 | 6 | 9-7/8 | – | – | 1390-049 | POA |
| 25/32 | .7812 | 6 | 9-7/8 | 1380-050† | 21.25 | 1390-050 | 29.72 |
| 51/64 | .7969 | 6-1/8 | 10 | – | – | 1390-051 | POA |
| 13/16 | .8125 | 6-1/8 | 10 | – | – | 1390-052 | 33.81 |
| 53/64 | .8281 | 6-1/8 | 10 | – | – | 1390-053 | POA |
| 27/32 | .8438 | 6-1/8 | 10 | 1380-054† | 26.18 | 1390-054 | 34.18 |
| 55/64 | .8594 | 6-1/8 | 10 | 1380-055† | 26.92 | 1390-055 | POA |
| 7/8 | .8750 | 6-1/8 | 10 | – | – | 1390-056 | 36.39 |

## Four Flute

| DIAM. | DECIMAL EQUIV. | FLUTE LENGTH | OVERALL LENGTH | 3 FLUTE ORDER NO. | 3 FLUTE PRICE EACH | 4 FLUTE ORDER NO. | 4 FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 57/64 | .8906 | 6-1/8 | 10 | – | – | 1390-057 | POA |
| 29/32 | .9062 | 6-1/8 | 10 | 1380-058† | $28.40 | 1390-058 | $37.90 |
| 59/64 | .9219 | 6-1/8 | 10-3/4 | – | – | 1390-059 | POA |
| 15/16 | .9375 | 6-1/8 | 10-3/4 | 1380-060† | 28.40 | 1390-060 | 39.65 |
| 61/64 | .9531 | 6-3/8 | 11 | 1380-061† | 32.87 | 1390-061 | POA |
| 31/32 | .9688 | 6-3/8 | 11 | 1380-062† | 32.87 | 1390-062 | 43.24 |
| 63/64 | .9844 | 6-3/8 | 11 | – | – | 1390-063 | POA |
| 1 | 1.0000 | 6-3/8 | 11 | 1380-064† | 33.83 | 1390-064 | 45.72 |
| 1-1/32 | 1.0312 | 6-1/2 | 11-1/8 | 1380-066† | 35.97 | 1390-066 | 49.31 |
| 1-1/16 | 1.0625 | 6-5/8 | 11-1/4 | – | – | 1390-068 | 51.57 |
| 1-3/32 | 1.0938 | 6-7/8 | 11-1/2 | – | – | 1390-070 | 57.68 |
| 1-1/8 | 1.1250 | 7-1/8 | 11-3/4 | – | – | 1390-072 | 60.72 |
| 1-5/32 | 1.1562 | 7-1/4 | 11-7/8 | 1380-074† | 47.08 | 1390-074 | 64.58 |
| 1-3/16 | 1.1875 | 7-3/8 | 12 | 1380-076† | 50.60 | 1390-076 | 67.85 |
| 1-7/32 | 1.2188 | 7-1/2 | 12-1/8 | – | – | 1390-078 | 72.04 |
| 1-1/4 | 1.2500 | 7-7/8 | 12-1/2 | – | – | 1390-080 | 78.20 |
| 1-9/32 | 1.2812 | 8-1/2 | 14-1/8 | – | – | 1390-082 | 91.45 |
| 1-5/16 | 1.3125 | 8-5/8 | 14-1/4 | – | – | 1390-084 | 94.94 |
| 1-11/32 | 1.3438 | 8-3/4 | 14-3/8 | – | – | 1390-086 | 98.49 |
| 1-3/8 | 1.3750 | 8-7/8 | 14-1/2 | 1380-088† | 76.81 | 1390-088 | 101.11 |
| 1-13/32 | 1.4062 | 9 | 14-5/8 | – | – | 1390-090 | 105.57 |
| 1-7/16 | 1.4375 | 9-1/8 | 14-3/4 | – | – | 1390-092 | 110.86 |
| 1-15/32 | 1.4688 | 9-1/4 | 14-7/8 | 1380-094† | 90.95 | 1390-094 | 116.15 |
| 1-1/2 | 1.5000 | 9-3/8 | 15 | 1380-096† | 90.95 | 1390-096 | 119.69 |
| 1-17/32 | 1.5312 | 9-5/8 | 15-1/4 | – | – | 1390-098 | 134.55 |
| 1-9/16 | 1.5625 | 9-5/8 | 15-1/4 | – | – | 1390-100 | 143.61 |
| 1-19/32 | 1.5938 | 9-7/8 | 15-5/8 | – | – | 1390-102 | 150.65 |
| 1-5/8 | 1.6250 | 9-7/8 | 15-5/8 | – | – | 1390-104 | 155.48 |
| 1-21/32 | 1.6562 | 10 | 15-3/4 | – | – | 1390-106 | 161.55 |
| 1-11/16 | 1.6875 | 10 | 15-3/4 | – | – | 1390-108 | 167.53 |
| 1-23/32 | 1.7188 | 10-1/2 | 16-1/4 | – | – | 1390-110 | 167.12 |
| 1-3/4 | 1.7500 | 10-1/2 | 16-1/4 | – | – | 1390-112 | 178.16 |
| 1-25/32 | 1.7812 | 10-1/2 | 16-1/4 | – | – | 1390-114 | 185.70 |
| 1-13/16 | 1.8125 | 10-1/2 | 16-1/4 | – | – | 1390-116 | 190.95 |
| 1-27/32 | 1.8438 | 10-3/4 | 16-1/2 | – | – | 1390-118 | 195.96 |
| 1-7/8 | 1.8750 | 10-3/4 | 16-1/2 | – | – | 1390-120 | 207.55 |
| 1-29/32 | 1.9062 | 10-3/4 | 16-5/8 | – | – | 1390-122 | 217.17 |
| 1-15/16 | 1.9375 | 10-3/4 | 16-5/8 | – | – | 1390-124 | 221.49 |
| 1-31/32 | 1.9688 | 10-3/4 | 16-5/8 | 1380-126† | 183.59 | 1390-126 | 227.01 |
| 2 | 2.0000 | 10-3/4 | 16-5/8 | – | – | 1390-128 | 234.78 |

† Limited Quantities

# Taper Shank Core Drills – High Speed Steel

Pittsburg® ALLEGHANY 2

## Three Flute

| DIAM. | MTS | DEC. EQV. | FLUTE LENGTH | OVERALL LENGTH | 3 FLUTE ORDER NO. | 3 FLUTE PRICE EACH | 4 FLUTE ORDER NO. | 4 FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 1MT | .2500 | 2-7/8 | 6-1/8 | 1400-161† | $9.55 | 1410-161 | $10.86 |
| 17/64 | 1MT | .2656 | 3 | 6-1/4 | 1400-171† | 11.55 | 1410-171 | POA |
| 9/32 | 1MT | .2812 | 3 | 6-1/4 | 1400-181† | 9.63 | 1410-181 | 10.95 |
| 19/64 | 1MT | .2969 | 3-1/8 | 6-3/8 | – | – | 1410-191 | POA |
| 5/16 | 1MT | .3125 | 3-1/8 | 6-3/8 | 1400-201† | 9.63 | 1410-201 | 11.59 |
| 21/64 | 1MT | .3281 | 3-1/4 | 6-1/2 | 1400-211† | 15.36 | 1410-211 | POA |
| 11/32 | 1MT | .3438 | 3-1/4 | 6-1/2 | 1400-221† | 12.80 | 1410-221 | 14.44 |
| 23/64 | 1MT | .3594 | 3-1/2 | 6-3/4 | – | – | 1410-231 | POA |
| 3/8 | 1MT | .3750 | 3-1/2 | 6-3/4 | 1400-241† | 12.80 | 1410-241 | 14.44 |
| 25/64 | 1MT | .3906 | 3-5/8 | 7 | – | – | 1410-251 | POA |
| 13/32 | 1MT | .4062 | 3-5/8 | 7 | – | – | 1410-261 | 14.49 |
| 27/64 | 1MT | .4219 | 3-7/8 | 7-1/4 | – | – | 1410-271 | POA |
| 7/16 | 1MT | .4375 | 3-7/8 | 7-1/4 | – | – | 1410-281 | 14.49 |
| 29/64 | 1MT | .4531 | 4-1/8 | 7-1/2 | – | – | 1410-291 | POA |
| 15/32 | 1MT | .4688 | 4-1/8 | 7-1/2 | 1400-301† | 13.65 | 1410-301 | 15.36 |
| 31/64 | 1MT | .4844 | 4-3/8 | 8-1/4 | – | – | 1410-312 | POA |
| 1/2 | 2MT | .5000 | 4-3/8 | 8-1/4 | 1400-321† | 17.44 | 1410-322 | 16.38 |
| 33/64 | 2MT | .5156 | 4-5/8 | 8-1/2 | – | – | 1410-332 | POA |
| 17/32 | 2MT | .5312 | 4-5/8 | 8-1/2 | – | – | 1410-342 | 17.48 |
| 35/64 | 2MT | .5469 | 4-7/8 | 8-3/4 | – | – | 1410-352 | POA |
| 9/16 | 2MT | .5625 | 4-7/8 | 8-3/4 | – | – | 1410-362 | 19.00 |
| 37/64 | 2MT | .5781 | 4-7/8 | 8-3/4 | – | – | 1410-372 | POA |
| 19/32 | 2MT | .5938 | 4-7/8 | 8-3/4 | 1400-382† | 17.70 | 1410-382 | 19.83 |
| 39/64 | 2MT | .6094 | 4-7/8 | 8-3/4 | – | – | 1410-392 | POA |
| 5/8 | 2MT | .6250 | 4-7/8 | 8-3/4 | 1400-402† | 18.53 | 1410-402 | 20.79 |
| 41/64 | 2MT | .6406 | 5-1/8 | 9 | – | – | 1410-412 | POA |
| 21/32 | 2MT | .6562 | 5-1/8 | 9 | 1400-422† | 19.78 | 1410-422 | 22.17 |
| 43/64 | 2MT | .6719 | 5-1/8 | 9 | – | – | 1410-432 | POA |
| 11/16 | 2MT | .6875 | 5-3/8 | 9-1/4 | – | – | 1410-442 | 24.10 |
| 45/64 | 2MT | .7031 | 5-3/8 | 9-1/2 | – | – | 1410-452 | POA |
| 23/32 | 2MT | .7188 | 5-5/8 | 9-1/2 | – | – | 1410-462 | 25.58 |
| 47/64 | 2MT | .7344 | 5-7/8 | 9-3/4 | – | – | 1410-472 | POA |
| 3/4 | 2MT | .7500 | 5-7/8 | 9-3/4 | 1400-482† | 24.45 | 1410-482 | 27.28 |
| 49/64 | 2MT | .7656 | 6 | 9-7/8 | – | – | 1410-492 | POA |
| 25/32 | 2MT | .7812 | 6 | 9-7/8 | – | – | 1410-502 | 29.72 |
| 51/64 | 3MT | .7969 | 6-1/8 | 10-3/4 | – | – | 1410-513 | POA |
| 13/16 | 3MT | .8125 | 6-1/8 | 10-3/4 | – | – | 1410-523 | 33.81 |
| 53/64 | 3MT | .8281 | 6-1/8 | 10-3/4 | – | – | 1410-533 | POA |
| 27/32 | 3MT | .8438 | 6-1/8 | 10-3/4 | 1400-543† | 30.68 | 1410-543 | 34.18 |
| 55/64 | 3MT | .8594 | 6-1/8 | 10-3/4 | 1400-553† | 39.74 | 1410-553 | POA |
| 7/8 | 3MT | .8750 | 6-1/8 | 10-3/4 | – | – | 1410-563 | 36.39 |
| 57/64 | 3MT | .8906 | 6-1/8 | 10-3/4 | – | – | 1410-573 | POA |
| 29/32 | 3MT | .9062 | 6-1/8 | 10-3/4 | – | – | 1410-583 | 37.90 |
| 59/64 | 3MT | .9219 | 6-1/8 | 10-3/4 | – | – | 1410-593 | POA |
| 15/16 | 3MT | .9375 | 6-1/8 | 10-3/4 | – | – | 1410-603 | 39.65 |
| 61/64 | 3MT | .9531 | 6-3/8 | 11 | – | – | 1410-613 | POA |
| 31/32 | 3MT | .9688 | 6-3/8 | 11 | 1400-623† | 38.90 | 1410-623 | 43.24 |
| 63/64 | 3MT | .9844 | 6-3/8 | 11 | – | – | 1410-633 | POA |
| 1 | 3MT | 1.0000 | 6-3/8 | 11 | – | – | 1410-643 | 45.72 |
| 1-1/64 | 3MT | 1.0156 | 6-1/2 | 11 | – | – | 1410-653 | POA |
| 1-1/32 | 3MT | 1.0312 | 6-1/2 | 11-1/8 | – | – | 1410-663 | 49.31 |
| 1-3/64 | 3MT | 1.0469 | 6-5/8 | 11-1/4 | – | – | 1410-673 | POA |
| 1-1/16 | 3MT | 1.0625 | 6-5/8 | 11-1/4 | 1400-683† | 46.45 | 1410-683 | 51.57 |
| 1-5/64 | 4MT | 1.0781 | 6-7/8 | 12-1/2 | 1400-694† | 62.37 | 1410-694 | POA |
| 1-3/32 | 4MT | 1.0938 | 6-7/8 | 12-1/2 | 1400-704† | 51.98 | 1410-704 | 57.68 |

**Sizes up to 4" in stock - - Call for price -**

## Four Flute

| DIAM. | MTS | DEC. EQV. | FLUTE LENGTH | OVERALL LENGTH | 3 FLUTE ORDER NO. | 3 FLUTE PRICE EACH | 4 FLUTE ORDER NO. | 4 FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1-7/64 | 4MT | 1.1094 | 6-7/8 | 11-1/2 | – | – | 1410-714 | POA |
| 1-1/8 | 4MT | 1.1250 | 7-1/8 | 12-3/4 | – | – | 1410-724 | $60.72 |
| 1-9/64 | 4MT | 1.1406 | 7-1/4 | 12-7/8 | – | – | 1410-734 | POA |
| 1-5/32 | 4MT | 1.1562 | 7-1/4 | 12-7/8 | – | – | 1410-744 | 64.58 |
| 1-11/64 | 4MT | 1.1719 | 7-3/8 | 13 | – | – | 1410-754 | POA |
| 1-3/16 | 4MT | 1.1875 | 7-3/8 | 13 | 1400-764† | $61.18 | 1410-764 | 67.85 |
| 1-13/64 | 4MT | 1.2031 | 7-1/2 | 13-1/4 | – | – | 1410-774 | POA |
| 1-7/32 | 4MT | 1.2188 | 7-1/2 | 13-1/8 | – | – | 1410-784 | 72.04 |
| 1-15/64 | 4MT | 1.2344 | 7-7/8 | 13-1/2 | – | – | 1410-794 | POA |
| 1-1/4 | 4MT | 1.2500 | 7-7/8 | 13-1/2 | – | – | 1410-804 | 78.11 |
| 1-17/64 | 4MT | 1.2656 | 8-1/2 | 14-1/8 | – | – | 1410-814 | POA |
| 1-9/32 | 4MT | 1.2812 | 8-1/2 | 14-1/8 | 1400-824† | 82.53 | 1410-824 | 91.45 |
| 1-19/64 | 4MT | 1.2969 | 8-5/8 | 14-1/4 | – | – | 1410-834 | POA |
| 1-5/16 | 4MT | 1.3125 | 8-5/8 | 14-1/4 | – | – | 1410-844 | 94.94 |
| 1-21/64 | 4MT | 1.3281 | 8-3/4 | 14-3/8 | – | – | 1410-854 | POA |
| 1-11/32 | 4MT | 1.3438 | 8-3/4 | 14-3/8 | 1400-864† | 88.95 | 1410-864 | 98.49 |
| 1-23/64 | 4MT | 1.3594 | 8-7/8 | 14-1/2 | 1400-874† | 109.54 | 1410-874 | POA |
| 1-3/8 | 4MT | 1.3750 | 8-7/8 | 14-1/2 | – | – | 1410-884 | 101.11 |
| 1-25/64 | 4MT | 1.3906 | 9 | 14-5/8 | 1400-894† | 114.42 | 1410-894 | POA |
| 1-13/32 | 4MT | 1.4062 | 9 | 14-5/8 | 1400-904† | 95.35 | 1410-904 | 105.57 |
| 1-27/64 | 4MT | 1.4219 | 9-1/8 | 14-3/4 | 1400-914† | 120.16 | 1410-914 | POA |
| 1-7/16 | 4MT | 1.4375 | 9-1/8 | 14-3/4 | 1400-924† | 100.13 | 1410-924 | 110.86 |
| 1-29/64 | 4MT | 1.4531 | 9-1/4 | 14-7/8 | 1400-934† | 125.94 | 1410-934 | POA |
| 1-15/32 | 4MT | 1.4688 | 9-1/4 | 14-7/8 | – | – | 1410-944 | 116.15 |
| 1-31/64 | 4MT | 1.4844 | 9-3/8 | 15 | – | – | 1410-954 | POA |
| 1-1/2 | 4MT | 1.5000 | 9-3/8 | 15 | – | – | 1410-964 | 119.69 |
| 1-17/32 | 5MT | 1.5312 | 9-3/8 | 16-3/8 | – | – | 1410-985 | 134.55 |
| 1-9/16 | 5MT | 1.5625 | 9-5/8 | 16-5/8 | – | – | 1411-005 | 143.61 |
| 1-19/32 | 5MT | 1.5938 | 9-7/8 | 16-7/8 | – | – | 1411-025 | 150.65 |
| 1-5/8 | 5MT | 1.6250 | 10 | 17 | 1401-045† | 140.53 | 1411-045 | 155.48 |
| 1-21/32 | 5MT | 1.6562 | 10-1/8 | 17-1/8 | 1401-065† | 146.03 | 1411-065 | 161.55 |
| 1-11/16 | 5MT | 1.6875 | 10-1/8 | 17-1/8 | – | – | 1411-085 | 167.53 |
| 1-45/64 | 5MT | 1.7031 | – | – | – | – | 1411-095 | POA |
| 1-23/32 | 5MT | 1.7188 | 10-1/8 | 17-1/8 | – | – | 1411-105 | 176.32 |
| 1-3/4 | 4MT | 1.7500 | 10-1/8 | 17-1/8 | – | – | – | – |
| 1-3/4 | 5MT | 1.7500 | 10-1/8 | 17-1/8 | – | – | 1411-125 | 178.16 |
| 1-25/32 | 5MT | 1.7812 | 10-1/8 | 17-1/8 | 1401-145† | 167.93 | 1411-145 | 185.70 |
| 1-13/16 | 5MT | 1.8125 | 10-1/8 | 17-1/8 | 1401-165† | 172.68 | 1411-165 | 190.95 |
| 1-27/32 | 5MT | 1.8438 | 10-1/8 | 17-1/8 | – | – | 1411-185 | 195.96 |
| 1-7/8 | 5MT | 1.8750 | 10-3/8 | 17-3/8 | 1401-205† | 187.75 | 1411-205 | 207.55 |
| 1-29/32 | 5MT | 1.9062 | 10-3/8 | 17-3/8 | 1401-225† | 196.43 | 1411-225 | 217.17 |
| 1-15/16 | 5MT | 1.9375 | 10-3/8 | 17-3/8 | – | – | 1411-245 | 221.49 |
| 1-31/32 | 5MT | 1.9688 | 10-3/8 | 17-3/8 | – | – | 1411-265 | 227.01 |
| 2 | 5MT | 2.0000 | 10-3/8 | 17-3/8 | – | – | 1411-285 | 234.78 |
| 2-1/32 | 5MT | 2.0312 | 10-3/8 | 17-3/8 | – | – | 1411-305 | 240.53 |
| 2-1/16 | 5MT | 2.0625 | 10-1/4 | 17-3/8 | – | – | 1411-325 | 246.10 |
| 2-1/8 | 5MT | 2.1250 | 10-1/4 | 17-3/8 | – | – | 1411-365 | 256.96 |
| 2-3/16 | 5MT | 2.1875 | 10-1/4 | 17-3/8 | 1401-405† | 245.35 | 1411-405 | 271.17 |
| 2-1/4 | 5MT | 2.2500 | 10-1/8 | 17-3/8 | – | – | 1411-445 | 284.65 |
| 2-5/16 | 5MT | 2.3125 | 10-1/8 | 17-3/8 | 1401-485† | 273.83 | 1411-485 | 302.63 |
| 2-3/8 | 5MT | 2.3750 | 10-1/8 | 17-3/8 | – | – | 1411-525 | 319.98 |
| 2-7/16 | 5MT | 2.4375 | 11-1/4 | 18-3/4 | – | – | 1411-565 | 360.69 |
| 2-1/2 | 5MT | 2.5000 | 11-1/4 | 18-3/4 | – | – | 1411-605 | 400.57 |
| 2-9/16 | 5MT | 2.5625 | 11-7/8 | 19-1/2 | – | – | 1411-645 | 424.72 |
| 2-5/8 | 5MT | 2.6250 | 11-7/8 | 19-1/2 | – | – | 1411-685 | 455.08 |
| 2-11/16 | 5MT | 2.6875 | 12-3/4 | 20-3/8 | – | – | 1411-725 | 497.31 |
| 2-3/4 | 5MT | 2.7500 | 12-3/4 | 20-3/8 | 1401-765† | 496.68 | 1411-765 | 548.64 |
| 2-13/16 | 5MT | 2.8125 | 13-3/8 | 21-1/8 | 1401-805† | 537.75 | 1411-805 | 575.74 |
| 2-7/8 | 5MT | 2.8750 | 13-3/8 | 21-1/8 | – | – | 1411-845 | 593.95 |
| 2-15/16 | 5MT | 2.9375 | 14 | 21-3/4 | – | – | 1411-885 | 634.11 |
| 3 | 5MT | 3.0000 | 14 | 21-3/4 | – | – | 1411-925 | 692.44 |

† Limited Quantities

# Carbide Tipped Core Drills

**Both types have:** Cutting diameter tolerance plus .001" minus .001". Carbide tips brazed to one piece hardened tool steel bodies. Large right spiral flute capacity permits higher feeds and speeds. 118° included chamfer angle.
**OPTIONS:** intermediate decimal & metric sizes.
**USE:** Core drills are designed for economically enlarging cored, punched or drilled holes, removing up to 30% of the hole diameter. The balanced cutting action of the core drill removes considerably more material than a reamer, often eliminating the need for a final reaming or boring operation. For cast iron, non-ferrous metals; some steels, composites, plastics and non-metals.

2

| CUT SIZE | MIN. CUT DIA. | CARB. TIP LGTH | FLUTE LENGTH | OVERALL LENGTH | SHANK DIA. | ORDER NO. | TAPER | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/2 | .350 | 3/4 | 4-3/8 | 8-1/4 | 1/2 | 2862-016 | 2 | 2862-216 | $84.20 |
| 17/32 | .372 | 3/4 | 4-3/8 | 8-1/4 | 17/32 | 2862-017 | 2 | 2862-217 | 84.55 |
| 9/16 | .394 | 3/4 | 4-3/8 | 8-1/4 | 9/16 | 2862-018 | 2 | 2862-218 | 84.55 |
| 19/32 | .416 | 3/4 | 4-3/8 | 8-1/4 | 19/32 | 2862-019 | 2 | 2862-219 | 88.75 |
| 5/8 | .438 | 3/4 | 4-3/8 | 8-1/4 | 5/8 | 2862-020 | 2 | 2862-220 | 88.75 |
| 21/32 | .459 | 7/8 | 4-3/8 | 8-1/4 | 21/32 | 2862-021 | 2 | 2862-221 | 89.80 |
| 11/16 | .481 | 7/8 | 4-3/8 | 8-1/4 | 11/16 | 2862-022 | 2 | 2862-222 | 90.60 |
| 23/32 | .503 | 7/8 | 4-3/8 | 8-1/4 | 23/32 | 2862-023 | 2 | 2862-223 | 90.60 |
| 3/4 | .525 | 7/8 | 4-3/8 | 8-1/4 | 3/4 | 2862-024 | 2 | 2862-224 | 90.60 |
| 25/32 | .547 | 7/8 | 4-3/8 | 8-1/4 | 25/32 | 2862-025 | 2 | 2862-225 | 92.60 |
| 13/16 | .569 | 7/8 | 4-7/8 | 9-1/2 | 13/16 | 2862-026 | 3 | 2862-226 | 95.20 |
| 27/32 | .591 | 7/8 | 4-7/8 | 9-1/2 | 27/32 | 2862-027 | 3 | 2862-227 | 100.25 |
| 7/8 | .612 | 7/8 | 4-7/8 | 9-1/2 | 7/8 | 2862-028 | 3 | 2862-228 | 100.25 |
| 29/32 | .634 | 7/8 | 4-7/8 | 9-1/2 | 29/32 | 2862-029 | 3 | 2862-229 | 100.90 |
| 15/16 | .656 | 7/8 | 4-7/8 | 9-1/2 | 15/16 | 2862-030 | 3 | 2862-230 | 100.90 |
| 31/32 | .678 | 7/8 | 4-7/8 | 9-1/2 | 31/32 | 2862-031 | 3 | 2862-231 | 104.65 |
| 1 | .700 | 7/8 | 4-7/8 | 9-1/2 | 1 | 2862-032 | 3 | 2862-232 | 106.60 |

| CUT SIZE | MIN. CUT DIA. | CARB. TIP LGTH | FLUTE LENGTH | OVERALL LENGTH | SHANK DIA. | ORDER NO. | TAPER | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1-1/32 | .722 | 7/8 | 4-7/8 | 9-1/2 | 1-1/32 | 2862-033 | 3 | 2862-233 | $107.50 |
| 1-1/16 | .744 | 7/8 | 4-7/8 | 9-1/2 | 1-1/16 | 2862-034 | 3 | 2862-234 | 108.95 |
| 1-3/32 | .766 | 1 | 4-7/8 | 10-1/2 | 1-3/32 | 2862-035 | 4 | 2862-235 | 126.95 |
| 1-1/8 | .787 | 1 | 4-7/8 | 10-1/2 | 1-1/8 | 2862-036 | 4 | 2862-236 | 126.95 |
| 1-5/32 | .809 | 1 | 4-7/8 | 10-1/2 | 1-5/32 | 2862-037 | 4 | 2862-237 | 138.60 |
| 1-3/16 | .831 | 1 | 4-7/8 | 10-1/2 | 1-3/16 | 2862-038 | 4 | 2862-238 | 142.60 |
| 1-7/32 | .853 | 1 | 4-7/8 | 10-1/2 | 1-7/32 | 2862-039 | 4 | 2862-239 | 143.10 |
| 1-1/4 | .875 | 1 | 4-7/8 | 10-1/2 | 1-1/4 | 2862-040 | 4 | 2862-240 | 143.70 |
| 1-9/32 | .897 | 1 | 4-7/8 | 10-1/2 | 1-9/32 | 2862-041 | 4 | 2862-241 | 153.95 |
| 1-5/16 | .919 | 1 | 4-7/8 | 10-1/2 | 1-5/16 | 2862-042 | 4 | 2862-242 | 158.25 |
| 1-11/32 | .940 | 1 | 4-7/8 | 10-1/2 | 1-11/32 | 2862-043 | 4 | 2862-243 | 161.55 |
| 1-3/8 | .962 | 1 | 4-7/8 | 10-1/2 | 1-3/8 | 2862-044 | 4 | 2862-244 | 165.45 |
| 1-13/32 | .984 | 1 | 4-7/8 | 10-1/2 | 1-13/32 | 2862-045 | 4 | 2862-245 | 169.25 |
| 1-7/16 | 1.006 | 1 | 4-7/8 | 10-1/2 | 1-7/16 | 2862-046 | 4 | 2862-246 | 174.20 |
| 1-15/32 | 1.025 | 1 | 4-7/8 | 10-1/2 | 1-15/32 | 2862-047 | 4 | 2862-247 | 179.40 |
| 1-1/2 | 1.050 | 1 | 4-7/8 | 10-1/2 | 1-1/2 | 2862-048 | 4 | 2862-248 | 183.25 |

# Oil Hole Drills Straight & Taper Shank – High Speed Steel – Limited Quantities

2

## Straight Shank

| DIAM. | DECIMAL EQUIVALENT | STRAIGHT SHANK ORDER NO. | STRAIGHT SHANK PRICE EACH | TAPER SHANK MTS | TAPER SHANK ORDER NO. | TAPER SHANK PRICE EACH |
|---|---|---|---|---|---|---|
| 3/8 | .3750 | 1420-024 | $126.90 | – | – | – |
| 25/64 | .3906 | 1420-025 | 126.35 | – | – | – |
| 13/32 | .4062 | 1420-026 | 128.70 | – | – | – |
| 27/64 | .4219 | 1420-027 | 128.70 | – | – | – |
| 7/16 | .4375 | 1420-028 | 133.40 | – | – | – |
| 29/64 | .4531 | 1420-029 | 133.40 | – | – | – |
| 15/32 | .4688 | 1420-030 | 136.20 | 3MT | 1430-303 | $196.85 |
| 31/64 | .4844 | 1420-031 | 136.20 | 3MT | 1430-313 | 196.85 |
| 1/2 | .5000 | 1420-032 | 137.95 | 3MT | 1430-323 | 196.85 |
| 33/64 | .5156 | 1420-033 | 137.95 | 3MT | 1430-333 | 196.85 |
| 17/32 | .5312 | 1420-034 | 139.95 | 3MT | 1430-343 | 196.85 |
| 35/64 | .5469 | 1420-035 | 139.95 | 3MT | 1430-353 | 196.85 |
| 9/16 | .5625 | 1420-036 | 143.25 | 3MT | 1430-363 | 176.15 |
| 37/64 | .5781 | 1420-037 | 143.25 | 3MT | 1430-373 | 196.85 |
| 19/32 | .5938 | 1420-038 | 144.85 | 3MT | 1430-383 | 176.15 |
| 39/64 | .6094 | 1420-039 | 144.85 | 3MT | 1430-393 | 176.15 |
| 5/8 | .6625 | 1420-040 | 151.85 | 3MT | 1430-403 | 176.15 |
| 41/64 | .6406 | 1420-041 | 151.85 | 3MT | 1430-413 | 176.15 |
| 21/32 | .6562 | 1420-042 | 151.85 | – | – | – |
| 21/32 | .6562 | – | – | 3MT | 1430-423 | 176.45 |
| 43/64 | .6719 | 1420-043 | 151.85 | 3MT | 1430-433 | 178.90 |
| 11/16 | .6875 | 1420-044 | 155.30 | 3MT | 1430-443 | 178.90 |
| 45/64 | .7031 | 1420-045 | 155.30 | 3MT | 1430-453 | 181.40 |
| 23/32 | .7188 | 1420-046 | 159.35 | 3MT | 1430-463 | 181.40 |
| 47/64 | .7344 | 1420-047 | 159.35 | 3MT | 1430-473 | 181.40 |
| 3/4 | .7500 | 1420-048 | 170.35 | 3MT | 1430-483 | 181.40 |
| 49/64 | .7656 | 1420-049 | 170.35 | 3MT | 1430-493 | 183.15 |
| 25/32 | .7812 | 1420-050 | 173.30 | 3MT | 1430-503 | 183.15 |
| 51/64 | .7969 | 1420-051 | 173.30 | 3MT | 1430-513 | 183.15 |
| 13/16 | .8125 | 1420-052 | 177.35 | 3MT | 1430-523 | 183.15 |
| 53/64 | .8281 | 1420-053 | 177.35 | 3MT | 1430-533 | 199.30 |
| 27/32 | .8438 | 1420-054 | 180.85 | 3MT | 1430-543 | 199.30 |

## Taper Shank

| DIAM. | DECIMAL EQUIVALENT | STRAIGHT SHANK ORDER NO. | STRAIGHT SHANK PRICE EACH | TAPER SHANK MTS | TAPER SHANK ORDER NO. | TAPER SHANK PRICE EACH |
|---|---|---|---|---|---|---|
| 55/64 | .8594 | 1420-055 | $180.85 | 3MT | 1430-553 | $199.30 |
| 7/8 | .8750 | 1420-056 | 195.80 | 3MT | 1430-563 | 199.30 |
| 57/64 | .8906 | 1420-057 | 195.80 | 3MT | 1430-573 | 199.90 |
| 29/32 | .9062 | 1420-058 | 209.75 | 3MT | 1430-583 | 199.90 |
| 59/64 | .9219 | 1420-059 | 224.25 | 3MT | 1430-593 | 199.90 |
| 15/16 | .9375 | 1420-060 | 224.25 | 3MT | 1430-603 | 199.90 |
| 61/64 | .9531 | 1420-061 | 235.25 | 3MT | 1430-613 | 235.70 |
| 31/32 | .9688 | 1420-062 | 235.25 | 3MT | 1430-623 | 235.70 |
| 63/64 | .9844 | 1420-063 | 246.90 | 3MT | 1430-633 | 235.70 |
| 1 | 1.0000 | 1420-064 | 246.90 | 3MT | 1430-643 | 235.70 |
| 1-1/32 | 1.0312 | 1420-066 | 260.75 | 3MT | 1430-663 | 255.35 |
| 1-1/16 | 1.0625 | 1420-068 | 271.25 | 4MT | 1430-684 | 255.35 |
| 1-3/32 | 1.0938 | 1420-070 | 282.25 | 4MT | 1430-704 | 301.60 |
| 1-1/8 | 1.1250 | 1420-072 | 296.65 | 4MT | 1430-724 | 329.90 |
| 1-5/32 | 1.1562 | 1420-074 | 311.20 | 4MT | 1430-744 | 329.90 |
| 1-3/16 | 1.1875 | 1420-076 | 325.70 | 4MT | 1430-764 | 331.95 |
| 1-7/32 | 1.2188 | 1420-078 | 340.15 | 4MT | 1430-784 | 377.75 |
| 1-1/4 | 1.2500 | 1420-080 | 354.10 | 4MT | 1430-804 | 377.75 |
| 1-5/16 | 1.3125 | 1420-084 | 392.90 | 4MT | 1430-844 | 494.00 |
| 1-11/32 | – | – | – | 4MT | 1430-864 | 494.00 |
| 1-3/8 | 1.3750 | 1420-088 | 441.05 | 4MT | 1430-884 | 546.80 |
| 1-13/32 | – | – | – | 4MT | 1430-904 | 546.80 |
| 1-7/16 | – | – | – | 4MT | 1430-924 | 546.80 |
| 1-15/32 | – | – | – | 4MT | 1430-944 | 570.80 |
| 1-1/2 | – | – | – | 4MT | 1430-964 | 570.80 |
| 1-9/16 | – | – | – | 4MT | 1431-004 | 597.95 |
| 1-5/8 | – | – | – | 4MT | 1431-044 | 643.10 |
| 1-11/16 | – | – | – | 4MT | 1431-084 | 755.90 |
| 1-3/4 | – | – | – | 4MT | 1431-124 | 778.45 |
| 1-13/16 | – | – | – | 5MT | 1431-165 | 812.30 |
| 1-7/8 | – | – | – | 5MT | 1431-205 | 857.45 |
| 1-15/16 | – | – | – | 5MT | 1431-245 | 908.20 |
| 2 | – | – | – | 5MT | 1431-285 | 930.75 |

# Coolant Feeding Drills

## Carbide Tipped– 125° Self Centering Point

ROCK RIVER 2

**Metric sizes available upon request**

**USES:**
- Excellent coolant feeding drills for use when very high performance is required
- Excellent hole straightness
- Exceptional hole finish as coolant flushes chips out and away from cutting edges
- High penetration feed rates for shorter drill operation times
- Proven carbide tip point geometry assures long production runs within tolerances

**SPECIFICATIONS:**
- 125º four facet point
- Flat relieved, self centering point
- Polished straight flutes
- Two coolant outlets
- Drill body diameter smaller than tool diameter to prevent gauling; shank diameter same size as tool diameter
- Shank and tool diameter tolerances: plus .000", minus .001"
- Carbide high temperature brazed to hardened steel body
- Extra long carbide tip for additional regrinds
- Straight flutes for superior hole straightness, improved finish & max. chip capacity

## Short Length

| TOOL DIA. | FLUTE LG'TH. | OAL (IN.) | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/4 | 2-1/2 | 4-29/32 | 2995-116 | $142.95 |
| 17/64 | 2-3/4 | 5-5/32 | 2995-117 | 142.95 |
| 9/32 | 2-3/4 | 5-5/32 | 2995-118 | 142.95 |
| 19/64 | 3-3/16 | 5-19/32 | 2995-119 | 142.95 |
| 5/16 | 3-3/16 | 5-19/32 | 2995-120 | 142.95 |
| 21/64 | 3-7/16 | 5-27/32 | 2995-121 | 142.95 |
| 11/32 | 3-7/16 | 5-27/32 | 2995-122 | 142.95 |
| 23/64 | 3-5/8 | 6-1/32 | 2995-123 | 144.45 |
| 3/8 | 3-5/8 | 6-1/32 | 2995-124 | 144.45 |
| 25/64 | 3-7/8 | 6-9/32 | 2995-125 | 148.05 |
| 13/32 | 3-7/8 | 6-1/32 | 2995-126 | 148.05 |
| 27/64 | 3-7/8 | 6-9/32 | 2995-127 | 153.05 |
| 7/16 | 4-1/16 | 6-9/32 | 2995-128 | 153.05 |
| 29/64 | 4-1/16 | 6-23/32 | 2995-129 | 162.95 |
| 15/32 | 4-5/16 | 6-23/32 | 2995-130 | $162.95 |
| 31/64 | 4-1/2 | 6-29/32 | 2995-131 | 167.70 |
| 1/2 | 4-1/2 | 6-29/32 | 2995-132 | 167.70 |
| 17/32 | 4-13/16 | 7-7/32 | 2995-134 | 177.75 |
| 9/16 | 4-13/16 | 7-7/32 | 2995-136 | 187.60 |
| 19/32 | 5-3/16 | 7-19/32 | 2995-138 | 224.65 |
| 5/8 | 5-3/16 | 7-19/32 | 2995-140 | 224.65 |
| 41/64 | 5-3/16 | 7-19/32 | 2995-141 | 236.90 |
| 21/32 | 5-3/16 | 7-19/32 | 2995-142 | 236.90 |
| 43/64 | 5-5/8 | 8-1/32 | 2995-143 | 256.30 |
| 11/16 | 5-5/8 | 8-1/32 | 2995-144 | 256.65 |
| 45/64 | 5-5/8 | 8-1/32 | 2995-145 | 263.95 |
| 23/32 | 5-5/8 | 8-1/32 | 2995-146 | 263.95 |
| 47/64 | 6-1/16 | 8-15/32 | 2995-147 | 266.55 |
| 3/4 | 6-1/16 | 8-15/32 | 2995-148 | $266.55 |
| 25/32 | 6-1/16 | 8-9/16 | 2995-150 | 283.85 |
| 13/16 | 6-1/16 | 8-9/16 | 2995-152 | 288.65 |
| 27/32 | 6-1/2 | 9 | 2995-154 | 306.05 |
| 7/8 | 6-1/2 | 9 | 2995-156 | 313.40 |
| 29/32 | 6-15/16 | 9-7/16 | 2995-158 | 335.40 |
| 15/16 | 6-15/16 | 9-7/16 | 2995-160 | 360.25 |
| 31/32 | 6-15/16 | 9-7/16 | 2995-162 | 375.05 |
| 1 | 7-3/8 | 9-7/8 | 2995-164 | 384.90 |

## Long Length

| TOOL DIA. | FLUTE LG'TH. | OAL (IN.) | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/4 | 4-5/8 | 6-1/8 | 2995-216 | $156.50 |
| 17/64 | 4-3/4 | 6-1/4 | 2995-217 | 156.50 |
| 9/32 | 4-3/4 | 6-1/4 | 2995-218 | 156.50 |
| 19/64 | 4-7/8 | 6-3/8 | 2995-219 | 156.50 |
| 5/16 | 4-7/8 | 6-3/8 | 2995-220 | 156.50 |
| 21/64 | 5 | 6-1/2 | 2995-221 | 150.70 |
| 11/32 | 5 | 6-1/2 | 2995-222 | 150.70 |
| 23/64 | 5-1/4 | 6-3/4 | 2995-223 | 146.85 |
| 3/8 | 5-1/4 | 6-3/4 | 2995-224 | 152.50 |
| 25/64 | 5-1/2 | 7 | 2995-225 | 150.70 |
| 13/32 | 5-1/2 | 7 | 2995-226 | 150.70 |
| 27/64 | 5-3/4 | 7-1/4 | 2995-227 | 155.50 |
| 7/16 | 5-3/4 | 7-1/4 | 2995-228 | $155.50 |
| 29/64 | 5-3/4 | 7-1/4 | 2995-229 | 165.35 |
| 15/32 | 5-3/4 | 7-1/2 | 2995-230 | 165.35 |
| 31/64 | 5-3/4 | 7-3/4 | 2995-231 | 170.30 |
| 1/2 | 5-3/4 | 7-3/4 | 2995-232 | 170.30 |
| 33/64 | 6 | 8 | 2995-233 | 182.65 |
| 17/32 | 6 | 8 | 2995-234 | 182.65 |
| 9/16 | 6-1/4 | 8-1/4 | 2995-236 | 192.45 |
| 19/32 | 6-3/4 | 8-3/4 | 2995-238 | 231.75 |
| 5/8 | 6-3/4 | 8-3/4 | 2995-240 | 231.75 |
| 21/32 | 7 | 9 | 2995-242 | 244.30 |
| 11/16 | 7-1/4 | 9-1/4 | 2995-244 | 261.65 |
| 23/32 | 7-1/2 | 9-1/2 | 2995-246 | $271.40 |
| 3/4 | 7-3/4 | 9-3/4 | 2995-248 | 273.85 |
| 49/64 | 7-7/8 | 9-7/8 | 2995-249 | 291.15 |
| 25/32 | 7-7/8 | 9-7/8 | 2995-250 | 291.15 |
| 13/16 | 8 | 10 | 2995-252 | 296.10 |
| 27/32 | 8 | 10 | 2995-254 | 313.40 |
| 7/8 | 8 | 10 | 2995-256 | 320.75 |
| 29/32 | 8 | 10 | 2995-258 | 355.40 |
| 15/16 | 8-3/4 | 10-3/4 | 2995-260 | 370.10 |
| 31/32 | 9 | 11 | 2995-262 | 373.70 |
| 1 | 9 | 11 | 2995-264 | 373.70 |

## Extra Long Length

**USES:**
- For drilling most materials, including some stainless steels
- For very deep holes, 12-24 tool diameters deep

| TOOL DIA. | FLUTE LG'TH. | OAL (IN.) | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 5/16 | 8 | 10 | 2995-320 | $225.90 |
| 11/32 | 8 | 10 | 2995-322 | 225.90 |
| 3/8 | 9 | 11 | 2995-324 | 238.75 |
| 13/32 | 9 | 11 | 2995-326 | 271.75 |
| 7/16 | 9 | 11 | 2995-328 | 271.75 |
| 15/32 | 9-3/4 | 12 | 2995-330 | 287.00 |
| 1/2 | 9-3/4 | 12 | 2995-332 | $287.00 |
| 17/32 | 9-3/4 | 12 | 2995-334 | 308.05 |
| 9/16 | 10-3/4 | 13 | 2995-336 | 331.80 |
| 5/8 | 10-3/4 | 13 | 2995-340 | 350.35 |
| 11/16 | 11-3/4 | 14 | 2995-344 | 364.80 |
| 3/4 | 11-3/4 | 14 | 2995-348 | 386.05 |
| 13/16 | 12-3/4 | 15 | 2995-352 | $410.05 |
| 7/8 | 12-3/4 | 15 | 2995-356 | 441.85 |
| 15/16 | 13-3/4 | 16 | 2995-360 | 472.05 |
| 1 | 13-3/4 | 16 | 2995-364 | 511.25 |

# Masonry Drills

## Hex Shank Hammer Drills

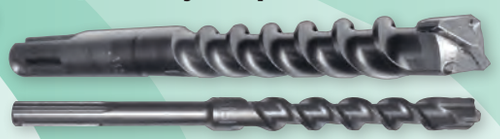
hex

- Hex shank eliminates spinning in all hammer chucks
- Optimizes benefits of a keyless chuck
- "Super H" grade carbide tips for longer life

| BIT DIA. | OVERALL LENGTH | USEABLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| | | STRAIGHT SHANK | | |
| 1/8 | 3 | 1-1/2 | 3014-081 | $ 1.69 |
| 1/8 | 6 | 4-1/2 | 3014-083 | 2.67 |
| 5/32 | 3 | 1-1/2 | 3014-101 | 1.76 |
| 5/32 | 6 | 4-1/2 | 3014-103 | 2.67 |
| 11/64 | 3 | 1-1/2 | 3014-111 | 1.89 |
| 3/16 | 3 | 1-1/2 | 3014-121 | 1.56 |
| 3/16 | 4 | 2-1/2 | 3014-122 | 1.63 |
| 3/16 | 6 | 4 | 3014-123 | 2.54 |
| 3/16 | 8 | 6 | 3014-124 | 3.22 |
| 3/16 | 13-1/2 | 12 | 3014-126 | 4.07 |
| 3/16 | 18 | 16 | 3014-127 | 13.59 |
| | | HEX SHANK | | |
| 7/32 | 3 | 1-1/2 | 3014-141 | 2.18 |
| 7/32 | 6 | 4-1/2 | 3014-143 | 2.67 |
| 7/32 | 13 | 12 | 3014-146 | 4.55 |
| 1/4 | 4 | 2-1/2 | 3014-162 | 2.02 |
| 1/4 | 6 | 4-1/2 | 3014-163 | 2.73 |
| 1/4 | 13-1/2 | 12 | 3014-166 | 5.24 |
| 1/4 | 18 | 16-1/2 | 3014-167 | 6.98 |
| 1/4 | 24 | 22-1/2 | 3014-168 | 9.00 |
| 9/32 | 4 | 2-1/2 | 3014-182 | 3.29 |
| 9/32 | 6 | 4-1/2 | 3014-183 | 3.61 |
| 5/16 | 4 | 2-1/2 | 3014-202 | 2.70 |
| 5/16 | 6 | 4-1/2 | 3014-203 | 3.19 |
| 5/16 | 13-1/2 | 12 | 3014-206 | 5.89 |
| 5/16 | 18 | 16-1/2 | 3014-207 | 7.74 |
| 5/16 | 24 | 22-1/2 | 3014-208 | 9.72 |
| 3/8 | 4 | 2-1/2 | 3014-242 | 3.58 |
| 3/8 | 6 | 4-1/2 | 3014-243 | 4.23 |
| 3/8 | 13-1/2 | 12 | 3014-246 | 7.38 |
| 3/8 | 18 | 16-1/2 | 3014-247 | 8.62 |
| 3/8 | 24 | 22-1/2 | 3014-248 | 10.18 |
| 7/16 | 6 | 4-1/2 | 3014-283 | 5.14 |
| 7/16 | 13-1/2 | 12 | 3014-286 | 8.16 |
| 15/32 | 6 | 4-1/2 | 3014-303 | 5.37 |
| 1/2 | 4 | 2-1/2 | 3014-322 | 5.79 |
| 1/2 | 6 | 4-1/2 | 3014-323 | 5.98 |
| 1/2 | 13-1/2 | 12 | 3014-326 | 8.78 |
| 1/2 | 18 | 16 | 3014-327 | 10.34 |
| 1/2 | 24 | 22 | 3014-328 | 12.97 |
| 9/16 | 6 | 4-1/2 | 3014-363 | 6.24 |
| 9/16 | 13-1/2 | 12 | 3014-366 | 9.27 |
| 9/16 | 18 | 16 | 3014-367 | 10.99 |
| 5/8 | 6 | 4-1/2 | 3014-403 | 8.62 |
| 5/8 | 13-1/2 | 12 | 3014-406 | 11.90 |
| 5/8 | 18 | 16 | 3014-407 | 14.51 |
| 5/8 | 24 | 22 | 3014-408 | 17.69 |
| 11/16 | 6 | 4-1/2 | 3014-443 | 10.74 |
| 11/16 | 13-1/2 | 12 | 3014-446 | 13.17 |
| 11/16 | 18 | 16 | 3014-447 | 16.03 |
| 3/4 | 6 | 4-1/2 | 3014-483 | 11.29 |
| 3/4 | 13-1/2 | 12 | 3014-486 | 14.93 |
| 3/4 | 18 | 16 | 3014-487 | 17.11 |
| 3/4 | 24 | 22 | 3014-488 | 20.48 |
| 7/8 | 6 | 4-1/2 | 3014-563 | 15.89 |
| 7/8 | 13-1/2 | 12 | 3014-566 | 21.13 |
| 7/8 | 18 | 16 | 3014-567 | 23.36 |
| 7/8 | 24 | 22 | 3014-568 | 26.99 |
| 1 | 6 | 4-1/2 | 3014-643 | 17.34 |
| 1 | 13-1/2 | 12 | 3014-646 | 24.96 |
| 1 | 18 | 16 | 3014-647 | 32.77 |
| 1-1/8 | 6 | 4-1/2 | 3014-723 | 27.76 |
| 1-1/8 | 13-1/2 | 12 | 3014-726 | 35.80 |
| 1-1/8 | 18 | 16 | 3014-727 | 43.00 |
| 1-1/4 | 6 | 4-1/2 | 3014-803 | 29.29 |
| 1-1/4 | 13-1/2 | 12 | 3014-806 | 38.98 |
| 1-1/4 | 18 | 16 | 3014-807 | 47.13 |
| 1-3/8 | 6 | 4-1/2 | 3014-883 | 31.44 |
| 1-1/2 | 6 | 4-1/2 | 3014-963 | 36.75 |
| 1-1/2 | 12 | 10 | 3014-965 | 42.04 |

## SDSMAX Shank QUAD Style Tip

SDS max



- Tri-Carb® grade tip combined with additional carbide bullets for a design that guarantees longer life and creates the fastest drilling Quad design worldwide!

| BIT DIA. | OAL (IN.) | USEABLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 5/8 | 13 | 7 | 3004-201 | $35.07 |
| 5/8 | 18 | 12 | 3004-204 | 39.72 |
| 5/8 | 23-1/2 | 18 | 3004-205 | 47.23 |
| 5/8 | 30 | 24 | 3004-206 | 61.88 |
| 5/8 | 36 | 30 | 3004-207 | 88.04 |
| 5/8 | 48 | 42 | 3004-208 | 159.25 |
| 11/16 | 23-1/2 | 18 | 3004-225 | 55.38 |
| 3/4 | 13 | 7 | 3004-241 | 35.58 |
| 3/4 | 18 | 12 | 3004-244 | 42.38 |
| 3/4 | 23-1/2 | 18 | 3004-245 | 51.94 |
| 3/4 | 30 | 24 | 3004-246 | 71.58 |
| 3/4 | 36 | 30 | 3004-247 | 90.68 |
| 3/4 | 48 | 42 | 3004-248 | 172.25 |
| 13/16 | 23-1/2 | 18 | 3004-265 | 61.88 |
| 27/32 | 13 | 7 | 3004-271 | 41.40 |
| 27/32 | 23-1/2 | 18 | 3004-275 | 53.61 |
| 7/8 | 13 | 7 | 3004-281 | 47.73 |
| 7/8 | 18 | 12 | 3004-284 | 51.03 |
| 7/8 | 23-1/2 | 18 | 3004-285 | 55.56 |
| 7/8 | 36 | 30 | 3004-287 | 106.60 |
| 1 | 13 | 7 | 3004-321 | 51.39 |
| 1 | 18 | 12 | 3004-324 | 55.58 |
| 1 | 23-1/2 | 18 | 3004-325 | 59.20 |
| 1 | 36 | 30 | 3004-327 | 113.75 |
| 1 | 48 | 42 | 3004-328 | 191.75 |
| 1-1/8 | 13 | 7 | 3004-361 | 53.43 |
| 1-1/8 | 18 | 12 | 3004-364 | 71.00 |
| 1-1/8 | 23-1/2 | 18 | 3004-365 | 78.69 |
| 1-3/16 | 23-1/2 | 18 | 3004-385 | 81.25 |
| 1-1/4 | 15 | 9 | 3004-402 | 75.21 |
| 1-1/4 | 23-1/2 | 18 | 3004-405 | 83.55 |
| 1-1/4 | 36 | 30 | 3004-407 | 148.69 |
| 1-3/8 | 18 | 12 | 3004-444 | 88.29 |
| 1-3/8 | 23-1/2 | 18 | 3004-445 | 106.69 |
| 1-1/2 | 15 | 9 | 3004-462 | 114.34 |
| 1-1/2 | 23-1/2 | 18 | 3004-465 | 123.40 |
| 1-1/2 | 36 | 30 | 3004-467 | 231.40 |
| 1-5/8 | 23-1/2 | 18 | 3004-475 | 146.33 |
| 1-3/4 | 23-1/2 | 18 | 3004-485 | 151.13 |
| 2 | 23-1/2 | 18 | 3004-495 | 179.53 |

## Spline Shank QUAD Style Tip

3 MADE IN USA

spline

- Rounded 'Fangs' bounce off steel reinforcement rods, allowing the operator to switch to our rebar drilling system before any major damage is done to the drill bit.

| BIT DIA. | OAL (IN.) | USEABLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 5/8 | 12 | 6 | 3004-702 | $34.10 |
| 5/8 | 18 | 12 | 3004-704 | 36.32 |
| 5/8 | 23-1/2 | 18 | 3004-705 | 43.45 |
| 5/8 | 30 | 24 | 3004-706 | 70.21 |
| 5/8 | 36 | 30 | 3004-707 | 78.59 |
| 5/8 | 48 | 42 | 3004-708 | 111.78 |
| 3/4 | 12 | 6 | 3004-742 | 32.98 |
| 3/4 | 18 | 12 | 3004-744 | 39.08 |
| 3/4 | 23-1/2 | 18 | 3004-745 | 47.78 |
| 3/4 | 30 | 24 | 3004-746 | 76.40 |
| 3/4 | 36 | 30 | 3004-747 | 87.02 |
| 3/4 | 48 | 42 | 3004-748 | 119.59 |
| 27/32 | 18 | 12 | 3004-774 | 45.03 |
| 27/32 | 23-1/2 | 18 | 3004-775 | 50.56 |
| 7/8 | 12 | 6 | 3004-782 | 37.83 |
| 7/8 | 18 | 12 | 3004-784 | 46.95 |
| 7/8 | 23-1/2 | 18 | 3004-785 | 51.09 |
| 7/8 | 36 | 30 | 3004-787 | 98.07 |
| 7/8 | 48 | 42 | 3004-788 | 162.62 |
| 1 | 12 | 6 | 3004-822 | 47.27 |
| 1 | 18 | 12 | 3004-824 | 51.13 |
| 1 | 23-1/2 | 18 | 3004-825 | 57.62 |
| 1 | 30 | 24 | 3004-826 | 87.92 |
| 1 | 36 | 30 | 3004-827 | 104.65 |
| 1 | 48 | 42 | 3004-828 | 176.15 |
| 1-1/8 | 18 | 12 | 3004-864 | 69.22 |
| 1-1/8 | 23-1/2 | 18 | 3004-865 | 77.73 |
| 1-1/8 | 36 | 30 | 3004-867 | 132.73 |
| 1-1/4 | 18 | 12 | 3004-904 | 82.73 |
| 1-1/4 | 23-1/2 | 18 | 3004-905 | 92.67 |
| 1-1/4 | 36 | 30 | 3004-907 | 136.99 |
| 1-1/4 | 48 | 42 | 3004-908 | 212.68 |
| 1-3/8 | 18 | 12 | 3004-944 | 91.33 |
| 1-3/8 | 23-1/2 | 18 | 3004-945 | 112.68 |
| 1-1/2 | 18 | 12 | 3004-964 | 115.78 |
| 1-1/2 | 23-1/2 | 18 | 3004-965 | 132.66 |
| 1-1/2 | 36 | 30 | 3004-967 | 253.50 |
| 1-1/2 | 48 | 42 | 3004-968 | 292.50 |
| 1-5/8 | 23-1/2 | 18 | 3004-975 | 149.63 |
| 1-3/4 | 23-1/2 | 18 | 3004-985 | 157.63 |
| 2 | 23-1/2 | 18 | 3004-995 | 174.33 |

## SDS+ Bits for Concrete Screws

| BIT DIA. | OAL | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 5/32 | 5" | SDS+ w/Hex | 3005-055 | $ 6.54 |
| 5/32 | 7" | SDS+ w/Hex | 3005-057 | 6.87 |
| 3/16 | 5" | SDS+ w/Hex | 3005-065 | 6.60 |
| 3/16 | 7" | SDS+ w/Hex | 3005-067 | 6.94 |

# Masonry Drills

## SDS+

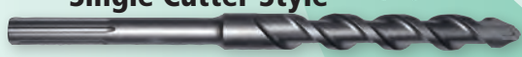
| BIT DIA. | OVERALL LENGTH | USEABLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 5/32 | 4-5/8 | 2 | 3002-051 | $ 4.23 |
| 5/32 | 6-5/8 | 4 | 3002-052 | 4.72 |
| 5/32 | 8-5/8 | 6 | 3002-053 | 7.12 |
| 3/16 | 4-3/8 | 2 | 3002-061 | 3.99 |
| 3/16 | 6-3/8 | 4 | 3002-062 | 4.26 |
| 3/16 | 8-5/8 | 6 | 3002-063 | 5.40 |
| 3/16 | 10-5/8 | 8 | 3002-064 | 8.45 |
| 3/16 | 12-5/8 | 10 | 3002-065 | 10.89 |
| 3/16 | 14-5/8 | 12 | 3002-066 | 12.97 |
| 3/16 | 16-5/8 | 14 | 3002-067 | 17.88 |
| 7/32 | 4-3/4 | 2-1/2 | 3002-071 | 4.23 |
| 7/32 | 6-5/8 | 4 | 3002-072 | 5.30 |
| 7/32 | 8-5/8 | 6 | 3002-073 | 6.99 |
| 7/32 | 10-1/4 | 8 | 3002-074 | 8.88 |
| 7/32 | 14-5/8 | 12 | 3002-076 | 14.79 |
| 7/32 | 16-5/8 | 14 | 3002-077 | 18.30 |
| 1/4 | 4-3/8 | 2 | 3002-081 | 3.42 |
| 1/4 | 6-3/8 | 4 | 3002-082 | 4.07 |
| 1/4 | 8-5/8 | 6 | 3002-083 | 5.53 |
| 1/4 | 11-5/8 | 9 | 3002-084 | 8.58 |
| 1/4 | 12-1/4 | 9-5/8 | 3002-085 | 9.07 |
| 1/4 | 14-5/8 | 12 | 3002-086 | 10.60 |
| 1/4 | 16-5/8 | 14 | 3002-087 | 12.29 |
| 1/4 | 20-5/8 | 18 | 3002-088 | 18.85 |
| 9/32 | 8-5/8 | 6 | 3002-093 | 7.28 |
| 5/16 | 6-5/8 | 4 | 3002-102 | 5.20 |
| 5/16 | 9-3/4 | 7-1/2 | 3002-103 | 8.17 |
| 5/16 | 12-5/8 | 10 | 3002-105 | 9.75 |
| 3/8 | 6-5/8 | 4 | 3002-122 | 5.74 |
| 3/8 | 10-5/8 | 8 | 3002-124 | 8.65 |
| 3/8 | 12-5/8 | 10 | 3002-125 | 10.40 |
| 3/8 | 20-5/8 | 18 | 3002-128 | 16.58 |
| 3/8 | 24 | 22 | 3002-129 | 19.76 |
| 3/8 | 36 | 34 | 3002-130 | 39.00 |
| 7/16 | 6-5/8 | 4 | 3002-142 | 7.54 |
| 7/16 | 12-5/8 | 10 | 3002-145 | 12.48 |
| 7/16 | 18-5/8 | 18 | 3002-147 | 18.40 |
| 1/2 | 6-5/8 | 4 | 3002-162 | 6.83 |
| 1/2 | 10-5/8 | 8 | 3002-164 | 9.82 |
| 1/2 | 12-5/8 | 10 | 3002-165 | 10.63 |
| 1/2 | 18-5/8 | 16 | 3002-167 | 17.40 |
| 1/2 | 24 | 22 | 3002-169 | 24.64 |
| 1/2 | 38 | 36 | 3002-170 | 40.63 |
| 9/16 | 6-3/4 | 4 | 3002-182 | 9.92 |
| 9/16 | 10-1/8 | 7-7/8 | 3002-184 | 12.94 |
| 9/16 | 12-3/4 | 10 | 3002-185 | 14.27 |
| 9/16 | 18-3/4 | 16 | 3002-187 | 21.32 |
| 5/8 | 6-3/4 | 4 | 3002-202 | 11.48 |
| 5/8 | 9-3/4 | 7 | 3002-203 | 11.70 |
| 5/8 | 12-3/4 | 10 | 3002-205 | 16.36 |
| 5/8 | 18-3/4 | 16 | 3002-207 | 25.03 |
| 5/8 | 24 | 22 | 3002-209 | 35.75 |
| 5/8 | 36 | 34 | 3002-210 | 69.88 |
| 11/16 | 6-3/4 | 4 | 3002-222 | 15.80 |
| 11/16 | 12-3/4 | 10 | 3002-225 | 23.73 |
| 11/16 | 18-3/4 | 16 | 3002-227 | 35.88 |
| 3/4 | 6-3/4 | 4 | 3002-242 | 17.88 |
| 3/4 | 9-3/4 | 7 | 3002-243 | 18.72 |
| 3/4 | 12-3/4 | 10 | 3002-245 | 21.46 |
| 3/4 | 18-3/4 | 16 | 3002-247 | 27.71 |
| 3/4 | 24 | 22 | 3002-249 | 47.78 |
| 3/4 | 36 | 34 | 3002-250 | 77.35 |
| 13/16 | 12-3/4 | 10 | 3002-265 | 29.25 |
| 13/16 | 18-3/4 | 16 | 3002-267 | 38.94 |
| 27/32 | 6-3/4 | 4 | 3002-272 | 20.80 |
| 27/32 | 8-3/4 | 6 | 3002-273 | 31.20 |
| 27/32 | 12 | 10 | 3002-275 | 35.75 |
| 7/8 | 6-3/4 | 4 | 3002-282 | 29.68 |
| 7/8 | 9-3/4 | 7 | 3002-283 | 32.83 |
| 7/8 | 12-3/4 | 10 | 3002-285 | 37.83 |
| 7/8 | 18-3/4 | 16 | 3002-287 | 40.24 |
| 7/8 | 24 | 21 | 3002-289 | 58.07 |
| 1 | 10-3/4 | 8 | 3002-324 | 36.01 |
| 1 | 13-1/8 | 10-1/4 | 3002-325 | 41.18 |
| 1 | 18-3/4 | 16 | 3002-327 | 44.98 |
| 1 | 25 | 22 | 3002-329 | 60.13 |
| 1 | 30 | 28 | 3002-330 | 81.25 |
| 1-1/8 | 12-3/4 | 10 | 3002-365 | 46.91 |
| 1-1/8 | 18-3/4 | 16 | 3002-367 | 51.94 |
| 1-1/4 | 12-3/4 | 10 | 3002-405 | 62.53 |

SDS

- Tri-Carb® grade tip guarantees longer life with faster penetration due to increased chiselling action.
- Flute design, combined with a copper brazing alloy, creates the most reliable drill bit on the market.
- USA-made, with highest quality chrome-molybdenum-nickel steel available.
- Vacuum heat treated, and shot-peened for superior strength under rough conditions.

## SDS MAX
### Single Cutter Style

SDS max



| BIT DIA. | OAL (IN.) | DRILL DEPTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3/8 | 13 | 7 | 3002-623 | $ 22.32 |
| 1/2 | 13 | 7 | 3002-663 | 22.66 |
| 1/2 | 18 | 12 | 3002-664 | 27.09 |
| 1/2 | 23-1/2 | 18 | 3002-665 | 33.45 |
| 1/2 | 30 | 24 | 3002-666 | 38.94 |
| 1/2 | 36 | 30 | 3002-667 | 72.09 |
| 1/2 | 48 | 42 | 3002-668 | 156.00 |
| 9/16 | 13 | 7 | 3002-683 | 27.43 |
| 9/16 | 23-1/2 | 18 | 3002-685 | 39.17 |
| 5/8 | 13 | 7 | 3002-703 | 25.63 |
| 5/8 | 18 | 12 | 3002-704 | 34.02 |
| 5/8 | 23-1/2 | 18 | 3002-705 | 36.42 |
| 3/4 | 13 | 7 | 3002-743 | 28.57 |
| 3/4 | 18 | 12 | 3002-744 | 36.31 |
| 3/4 | 23-1/2 | 18 | 3002-745 | 39.52 |
| 7/8 | 13 | 7 | 3002-783 | 33.09 |
| 7/8 | 18 | 12 | 3002-784 | 44.13 |
| 7/8 | 23-1/2 | 18 | 3002-785 | 48.43 |
| 1 | 13 | 7 | 3002-823 | 44.99 |
| 1 | 23-1/2 | 18 | 3002-825 | 53.39 |
| 1-1/8 | 13 | 7 | 3002-863 | 52.63 |
| 1-1/8 | 23-1/2 | 18 | 3002-865 | 72.61 |
| 1-1/4 | 15 | 9 | 3002-903 | 60.10 |
| 1-1/4 | 23-1/2 | 18 | 3002-905 | 77.63 |
| 1-3/8 | 15 | 9 | 3002-943 | 76.05 |
| 1-1/2 | 15 | 9 | 3002-983 | 97.13 |
| 1-1/2 | 23-1/2 | 18 | 3002-985 | 111.62 |

## SDS+ Adapters

- SDS+ Adapters allow you to use your larger Heavy Duty rotary hammer drills with SDS+ shank drill bits and any other SDS+ shanked tools.

- PM-SDS
  SDS Max to SDS+
  Order No. 3005-014
  Price Each: $62.12

- CP9-SDS
  Chicago Pneumatic to SDS+
  Order No. 3005-010
  Price Each: $66.12

- PB-SDS
  Spline to SDS+
  Order No. 3005-012
  Price Each: $57.81

- TOP-SDS
  SDS-TOP to SDS+
  Order No. 3005-016
  Price Each: $66.50

## Spline Shank Masonry Drills
### Single Cutter Style

[3] MADE IN USA

spline

| BIT DIA. | OVERALL LENGTH | DRILL DEPTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3/8 | 10 | 4 | 3003-121 | $ 20.90 |
| 3/8 | 12 | 6 | 3003-122 | 22.46 |
| 3/8 | 18 | 12 | 3003-124 | 30.88 |
| 7/16 | 12 | 6 | 3003-142 | 28.54 |
| 7/16 | 14 | 7 | 3003-143 | 30.72 |
| 1/2 | 12 | 6 | 3003-162 | 20.48 |
| 1/2 | 18 | 12 | 3003-164 | 26.62 |
| 1/2 | 23-1/2 | 18 | 3003-165 | 33.25 |
| 1/2 | 30 | 24 | 3003-166 | 36.73 |
| 1/2 | 36 | 30 | 3003-167 | 71.96 |
| 1/2 | 48 | 42 | 3003-168 | 123.50 |
| 9/16 | 12 | 6 | 3003-182 | 25.03 |
| 9/16 | 18 | 12 | 3003-184 | 26.17 |
| 9/16 | 23-1/2 | 18 | 3003-185 | 35.82 |
| 9/16 | 30 | 24 | 3003-186 | 67.12 |
| 9/16 | 36 | 30 | 3003-187 | 80.02 |
| 9/16 | 48 | 42 | 3003-188 | 136.50 |
| 5/8 | 12 | 6 | 3003-202 | 24.38 |
| 5/8 | 18 | 12 | 3003-204 | 31.46 |
| 5/8 | 23-1/2 | 18 | 3003-205 | 38.52 |
| 5/8 | 30 | 24 | 3003-206 | 67.43 |
| 5/8 | 36 | 30 | 3003-207 | 76.44 |
| 11/16 | 12 | 6 | 3003-222 | 37.14 |
| 11/16 | 23-1/2 | 18 | 3003-225 | 49.40 |
| 3/4 | 12 | 6 | 3003-242 | 25.26 |
| 3/4 | 18 | 12 | 3003-244 | 32.96 |
| 3/4 | 23-1/2 | 18 | 3003-245 | 36.45 |
| 27/32 | 18 | 12 | 3003-273 | 42.25 |
| 27/32 | 23-1/2 | 18 | 3003-275 | 44.48 |
| 7/8 | 12 | 6 | 3003-282 | 28.77 |
| 7/8 | 18 | 12 | 3003-284 | 42.25 |
| 7/8 | 23-1/2 | 18 | 3003-285 | 44.69 |
| 7/8 | 36 | 30 | 3003-287 | 87.92 |
| 1 | 12 | 6 | 3003-322 | 41.13 |
| 1 | 18 | 12 | 3003-324 | 44.17 |
| 1 | 23-1/2 | 18 | 3003-325 | 50.72 |
| 1-1/8 | 12 | 6 | 3003-362 | 47.33 |
| 1-1/8 | 18 | 12 | 3003-364 | 60.60 |
| 1-1/8 | 23-1/2 | 18 | 3003-365 | 71.83 |
| 1-1/4 | 18 | 12 | 3003-404 | 67.68 |
| 1-1/4 | 23-1/2 | 18 | 3003-405 | 74.83 |
| 1-3/8 | 18 | 12 | 3003-444 | 79.33 |
| 1-3/8 | 23-1/2 | 18 | 3003-445 | 84.44 |
| 1-1/2 | 18 | 12 | 3003-484 | 92.98 |
| 1-1/2 | 23-1/2 | 18 | 3003-485 | 107.62 |

# Masonry Core Drills



MADE IN USA

## Rebar Cutters

Now you can use the same tool to drill concrete, rebar, and steel plate! These innovative adaptor designs are for use with your SDS+, SDS Max, or Spline drill! No need for additional power tools, or core rigs to complete the job.

| BIT DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 3/8 | 12” | 3005-312 | $ 36.57 |
| 1/2 | 12” | 3005-316 | 42.27 |
| 9/16 | 12” | 3005-318 | 45.83 |
| 5/8 | 12” | 3005-320 | 52.04 |
| 3/4 | 12” | 3005-324 | 55.64 |
| 7/8 | 12” | 3005-328 | 61.49 |
| 1 | 12” | 3005-332 | 70.23 |
| 1-1/8 | 12” | 3005-336 | 77.48 |
| 1-1/4 | 12” | 3005-340 | 81.27 |
| 1-1/2 | 12” | 3005-348 | 92.43 |

## Plate Cutters

| BIT DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 3/8 | 12” | 3005-362 | $ 35.14 |
| 1/2 | 12” | 3005-366 | 40.34 |
| 5/8 | 12” | 3005-370 | 49.73 |
| 3/4 | 12” | 3005-374 | 52.98 |
| 7/8 | 12” | 3005-378 | 59.19 |
| 1 | 12” | 3005-382 | 66.99 |
| 1-1/8 | 12” | 3005-386 | 71.02 |
| 1-1/4 | 12” | 3005-390 | 77.74 |
| 1-1/2 | 12” | 3005-398 | 87.46 |

## Adapters

- RE-PB Spline Adaptor
  Order No. 3005-410 Price Each: $36.57

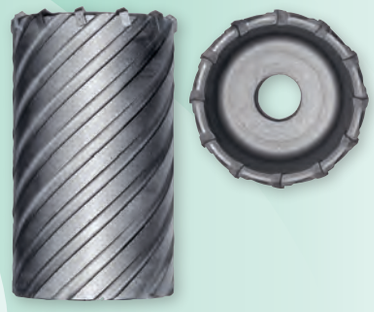
- RE-PL 1/2” Straight Shank Adaptor
  Order No. 3005-412 Price Each: $14.99

- RE-PM SDS Max Adaptor
  Order No. 3005-414 Price Each: $41.73

- RE-PM SDS+ Adaptor
  Order No. 3005-416 Price Each: $30.47

## Rotary Core Drills

| DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1-1/2 | 5” | 3005-112 | $ 85.89 |
| 1-3/4 | 5” | 3005-114 | 101.17 |
| 2 | 5” | 3005-116 | 113.80 |
| 2-1/2 | 5” | 3005-120 | 133.66 |
| 3 | 5” | 3005-124 | 172.84 |
| 3-1/2 | 5” | 3005-128 | 181.74 |
| 4 | 5” | 3005-132 | 252.05 |
| 4-1/2 | 5” | 3005-136 | 266.02 |
| 5 | 5” | 3005-140 | 350.90 |
| 6 | 6” | 3005-148 | 422.32 |



## Shanks & Accessories

| DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|
| 12” Spline | 3005-160 | $ 45.00 |
| 18” Spline | 3005-162 | 64.24 |
| 12” SDS Max | 3005-164 | 46.45 |
| 18” SDS Max | 3005-166 | 65.69 |
| 12” Kango 950 | 3005-168 | 63.87 |
| 12” Kango 637 | 3005-170 | 63.87 |
| 12” 7/16” Hex Skill726, Mil5300 | 3005-172 | 63.87 |
| 12” 9/16” Hex Skill732, Mil5325 | 3005-174 | 63.87 |
| 12” 3/4” Hex Skill736, HD45 | 3005-176 | 65.69 |
| 12” 3/4” Hex for Wacker | 3005-178 | 65.69 |
| A-Taper Starter Bit | 3005-180 | 9.92 |

## Thin Wall Core Drills

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 1-1/2” | 3005-212 | $ 74.75 |
| 1-3/4” | 3005-214 | 91.00 |
| 2” | 3005-216 | 107.90 |
| 2-1/2” | 3005-220 | 140.40 |
| 3” | 3005-224 | 165.10 |
| 3-1/2” | 3005-228 | 191.75 |
| 4” | 3005-232 | 201.13 |

## Shanks & Accessories

| DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|
| 12” SDS Max | 3005-260 | $ 43.75 |
| 18” SDS Max | 3005-262 | 54.93 |
| 12” SDS+ | 3005-264 | 41.27 |
| 8” SDS+ | 3005-266 | 34.13 |
| 12” Spline | 3005-268 | 41.27 |
| 18” Spline | 3005-270 | 49.61 |
| Starter | 3005-272 | 11.38 |

# Masonry Drills

2

## Fast Spiral

MADE IN USA

| DIA. | SHANK DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/8 | 1/8 | 3 | 3011-010 | $ 1.31 |
| 5/32 | 5/32 | 3 | 3011-020 | 1.34 |
| 11/64 | 11/64 | 3 | 3011-030 | 1.68 |
| 3/16 | 3/16 | 3 | 3011-040 | 1.35 |
| 3/16 | 3/16 | 6 | 3011-050 | 1.82 |
| 7/32 | 7/32 | 4 | 3011-060 | 1.83 |
| 1/4 | 1/4 | 4 | 3011-070 | 1.55 |
| 1/4 | 1/4 | 6 | 3011-080 | 2.03 |
| 9/32 | 1/4 | 6 | 3011-100 | 2.82 |
| 5/16 | 1/4 | 4 | 3011-110 | 2.14 |
| 5/16 | 1/4 | 6 | 3011-120 | 2.60 |
| 3/8 | 1/4 | 4 | 3011-130 | 2.34 |
| 3/8 | 1/4 | 6 | 3011-140 | 3.11 |
| 7/16 | 1/4 | 6 | 3011-150 | 3.26 |
| 1/2 | 1/4 | 4 | 3011-155 | 3.02 |
| 1/2 | 1/4 | 6 | 3011-160 | 3.22 |
| 1/2 | 3/8 | 6 | 3011-170 | 3.22 |
| 9/16 | 3/8 | 6 | 3011-180 | 5.06 |
| 5/8 | 3/8 | 6 | 3011-183 | 7.10 |
| 11/16 | 1/2 | 6 | 3011-200 | 6.57 |
| 3/4 | 3/8 | 6 | 3011-205 | 8.58 |
| 3/4 | 1/2 | 6 | 3011-210† | 8.58 |
| 7/8 | 1/2 | 6 | 3011-220 | 11.99 |
| 1 | 1/2 | 6 | 3011-230 | 14.23 |
| 1-1/8 | 1/2 | 6 | 3011-240 | 25.43 |

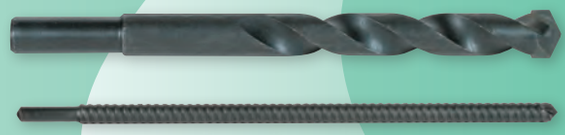
† Limited Quantities

## Regular Spiral
### Import

| DIA. | SHANK DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/8 | 3/8 | 3 | 3010-010 | $ 1.04 |
| 5/32 | 5/32 | 3 | 3010-020 | 1.04 |
| 3/16 | 3/16 | 4 | 3010-045 | 1.04 |
| 3/16 | 3/16 | 6 | 3010-050 | 1.27 |
| 7/32 | 7/32 | 4 | 3010-065 | 1.27 |
| 1/4 | 1/4 | 4 | 3010-070 | 1.04 |
| 1/4 | 1/4 | 6 | 3010-080 | 1.35 |
| 5/16 | 1/4 | 4 | 3010-110 | 1.40 |
| 5/16 | 1/4 | 6 | 3010-120 | 1.88 |
| 3/8 | 1/4 | 4 | 3010-130 | 1.78 |
| 3/8 | 3/8 | 4 | 3010-142† | 1.78 |
| 3/8 | 1/4 | 6 | 3010-140 | 2.32 |
| 7/16 | 1/4 | 4 | 3010-145† | 1.84 |
| 7/16 | 1/4 | 6 | 3010-150 | 2.04 |
| 7/16 | 3/8 | 6 | 3010-152† | 2.04 |
| 1/2 | 1/4 | 6 | 3010-160 | 2.30 |
| 1/2 | 3/8 | 6 | 3010-170 | 3.15 |
| 9/16 | 3/8 | 6 | 3010-180 | 3.49 |
| 5/8 | 3/8 | 6 | 3010-185 | 3.82 |
| 11/16 | 1/2 | 6 | 3010-200 | 4.38 |
| 3/4 | 1/2 | 6 | 3010-210 | 5.72 |
| 7/8 | 1/2 | 6 | 3010-220 | 7.99 |
| 1 | 1/2 | 6 | 3010-230 | 9.49 |

† Limited Quantities

## Extra Long
### Fast Spiral or Regular Spiral



| | | | FAST SPIRAL MADE IN USA | | REGULAR SPIRAL IMPORT | |
|---|---|---|---|---|---|---|
| DIAM. | SHANK DIAM. | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 13 | 3013-113 | $ 4.86 | – | – |
| 3/16 | 3/16 | 13 | 3013-123 | 3.50 | – | – |
| 3/16 | 3/16 | 18 | 3013-125 | 6.29 | – | – |
| 1/4 | 1/4 | 13 | 3013-163 | 4.42 | 3012-164 | $ 4.42 |
| 1/4 | 1/4 | 18 | 3013-165 | 6.08 | 3012-166 | 6.08 |
| 1/4 | 1/4 | 24 | 3013-167 | 7.19 | – | – |
| 1/4 | 1/4 | 30 | 3013-168 | 9.10 | – | – |
| 1/4 | 1/4 | 36 | 3013-170 | 12.02 | – | – |
| 5/16 | 1/4 | 13 | 3013-203 | 4.97 | 3012-204 | 4.97 |
| 5/16 | 1/4 | 18 | 3013-205 | 6.34 | 3012-206 | 6.34 |
| 5/16 | 1/4 | 24 | 3013-207 | 7.77 | – | – |
| 3/8 | 1/4 | 13 | 3013-243 | 5.85 | 3012-244 | 5.85 |
| 3/8 | 1/4 | 18 | 3013-245 | 6.75 | 3012-246 | 6.75 |
| 3/8 | 1/4 | 24 | 3013-247 | 7.99 | – | – |
| 3/8 | 1/4 | 36 | 3013-249 | 11.68 | – | – |
| 1/2 | 3/8 | 13 | 3013-323 | 6.76 | 3012-324 | 6.76 |
| 1/2 | 3/8 | 18 | 3013-325 | 8.09 | 3012-326 | 8.09 |
| 9/16 | 3/8 | 13 | – | – | 3012-364† | 7.92 |
| 9/16 | 1/2 | 18 | 3013-365 | 13.06 | 3012-366† | 9.39 |
| 5/8 | 1/2 | 13 | 3013-403 | 9.48 | – | – |
| 5/8 | 1/2 | 18 | 3013-405 | 12.56 | – | – |
| 5/8 | 1/2 | 24 | 3013-407 | 14.96 | – | – |
| 3/4 | 1/2 | 13 | 3013-483 | 12.62 | – | – |
| 3/4 | 1/2 | 18 | 3013-485 | 14.42 | – | – |
| 7/8 | 1/2 | 13 | 3013-563 | 18.12 | – | – |
| 1 | 1/2 | 13 | 3013-643† | 23.76 | 3012-644† | 21.34 |
| 1 | 1/2 | 18 | 3013-645† | 28.71 | – | – |

† Limited Quantities

# Glass & Tile Drills

## Carbide Tipped

2

| DIAM. | SHANK DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/8 | 7/64 | 2-1/2 | 3016-008 | $ 2.35 |
| 3/16 | 5/32 | 2-1/2 | 3016-012 | 2.58 |
| 1/4 | 7/32 | 2-1/2 | 3016-016 | 3.22 |
| 5/16 | 1/4 | 3 | 3016-020 | 3.45 |
| 3/8 | 5/16 | 3-1/2 | 3016-024 | 4.65 |
| 7/16 | 3/8 | 3-1/2 | 3016-028 | 32.55 |
| 1/2 | 7/16 | 3-1/2 | 3016-032 | 5.68 |
| 9/16 | 1/2 | 4 | 3016-036 | 49.90 |
| 5/8 | 9/16 | 4 | 3016-040 | 60.15 |

- Drills glass, tile, porcelain, ceramic and other hard, fragile materials without chipping or cracking the material when properly used.
- Speed should be about 25 surface feet per minute (300 to 600 RPM) using a steady, moderate hand feed.
- Constant flow of coolant is important.
- Back material being drilled with wood or rubber to support material during drill breakthrough.
- Avoid vibration and excessive stress.
- Keep drill sharp to eliminate excessive pressure.

# Drill & Reamer Blanks – High Speed Steel

## Fractional Sizes

| SIZE | DEC. EQV. | OVERALL LENGTH | Pittsburg® DRILL BLANKS ORDER NO. | Pittsburg® DRILL BLANKS PRICE EACH | VERMONT GAGE DRILL BLANKS ORDER NO. | VERMONT GAGE DRILL BLANKS PRICE EACH | VERMONT GAGE REAMER BLANKS ORDER NO. | VERMONT GAGE REAMER BLANKS PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/64 | .0156 | 3/4 | 1490-001 | $ 0.93 | 1491-001 | $ 1.92 | 1520-001 | $ 1.92 |
| 1/32 | .0312 | 1-3/8 | 1490-002 | 0.93 | 1491-002 | 1.92 | 1520-002 | 1.92 |
| 3/64 | .0469 | 1-3/4 | 1490-003 | 0.98 | 1491-003 | 1.92 | 1520-003 | 1.92 |
| 1/16 | .0625 | 1-7/8 | 1490-004 | 0.98 | 1491-004 | 1.92 | 1520-004 | 1.92 |
| 5/64 | .0781 | 2 | 1490-005 | 1.05 | 1491-005 | 1.92 | 1520-005 | 1.92 |
| 3/32 | .0937 | 2-1/4 | 1490-006 | 1.05 | 1491-006 | 1.92 | 1520-006 | 1.92 |
| 7/64 | .1094 | 2-5/8 | 1490-007 | 1.05 | 1491-007 | 1.92 | 1520-007 | 1.92 |
| 1/8 | .1250 | 2-3/4 | 1490-008 | 1.05 | 1491-008 | 1.92 | 1520-008 | 1.92 |
| 9/64 | .1406 | 2-7/8 | 1490-009 | 1.05 | 1491-009 | 1.92 | 1520-009 | 1.92 |
| 5/32 | .1562 | 3-1/8 | 1490-010 | 1.18 | 1491-010 | 2.40 | 1520-010 | 2.40 |
| 11/64 | .1719 | 3-1/4 | 1490-011 | 1.18 | 1491-011 | 2.40 | 1520-011 | 2.40 |
| 3/16 | .1875 | 3-1/2 | 1490-012 | 1.30 | 1491-012 | 2.40 | 1520-012 | 2.40 |
| 13/64 | .2031 | 3-5/8 | 1490-013 | 1.63 | 1491-013 | 3.12 | 1520-013 | 3.12 |
| 7/32 | .2187 | 3-3/4 | 1490-014 | 1.71 | 1491-014 | 3.32 | 1520-014 | 3.32 |
| 15/64 | .2344 | 3-7/8 | 1490-015 | 1.86 | 1491-015 | 3.32 | 1520-015 | 3.32 |
| 1/4 | .2500 | 4 | 1490-016 | 2.03 | 1491-016 | 3.80 | 1520-016 | 3.80 |
| 17/64 | .2656 | 4-1/8 | 1490-017 | 2.14 | 1491-017 | 4.08 | 1520-017 | 4.08 |
| 9/32 | .2812 | 4-1/4 | 1490-018 | 2.30 | 1491-018 | 4.28 | 1520-018 | 4.28 |
| 19/64 | .2969 | 4-3/8 | 1490-019 | 2.55 | 1491-019 | 4.76 | 1520-019 | 4.76 |
| 5/16 | .3125 | 4-1/2 | 1490-020 | 2.63 | 1491-020 | 5.00 | 1520-020 | 5.00 |
| 21/64 | .3281 | 4-5/8 | 1490-021 | 2.89 | 1491-021 | 5.48 | 1520-021 | 5.48 |
| 11/32 | .3438 | 4-3/4 | 1490-022 | 3.09 | 1491-022 | 5.96 | 1520-022 | 5.96 |
| 23/64 | .3594 | 4-7/8 | 1490-023 | 3.48 | 1491-023 | 6.64 | 1520-023 | 6.64 |
| 3/8 | .3750 | 5 | 1490-024 | 3.80 | 1491-024 | 7.12 | 1520-024 | 7.12 |
| 25/64 | .3906 | 5-1/8 | 1490-025 | 3.96 | 1491-025 | 7.60 | 1520-025 | 7.60 |
| 13/32 | .4062 | 5-1/4 | 1490-026 | 4.30 | 1491-026 | 8.08 | 1520-026 | 8.08 |
| 27/64 | .4219 | 5-3/8 | 1490-027 | 4.81 | 1491-027 | 9.00 | 1520-027 | 9.00 |
| 7/16 | .4375 | 5-1/2 | 1490-028 | 5.43 | 1491-028 | 10.20 | 1520-028 | 10.20 |
| 29/64 | .4531 | 5-5/8 | 1490-029 | 5.56 | 1491-029 | 10.44 | 1520-029 | 10.44 |
| 15/32 | .4688 | 5-3/4 | 1490-030 | 5.65 | 1491-030 | 10.68 | 1520-030 | 10.68 |
| 31/64 | .4844 | 5-7/8 | 1490-031 | 6.40 | 1491-031 | 12.12 | 1520-031 | 12.12 |
| 1/2 | .5000 | 6 | 1490-032 | 6.76 | 1491-032 | 12.80 | 1520-032 | 12.80 |
| 33/64 | .5156 | 6 | 1490-033 | 9.63 | 1491-033 | 18.00 | – | – |
| 17/32 | .5312 | 6 | 1490-034 | 9.94 | 1491-034 | 18.00 | 1520-034 | 18.00 |
| 35/64 | .5469 | 6 | 1490-035 | 10.50 | 1491-035 | 18.00 | – | – |
| 9/16 | .5625 | 6 | 1490-036 | $ 10.94 | 1491-036 | $ 18.72 | 1520-036 | $ 18.72 |
| 37/64 | .5781 | 6 | 1490-037 | 11.25 | 1491-037 | 21.32 | – | – |
| 19/32 | .5937 | 6 | 1490-038 | 12.06 | 1491-038 | 21.32 | – | – |
| 39/64 | .6094 | 6 | 1490-039 | 12.50 | 1491-039 | 21.32 | – | – |
| 5/8 | .6250 | 6 | 1490-040 | 12.50 | 1491-040 | 21.32 | 1520-040 | 21.32 |
| 41/64 | .6406 | 6 | 1490-041 | 13.44 | 1491-041 | 24.60 | – | – |
| 21/32 | .6562 | 6 | 1490-042 | 13.94 | 1491-042 | 24.60 | – | – |
| 43/64 | .6719 | 6 | 1490-043 | 14.31 | 1491-043 | 27.00 | – | – |
| 11/16 | .6875 | 6 | 1490-044 | 14.94 | 1491-044 | 27.00 | – | – |
| 45/64 | .7031 | 6 | 1490-045 | 15.44 | 1491-045 | 27.92 | – | – |
| 23/32 | .7187 | 6 | 1490-046 | 15.81 | 1491-046 | 27.92 | – | – |
| 47/64 | .7344 | 6 | 1490-047 | 16.38 | 1491-047 | 28.88 | – | – |
| 3/4 | .7500 | 6 | 1490-048 | 16.38 | 1491-048 | 28.88 | 1520-048 | 28.88 |
| 49/64 | .7656 | 6 | 1490-049 | 18.31 | 1491-049 | 30.76 | – | – |
| 25/32 | .7812 | 6 | 1490-050 | 18.38 | 1491-050 | 30.76 | – | – |
| 51/64 | .7969 | 6 | 1490-051 | 21.06 | 1491-051 | 32.64 | – | – |
| 13/16 | .8125 | 6 | 1490-052 | 21.06 | 1491-052 | 32.64 | – | – |
| 53/64 | .8281 | 6 | 1490-053 | 22.38 | 1491-053 | 35.48 | – | – |
| 27/32 | .8437 | 6 | 1490-054 | 22.38 | 1491-054 | 35.48 | – | – |
| 55/64 | .8594 | 6 | 1490-055 | 22.94 | 1491-055 | 38.32 | – | – |
| 7/8 | .8750 | 6 | 1490-056 | 22.94 | 1491-056 | 38.32 | 1520-056 | 38.32 |
| 57/64 | .8906 | 6 | 1490-057 | 25.19 | 1491-057 | 41.16 | – | – |
| 29/32 | .9062 | 6 | 1490-058 | 25.19 | 1491-058 | 41.16 | – | – |
| 59/64 | .9219 | 6 | 1490-059 | 27.75 | 1491-059 | 44.00 | – | – |
| 15/16 | .9375 | 6 | 1490-060 | 27.75 | 1491-060 | 44.00 | – | – |
| 61/64 | .9531 | 6 | 1490-061 | 33.19 | 1491-061 | 46.84 | – | – |
| 31/32 | .9688 | 6 | 1490-062 | 33.19 | 1491-062 | 46.84 | – | – |
| 63/64 | .9844 | 6 | 1490-063 | 33.13 | 1491-063 | 49.68 | – | – |
| 1 | 1.0000 | 6 | 1490-064 | 27.81 | 1491-064 | 49.68 | – | – |

Tolerances: Drill Blanks 1/64" – 1/2"– .0002 + .0000; 33/64" – 5/8" – .0003 + .0000; 41/64" – 1"– .0005 + .0000
Reamer Blanks 1/64" – 1/2"+ .0002 – .0000; 33/64" – 5/8" + .0003 – .0000; 41/64" – 1"+ .0005 – .0000

## Letter Sizes

| SIZE | DEC. EQV. | OVERALL LENGTH | Pittsburg® DRILL BLANKS ORDER NO. | Pittsburg® DRILL BLANKS PRICE EACH | VERMONT GAGE DRILL BLANKS ORDER NO. | VERMONT GAGE DRILL BLANKS PRICE EACH | VERMONT GAGE REAMER BLANKS ORDER NO. | VERMONT GAGE REAMER BLANKS PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| A | .2340 | 3-7/8 | 1510-001 | $1.89 | 1511-001 | $3.80 | 1540-001 | $3.80 |
| B | .2380 | 4 | 1510-002 | 1.89 | 1511-002 | 3.80 | 1540-002 | 3.80 |
| C | .2420 | 4 | 1510-003 | 1.89 | 1511-003 | 3.80 | 1540-003 | 3.80 |
| D | .2460 | 4 | 1510-004 | 2.10 | 1511-004 | 3.80 | 1540-004 | 3.80 |
| E | .2500 | 4 | 1510-005 | 2.03 | 1511-005 | 4.08 | 1540-005 | 4.08 |
| F | .2570 | 4-1/8 | 1510-006 | 2.18 | 1511-006 | 4.52 | 1540-006 | 4.52 |
| G | .2610 | 4-1/8 | 1510-007 | 2.18 | 1511-007 | 4.52 | 1540-007 | 4.52 |
| H | .2660 | 4-1/8 | 1510-008 | 2.18 | 1511-008 | 4.52 | 1540-008 | 4.52 |
| I | .2720 | 4-1/8 | 1510-009 | 2.36 | 1511-009 | 4.76 | 1540-009 | 4.76 |
| J | .2770 | 4-1/8 | 1510-010 | 2.36 | 1511-010 | 4.76 | 1540-010 | 4.76 |
| K | .2810 | 4-1/4 | 1510-011 | 2.36 | 1511-011 | 4.76 | 1540-011 | 4.76 |
| L | .2900 | 4-1/4 | 1510-012 | 2.36 | 1511-012 | 4.76 | 1540-012 | 4.76 |
| M | .2950 | 4-3/8 | 1510-013 | 2.59 | 1511-013 | 5.24 | 1540-013 | 5.24 |
| N | .3020 | 4-3/8 | 1510-014 | 2.59 | 1511-014 | 5.24 | 1540-014 | 5.24 |
| O | .3160 | 4-1/2 | 1510-015 | 2.66 | 1511-015 | 5.48 | 1540-015 | 5.48 |
| P | .3230 | 4-5/8 | 1510-016 | $2.95 | 1511-016 | $5.96 | 1540-016 | $5.96 |
| Q | .3320 | 4-3/4 | 1510-017 | 2.95 | 1511-017 | 5.96 | 1540-017 | 5.96 |
| R | .3390 | 4-3/4 | 1510-018 | 3.14 | 1511-018 | 6.44 | 1540-018 | 6.44 |
| S | .3480 | 4-7/8 | 1510-019 | 3.55 | 1511-019 | 7.12 | 1540-019 | 7.12 |
| T | .3580 | 4-7/8 | 1510-020 | 3.55 | 1511-020 | 7.12 | 1540-020 | 7.12 |
| U | .3680 | 5 | 1510-021 | 3.94 | 1511-021 | 7.84 | 1540-021 | 7.84 |
| V | .3770 | 5 | 1510-022 | 4.00 | 1511-022 | 7.84 | 1540-022 | 7.84 |
| W | .3860 | 5-1/8 | 1510-023 | 4.00 | 1511-023 | 8.08 | 1540-023 | 8.08 |
| X | .3970 | 5-1/8 | 1510-024 | 4.00 | 1511-024 | 8.08 | 1540-024 | 8.08 |
| Y | .4040 | 5-1/4 | 1510-025 | 4.40 | 1511-025 | 9.00 | 1540-025 | 9.00 |
| Z | .4130 | 5-1/4 | 1510-026 | 4.40 | 1511-026 | 9.00 | 1540-026 | 9.00 |

# Drill & Reamer Blanks – High Speed Steel

## Wire Gage Sizes

2

| SIZE | DEC. EQV. | OVERALL LENGTH | Pittsburg® DRILL BLANKS ORDER NO. | Pittsburg® DRILL BLANKS PRICE EACH | VERMONT GAGE DRILL BLANKS ORDER NO. | VERMONT GAGE DRILL BLANKS PRICE EACH | VERMONT GAGE REAMER BLANKS ORDER NO. | VERMONT GAGE REAMER BLANKS PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1 | .2280 | 3-7/8 | 1500-001 | $1.71 | 1501-001 | $3.32 | 1530-001 | $3.32 |
| 2 | .2210 | 3-7/8 | 1500-002 | 1.71 | 1501-002 | 3.32 | 1530-002 | 3.32 |
| 3 | .2130 | 3-3/4 | 1500-003 | 1.71 | 1501-003 | 3.32 | 1530-003 | 3.32 |
| 4 | .2090 | 3-3/4 | 1500-004 | 1.71 | 1501-004 | 3.32 | 1530-004 | 3.32 |
| 5 | .2055 | 3-3/4 | 1500-005 | 1.71 | 1501-005 | 3.32 | 1530-005 | 3.32 |
| 6 | .2040 | 3-3/4 | 1500-006 | 1.63 | 1501-006 | 3.12 | 1530-006 | 3.12 |
| 7 | .2010 | 3-5/8 | 1500-007 | 1.63 | 1501-007 | 3.12 | 1530-007 | 3.12 |
| 8 | .1999 | 3-5/8 | 1500-008 | 1.63 | 1501-008 | 3.12 | 1530-008 | 3.12 |
| 9 | .1960 | 3-5/8 | 1500-009 | 1.63 | 1501-009 | 3.12 | 1530-009 | 3.12 |
| 10 | .1935 | 3-5/8 | 1500-010 | 1.63 | 1501-010 | 3.12 | 1530-010 | 3.12 |
| 11 | .1910 | 3-1/2 | 1500-011 | 1.30 | 1501-011 | 2.64 | 1530-011 | 2.64 |
| 12 | .1890 | 3-1/2 | 1500-012 | 1.30 | 1501-012 | 2.64 | 1530-012 | 2.64 |
| 13 | .1850 | 3-1/2 | 1500-013 | 1.30 | 1501-013 | 2.64 | 1530-013 | 2.64 |
| 14 | .1820 | 3-3/8 | 1500-014 | 1.30 | 1501-014 | 2.64 | 1530-014 | 2.64 |
| 15 | .1800 | 3-3/8 | 1500-015 | 1.30 | 1501-015 | 2.64 | 1530-015 | 2.64 |
| 16 | .1770 | 3-3/8 | 1500-016 | 1.18 | 1501-016 | 2.64 | 1530-016 | 2.64 |
| 17 | .1730 | 3-3/8 | 1500-017 | 1.18 | 1501-017 | 2.64 | 1530-017 | 2.64 |
| 18 | .1695 | 3-1/4 | 1500-018 | 1.18 | 1501-018 | 2.40 | 1530-018 | 2.40 |
| 19 | .1660 | 3-1/4 | 1500-019 | 1.18 | 1501-019 | 2.40 | 1530-019 | 2.40 |
| 20 | .1610 | 3-1/4 | 1500-020 | 1.18 | 1501-020 | 2.40 | 1530-020 | 2.40 |
| 21 | .1590 | 3-1/4 | 1500-021 | 1.18 | 1501-021 | 2.40 | 1530-021 | 2.40 |
| 22 | .1570 | 3-1/8 | 1500-022 | 1.18 | 1501-022 | 2.40 | 1530-022 | 2.40 |
| 23 | .1540 | 3-1/8 | 1500-023 | 1.18 | 1501-023 | 2.40 | 1530-023 | 2.40 |
| 24 | .1520 | 3-1/8 | 1500-024 | 1.18 | 1501-024 | 2.40 | 1530-024 | 2.40 |
| 25 | .1495 | 3 | 1500-025 | 1.18 | 1501-025 | 1.92 | 1530-025 | 1.92 |
| 26 | .1470 | 3 | 1500-026 | 1.05 | 1501-026 | 1.92 | 1530-026 | 1.92 |
| 27 | .1440 | 3 | 1500-027 | 1.05 | 1501-027 | 1.92 | 1530-027 | 1.92 |
| 28 | .1405 | 2-7/8 | 1500-028 | 1.05 | 1501-028 | 1.92 | 1530-028 | 1.92 |
| 29 | .1360 | 2-7/8 | 1500-029 | 1.05 | 1501-029 | 1.92 | 1530-029 | 1.92 |
| 30 | .1285 | 2-3/4 | 1500-030 | 1.05 | 1501-030 | 1.92 | 1530-030 | 1.92 |
| 31 | .1200 | 2-3/4 | 1500-031 | 1.05 | 1501-031 | 1.92 | 1530-031 | 1.92 |
| 32 | .1160 | 2-3/4 | 1500-032 | 1.05 | 1501-032 | 1.92 | 1530-032 | 1.92 |
| 33 | .1130 | 2-5/8 | 1500-033 | 1.05 | 1501-033 | 1.92 | 1530-033 | 1.92 |
| 34 | .1110 | 2-5/8 | 1500-034 | 1.05 | 1501-034 | 1.92 | 1530-034 | 1.92 |
| 35 | .1100 | 2-5/8 | 1500-035 | 1.05 | 1501-035 | 1.92 | 1530-035 | 1.92 |
| 36 | .1065 | 2-1/2 | 1500-036 | 1.05 | 1501-036 | 1.92 | 1530-036 | 1.92 |
| 37 | .1040 | 2-1/2 | 1500-037 | 1.05 | 1501-037 | 1.92 | 1530-037 | 1.92 |
| 38 | .1015 | 2-1/2 | 1500-038 | 1.05 | 1501-038 | 1.92 | 1530-038 | 1.92 |
| 39 | .0995 | 2-3/8 | 1500-039 | 1.05 | 1501-039 | 1.92 | 1530-039 | 1.92 |
| 40 | .0980 | 2-3/8 | 1500-040 | 1.05 | 1501-040 | 1.92 | 1530-040 | 1.92 |
| 41 | .0960 | 2-3/8 | 1500-041 | $1.05 | 1501-041 | $1.92 | 1530-041 | $1.92 |
| 42 | .0965 | 2-1/4 | 1500-042 | 1.05 | 1501-042 | 1.92 | 1530-042 | 1.92 |
| 43 | .0890 | 2-1/4 | 1500-043 | 1.05 | 1501-043 | 1.92 | 1530-043 | 1.92 |
| 44 | .0860 | 2-1/8 | 1500-044 | 1.05 | 1501-044 | 1.92 | 1530-044 | 1.92 |
| 45 | .0820 | 2-1/8 | 1500-045 | 1.05 | 1501-045 | 1.92 | 1530-045 | 1.92 |
| 46 | .0810 | 2-1/8 | 1500-046 | 1.05 | 1501-046 | 1.92 | 1530-046 | 1.92 |
| 47 | .0785 | 2 | 1500-047 | 1.05 | 1501-047 | 1.92 | 1530-047 | 1.92 |
| 48 | .0760 | 2 | 1500-048 | 1.05 | 1501-048 | 1.92 | 1530-048 | 1.92 |
| 49 | .0730 | 2 | 1500-049 | 1.05 | 1501-049 | 1.92 | 1530-049 | 1.92 |
| 50 | .0700 | 2 | 1500-050 | 1.05 | 1501-050 | 1.92 | 1530-050 | 1.92 |
| 51 | .0670 | 2 | 1500-051 | 0.98 | 1501-051 | 1.92 | 1530-051 | 1.92 |
| 52 | .0635 | 1-7/8 | 1500-052 | 0.98 | 1501-052 | 1.92 | 1530-052 | 1.92 |
| 53 | .0595 | 1-7/8 | 1500-053 | 0.98 | 1501-053 | 1.92 | 1530-053 | 1.92 |
| 54 | .0550 | 1-7/8 | 1500-054 | 0.98 | 1501-054 | 1.92 | 1530-054 | 1.92 |
| 55 | .0520 | 1-7/8 | 1500-055 | 0.98 | 1501-055 | 1.92 | 1530-055 | 1.92 |
| 56 | .0465 | 1-3/4 | 1500-056 | 0.98 | 1501-056 | 1.92 | 1530-056 | 1.92 |
| 57 | .0430 | 1-3/4 | 1500-057 | 0.98 | 1501-057 | 1.92 | 1530-057 | 1.92 |
| 58 | .0420 | 1-5/8 | 1500-058 | 0.98 | 1501-058 | 1.92 | 1530-058 | 1.92 |
| 59 | .0410 | 1-5/8 | 1500-059 | 0.98 | 1501-059 | 1.92 | 1530-059 | 1.92 |
| 60 | .0400 | 1-5/8 | 1500-060 | 0.98 | 1501-060 | 1.92 | 1530-060 | 1.92 |
| 61 | .0390 | 1-5/8 | 1500-061 | 0.98 | 1501-061 | 1.92 | 1530-061 | 1.92 |
| 62 | .0380 | 1-1/2 | 1500-062 | 1.44 | 1501-062 | 1.92 | 1530-062 | 1.92 |
| 63 | .0370 | 1-1/2 | 1500-063 | 1.44 | 1501-063 | 1.92 | 1530-063 | 1.92 |
| 64 | .0360 | 1-1/2 | 1500-064 | 1.44 | 1501-064 | 1.92 | 1530-064 | 1.92 |
| 65 | .0350 | 1-1/2 | 1500-065 | 1.44 | 1501-065 | 1.92 | 1530-065 | 1.92 |
| 66 | .0330 | 1-1/2 | 1500-066 | 1.44 | 1501-066 | 1.92 | 1530-066 | 1.92 |
| 67 | .0320 | 1-3/8 | 1500-067 | 1.44 | 1501-067 | 1.92 | 1530-067 | 1.92 |
| 68 | .0310 | 1-3/8 | 1500-068 | 1.44 | 1501-068 | 1.92 | 1530-068 | 1.92 |
| 69 | .0292 | 1-3/8 | 1500-069 | 1.44 | 1501-069 | 1.92 | 1530-069 | 1.92 |
| 70 | .0280 | 1-1/4 | 1500-070 | 1.44 | 1501-070 | 1.92 | 1530-070 | 1.92 |
| 71 | .0260 | 1-1/4 | 1500-071 | 1.44 | 1501-071 | 1.92 | 1530-071 | 1.92 |
| 72 | .0250 | 1-1/8 | 1500-072 | 1.44 | 1501-072 | 1.92 | 1530-072 | 1.92 |
| 73 | .0240 | 1-1/8 | 1500-073 | 1.44 | 1501-073 | 1.92 | 1530-073 | 1.92 |
| 74 | .0225 | 1 | 1500-074 | 1.44 | 1501-074 | 1.92 | 1530-074 | 1.92 |
| 75 | .0210 | 1 | 1500-075 | 1.44 | 1501-075 | 1.92 | 1530-075 | 1.92 |
| 76 | .0200 | 7/8 | 1500-076 | 1.44 | 1501-076 | 1.92 | 1530-076 | 1.92 |
| 77 | .0180 | 7/8 | 1500-077 | 1.44 | 1501-077 | 1.92 | 1530-077 | 1.92 |
| 78 | .0160 | 7/8 | 1500-078 | 1.44 | 1501-078 | 1.92 | 1530-078 | 1.92 |
| 79 | .0145 | 3/4 | 1500-079 | 1.44 | 1501-079 | 1.92 | 1530-079 | 1.92 |
| 80 | .0135 | 3/4 | 1500-080 | 1.44 | 1501-080 | 1.92 | 1530-080 | 1.92 |

# Extra Long Drill Blanks– High Speed Steel

| SIZE | DEC. EQV. | VERMONT GAGE 6" OVERALL ORDER NO. | 6" OVERALL PRICE EACH | 12" OVERALL ORDER NO. | 12" OVERALL PRICE EACH | 24" OVERALL ORDER NO. | 24" OVERALL PRICE EACH | 36" OVERALL ORDER NO. | 36" OVERALL PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/16 | .0625 | 1511-104 | $4.32 | 1511-204 | $ 6.00 | 1511-304 | $23.80 | 1511-404 | $38.40 |
| 5/64 | .0781 | 1511-105 | 4.32 | 1511-205 | 6.00 | 1511-305 | 23.80 | 1511-405 | 38.40 |
| 3/32 | .0937 | 1511-106 | 4.32 | 1511-206 | 6.00 | 1511-306 | 23.80 | 1511-406 | 38.40 |
| 7/64 | .1094 | 1511-107 | 5.60 | 1511-207 | 8.80 | 1511-307 | 28.40 | 1511-407 | 38.40 |
| 1/8 | .1250 | 1511-108 | 5.60 | 1511-208 | 8.80 | 1511-308 | 28.40 | 1511-408 | 38.40 |
| 9/64 | .1406 | 1511-109 | 5.60 | 1511-209 | 9.20 | 1511-309 | 28.40 | 1511-409 | 38.40 |
| 5/32 | .1562 | 1511-110 | 5.60 | 1511-210 | 9.20 | 1511-310 | 28.40 | 1511-410 | 38.40 |
| 11/64 | .1719 | 1511-111 | 7.76 | 1511-211 | 12.48 | 1511-311 | 33.20 | 1511-411 | 48.00 |
| 3/16 | .1875 | 1511-112 | 7.76 | 1511-212 | 12.48 | 1511-312 | 33.20 | 1511-412 | 48.00 |
| 13/64 | .2031 | 1511-113 | 7.76 | 1511-213 | 12.48 | 1511-313 | 33.20 | 1511-413 | 48.00 |
| 7/32 | .2187 | 1511-114 | 7.76 | 1511-214 | 12.48 | 1511-314 | 33.20 | 1511-414 | 48.00 |
| 15/64 | .2344 | 1511-115 | 11.20 | 1511-215 | 16.16 | 1511-315 | 38.00 | 1511-415 | 56.00 |
| 1/4 | .2500 | 1511-116 | 11.20 | 1511-216 | 16.16 | 1511-316 | 38.00 | 1511-416 | 56.00 |
| 17/64 | .2656 | 1511-117 | 11.20 | 1511-217 | 16.16 | 1511-317 | 38.00 | 1511-417 | 56.00 |

| SIZE | DEC. EQV. | VERMONT GAGE 6" OVERALL ORDER NO. | 6" OVERALL PRICE NO. | 12" OVERALL ORDER NO. | 12" OVERALL PRICE EACH | 24" OVERALL ORDER NO. | 24" OVERALL PRICE EACH | 36" OVERALL ORDER NO. | 36" OVERALL PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 9/32 | .2812 | 1511-118 | $11.20 | 1511-218 | $16.16 | 1511-318 | $38.00 | 1511-418 | $56.00 |
| 19/64 | .2969 | 1511-119 | 12.00 | 1511-219 | 18.92 | 1511-319 | 42.80 | 1511-419 | 60.80 |
| 5/16 | .3125 | 1511-120 | 12.00 | 1511-220 | 18.92 | 1511-320 | 42.80 | 1511-420 | 60.80 |
| 21/64 | .3281 | 1511-121 | 12.00 | 1511-221 | 18.92 | 1511-321 | 42.80 | 1511-421 | 60.80 |
| 11/32 | .3438 | 1511-122 | 12.00 | 1511-222 | 18.92 | 1511-322 | 42.80 | 1511-422 | 60.80 |
| 23/64 | .3594 | 1511-123 | 12.80 | 1511-223 | 23.60 | 1511-323 | 47.60 | 1511-423 | 73.60 |
| 3/8 | .3750 | 1511-124 | 12.80 | 1511-224 | 23.60 | 1511-324 | 47.60 | 1511-424 | 73.60 |
| 25/64 | .3906 | 1511-125 | 12.80 | 1511-225 | 23.60 | 1511-325 | 47.60 | 1511-425 | 73.60 |
| 13/32 | .4062 | 1511-126 | 12.80 | 1511-226 | 23.60 | 1511-326 | 47.60 | 1511-426 | 73.60 |
| 27/64 | .4219 | 1511-127 | 13.76 | 1511-227 | 24.00 | 1511-327 | 52.00 | 1511-427 | 82.40 |
| 7/16 | .4375 | 1511-128 | 13.76 | 1511-228 | 24.00 | 1511-328 | 52.00 | 1511-428 | 82.40 |
| 29/64 | .4531 | 1511-129 | 13.76 | 1511-229 | 24.00 | 1511-329 | 52.00 | 1511-429 | 82.40 |
| 15/32 | .4688 | 1511-130 | 13.76 | 1511-230 | 24.00 | 1511-330 | 52.00 | 1511-430 | 82.40 |
| 31/64 | .4844 | 1511-131 | 14.64 | 1511-231 | 28.80 | 1511-331 | 66.40 | 1511-431 | 90.40 |
| 1/2 | .5000 | 1511-132 | 14.64 | 1511-232 | 28.80 | 1511-332 | 66.40 | 1511-432 | 90.40 |

Tolerance Limits: 6" and 12" Lengths – Plus .000, Minus .0005 42" and 36" Lengths – Plus or Minus .001

# Combined Drills & Countersinks [3]

5 Pc. Set (#1 - #5)

5 Pc. Set (#1 - #5)

## Plain Type 60° Included Angle
### Left Hand & Cobalt

| SIZE NO. | BODY DIA. | DRILL DIA. | DRILL L'GTH | OAL | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH | KEO ORDER NO. | KEO PRICE EACH | LEFT HAND KEO ORDER NO. | LEFT HAND KEO PRICE EACH | COBALT Pittsburg® ORDER NO. | COBALT Pittsburg® PRICE EACH | COBALT KEO ORDER NO. | COBALT KEO PRICE EACH | TiN COATED KEO ORDER NO. | TiN COATED KEO PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1/8 | 3/64 | 3/64 | 1-1/4 | 1900-001 | $1.00 | 1900-101 | $5.07 | 1901-001 | $10.82 | 1910-022 | $3.10 | 1910-101 | $11.76 | 1901-051 | $6.04 |
| 2 | 3/16 | 5/64 | 5/64 | 1-7/8 | 1900-002 | 1.05 | 1900-102 | 5.30 | 1901-002 | 11.04 | 1910-023 | 3.20 | 1910-102 | 12.14 | 1901-052 | 6.66 |
| 3 | 1/4 | 7/64 | 7/64 | 2 | 1900-003 | 1.10 | 1900-103 | 5.52 | 1901-003 | 11.34 | 1910-024 | 3.40 | 1910-103 | 12.54 | 1901-053 | 7.38 |
| 4 | 5/16 | 1/8 | 1/8 | 2-1/8 | 1900-004 | 1.15 | 1900-104 | 5.69 | 1901-004 | 11.67 | 1910-025 | 3.50 | 1910-104 | 13.06 | 1901-054 | 8.82 |
| 4-1/2 | 3/8 | 9/64 | 9/64 | 2-1/2 | – | – | 1900-111 | 7.84 | 1901-011 | 16.32 | – | – | 1910-111 | 19.41 | 1901-061 | 10.97 |
| 5 | 7/16 | 3/16 | 3/16 | 2-3/4 | 1900-005 | 2.45 | 1900-105 | 9.02 | 1901-005 | 17.76 | 1910-026 | 6.15 | 1910-105 | 20.59 | 1901-055 | 14.00 |
| 6 | 1/2 | 7/32 | 7/32 | 3 | 1900-006 | 3.50 | 1900-106 | 13.57 | 1901-006 | 25.77 | 1910-027 | 9.60 | 1910-106 | 31.93 | 1901-056 | 18.56 |
| 7 | 5/8 | 1/4 | 1/4 | 3-1/4 | 1900-007 | 5.40 | 1900-107 | 20.59 | 1901-007 | 35.79 | 1910-028 | 17.40 | 1910-107 | 48.05 | 1901-057 | 28.42 |
| 8 | 3/4 | 5/16 | 5/16 | 3-1/2 | 1900-008 | 7.40 | 1900-108 | 28.28 | 1901-008 | 48.44 | 1910-029 | 24.40 | 1910-108 | 68.03 | 1901-058 | 37.19 |
| 9 | 7/8 | 11/32 | 11/32 | 3-5/8 | 1900-009 | 13.70 | 1900-109 | 51.31 | 1901-009 | 89.04 | – | – | – | – | 1901-059 | 63.55 |
| 10 | 1 | 3/8 | 3/8 | 3-3/4 | 1900-010 | 18.10 | 1900-110 | 67.35 | 1901-010 | 116.89 | – | – | – | – | 1901-060 | 82.94 |
| 5 Pc. Set incl. sizes #1,#2,#3,#4,#5 | | | | | 1900-011* | 7.20 | 1900-112 | 45.93 | – | – | 1910-030* | 20.35 | – | – | – | – |

* Plastic Pouch

## Aircraft 60° Included Angle
### High Speed Steel

| SIZE NO. | BODY DIA. | DRILL DIA. | DRILL L'GTH | OAL | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH | KEO ORDER NO. | KEO PRICE EACH | KEO COBALT ORDER NO. | KEO COBALT PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 00000 | 1/8 | .010 | .010 | 1-1/4 | – | – | 1900-125 | $8.36 | 1910-125 | $32.88 |
| 0000 | 1/8 | .015 | .015 | 1-1/4 | – | – | 1900-124 | 7.68 | 1910-124 | 31.95 |
| 000 | 1/8 | .020 | .020 | 1-1/4 | 1900-030 | $1.88 | 1900-123 | 7.27 | 1910-123 | 21.71 |
| 00 | 1/8 | .025 | .025 | 1-1/4 | 1900-020 | 1.88 | 1900-122 | 7.27 | 1910-122 | 21.71 |
| 0 | 1/8 | 1/32 | 1/32 | 1-1/4 | 1900-000 | 1.88 | 1900-120 | 7.27 | 1910-120 | 21.71 |

## Bell Type 60° Included Angle

| SIZE NO. | BODY NO. | DRILL DIAM. | DRILL L'GTH | OAL | BELL DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 11 | 1/8 | 3/64 | 3/64 | 1-1/4 | .100 | 1904-011 | $2.02 |
| 12 | 3/16 | 1/16 | 1/16 | 1-7/8 | .150 | 1904-012 | 2.02 |
| 13 | 1/4 | 3/32 | 3/32 | 2 | .200 | 1904-013 | 2.02 |
| 14 | 5/16 | 7/64 | 7/64 | 2-1/8 | .250 | 1904-014 | 2.02 |
| 15 | 7/16 | 5/32 | 5/32 | 2-3/4 | .350 | 1904-015 | 3.15 |
| 16 | 1/2 | 3/16 | 3/16 | 3 | .400 | 1904-016 | 4.83 |
| 17 | 5/8 | 7/32 | 7/32 | 3-1/4 | .500 | 1904-017 | 6.83 |
| 18 | 3/4 | 1/4 | 1/4 | 3-1/2 | .600 | 1904-018 | 9.51 |

## Plain Type 82° & 90°
### Included Angle, High Speed Steel

| SIZE NO. | BODY DIA. | DRILL DIA. | DRILL L'GTH | OAL | KEO 82° ORDER NO. | KEO 82° PRICE EACH | KEO 90° ORDER NO. | KEO 90° PRICE EACH | Pittsburg® 82° ORDER NO. | Pittsburg® 82° PRICE EACH | Pittsburg® 90° ORDER NO. | Pittsburg® 90° PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1/8 | 3/64 | 3/64 | 1-1/4 | 1902-001 | $ 8.29 | 1903-001 | $ 8.29 | 1901-101† | $1.77 | – | – |
| 2 | 3/16 | 5/64 | 5/64 | 1-7/8 | 1902-002 | 8.49 | 1903-002 | 8.49 | – | – | – | – |
| 3 | 1/4 | 7/64 | 7/64 | 2 | 1902-003 | 8.78 | 1903-003 | 8.78 | 1901-103† | 2.33 | – | – |
| 4 | 5/16 | 1/8 | 1/8 | 2-1/8 | 1902-004 | 9.13 | 1903-004 | 9.13 | – | – | – | – |
| 5 | 7/16 | 3/16 | 3/16 | 2-3/4 | 1902-005 | 13.92 | 1903-005 | 13.92 | – | – | – | – |
| 4-1/2 | 3/8 | 9/64 | 9/64 | 2-1/2 | 1902-011 | 12.50 | 1903-011 | 12.50 | – | – | – | – |
| 6 | 1/2 | 7/32 | 7/32 | 3 | 1902-006 | 21.06 | 1903-006 | 21.06 | – | – | 1901-206† | $ 6.59 |
| 7 | 5/8 | 1/4 | 1/4 | 3-1/4 | 1902-007 | 29.81 | 1903-007 | 29.81 | – | – | – | – |
| 8 | 3/4 | 5/16 | 5/16 | 3-1/2 | 1902-008 | 41.80 | 1903-008 | 41.80 | – | – | – | – |

† Limited Quantities

| SIZE | A BODY DIA. | B POINT DIA. | C POINT LG'TH. | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH | KEO H.S.S. ORDER NO. | KEO H.S.S. PRICE EACH | KEO M42 ORDER NO. | KEO M42 PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| #1 X 3 | 1/8 | 3/64 | 3/64 | 1909-013 | $4.25 | 1909-113 | $ 12.25 | 1909-813 | $ 36.79 |
| #1 X 4 | | | | 1909-014 | 4.80 | 1909-114 | 12.79 | 1909-814 | 38.04 |
| #1 X 5 | | | | 1909-015 | 6.30 | 1909-115 | 17.77 | 1909-815 | 52.93 |
| #1 X 6 | | | | 1909-016 | 9.45 | 1909-116 | 23.27 | 1909-816 | 69.16 |
| #2 X 3 | 3/16 | 5/64 | 5/64 | – | – | 1909-123 | 12.40 | 1909-823 | 36.89 |
| #2 X 4 | | | | 1909-024 | 5.10 | 1909-124 | 14.02 | 1909-824 | 41.70 |
| #2 X 5 | | | | 1909-025 | 6.20 | 1909-125 | 17.96 | 1909-825 | 53.45 |
| #2 X 6 | | | | 1909-026 | 8.75 | 1909-126 | 23.36 | 1909-826 | 69.59 |
| #3 X 3 | 1/4 | 7/64 | 7/64 | 1909-033 | 4.85 | 1909-133 | 12.95 | 1909-833 | 38.46 |
| #3 X 4 | | | | 1909-034 | 5.15 | 1909-134 | 14.77 | 1909-834 | 43.84 |
| #3 X 5 | | | | 1909-035 | 7.00 | 1909-135 | 19.42 | 1909-835 | 57.84 |
| #3 X 6 | | | | 1909-036 | 8.85 | 1909-136 | 23.57 | 1909-836 | 70.14 |
| #4 X 3 | 5/16 | 1/8 | 1/8 | – | – | 1909-143 | 15.20 | 1909-843 | 45.18 |
| #4 X 4 | | | | 1909-044 | 6.05 | 1909-144 | 16.36 | 1909-844 | 48.70 |
| #4 X 5 | | | | 1909-045 | 7.65 | 1909-145 | 20.92 | 1909-845 | 62.22 |
| #4 X 6 | | | | 1909-046 | 8.90 | 1909-146 | 24.15 | 1909-846 | 71.83 |

| SIZE | A BODY DIA. | B POINT DIA. | C POINT LG'TH. | Pittsburg® ORDER NO. | Pittsburg® PRICE EACH | KEO H.S.S. ORDER NO. | KEO H.S.S. PRICE EACH | KEO M42 ORDER NO. | KEO M42 PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| #4-1/2 X 4 | 3/8 | 9/64 | 9/64 | 1909-047 | $7.05 | 1909-147 | $18.39 | 1909-847 | $53.51 |
| #4-1/2 X 5 | | | | 1909-048 | 8.25 | 1909-148 | 21.74 | 1909-848 | 63.44 |
| #4-1/2 X 6 | | | | 1909-049 | 9.85 | 1909-149 | 26.23 | 1909-849 | 76.56 |
| #5 X 4 | 7/16 | 3/16 | 3/16 | 1909-054 | 7.50 | 1909-154 | 21.50 | 1909-854 | 62.75 |
| #5 X 5 | | | | 1909-055 | 8.95 | 1909-155 | 24.90 | 1909-855 | 72.64 |
| #5 X 6 | | | | 1909-056 | 10.10 | 1909-156 | 27.95 | 1909-856 | 81.52 |
| #6 X 4 | 1/2 | 7/32 | 7/32 | – | – | 1909-164 | 23.33 | 1909-864 | 66.63 |
| #6 X 5 | | | | 1909-065 | 9.90 | 1909-165 | 26.75 | 1909-865 | 76.64 |
| #6 X 6 | | | | 1909-066 | 11.60 | 1909-166 | 32.33 | 1909-866 | 92.46 |
| #7 X 6 | 5/8 | 1/4 | 1/4 | 1909-076 | 21.55 | 1909-176 | 60.25 | 1909-876 | 171.46 |
| #8 X 6 | 3/4 | 5/16 | 5/16 | 1909-086 | 23.20 | 1909-186 | 65.06 | 1909-886 | 185.11 |

90° Angle available in High Speed Steel upon request

# Combined Drills & Countersinks



## Solid Carbide - R.H. , Plain Type

• Premium sub-micron C-2 carbide with 10% cobalt

| TOOL NO. | BODY DIA. | DRILL DIA. | APPROX. OAL | 60° ORDER NO. | 60° PRICE EACH | 60° TiALN ORDER NO. | 60° TiALN PRICE EACH | 82° ORDER NO. | 82° PRICE EACH | 90° ORDER NO. | 90° PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 | 1/8 | .0265 | 1-1/2 | 2966-000 | $11.25 | 2966-100 | $15.00 | 2966-039 | $11.25 | 2966-069 | $11.25 |
| 0 | 1/8 | 1/32 | 1-1/2 | 2966-010 | 10.65 | 2966-110 | 14.55 | 2966-040 | 10.65 | 2966-070 | 10.65 |
| 1 | 1/8 | 3/64 | 1-1/2 | 2966-011 | 9.75 | 2966-111 | 14.30 | 2966-041 | 9.75 | 2966-071 | 9.75 |
| 2 | 3/16 | 5/64 | 1-7/8 | 2966-012 | 15.20 | 2966-112 | 18.70 | 2966-042 | 15.20 | 2966-072 | 15.20 |
| 3 | 1/4 | 7/64 | 2 | 2966-013 | 16.80 | 2966-113 | 22.05 | 2966-043 | 16.80 | 2966-073 | 16.80 |
| 4 | 5/16 | 1/8 | 2-1/8 | 2966-014 | 24.45 | 2966-114 | 31.80 | 2966-044 | 24.45 | 2966-074 | 24.45 |
| 5 | 7/16 | 3/16 | 2-3/4 | 2966-015 | 35.20 | 2966-115 | 54.10 | 2966-045 | 35.20 | 2966-075 | 35.20 |
| 6 | 1/2 | 7/32 | 3 | 2966-016 | 48.70 | 2966-116 | 69.40 | 2966-046 | 48.70 | 2966-076 | 48.70 |
| 7 | 5/8 | 1/4 | 3-1/4 | 2966-017 | 77.30 | – | – | 2966-047 | 77.30 | 2966-077 | 77.30 |
| 8 | 3/4 | 5/16 | 3-1/2 | 2966-018 | 101.25 | – | – | 2966-048 | 101.25 | 2966-078 | 101.25 |
| 5 pc. Set – Contains sizes: #1, #2, #3, #4 and #5 in plastic pouch. | | | | 2966-019 | 103.90 | 2966-130 | 212.85 | 2966-060 | 103.90 | 2966-090 | 103.90 |

## Long Length

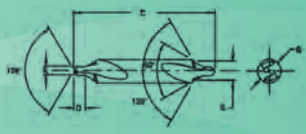
| SIZE | SHANK DIA. | PILOT DIA. | OAL | 60° ORDER NO. | 60° PRICE EACH |
|---|---|---|---|---|---|
| 1 | 1/8 | 3/64 | 4 | 2966-214 | $22.05 |
| 2 | 3/16 | 5/64 | 4 | 2966-224 | 28.55 |
| 3 | 1/4 | 7/64 | 4 | 2966-234 | 35.05 |
| 4 | 5/16 | 1/8 | 4 | 2966-244 | 46.30 |
| 5 | 7/16 | 3/16 | 6 | 2966-256 | 75.85 |
| 6 | 1/2 | 7/32 | 6 | 2966-266 | 103.30 |
| 7 | 5/8 | 1/4 | 6 | 2966-276 | 175.00 |
| 8 | 3/4 | 5/16 | 6 | 2966-286 | 208.75 |

## Metric Combined Drill & Countersink

### Type A–High Speed Steel

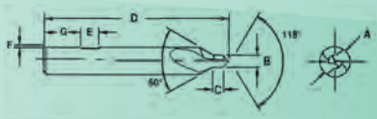
| A POINT DIA. | B BODY DIA. | C OVERALL LG'TH. | D LG'TH. OF CUT | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 0.50 | 3.15 | 25.0 SE | .08 | 1909-400 | $ 5.01 |
| 0.80 | 3.15 | 25.0 SE | 1.1 | 1909-405 | 5.01 |
| 1.00 | 3.15 | 31.5 | 1.3 | 1909-410 | 4.58 |
| 1.25 | 3.15 | 31.5 | 1.6 | 1909-415 | 4.41 |
| 1.60 | 4.00 | 35.5 | 2.0 | 1909-420 | 4.30 |
| 2.00 | 5.00 | 40.0 | 2.5 | 1909-425 | 4.67 |
| 2.50 | 6.30 | 45.0 | 3.1 | 1909-430 | 5.31 |
| 3.15 | 8.00 | 50.0 | 3.9 | 1909-435 | 6.65 |
| 4.00 | 10.00 | 56.0 | 5.0 | 1909-440 | 11.02 |
| 5.00 | 12.50 | 63.0 | 6.3 | 1909-445 | 15.74 |
| 6.30 | 16.00 | 71.0 | 8.0 | 1909-450 | 22.33 |
| 8.00 | 20.00 | 80.0 | 10.1 | 1909-455 | 36.53 |
| 10.00 | 25.00 | 100.0 | 12.8 | 1909-460 | 70.25 |
| 12.52 | 31.50 | 125.0 | 16.5 | 1909-465 | 118.37 |

### Type B–High Speed Steel



| A POINT DIA. | B BODY DIA. | C OVERALL LG'TH. | D LG'TH. OF CUT | E BELL DIA. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1.00 | 4.00 | 35.5 | 1.50 | 2.12 | 1909-500 | $ 6.46 |
| 1.25 | 5.00 | 40.0 | 1.90 | 2.65 | 1909-505 | 6.50 |
| 1.60 | 6.30 | 45.0 | 2.4 | 3.35 | 1909-510 | 6.89 |
| 2.00 | 8.00 | 50.0 | 3.0 | 4.25 | 1909-515 | 8.24 |
| 2.50 | 10.00 | 56.0 | 3.8 | 5.30 | 1909-520 | 10.82 |
| 3.15 | 11.20 | 60.0 | 4.8 | 6.70 | 1909-525 | 13.38 |
| 4.00 | 14.00 | 67.0 | 6.0 | 8.50 | 1909-530 | 17.31 |
| 5.00 | 18.00 | 75.0 | 7.5 | 0.60 | 1909-535 | 23.42 |
| 6.30 | 20.00 | 80.0 | 9.2 | 13.20 | 1909-540 | 30.95 |
| 8.00 | 25.00 | 100.0 | 11.5 | 17.00 | 1909-545 | 61.18 |
| 10.00 | 31.50 | 125.0 | 14.2 | 21.20 | 1909-550 | 122.46 |

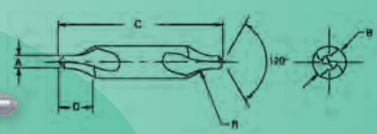
## Jig Bore Type
### High Speed Steel



| A BODY DIA. | B POINT DIA. | C POINT LG'TH. | D OVERALL LG'TH. | E BODY FLAT LG'TH. | F BODY FLAT DEPTH | G BODY FLAT OFFSET | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| | 1/16 | 1/16 | | | | | 1909-205 | $19.49 |
| | 3/32 | 3/32 | | | | | 1909-210 | 19.49 |
| 3/8 | 1/8 | 1/8 | 3 | 9/32 | 0.050 | 41/64 | 1909-215 | 19.49 |
| | 5/32 | 5/32 | | | | | 1909-220 | 19.49 |
| | 3/16 | 3/16 | | | | | 1909-225 | 19.49 |
| | 1/8 | 1/8 | | | | | 1909-235 | 23.62 |
| | 3/16 | 3/16 | | | | | 1909-240 | 23.62 |
| 1/2 | 7/32 | 7/32 | 3-1/2 | 21/34 | 0.060 | 23/32 | 1909-245 | 23.62 |
| | 1/4 | 1/4 | | | | | 1909-250 | 23.62 |
| | 9/32 | 9/32 | | | | | 1909-255 | 23.62 |
| SETS | | | | | | | | |
| 3/8 | Point Diameters: 1/16, 3/32, 1/8, 5/32, 3/16 | | | | | | 1909-230 | $118.98 |
| 1/2 | Point Diameters: 1/16, 3/32, 1/8, 5/32, 3/16 | | | | | | 1909-260 | 140.04 |

Keo Jig Bore Type combined drills and countersinks are used for producing center holes in components or workpieces which require machining between centers and are manufactured with a locking set screw flat.

## Radius Type
### High Speed Steel



| SIZE | A BODY DIA. | B POINT DIA. | C LG'TH. OF CUT | D OVERALL LG'TH. | R RADIUS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| #5-0 | 1/8 | 0.010 | 0.068 | 1-1/4 | 1/16 | 1909-705 | $9.77 |
| #4-0 | 1/8 | 0.015 | 0.083 | 1-1/4 | 5/64 | 1909-704 | 9.26 |
| #3-0 | 1/8 | 0.020 | 0.097 | 1-1/4 | 3/32 | 1909-703 | 8.01 |
| #2-0 | 1/8 | 0.025 | 0.109 | 1-1/4 | 7/64 | 1909-702 | 8.01 |
| #0 | 1/8 | 1/32 | 0.118 | 1-1/4 | 1/8 | 1909-700 | 8.01 |
| #1 | 1/8 | 3/64 | 0.132 | 1-1/4 | 5/32 | 1909-601 | 6.26 |
| #2 | 3.16 | 5/64 | 0.204 | 1-7/8 | 7/32 | 1909-602 | 6.64 |
| #3 | 1/4 | 7/64 | 0.275 | 2 | 9/32 | 1909-603 | 7.19 |
| #4 | 5/16 | 1/8 | 11/32 | 2-1/8 | 3/8 | 1909-604 | 8.07 |
| #4-1/2 | 3/8 | 9/64 | 13/32 | 2-1/2 | 7/16 | 1909-611 | 9.89 |
| #5 | 7/16 | 3/16 | 31/64 | 2-3/4 | 1/2 | 1909-605 | 11.24 |
| #6 | 1/2 | 7/32 | 35/64 | 3 | 9/16 | 1909-606 | 16.99 |
| #7 | 5/8 | 1/4 | 43/64 | 3-1/4 | 45/64 | 1909-607 | 24.91 |
| #8 | 3/4 | 5/16 | 13/16 | 3-1/2 | 7/8 | 1909-608 | 33.65 |
| #9 | 7/8 | 11/32 | 15/16 | 3-5/8 | 1 | 1909-609 | 62.91 |
| #10 | 1 | 3/8 | 1-1/16 | 3-3/4 | 1-7/64 | 1909-610 | 82.27 |

# Countersinks

MADE IN USA

## Single Flute
### High Speed Steel

Pittsburg® ALLEGHANY

3

| DIAM. x SHK DIA. | OVERALL LENGTH | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | 100° ORDER NO. | 110° ORDER NO. | 120° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/16 x 3/16 | 1-1/2 | 2250-024 | 2251-024 | 2252-024 | 2253-024 | – | 2255-024† | $ 3.10 |
| 1/4 x 3/16 | 1-3/4 | 2250-028 | 2251-028 | 2252-028 | 2253-028 | 2254-028† | – | 3.25 |
| 1/4 x 1/4 | 1-3/4 | 2250-032 | 2251-032 | 2252-032 | 2253-032 | – | 2255-032† | 3.25 |
| 5/16 x 1/4 | 1-3/4 | 2250-036 | 2251-036 | 2252-036 | 2253-036 | 2254-036† | 2255-036† | 3.40 |
| 3/8 x 1/4 | 1-3/4 | 2250-040 | 2251-040 | 2252-040 | 2253-040 | 2254-040† | – | 3.70 |
| 1/2 x 1/4 | 2 | 2250-048 | 2251-048 | 2252-048 | 2253-048 | 2254-048† | – | 4.80 |
| 1/2 x 3/8 | 2 | 2250-056 | 2251-056 | 2252-056 | 2253-056 | – | – | 4.80 |
| 5/8 x 1/4 | 2-1/4 | – | 2251-060† | – | – | – | 2255-062† | POA |
| 5/8 x 3/8 | 2-1/4 | 2250-064 | 2251-064 | 2252-064 | 2253-064 | – | 2255-064† | 6.55 |
| 5/8 x 1/2 | 2-1/4 | 2250-072 | 2251-072 | 2252-072 | 2253-068 | 2254-072† | 2255-070† | 6.55 |
| 3/4 x 3/8 | 2-3/4 | 2250-073 | 2251-073 | 2252-073 | 2253-072 | – | – | 8.90 |
| 3/4 x 1/2 | 2-3/4 | 2250-080 | 2251-080 | 2252-080 | 2253-080 | 2254-080† | 2255-080† | 8.90 |
| 7/8 x 1/2 | 2-3/4 | 2250-088 | 2251-088 | 2252-088 | 2253-088 | 2254-088† | 2255-088† | 14.50 |
| 1 x 1/2 | 2-3/4 | 2250-096 | 2251-096 | 2252-096 | 2253-096 | 2254-096† | 2255-096† | 15.60 |
| 1-1/4 x 1/2 | 3 | 2250-112 | 2251-112 | 2252-112 | 2253-112 | – | – | 23.70 |
| 1-1/4 x 3/4 | 3 | 2250-128 | 2251-128 | 2252-128 | 2253-128 | – | – | 23.70 |
| 1-1/2 x 1/2 | 3-1/2 | 2250-129 | 2251-129 | 2252-129 | 2253-129 | – | – | 37.25 |
| 1-1/2 x 3/4 | 3-1/2 | 2250-144 | 2251-144 | 2252-144 | 2253-144 | – | – | 37.25 |
| 1-3/4 x 1/2 | 4 | 2250-145 | 2251-145 | 2252-145 | 2253-145 | – | – | 51.35 |
| 1-3/4 x 3/4 | 4 | 2250-160 | 2251-155 | 2252-160 | 2253-160 | – | – | 51.35 |
| 2 x 1/2 | 4 | 2250-161 | 2251-161 | 2252-161 | – | – | – | 61.00 |
| 2 x 3/4 | 4 | 2250-176 | 2251-176 | 2252-176 | 2253-176 | – | – | 61.00 |

† Limited Quantities

## Single Flute
### High Speed Steel

3

| DIAM. | x | SHK | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | 100° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3/16 | x | 3/16 | 2285-024 | 2286-024 | 2287-024 | 2288-024 | $ 8.35 |
| 1/4 | x | 1/4 | 2285-032 | 2286-032 | 2287-032 | 2288-032 | 8.69 |
| 3/8 | x | 1/4 | 2285-040 | 2286-040 | 2287-040 | 2288-040 | 9.91 |
| 1/2 | x | 1/4 | 2285-048 | 2286-048 | 2287-048 | 2288-048 | 12.13 |
| 5/8 | x | 3/8 | 2285-064 | 2286-064 | 2287-064 | 2288-064 | 16.23 |
| 3/4 | x | 1/2 | 2285-080 | 2286-080 | 2287-080 | 2288-080 | 23.69 |
| 1 | x | 1/2 | 2285-096 | 2286-096 | 2287-096 | 2288-096 | 40.63 |
| 1-1/4 | x | 3/4 | 2285-128 | 2286-128 | 2287-128 | – | 65.35 |
| 1-1/2 | x | 3/4 | 2285-144 | 2286-144 | 2287-144 | – | 87.50 |
| 1-3/4 | x | 3/4 | 2285-160 | 2286-160 | 2287-160 | – | 137.48 |
| 2 | x | 3/4 | 2285-176 | 2286-176 | 2287-176 | – | 142.20 |

## Single Flute 5 Pc. Set

5 piece set includes one each:
1/4", 3/8", 1/2", 3/4 & 1 in wood stand.

Pittsburg® ALLEGHANY

3

| DEGREE | ORDER NO. | PRICE EACH |
|---|---|---|
| 60° | 2250-900 | $35.70 |
| 82° | 2251-900 | 35.70 |
| 90° | 2252-900 | 35.70 |

## Single Flute 5 Pc. Set

5 piece set includes one each:
1/4", 3/8", 1/2", 3/4 & 1 in wood stand.

MADE IN USA

3

| DEGREE | ORDER NO. | PRICE EACH |
|---|---|---|
| 60° | 2285-900 | $101.39 |
| 82° | 2286-900 | 101.39 |
| 90° | 2287-900 | 101.39 |
| 100° | 2288-900 | 101.39 |

## Severance
## Set #36 – Single Flute Countersinks

SET INCLUDES 1 PIECE OF EACH TOOL WITH
1/4", 3/8", 1/2", 5/8", 3/4", 1" BODY DIAMETER

### High Speed Steel

6 PIECE SET

2

| CENTERLINE ANGLE 30° | 41° | 45° | 50° | 55° | 60° | | |
|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 60° | 82° | 90° | 100° | 110° | 120° | SEV. | LIST |
| ORDER NO. | ORDER NO. | ORDER NO. | ORDER NO. | ORDER NO. | ORDER NO. | NAME | PRICE |
| – | 6829-633 | 6829-634 | 6829-635 | – | 6829-637 | SET #36 | $173.40 |

## Severance
## Single Flute Countersinks –
### High Speed Steel

2

| CENTERLINE ANGLE 30° | 41° | 45° | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 60° | 82° | 90° | | | | | | | |
| ORDER NO.* | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | NOSE TYPE | SHANK DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
| 6800-270 | 6800-288 | 6800-306 | 1/8-SF | 1/8" | – | 1/8" | 1-5/8" | 1-5/8" | $11.45 |
| 6800-271 | 6800-289 | 6800-307 | 3/16-SF | 3/16" | – | 3/16" | 1-1/2" | 1-1/2" | 12.15 |
| 6800-272 | 6800-290 | 6800-308 | 1/4-SF | 1/4" | – | 3/16" | 1-1/2" | 3/4" | 12.17 |
| 6800-273 | 6800-291 | 6800-309 | 5/16-SF | 5/16" | – | 1/4" | 1-3/4" | 7/8" | 14.20 |
| 6800-274 | 6800-292 | 6800-310 | 3/8-SF | 3/8" | – | 1/4" | 1-3/4" | 7/8" | 16.56 |
| 6800-275 | 6800-293 | 6800-311 | 1/2-SF | 1/2" | – | 3/8" | 2-1/8" | 1-1/8" | 21.12 |
| 6800-276 | 6800-294 | 6800-312 | 1/2-1/4-SF | 1/2" | – | 1/4" | 2-1/8" | 1-1/8" | 21.12 |
| 6800-277 | 6800-295 | 6800-313 | 5/8-SF | 5/8" | – | 3/8" | 2-3/8" | 1-1/8" | 30.08 |
| 6800-278 | 6800-296 | 6800-314 | 5/8-1/4-SF | 5/8" | – | 1/4" | 2-3/8" | 1-1/8" | 30.08 |
| 6800-279 | 6800-297 | 6800-315 | 3/4-SF | 3/4" | – | 1/2" | 2-11/16" | 1-5/16" | 40.40 |
| 6800-280 | 6800-298 | 6800-316 | 7/8-SF | 7/8" | – | 1/2" | 2-13/16" | 1-5/16" | 50.87 |
| 6800-281 | 6800-299 | 6800-317 | 1-SF | 1" | – | 1/2" | 2-13/16" | 1-5/16" | 62.20 |
| 6800-282 | 6800-300 | 6800-318 | 1-1/4-SF | 1-1/4" | – | 3/4" | 3-3/8" | 1-5/8" | 89.92 |
| 6800-283 | 6800-301 | 6800-319 | 1-1/2-SF | 1-1/2" | – | 3/4" | 3-1/2" | 1-5/8" | 123.54 |
| No Match! | 6800-302 | 6800-320 | 1-3/4-SF | 1-3/4" | – | 1" | 4-1/4" | 2-1/8" | 148.56 |
| 6800-285 | 6800-303 | 6800-321 | 2-SF | 2" | – | 1" | 4-3/8" | 2-1/8" | 189.98 |
| No Match! | 6800-304 | 6800-322 | 2-1/2-SF | 2-1/2" | – | 1" | 4-3/4" | 2-1/8" | 323.49 |
| 6800-287 | 6800-305 | 6800-323 | 3-SF | 3" | – | 1" | 5" | 2-1/8" | 485.22 |

* 60°Included Angle Priced sightly higher

# Countersinks

## Three Flute
### High Speed Steel

Pittsburg® ALLEGHANY

3

| DIA. x SK DIA. | OVERALL LENGTH | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | 100° ORDER NO. | 110° ORDER NO. | 120° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/16 x 3/16 | 1-1/2 | 2256-024 | 2257-024 | 2258-024 | 2259-024† | 2260-024† | 2261-024† | $ 3.40 |
| 1/4 x 3/16 | 1-1/2 | 2256-028 | 2257-028 | 2258-028 | 2259-028† | 2260-028† | – | 3.75 |
| 5/16 x 1/4 | 1-3/4 | 2256-036 | 2257-036 | 2258-036 | – | 2260-036† | 2261-036† | 4.35 |
| 3/8 x 1/4 | 1-3/4 | 2256-040 | 2257-040 | 2258-040 | 2259-040† | 2260-040† | – | 4.85 |
| 7/16 x 1/4 | 1-3/4 | 2256-044† | – | 2258-044† | – | – | – | 5.35 |
| 1/2 x 1/4 | 2 | 2256-048 | 2257-048 | 2258-048 | – | – | 2261-048† | 5.95 |
| 1/2 x 3/8 | 2 | 2256-056 | 2257-056 | 2258-056 | 2259-056† | 2260-056† | 2261-056† | 5.95 |
| 5/8 x 3/8 | 2 | 2256-064 | 2257-064 | 2258-064 | 2259-064† | 2260-064† | – | 7.90 |
| 5/8 x 1/2 | 2 | – | – | 2258-070† | – | – | 2261-070† | 7.90 |
| 3/4 x 3/8 | 2-3/4 | 2256-072 | 2257-072 | 2258-072 | 2259-072† | – | – | 10.75 |
| 3/4 x 1/2 | 2-3/4 | 2256-080 | 2257-080 | 2258-080 | 2259-080† | 2260-080† | 2261-080† | 10.75 |
| 7/8 x 1/2 | 2-3/4 | 2256-088 | 2257-088 | 2258-088 | 2259-088† | 2260-088† | 2261-088† | 14.00 |
| 1 x 1/2 | 2-3/4 | 2256-096 | 2257-096 | 2258-096 | 2259-096† | 2260-096† | 2261-096† | 17.30 |
| 1-1/4 x 1/2 | 3-1/2 | 2256-112 | 2257-112 | 2258-112 | – | – | – | 31.85 |
| 1-1/4 x 5/8 | 3-1/2 | – | – | 2258-120† | 2259-120† | 2260-120† | 2261-120† | 31.85 |
| 1-1/4 x 3/4 | 3-1/2 | 2256-128 | 2257-128 | 2258-128 | 2259-128† | 2260-128† | – | 31.85 |
| 1-1/2 x 1/2 | 3-1/2 | 2256-129 | 2257-134 | 2258-129 | – | – | – | 43.45 |
| 1-1/2 x 3/4 | 3-1/2 | 2256-144 | 2257-144 | 2258-144 | 2259-144† | 2260-144† | 2261-144† | 43.45 |
| 1-3/4 x 1/2 | 4 | 2256-145 | 2257-145 | 2258-145 | – | – | – | 65.20 |
| 1-3/4 x 3/4 | 4 | 2256-160 | 2257-160 | 2258-160 | – | – | – | 65.20 |
| 1-3/4 x 1 | 4 | – | 2257-163† | 2258-146† | – | – | – | 65.20 |
| 2 x 1/2 | 4 | 2256-165 | 2257-165 | 2258-161 | – | – | – | 71.80 |
| 2 x 3/4 | 4 | 2256-176 | 2257-176 | 2258-176 | – | – | – | 71.80 |
| 2 x 1 | 4 | 2256-192† | 2257-192† | – | – | – | – | 71.80 |

† Limited Quantities

## Three Groove 82°
### High Speed Steel

Pittsburg® ALLEGHANY

2

| DIA. | SHANK DIA. | FLUTE LG'TH | BODY LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 3/8 | 1/2 | 2-1/8 | 2-3/8 | 4-3/8 | 2268-056 | $9.00 |
| 1/2 | 1/2 | 2-1/4 | 2-1/2 | 4-1/2 | 2268-064 | 10.00 |
| 5/8 | 1/2 | 2-3/8 | 2-5/8 | 4-5/8 | 2268-072 | 11.20 |
| 3/4 | 1/2 | 2-1/2 | 2-3/4 | 4-3/4 | 2268-080 | 14.00 |
| 7/8 | 1/2 | 2-5/8 | 2-7/8 | 4-7/8 | 2268-088 | 16.50 |

**–Closeout– Limited Quantities**

## 4-Flute Machine Countersinks
### High Speed Steel

Pittsburg® ALLEGHANY

3

| DIA. x SK DIA. | OVERALL LENGTH | SHANK LENGTH | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 3/8 x 3/8 | 3-3/4 | – | 2276-048† | 2277-048† | 2278-048† | $12.40 |
| 1/2 x 1/2 | 3-7/8 | 2-1/4 | 2276-064 | 2277-064 | 2278-064 | 14.70 |
| 5/8 x 1/2 | 4 | 2-1/4 | 2276-072 | 2277-072 | 2278-072 | 16.45 |
| 3/4 x 1/2 | 4-1/8 | 2-1/4 | 2276-080 | 2277-080 | 2278-080 | 21.00 |
| 7/8 x 1/2 | 4-1/8 | 2-1/4 | 2276-088 | 2277-088 | 2278-088 | 23.20 |
| 1 x 1/2 | 4-3/8 | 2-1/4 | 2276-096 | 2277-096 | 2278-096 | 25.50 |
| 1-1/4 x 1/2 | 5 | 2-1/4 | 2276-112 | 2277-112 | 2278-112 | 35.90 |
| 1-1/2 x 1/2 | 5-3/8 | 2-1/4 | 2276-128 | 2277-128 | 2278-128 | 47.45 |
| 2 x 1/2 | 6-1/8 | 2-1/4 | 2276-161† | 2277-161† | 2278-161† | 66.70 |

† Limited Quantities

## 4-Flute Center Reamers†
### High Speed Steel

Pittsburg® ALLEGHANY

3

| DIA. x SK DIA. | OVERALL LENGTH | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | 100° ORDER NO. | 110° ORDER NO. | 120° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 x 3/16 | 1-1/2 | 2270-028 | 2271-028 | 2272-028 | 2273-028 | 2274-028 | 2275-028 | $1.60 |
| 3/8 x 1/4 | 1-3/4 | 2270-040 | 2271-040 | 2272-040 | – | 2274-040 | 2275-040 | 1.75 |
| 1/2 x 3/8 | 2 | 2270-056 | 2271-056 | – | 2273-056 | 2274-056 | 2275-056 | 2.20 |
| 5/8 x 3/8 | 2 | 2270-064 | 2271-064 | – | 2273-064 | 2274-064 | 2275-064 | 2.90 |
| 3/4 x 1/2 | 2-3/4 | – | 2271-080 | – | 2273-080 | 2274-080 | 2275-080 | 4.25 |
| 7/8 x 1/2 | 2-3/4 | 2270-088 | 2271-088 | – | 2273-088 | 2274-088 | 2275-088 | 5.40 |
| 1 x 1/2 | 2-3/4 | 2270-096 | – | 2272-096 | 2273-096 | 2274-096 | 2275-096 | 6.55 |
| 1-1/4 x 1/2 | 3-1/2 | – | 2271-112 | – | – | 2274-112 | 2275-112 | 15.40 |
| 1-1/2 x 1/2 | 3-1/2 | – | – | – | 2273-128 | 2274-128 | 2275-128 | 22.05 |
| 1-3/4 x 1/2 | 4 | 2270-144 | 2271-144 | 2272-144 | 2273-144 | 2274-144 | 2275-144 | 29.20 |
| 2 x 1/2 | 4 | 2270-160 | 2271-160 | – | 2273-160 | 2274-160 | 2275-160 | 35.85 |

† Discontinued, Limited Quantities

Severance

## 4 Flute Chatter Free Econosinks®
### High Speed Steel

2

| CENTERLINE ANGLE 30° INCLUDED ANGLE 60° ORDER NO.* | 41° 82° ORDER NO. | 45° 90° ORDER NO. | SEVERANCE NAME | BODY DIA. | SHANK DIA. | OVERALL LENGTH | SHANK LGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| 6800-970 | 6800-991 | 6801-012 | ES-1/8 | 1/8" | 1/8" | 1-5/8" | 1-5/8" | $11.04 |
| 6800-971 | 6800-992 | 6801-013 | ES-3/16 | 3/16" | 3/16" | 1-1/2" | 1-1/2" | 11.71 |
| 6800-972 | 6800-993 | 6801-014 | ES-1/4 | 1/4" | 3/16" | 1-1/2" | 3/4" | 12.41 |
| 6800-973 | 6800-994 | 6801-015 | ES-5/16 | 5/16" | 1/4" | 1-3/4" | 7/8" | 14.47 |
| 6800-974 | 6800-995 | 6801-016 | ES-3/8 | 3/8" | 1/4" | 1-3/4" | 7/8" | 16.88 |
| 6800-976 | 6800-997 | 6801-018 | ES-1/2 | 1/2" | 3/8" | 2-1/8" | 1-1/8" | 21.52 |
| 6800-977 | 6800-998 | 6801-019 | ES-1/2-1/4 | 1/2" | 1/4" | 2-1/8" | 1-1/8" | 21.52 |
| 6800-978 | 6800-999 | 6801-020 | ES-5/8 | 5/8" | 3/8" | 2-3/8" | 1-1/8" | 30.66 |
| 6800-979 | 6801-000 | 6801-021 | ES-5/8-1/4 | 5/8" | 1/4" | 2-3/8" | 1-1/8" | 30.66 |
| 6800-980 | 6801-001 | 6801-022 | ES-3/4 | 3/4" | 1/2" | 2-11/16" | 1-5/16" | 41.17 |
| 6800-982 | 6801-003 | 6801-024 | ES-7/8 | 7/8" | 1/2" | 2-13/16" | 1-5/16" | 51.85 |
| 6800-983 | 6801-004 | 6801-025 | ES-1 | 1" | 1/2" | 2-13/16" | 1-5/16" | 63.40 |
| 6800-984 | 6801-005 | 6801-026 | ES-1-1/4 | 1-1/4" | 3/4" | 3-3/8" | 1-5/8" | 91.65 |
| 6800-985 | 6801-006 | 6801-027 | ES-1-1/2 | 1-1/2" | 3/4" | 3-1/2" | 1-5/8" | 125.92 |
| 6800-987 | 6801-008 | 6801-029 | ES-1-3/4 | 1-3/4" | 1" | 4-1/4" | 2-1/8" | 151.42 |
| 6800-988 | 6801-009 | 6801-030 | ES-2 | 2" | 1" | 4-3/8" | 2-1/8" | 193.63 |
| 6800-989 | 6801-010 | 6801-031 | ES-2-1/2 | 2-1/2" | 1" | 4-3/4" | 2-1/8" | 329.70 |
| 6800-990 | 6801-011 | 6801-032 | ES-3 | 3" | 1" | 5" | 2-1/8" | 494.55 |

* 60°Included Angle Priced sightly higher

Severance

## 4 Flute 3N1™ Drill Point Countersinks

Patent Pending

### How Does a 3N1™ Work?

Severance has developed a unique tool which combines the functions of a drill point and countersink and edge chamfer.
A conventional thin-web drill point is blended into two flutes of a four-flute chatterfree countersink . . . to perform two or all three of the steps in a spot-drill-countersink and edge chamfer operation. On thin material, such as in shown illustration, drilling could be optional.

2

### High Speed Steel – Single Ended Countersink

| CENTERLINE ANGLE 30° INCLUDED ANGLE 60° ORDER NO.* | 41° 82° ORDER NO. | 45° 90° ORDER NO. | SEVERANCE NAME | C'SINK DIA. | SHNK DIA. | OVRALL LGTH | SHNK LGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| 6801-473 | 6801-488 | 6801-503 | 3N1-1/8 | 1/8" | 1/8" | 1-5/8" | 1-5/8" | $ 13.26 |
| 6801-474 | 6801-489 | 6801-504 | 3N1-3/16 | 3/16" | 3/16" | 1-5/8" | 1-1/2" | 14.14 |
| 6801-470 | 6801-485 | 6801-500 | 3N1-1/4 | 1/4" | 3/16" | 1-1/2" | 3/4" | 14.81 |
| 6801-475 | 6801-490 | 6801-505 | 3N1-5/16 | 5/16" | 1/4" | 1-3/4" | 7/8" | 17.39 |
| 6801-471 | 6801-486 | 6801-501 | 3N1-3/8 | 3/8" | 1/4" | 1-3/4" | 7/8" | 20.31 |
| 6801-472 | 6801-487 | 6801-502 | 3N1-1/2 | 1/2" | 3/8" | 2-1/8" | 1-1/8" | 26.01 |
| 6801-476 | 6801-491 | 6801-506 | 3N1-5/8 | 5/8" | 3/8" | 2-3/8" | 1-1/8" | 36.69 |
| 6801-477 | 6801-492 | 6801-507 | 3N1-3/4 | 3/4" | 1/2" | 2-11/16" | 1-5/16" | 49.43 |
| 6801-478 | 6801-493 | 6801-508 | 3N1-7/8 | 7/8" | 1/2" | 2-13/16" | 1-5/16" | 62.19 |
| 6801-479 | 6801-494 | 6801-509 | 3N1-1 | 1" | 1/2" | 2-13/16" | 1-5/16" | 76.14 |

* 60°Included Angle Priced sightly higher

# Countersinks – Six Flute

## Six Flute Countersinks
### High Speed Steel

MADE IN USA

[3]

| DIA. x SK DIA. | OVERALL LENGTH | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 3/16 x 3/16 | 1-1/2 | 2262-024 | 2263-024 | 2264-024 | $ 7.25 |
| 1/4 x 3/16 | 1-1/2 | 2262-028 | 2263-028 | 2264-028 | 7.40 |
| 5/16 x 1/4 | 1-3/4 | 2262-036 | 2263-036 | 2264-036 | 8.85 |
| 3/8 x 1/4 | 1-3/4 | 2262-040 | 2263-040 | 2264-040 | 9.25 |
| 1/2 x 1/4 | 2 | 2262-048 | 2263-048 | 2264-048 | 11.35 |
| 1/2 x 3/8 | 2 | 2262-056 | 2263-056 | 2264-056 | 11.35 |
| 5/8 x 3/8 | 2-1/2 | 2262-064 | 2263-064 | 2264-064 | 20.95 |
| 3/4 x 1/2 | 2-3/4 | 2262-080 | 2263-080 | 2264-080 | 22.25 |
| 7/8 x 1/2 | 2-3/4 | 2262-088 | 2263-088 | 2264-088 | 30.65 |
| 1 x 1/2 | 2-3/4 | 2262-096 | 2263-096 | 2264-096 | 34.15 |
| 1-1/4 x 3/4 | 3-1/2 | 2262-128 | 2263-128 | 2264-128 | 52.00 |
| 1-1/2 x 3/4 | 3-1/2 | 2262-144 | 2263-144 | 2264-144 | 75.10 |
| 2 x 3/4 | 3-1/2 | 2262-160 | 2263-176 | 2264-176 | 167.80 |
| 8 PIECE SET | | 2262-200 | 2263-200 | 2264-200 | $155.65 |

100°, 110° &120° Price On Application

### 8 Piece Set

8 piece set includes one each:

1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8" & 1" in wood stand.

## Six Flute Countersinks
### High Speed Steel

Pittsburg® ALLEGHANY

### 5 Piece Set

5 piece set includes one each:

1/4", 3/8", 1/2", 3/4" & 1" in wood stand.

[3]

| DIA. x SK DIA. | OVERALL LENGTH | 60° ORDER NO. | 82° ORDER NO. | 90° ORDER NO. | 100° ORDER NO. | 110° ORDER NO. | 120° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/16 x 3/16 | 1-1/2 | 2282-024 | 2283-024 | 2284-024 | 2265-024† | 2266-024† | 2267-024† | $ 4.15 |
| 1/4 x 3/16 | 1-1/2 | – | – | – | 2265-028† | 2266-028† | 2267-028† | 4.50 |
| 1/4 x 1/4 | 1-1/2 | 2282-028 | 2283-028 | 2284-028 | – | 2266-032† | 2267-032† | 4.50 |
| 5/16 x 1/4 | 1-3/4 | 2282-036 | 2283-036 | 2284-036 | – | 2266-036† | – | 5.25 |
| 3/8 x 1/4 | 1-3/4 | 2282-040 | 2283-040 | 2284-040 | – | 2266-040† | – | 5.80 |
| 1/2 x 1/4 | 2 | 2282-048 | 2283-048 | 2284-048 | – | 2266-048† | 2267-048† | 7.55 |
| 1/2 x 3/8 | 2 | 2282-056 | 2283-056 | 2284-056 | 2265-056† | 2266-056† | – | 7.55 |
| 5/8 x 3/8 | 2-1/2 | 2282-065 | 2283-065 | 2284-065 | 2265-064† | 2266-064† | 2267-064† | 10.75 |
| 5/8 x 1/2 | 2-1/2 | 2282-064 | 2283-064 | 2284-064 | – | – | – | 10.75 |
| 3/4 x 1/2 | 2-3/4 | 2282-080 | 2283-080 | 2284-080 | – | 2266-080† | 2267-080† | 14.20 |
| 7/8 x 1/2 | 2-3/4 | 2282-088 | 2283-088 | 2284-088 | 2265-088† | 2266-088† | 2267-088† | 19.50 |
| 1 x 1/2 | 2-3/4 | 2282-096 | 2283-096 | 2284-096 | – | 2266-096† | 2267-096† | 22.55 |
| 1-1/4 x 3/4 | 3-1/2 | 2282-128 | 2283-128 | 2284-128 | – | – | 2267-128† | 32.95 |
| 1-1/2 x 3/4 | 3-1/2 | 2282-144 | 2283-144 | 2284-144 | – | – | – | 45.10 |
| 1-3/4 x 3/4 | 3-1/2 | 2282-150 | 2283-150 | 2284-150 | – | – | – | 65.05 |
| 1-3/4 x 1 | 3-1/2 | 2282-152† | – | 2284-158† | – | – | – | 65.05 |
| 2 x 3/4 | 3-1/2 | 2282-160 | 2283-176 | 2284-176 | – | – | – | 71.10 |
| 5 PIECE SET | | 2282-000 | 2283-000 | 2284-000 | – | – | – | $60.10 |

† Limited Quantities

## 6-Flute Chatterless™ Double End Countersinks
### High Speed Steel

[2]

CENTERLINE ANGLE
30° 41° 45°
INCLUDED ANGLE
60° 82° 90°

Severance

| ORDER NO. | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|
| 6802-670 | 6802-685 | 6802-700 | CK-1/8-DE | 1/8" | 1-1/2" | 1-1/2" | $16.85 |
| 6802-671 | 6802-686 | 6802-701 | CK-3/16-DE | 3/16" | 1-7/8" | 1-7/8" | 17.84 |
| 6802-672 | 6802-687 | 6802-702 | CK-1/4-DE | 1/4" | 2" | 2" | 18.23 |
| 6802-673 | 6802-688 | 6802-703 | CK-5/16-DE | 5/16" | 2-1/8" | 2-1/8" | 20.82 |
| 6802-674 | 6802-689 | 6802-704 | CK-3/8-DE | 3/8" | 2-1/2" | 2-1/2" | 23.19 |
| 6802-675 | 6802-690 | 6802-705 | CK-1/2-DE | 1/2" | 3" | 3" | 28.75 |
| 6802-676 | 6802-691 | 6802-706 | CK-5/8-DE | 5/8" | 3-1/4" | 3-1/4" | 41.04 |
| 6802-677 | 6802-692 | 6802-707 | CK-3/4-DE | 3/4" | 3-1/2" | 3-1/2" | 60.65 |

* 60°Included Angle Priced sightly higher

## 6-Flute Chatterless™ NCK™ Precision Countersinks
### High Speed Steel

[2]

CENTERLINE ANGLE
30° 41° 45°
INCLUDED ANGLE
60° 82° 90°

Severance

| ORDER NO. | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | +.001- -.000 | SHANK DIA. | OVERALL LENGTH | NOSE DIA. SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|---|
| 6802-970 | – | – | CNCK 1/4 | 1/4" | .078 | 3/16" | 1-1/2" | 3/4" | $14.30 |
| – | 6802-980 | 6802-990 | CNC-K 1/4 | 1/4" | .046 | 3/16" | 1-1/2" | 3/4" | 14.03 |
| 6802-971 | – | – | CNC-K 3/8 | 3/8" | .125 | 1/4" | 1-3/4" | 7/8" | 19.46 |
| – | 6802-981 | 6802-991 | CNC-K 3/8 | 3/8" | .078 | 1/4" | 1-3/4" | 7/8" | 19.11 |
| 6802-972 | – | – | CNC-K 1/2 | 1/2" | .156 | 3/8" | 2-1/8" | 1-1/8" | 24.81 |
| – | 6802-982 | 6802-992 | CNC-K 1/2 | 1/2" | .109 | 3/8" | 2-1/8" | 1-1/8" | 24.34 |
| 6802-973 | – | – | CNC-K 5/8 | 5/8" | .023 | 3/8" | 2-3/8" | 1-1/8" | 35.32 |
| – | 6802-983 | 6802-993 | CNC-K 5/8 | 5/8" | .125 | 3/8" | 2-3/8" | 1-1/8" | 34.65 |
| 6802-974 | – | – | CNC-K 3/4 | 3/4" | .250 | 1/2" | 2-11/16" | 1-5/16" | 47.37 |
| – | 6802-984 | 6802-994 | CNC-K 3/4 | 3/4" | .156 | 1/2" | 2-11/16" | 1-5/16" | 46.46 |
| 6802-975 | – | – | CNC-K 7/8 | 7/8" | .281 | 1/2" | 2-13/16" | 1-5/16" | 59.59 |
| – | 6802-985 | 6802-995 | CNC-K 7/8 | 7/8" | .172 | 1/2" | 2-13/16" | 1-5/16" | 58.47 |
| 6802-976 | – | – | CNC-K 1 | 1" | .328 | 1/2" | 2-13/16" | 1-5/16" | 72.86 |
| – | 6802-986 | 6802-996 | CNC-K 1 | 1" | .203 | 1/2" | 2-13/16" | 1-5/16" | 71.49 |

## 6-Flute Chatterless™
### High Speed Steel

[2]

CENTERLINE ANGLE
30° 41° 45°
INCLUDED ANGLE
60° 82° 90°
HIGH SPEED STEEL

Severance

| ORDER NO. | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | SHANK DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| 6802-370 | 6802-390 | 6802-410 | CK-1/8 | 1/8" | 1/8" | 1-5/8" | 1-5/8" | $11.66 |
| 6802-371 | 6802-391 | 6802-411 | CK-3/16 | 3/16" | 3/16" | 1-1/2" | 1-1/2" | 12.37 |
| 6802-372 | 6802-392 | 6802-412 | CK-1/4 | 1/4" | 3/16" | 1-1/2" | 3/4" | 12.41 |
| 6802-373 | 6802-393 | 6802-413 | CK-5/16 | 5/16" | 1/4" | 1-3/4" | 7/8" | 14.47 |
| 6802-374 | 6802-394 | 6802-414 | CK-3/8 | 3/8" | 1/4" | 1-3/4" | 7/8" | 16.88 |
| 6802-375 | 6802-395 | 6802-415 | CK-1/2 | 1/2" | 3/8" | 2-1/8" | 1-1/8" | 21.52 |
| 6802-376 | 6802-396 | 6802-416 | CK-1/2-1/4 | 1/2" | 1/4" | 2-1/8" | 1-1/8" | 21.52 |
| 6802-377 | 6802-397 | 6802-417 | CK-5/8 | 5/8" | 3/8" | 2-3/8" | 1-1/8" | 30.66 |
| 6802-378 | 6802-398 | 6802-418 | CK-5/8-1/4 | 5/8" | 1/4" | 2-3/8" | 1-1/8" | 30.66 |
| 6802-379 | 6802-399 | 6802-419 | CK-3/4 | 3/4" | 1/2" | 2-11/16" | 1-5/16" | 41.17 |
| 6802-380 | 6802-400 | 6802-420 | CK-7/8 | 7/8" | 1/2" | 2-13/16" | 1-5/16" | 51.85 |
| 6802-381 | 6802-401 | 6802-421 | CK-1 | 1" | 1/2" | 2-13/16" | 1-5/16" | 63.40 |
| 6802-382 | 6802-402 | 6802-422 | CK-1-1/4 | 1-1/4" | 3/4" | 3-3/8" | 1-5/8" | 91.65 |
| 6802-383 | 6802-403 | 6802-423 | CK-1-1/2 | 1-1/2" | 3/4" | 3-1/2" | 1-5/8" | 125.92 |
| 6802-384 | 6802-404 | 6802-424 | CK-1-3/4 | 1-3/4" | 1" | 4-1/4" | 2-1/8" | 151.42 |
| 6802-385 | 6802-405 | 6802-425 | CK-2 | 2" | 1" | 4-3/8" | 2-1/8" | 193.63 |
| 6802-386 | 6802-406 | 6802-426 | CK-2-1/2 | 2-1/2" | 1" | 4-3/4" | 2-1/8" | 329.53 |
| 6802-387 | 6802-407 | 6802-427 | CK-3 | 3" | 1" | 5" | 2-1/8" | 494.55 |

* 60°Included Angle Priced sightly higher

# Countersinks – Solid Carbide

## Solid Carbide Single Flute [1]

MADE IN USA

| DIA. OF BODY | DIA. OF SHANK | OVERALL LENGTH | 60° ORDER NO. | 60° PRICE EACH | 82° ORDER NO. | 82° PRICE EACH | 90° ORDER NO. | 90° PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 1/4 | 2 | 2964-332 | $ 10.05 | 2964-032 | $ 10.05 | 2964-632 | $ 10.05 |
| 3/8 | 1/4 | 2-1/2 | 2964-340 | 16.85 | 2964-040 | 16.85 | 2964-640 | 16.85 |
| 1/2 | 1/4 | 2-1/2 | 2964-348 | 23.30 | 2964-048 | 23.30 | 2964-648 | 23.30 |
| 5/8 | 3/8 | 2-3/4 | 2964-372 | 31.90 | 2964-072 | 31.90 | 2964-672 | 31.90 |
| 3/4 | 1/2 | 3 | 2964-381 | 48.45 | 2964-081 | 48.45 | 2964-681 | 48.45 |
| 1 | 1/2 | 3 | 2964-396 | 70.00 | 2964-096 | 70.00 | 2964-696 | 70.00 |
| 1-1/4 | 3/4 | 3-1/4 | 2964-412 | 129.60 | 2964-112 | 129.60 | 2964-712 | 129.60 |
| 5 Pc. Set - 1/4, 3/8, 1/2, 3/4, 1” | | | 2964-500 | 241.25 | 2964-200 | 241.25 | 2964-800 | 241.25 |

## Solid Carbide Six Chatterless Flutes [1]

MADE IN USA

| DIA. OF BODY | DIA. OF SHANK | OVERALL LENGTH | 60° ORDER NO. | 60° PRICE EACH | 82° ORDER NO. | 82° PRICE EACH | 90° ORDER NO. | 90° PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/16” | 3/16” | 2” | 2965-324 | $ 8.60 | 2965-024 | $ 8.60 | 2965-624 | $ 8.60 |
| 1/4” | 1/4” | 2” | 2965-332 | 10.25 | 2965-032 | 10.25 | 2965-632 | 10.25 |
| 3/8” | 1/4” | 2-1/2” | 2965-340 | 16.05 | 2965-040 | 16.05 | 2965-640 | 16.05 |
| 1/2” | 1/4” | 2-1/2” | 2965-356 | 21.95 | 2965-056 | 21.95 | 2965-656 | 21.95 |
| 5/8” | 3/8” | 2-3/4” | 2965-372 | 31.00 | 2965-072 | 31.00 | 2965-672 | 31.00 |
| 3/4” | 1/2” | 3” | 2965-381 | 45.40 | 2965-081 | 45.40 | 2965-681 | 45.40 |
| 1” | 1/2” | 3” | 2965-396 | 70.00 | 2965-096 | 70.00 | 2965-696 | 70.00 |
| 1-1/4” | 3/4” | 3-1/4” | 2965-412 | 156.50 | 2965-112 | 156.50 | 2965-712 | 156.50 |
| 1-1/2” | 3/4” | 3-1/2” | 2965-444 | 224.45 | 2965-144 | 224.45 | 2965-744 | 224.45 |
| 5 Pc. Set - 1/4, 3/8, 1/2, 3/4, 1” | | | 2965-500 | 242.70 | 2965-200 | 242.70 | 2965-800 | 242.70 |

## 6-Flute Chatterless™ CNC-K™ Precision Countersinks

Designed specifically for use in NC, CNC and preset machine tools, these precision countersinks feature “chatterless” tooth geometry. Tight tolerances on angles, diameters and lengths assure setting accuracy. Available in 30°, 41°, 45°, 50°, 55° and 60° centerline angles. Precision countersinks are identified by their notched shanks.

### Carbide

[2]

| CENTERLINE ANGLE 30° | CENTERLINE ANGLE 41° | CENTERLINE ANGLE 45° | INCLUDED ANGLE 60° | INCLUDED ANGLE 82° | INCLUDED ANGLE 90° | SEVERANCE NAME | NOSE DIA. BODY DIA. | +.001-.000 | SHANK DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ORDER NO. | ORDER NO. | ORDER NO. | ORDER NO. | ORDER NO. | ORDER NO. | | | | | | | |
| 6803-120 | – | – | – | – | – | CNCK 1/4-W | 1/4” | .078 | 3/16” | 1-1/2” | 3/4” | $25.53 |
| – | 6803-130 | 6803-140 | – | – | – | CNCK 1/4-W | 1/4” | .046 | 3/16” | 1-1/2” | 3/4” | 25.05 |
| 6803-121 | – | – | – | – | – | CNCK 3/8-W | 3/8” | .125 | 1/4” | 1-3/4” | 7/8” | 49.69 |
| – | 6803-131 | 6803-141 | – | – | – | CNCK 3/8-W | 3/8” | .078 | 1/4” | 1-3/4” | 7/8” | 48.76 |
| 6803-122 | – | – | – | – | – | CNCK 1/2-W | 1/2” | .156 | 3/8” | 2-1/4” | 1-1/8” | 68.83 |
| – | 6803-132 | 6803-142 | – | – | – | CNCK 1/2-W | 1/2” | .109 | 3/8” | 2-1/4” | 1-1/8” | 67.53 |
| 6803-123 | – | – | – | – | – | CNCK 5/8-W | 5/8” | .023 | 3/8” | 2-3/8” | 1-1/8” | 89.80 |
| – | 6803-133 | 6803-143 | – | – | – | CNCK 5/8-W | 5/8” | .125 | 3/8” | 2-3/8” | 1-1/8” | 88.12 |
| 6803-124 | – | – | – | – | – | CNCK 3/4-W | 3/4” | .250 | 1/2” | 2-11/16” | 1-5/16” | 128.26 |
| – | 6803-134 | 6803-144 | – | – | – | CNCK 3/4-W | 3/4” | .156 | 1/2” | 2-11/16” | 1-5/16” | 125.83 |
| 6803-125 | – | – | – | – | – | CNCK 7/8-W | 7/8” | .281 | 1/2” | 2-13/16” | 1-5/16” | 191.78 |
| – | 6803-135 | 6803-145 | – | – | – | CNCK 7/8-W | 7/8” | .172 | 1/2” | 2-13/16” | 1-5/16” | 188.16 |
| 6803-126 | – | – | – | – | – | CNCK 1-W | 1” | .328 | 1/2” | 2-13/16” | 1-5/16” | 208.63 |
| – | 6803-136 | 6803-146 | – | – | – | CNCK 1-W | 1” | .203 | 1/2” | 2-13/16” | 1-5/16” | 204.69 |

## 6-Flute Chatterless™ Double End Countersinks

### Carbide

[2]

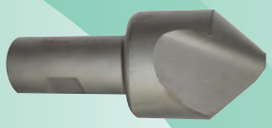
| CENTERLINE ANGLE 30° | CENTERLINE ANGLE 41° | CENTERLINE ANGLE 45° | INCLUDED ANGLE 60° | INCLUDED ANGLE 82° | INCLUDED ANGLE 90° | SEVERANCE NAME | BODY DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|---|---|
| ORDER NO.* | ORDER NO. | ORDER NO. | | | | | | | | |
| 6802-820 | 6802-835 | 6802-850 | | | | CK-1/8-DE-W | 1/8” | 1-1/2” | 1-1/2” | $24.84 |
| 6802-821 | 6802-836 | 6802-851 | | | | CK-3/16-DE-W | 3/16” | 2” | 2” | 31.84 |
| 6802-822 | 6802-837 | 6802-852 | | | | CK-1/4-DE-W | 1/4” | 2” | 2” | 38.31 |
| 6802-823 | 6802-838 | 6802-853 | | | | CK-5/16-DE-W | 5/16” | 2-1/8” | 2-1/8” | 62.96 |
| 6802-824 | 6802-839 | 6802-854 | | | | CK-3/8-DE-W | 3/8” | 2-1/2” | 2-1/2” | 74.69 |
| 6802-825 | 6802-840 | 6802-855 | | | | CK-1/2-DE-W | 1/2” | 3” | 3” | 103.53 |
| 6802-826 | 6802-841 | 6802-856 | | | | CK-5/8-DE-W | 5/8” | 3-1/4” | 3-1/4” | 135.01 |
| 6802-827 | 6802-842 | 6802-857 | | | | CK-3/4-DE-W | 3/4” | 3-1/2” | 3-1/2” | 192.73 |

* 60°Included Angle Priced sightly higher

# Countersinks – Carbide

Severance

## Single Flute Countersinks – Carbide



2

| CENTERLINE ANGLE 30° | 41° | 45° | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 60° | 82° | 90° | | | | | | | |
| ORDER NO.* | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | NOSE TYPE | SHANK DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
| 6800-420 | 6800-440 | 6800-460 | 1/8-SF-W | 1/8" | P | 1/8" | 1-5/8" | 1-1/2" | $ 15.13 |
| 6800-421 | 6800-441 | 6800-461 | 3/16-SF-W | 3/16" | P | 3/16" | 1-1/2" | 1-1/2" | 19.06 |
| 6800-422 | 6800-442 | 6800-462 | 1/4-SF-W | 1/4" | P | 3/16" | 1-1/2" | 1-1/16" | 21.76 |
| 6800-423 | 6800-443 | 6800-463 | 5/16-SF-W | 5/16" | P | 1/4" | 1-3/4" | 1-5/8" | 35.63 |
| 6800-424 | 6800-444 | 6800-464 | 3/8-SF-W | 3/8" | P | 1/4" | 1-3/4" | 1-7/16" | 42.35 |
| 6800-425 | 6800-445 | 6800-465 | 1/2-SF-W | 1/2" | P | 3/8" | 2-1/8" | 1-3/8" | 58.75 |
| 6800-426 | 6800-446 | 6800-466 | 1/2-1/4-SF-W | 1/2" | P | 1/4" | 2-1/8" | 1-3/8" | 58.75 |
| 6800-427 | 6800-447 | 6800-467 | 5/8-SF-W | 5/8" | P | 3/8" | 2-3/8" | 1-5/16" | 76.65 |
| 6800-428 | 6800-448 | 6800-468 | 5/8-1/4-SF-W | 5/8" | P | 1/4" | 2-3/8" | 1-21/64" | 76.65 |
| 6800-429 | 6800-449 | 6800-469 | 3/4-SF-W | 3/4" | P | 1/2" | 2-11/16" | 1-5/16" | 109.44 |
| – | 6800-450 | 6800-470 | 7/8-SF-W | 7/8" | P | 1/2" | 2-13/16" | 1-5/16" | 163.54 |
| 6800-431 | 6800-451 | 6800-471 | 1-SF-W | 1" | P | 1/2" | 2-13/16" | 1-5/16" | 178.02 |
| 6800-432 | 6800-452 | 6800-472 | 1-1/4-SF-W | 1-1/4" | F | 3/4" | 3-3/8" | 1-5/8" | 220.34 |
| – | 6800-453 | 6800-473 | 1-1/2-SF-W | 1-1/2" | F | 3/4" | 3-1/2" | 1-5/8" | 262.26 |
| – | 6800-455 | – | 2-SF-W | 2" | F | 1" | 4-3/8" | 2-1/8" | 363.91 |

* 60°Included Angle Priced sightly higher

## Double Ended Countersinks – Carbide

2

| CENTERLINE ANGLE 30° | 41° | 45° | | | | | |
|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 60° | 82° | 90° | | | | | |
| ORDER NO.* | ORDER NO. | ORDER NO. | SEVERANCE NAME | C'SINK DIA. | OVERALL LENGTH | SHANK LENGTH | LIST PRICE |
| 6801-650 | 6801-670 | 6801-680 | 3N1-1/8-DE-W | 1/8" | 1-1/2" | 1-1/2" | $28.76 |
| 6801-651 | 6801-671 | 6801-681 | 3N1-3/16-DE-W | 3/16" | 1-7/8" | 1-7/8" | 36.88 |
| 6801-652 | 6801-672 | 6801-682 | 3N1-1/4-DE-W | 1/4" | 2" | 2" | 44.47 |
| 6801-653 | 6801-673 | 6801-683 | 3N1-5/16-DE-W | 5/16" | 2-1/8" | 2-1/8" | 73.08 |
| 6801-654 | 6801-674 | 6801-684 | 3N1-3/8-DE-W | 3/8" | 2-1/2" | 2-1/2" | 86.61 |
| 6801-655 | 6801-675 | 6801-685 | 3N1-1/2-DE-W | 1/2" | 3" | 3" | 120.10 |
| 6801-656 | 6801-676 | 6801-686 | 3N1-5/8-DE-W | 5/8" | 3-1/4" | 3-1/4" | 156.62 |
| – | – | 6801-687 | 3N1-3/4-DE-W | 3/4" | 3-1/2" | 3-1/2" | 223.64 |

* 60°Included Angle Priced sightly higher

## 6 Flute Chatterless™ Countersinks®

The flutes of Severance 6-flute countersinks are designed with staggered cutting angles to eliminate the harmonics that cause chatter in conventional tools.

### Carbide

2

| CENTERLINE ANGLE 30° | 41° | 45° | | | | | | |
|---|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 60° | 82° | 90° | | | | | | |
| ORDER NO.* | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | SHNK DIA. | OVERALL LENGTH | SHNK LGTH | LIST PRICE |
| 6802-520 | 6802-540 | 6802-560 | CK-1/8-W | 1/8" | 1/8" | 1-1/2" | 1-5/8" | $15.41 |
| 6802-521 | 6802-541 | 6802-561 | CK-3/16-W | 3/16" | 3/16" | 1-1/2" | 1-1/2" | 19.42 |
| 6802-522 | 6802-542 | 6802-562 | CK-1/4-W | 1/4" | 3/16" | 1-1/2" | 3/4" | 22.18 |
| 6802-523 | 6802-543 | 6802-563 | CK-5/16-W | 5/16" | 1/4" | 2-1/4" | 7/8" | 36.32 |
| 6802-524 | 6802-544 | 6802-564 | CK-3/8-W | 3/8" | 1/4" | 2-1/4" | 7/8" | 43.17 |
| 6802-525 | 6802-545 | 6802-565 | CK-1/2-W | 1/2" | 3/8" | 2-1/4" | 1-1/8" | 59.88 |
| 6802-526 | 6802-546 | 6802-566 | CK-1/2-1/4-W | 1/2" | 1/4" | 2-1/4" | 1-1/8" | 59.88 |
| 6802-527 | 6802-547 | 6802-567 | CK-5/8-W | 5/8" | 3/8" | 2-3/8" | 1-1/8" | 78.11 |
| 6802-528 | 6802-548 | 6802-568 | CK-5/8-1/4-W | 5/8" | 1/4" | 2-3/8" | 1-1/8" | 78.11 |
| 6802-529 | 6802-549 | 6802-569 | CK-3/4-W | 3/4" | 1/2" | 2-11/16" | 1-5/16" | 111.53 |
| 6802-530 | 6802-550 | 6802-570 | CK-7/8-W | 7/8" | 1/2" | 2-13/16" | 1-5/16" | 166.69 |
| 6802-531 | 6802-551 | 6802-571 | CK-1-W | 1" | 1/2" | 2-13/16" | 1-5/16" | 181.44 |
| 6802-532 | 6802-552 | 6802-572 | CK-1-1/4-W | 1-1/4" | 3/4" | 3-3/8" | 1-5/8" | 224.59 |
| 6802-533 | 6802-553 | 6802-573 | CK-1-1/2-W | 1-1/2" | 3/4" | 3-1/2" | 1-5/8" | 287.29 |
| 6802-534 | 6802-554 | 6802-574 | CK-1-3/4-W | 1-3/4" | 1" | 4-1/4" | 2-1/8" | 349.95 |
| 6802-535 | 6802-555 | 6802-575 | CK-2-W | 2" | 1" | 4-3/8" | 2-1/8" | 370.90 |

* 60°Included Angle Priced sightly higher

## 4 Flute Chatter Free™ Econosinks®

### Carbide

2

| CENTERLINE ANGLE 30° | 41° | 45° | | | | | | |
|---|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 60° | 82° | 90° | | | | | | |
| ORDER NO.* | ORDER NO. | ORDER NO. | SEVERANCE NAME | BODY DIA. | SHNK DIA. | OVERALL LENGTH | SHNK LGTH | LIST PRICE |
| 6801-120 | 6801-135 | 6801-150 | ES-1/8-W | 1/8" | 1/8" | 1-1/2" | 1-1/2" | $15.41 |
| 6801-121 | 6801-136 | 6801-151 | ES-1/4-W | 1/4" | 3/16" | 1-1/2" | 1-1/16" | 22.18 |
| 6801-122 | 6801-137 | 6801-152 | ES-3/8-W | 3/8" | 1/4" | 2-1/4" | 1-7/16" | 43.17 |
| 6801-125 | 6801-140 | 6801-155 | ES-1/2-W | 1/2" | 3/8" | 2-1/4" | 1-3/8" | 59.88 |
| 6801-126 | 6801-141 | 6801-156 | ES-5/8-W | 5/8" | 3/8" | 2-3/8" | 1-5/16" | 78.11 |
| 6801-127 | 6801-142 | 6801-157 | ES-3/4-W | 3/4" | 1/2" | 2-11/16" | 1-5/16" | 111.53 |
| 6801-128 | 6801-143 | 6801-158 | ES-1-W | 1" | 1/2" | 2-13/16" | 1-5/16" | 181.44 |

* 60°Included Angle Priced sightly higher

# Countersink and Deburring Tools

## Pittsburg® ALLEGHANY Pilotless Type – High Speed Steel

- Premium High Speed Steel
- Tool designed to prevent chatter
- Easily resharpened
- Small grinding wheel in the cross hole

[3]

| SIZE | RANGE OF HOLE DIA. WHICH CAN BE CUT | | SHANK DIA. | 60° ORDER NO. | PRICE EACH | 82° ORDER NO. | PRICE EACH | 90° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 0 DOUBLE END | 1/16 | 15/64 | 1/4 | 2238-000 | $ 5.55 | 2238-010 | $ 5.55 | 2238-020 | $ 5.55 |
| 1 SINGLE END | 5/32 | 13/32 | 1/4 | 2238-001 | 6.00 | 2238-011 | 6.00 | 2238-021 | 6.00 |
| 2 SINGLE END | 3/16 | 17/32 | 1/4 | 2238-002 | 6.85 | 2238-012 | 6.85 | 2238-022 | 6.85 |
| 3 SINGLE END | 5/16 | 25/32 | 1/2 | 2238-003 | 11.35 | 2238-013 | 11.35 | 2238-023 | 11.35 |
| 4 SINGLE END | 9/16 | 1-1/16 | 1/2 | 2238-004 | 16.95 | 2238-014 | 16.95 | 2238-024 | 16.95 |
| 5 PIECE SET | 0-4, WITH WOOD STAND | | | 2238-900 | $41.30 | 2238-901 | $41.30 | 2238-902 | $41.30 |

## Look for ALLEGIANCE® AMERICANMADE Piloted Type – High Speed Steel

The action of a single cutting edge provides faster stock removal and prevents chatter. These tools are recommended for deburring steel and other ferrous materials. They can easily be resharpened by using the Weldon Axial Relieving Fixture or by using a small mounted grinding wheel and inserting it in the hole.

MADE IN USA

### Single Tool & 5 pc. Set– 82°

[1]

| SIZE | SCREW SIZE | RANGE OF HOLE DIAMETER WHICH CAN BE CUT SMALLEST DIA.* | TO LARGEST DIA. | PILOT LENGTH | SHANK DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 11 | 1/4 | 1/4 | 33/64 | 5/32 | 3/8 | 2861-211 | $ 8.45 |
| 12 | 1/4 | 17/64 | 33/64 | 5/32 | 3/8 | 2861-212 | 8.45 |
| 13 | 5/16 | 5/16 | 41/64 | 5/32 | 3/8 | 2861-213 | 10.10 |
| 14 | 5/16 | 21/64 | 41/64 | 5/32 | 3/8 | 2861-214 | 10.10 |
| 15 | 3/8 | 3/8 | 49/64 | 5/32 | 1/2 | 2861-215 | 13.40 |
| 16 | 3/8 | 25/64 | 49/64 | 5/32 | 1/2 | 2861-216 | 13.40 |
| 17 | 7/16 | 7/16 | 53/64 | 7/32 | 1/2 | 2861-217 | 16.65 |
| 18 | 7/16 | 29/64 | 53/64 | 7/32 | 1/2 | 2861-218 | 16.65 |
| 19 | 1/2 | 1/2 | 15/16 | 1/4 | 1/2 | 2861-219 | 17.30 |
| 20 | 1/2 | 33/64 | 15/16 | 1/4 | 1/2 | 2861-220 | 17.30 |
| 5 PC. SET | 82º Pt. Angle | Contains: (1 each) 11, 13, 15,17, & 19 | | | | 2861-285 | 65.95 |

* Pilot Diameter

## KEO Zero Flute Countersink & Deburring Tools – M35 Cobalt, Straight Shank, Chatterless Cutting Action

FEATURES:
- Micro-smooth CNC precision for clean, smooth cutting without smearing
- M35 Cobalt: 6% Tungsten, 5% Moly, 5% Cobalt – for long tool lives in all types of materials
- Cam Relieved for totally chatter-free cuts
- Through-Hole Design that is easy to resharpen using a small grinding wheel in the cross-hole.

[3]

| DEGREE | HEAD DIAM. | DIA. OF CUT MIN. | DIA. OF CUT MAX | SHANK DIAM. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 60º Angle | 5/16 | 7/64 | 9/32 | 1/4 | 1-7/8 | 2239-001 | $ 13.15 |
| | 3/8 | 5/32 | 11/32 | 1/4 | 1-7/8 | 2239-002 | 15.02 |
| | 1/2 | 11/64 | 29/64 | 5/16 | 2 | 2239-003 | 17.99 |
| | 5/8 | 3/16 | 37/64 | 3/8 | 2-1/2 | 2239-004 | 20.65 |
| | 3/4 | 1/4 | 45/64 | 3/8 | 2-3/4 | 2239-005 | 31.44 |
| | 1 | 19/64 | 27/32 | 3/8 | 3 | 2239-006 | 39.11 |
| | 1-1/4 | 27/64 | 1-1/32 | 1/2 | 3-1/2 | 2239-007 | 94.76 |
| | 4 pc. set | see above | | 5/16, 3/8, 1/2, 5/8 | | 2239-052 | 71.06 |
| | 5 pc. set | see above | | 5/16, 3/8, 1/2, 3/4, 1 | | 2239-054 | 121.03 |
| 82º Angle | 5/16 | 3/32 | 9/32 | 1/4 | 1-5/8 | 2239-011 | $ 13.15 |
| | 3/8 | 9/64 | 11/32 | 1/4 | 1-3/4 | 2239-012 | 15.02 |
| | 1/2 | 5/32 | 29/64 | 5/16 | 1-3/4 | 2239-013 | 17.99 |
| | 5/8 | 11/64 | 37/64 | 3/8 | 2-1/8 | 2239-014 | 20.65 |
| | 3/4 | 13/64 | 45/64 | 3/8 | 2-3/8 | 2239-015 | 31.44 |
| | 1 | 19/64 | 59/64 | 3/8 | 2-5/8 | 2239-016 | 39.11 |
| | 1-1/4 | 23/64 | 1-3/32 | 1/2 | 3-1/8 | 2239-017 | 94.76 |
| | 4 pc. set | see above | | 5/16, 3/8, 1/2, 5/8 | | 2239-056 | 71.06 |
| | 5 pc. set | see above | | 5/16, 3/8, 1/2, 3/4, 1 | | 2239-058 | 121.03 |

[3]

| DEGREE | HEAD DIAM. | DIA. OF CUT MIN. | DIA. OF CUT MAX | SHANK DIAM. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 90º Angle | 5/16 | 3/32 | 9/32 | 1/4 | 1-5/8 | 2239-021 | $ 13.15 |
| | 3/8 | 9/64 | 11/32 | 1/4 | 1-3/4 | 2239-022 | 15.02 |
| | 1/2 | 5/32 | 29/64 | 5/16 | 1-3/4 | 2239-023 | 17.99 |
| | 5/8 | 11/64 | 37/64 | 3/8 | 2-1/8 | 2239-024 | 20.65 |
| | 3/4 | 13/64 | 45/64 | 3/8 | 2-3/8 | 2239-025 | 31.44 |
| | 1 | 19/64 | 59/64 | 3/8 | 2-5/8 | 2239-026 | 39.11 |
| | 1-1/4 | 23/64 | 1-3/32 | 1/2 | 3-1/8 | 2239-027 | 94.76 |
| | 4 pc. set | see above | | 5/16, 3/8, 1/2, 5/8 | | 2239-060 | 71.06 |
| | 5 pc. set | see above | | 5/16, 3/8, 1/2, 3/4, 1 | | 2239-062 | 121.03 |
| 100º Angle | 5/16 | 3/32 | 9/32 | 1/4 | 1-5/8 | 2239-031 | $ 13.15 |
| | 3/8 | 9/64 | 11/32 | 1/4 | 1-3/4 | 2239-032 | 15.02 |
| | 1/2 | 5/32 | 29/64 | 5/16 | 1-3/4 | 2239-033 | 17.99 |
| | 5/8 | 11/64 | 37/64 | 3/8 | 2-1/8 | 2239-034 | 20.65 |
| | 3/4 | 13/64 | 45/64 | 3/8 | 2-3/8 | 2239-035 | 31.44 |
| | 1 | 19/64 | 59/64 | 3/8 | 2-5/8 | 2239-036 | 39.11 |
| | 1-1/4 | 23/64 | 1-1/8 | 1/2 | 3-1/8 | 2239-037 | 94.76 |
| | 4 pc. set | see above | | 5/16, 3/8, 1/2, 5/8 | | 2239-064 | 71.06 |
| | 5 pc. set | see above | | 5/16, 3/8, 1/2, 3/4, 1 | | 2239-066 | 121.03 |

## Micro-Stop Countersink Units

The Severance Micro-Stop Countersink system allows depth of cut to be adjusted (without tools, just a twist of the wrist) in increments of 0.001". The tool holders also provide a base to establish perpendicularity of the cutter to the work surface. Oversize bases can be supplied on special order, and bases can be modified to accommodate special clearance or contour problems. Non-marring nylon feet are available to protect workpiece finish, if necessary. The Micro-Stop Countersink system can be supplied with a wide variety of cutting tools for use wherever depth control is important. **See NEW high speed roller bearing units RSC-24 & RSC-36.**

All units come complete with a lock nut to maintain "preset" depth dimensions.

*New Items*

| ORDER NO. | SEVERANCE TOOL NAME | RECOMMENDED MAX. CUTTER DIA. | UNIT SHANK DIA. | STANDARD OUTSIDE DIA. | OVERALL LENGTH RETRACTED | OVERALL LENGTH EXTENDED | LENGTH OF STROKE | INTERNAL THREAD | LIST PRICE |
|---|---|---|---|---|---|---|---|---|---|
| 6821-220 | SC-14 | 7/16" | 1/4" | 7/8" | 3.243 | 3.544 | .180 | 1/4"-28 | $ 64.76 |
| 6821-221 | SC-24 | 3/4" | 1/4" | 1-1/16" | 3.265 | 3.513 | .180 | 1/4"-28 | 88.43 |
| 6821-227 | RSC-24 | 3/4" | 1/4" | 1-1/16" | 3.265 | 3.513 | .180 | 1/4"-28 | 100.21 |
| 6821-222 | SC-36 | 3/4" | 3/8" | 1-1/16" | 3.310 | 3.521 | .180 | 3/8"-24 | 103.64 |
| 6821-228 | RSC-36 | 3/4" | 3/8" | 1-1/16" | 3.310 | 3.521 | .180 | 3/8"-24 | 115.42 |
| 6821-223 | SC-47 | 1-1/4" | 1/2" | 1-3/4" | 4.270 | 4.715 | .280 | 7/16"-20 | 140.49 |
| 6821-224 | SC-57 | 1-1/4" | 3/8" | 1-3/4" | 4.700 | 5.185 | .280 | 3/8"-24 | 129.57 |

SC-14 – Light Duty, SC-24 – Standard Duty, SC-36 – Heavy Duty, SC-47 – Heavy Duty

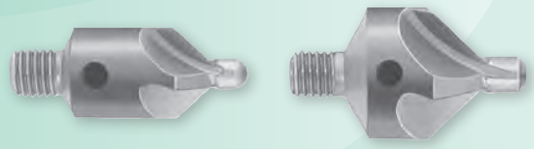
### Non-Marking Nylon Foot

| PART NO. | SC-14-11 | SC-24-11 | SC-36-11 | SC-47-11 | SC-57-11 |
|---|---|---|---|---|---|
| ORDER NO. | 6821-245 | 6821-264 | 6821-283 | 6821-302 | 6821-321 |
| LIST PRICE | $9.09 | $11.65 | $11.65 | $18.87 | $18.99 |

2

## Chatter Free® Stop Countersink Cutters–
### High Speed Steel

These items are designed specifically for use with the Severance Micro-Stop Countersink system. Angles and pilot diameters other than those listed may be specified as specials.



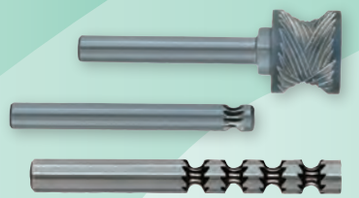
| CENTERLINE ANGLE 39° | CENTERLINE ANGLE 41° | CENTERLINE ANGLE 45° | TOOL NAME | BODY DIA. | PILOT DIA. | THREAD DIA. | OA LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 78° | INCLUDED ANGLE 82° | INCLUDED ANGLE 90° | | | | | | |
| ORDER NO. | ORDER NO. | ORDER NO. | | | | | | |
| – | 6815-485 | 6815-629 | SC-6 | 3/8" | 3/32 (.0938) | 1/4"-28 | 1-5/32" | $ 15.20 |
| 6815-341 | 6815-486 | 6815-630 | SC-6 | 3/8" | #40 (.0980) | 1/4"-28 | 1-5/32" | 15.20 |
| 6815-342 | 6815-487 | 6815-631 | SC-6 | 3/8" | 1/8 (.1250) | 1/4"-28 | 1-5/32" | 15.20 |
| – | 6815-488 | 6815-632 | SC-6 | 3/8" | #30 (.1285) | 1/4"-28 | 1-5/32" | 15.20 |
| – | 6815-489 | 6815-634 | SC-6 | 3/8" | 5/32 (.1562) | 1/4"-28 | 1-5/32" | 15.20 |
| – | 6815-490 | 6815-635 | SC-6 | 3/8" | #21 (.1590) | 1/4"-28 | 1-5/32" | 15.20 |
| 6815-347 | 6815-491 | 6815-636 | SC-6 | 3/8" | 3/16 (.1875) | 1/4"-28 | 1-5/32" | 15.20 |
| 6815-348 | 6815-492 | 6815-637 | SC-6 | 3/8" | #10 (.1935) | 1/4"-28 | 1-5/32" | 15.20 |
| – | 6815-494 | 6815-639 | SC-7 | 7/16" | 3/32 (.0938) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-495 | 6815-640 | SC-7 | 7/16" | #40 (.0980) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-496 | 6815-641 | SC-7 | 7/16" | 1/8 (.1250) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-497 | 6815-642 | SC-7 | 7/16" | #30 (.1285) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-499 | 6815-644 | SC-7 | 7/16" | 5/32 (.1562) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-500 | 6815-645 | SC-7 | 7/16" | #21 (.1590) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-501 | 6815-646 | SC-7 | 7/16" | 3/16 (.1875) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-502 | 6815-647 | SC-7 | 7/16" | #10 (.1935) | 1/4"-28 | 1-5/32" | 15.52 |
| – | 6815-504 | 6815-649 | SC-8 | 1/2" | 3/32 (.0938) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-505 | 6815-650 | SC-8 | 1/2" | #40 (.0980) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-506 | 6815-651 | SC-8 | 1/2" | 1/8 (.1250) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-507 | 6815-652 | SC-8 | 1/2" | #30 (.1285) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-508 | 6815-653 | SC-8 | 1/2" | 5/32 (.1562) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-510 | 6815-655 | SC-8 | 1/2" | #21 (.1590) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-511 | 6815-656 | SC-8 | 1/2" | 3/16 (.1875) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-512 | 6815-657 | SC-8 | 1/2" | #10 (.1935) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-513 | 6815-658 | SC-8 | 1/2" | 7/32 (.2187) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-514 | 6815-659 | SC-8 | 1/2" | 1/4 (.2500) | 1/4"-28 | 1-5/32" | 18.09 |
| – | 6815-516 | 6815-661 | SC-10 | 5/8" | 1/8 (.1250) | 1/4"-28 | 1-5/32" | 20.13 |
| 6815-373 | 6815-517 | – | SC-10 | 5/8" | #30 (.1285) | 1/4"-28 | 1-5/32" | 20.13 |
| – | 6815-518 | 6815-663 | SC-10 | 5/8" | 5/32 (.1562) | 1/4"-28 | 1-5/32" | 20.13 |
| 6815-375 | 6815-519 | – | SC-10 | 5/8" | #21 (.1590) | 1/4"-28 | 1-5/32" | 20.13 |
| – | 6815-520 | 6815-665 | SC-10 | 5/8" | 3/16 (.1875) | 1/4"-28 | 1-5/32" | 20.13 |

| CENTERLINE ANGLE 39° | CENTERLINE ANGLE 41° | CENTERLINE ANGLE 45° | TOOL NAME | BODY DIA. | PILOT DIA. | THREAD DIA. | OA LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| INCLUDED ANGLE 78° | INCLUDED ANGLE 82° | INCLUDED ANGLE 90° | | | | | | |
| ORDER NO. | ORDER NO. | ORDER NO. | | | | | | |
| – | 6815-522 | 6815-667 | SC-10 | 5/8" | #10 (.1935) | 1/4"-28 | 1-5/32" | $20.13 |
| – | 6815-523 | 6815-668 | SC-10 | 5/8" | 7/32 (.2187) | 1/4"-28 | 1-5/32" | 20.13 |
| 6815-380 | 6815-524 | 6815-669 | SC-10 | 5/8" | 1/4 (.2500) | 1/4"-28 | 1-5/32" | 20.13 |
| – | 6815-525 | 6815-670 | SC-10 | 5/8" | 5/16 (.3125) | 1/4"-28 | 1-5/32" | 20.13 |
| – | 6815-526 | 6815-671 | SC-10 | 5/8" | 3/8 (.3750) | 1/4"-28 | 1-5/32" | 20.13 |
| – | 6815-528 | 6815-673 | SC-12 | 3/4" | 5/32 (.1562) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-529 | – | SC-12 | 3/4" | #21 (.1590) | 1/4"-28 | 1-3/16" | 31.91 |
| – | – | 6815-675 | SC-12 | 3/4" | 3/16 (.1875) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-531 | 6815-676 | SC-12 | 3/4" | #10 (.1935) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-533 | – | SC-12 | 3/4" | 7/32 (.2187) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-534 | 6815-679 | SC-12 | 3/4" | 1/4 (.2500) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-535 | 6815-680 | SC-12 | 3/4" | "F" (.2570) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-536 | 6815-681 | SC-12 | 3/4" | 5/16 (.3125) | 1/4"-28 | 1-3/16" | 31.91 |
| – | 6815-537 | 6815-682 | SC-12 | 3/4" | 3/8 (.3750) | 1/4"-28 | 1-3/16" | 31.91 |
| 6815-395 | 6815-539 | 6815-684 | S3-12 | 3/4" | 5/32 (.1562) | 3/8"-24 | 1-3/16" | 31.91 |
| – | 6815-540 | 6815-685 | S3-12 | 3/4" | #21 (.1590) | 3/8"-24 | 1-3/16" | 31.91 |
| – | – | 6815-686 | S3-12 | 3/4" | 3/16 (.1875) | 3/8"-24 | 1-3/16" | 31.91 |
| – | 6815-545 | 6815-690 | S3-12 | 3/4" | 1/4 (.2500) | 3/8"-24 | 1-3/16" | 31.91 |
| – | 6815-546 | 6815-691 | S3-12 | 3/4" | "F" (.2570) | 3/8"-24 | 1-3/16" | 31.91 |
| – | 6815-547 | 6815-692 | S3-12 | 3/4" | 5/16 (.3125) | 3/8"-24 | 1-3/16" | 31.91 |
| – | 6815-548 | 6815-693 | S3-12 | 3/4" | 3/8 (.3750) | 3/8"-24 | 1-3/16" | 31.91 |
| – | 6815-551 | – | SC-20 | 1-1/4" | #10 (.1935) | 7/16"-20 | 1-3/8" | 89.25 |
| – | 6815-557 | – | SC-20 | 1-1/4" | 3/8 (.3750) | 7/16"-20 | 1-3/8" | 89.25 |
| – | 6815-558 | 6815-703 | SC-20 | 1-1/4" | 1/2 (.5000) | 7/16"-20 | 1-3/8" | 89.25 |

# Mills/Deburring Tools



## Midget Mills – Edge, Rounding, Shape "U"
### High Speed Steel



| ORDER NO. | SEVERANCE TOOL NAME | CUTTING DIA. | HEAD LENGTH | RADIUS | LIST PRICE |
|---|---|---|---|---|---|
| 6823-186 | CAU | 1/4" | 1/8" | 3/32" | $16.45 |
| 6823-187 | CBU | 1/4" | 3/16" | 3/16" | 18.42 |
| 6823-188 | CZU | 1/4" | 1/8" | 1/16" x 4PL. | 29.05 |
| 6823-189 | DBU | 5/16" | 3/16" | 3/32" | 19.44 |
| 6823-190 | EAU | 3/8" | 1/8" | 1/16" | 23.24 |
| 6823-191 | EBU | 3/8" | 3/16" | 1/8" | 23.24 |
| 6823-192 | ECU | 3/8" | 1/4" | 3/16" | 23.24 |
| 6823-193 | EDU | 3/8" | 5/16" | 1/4" | 24.41 |
| 6823-195 | GCU | 1/2" | 1/4" | 3/16" | 29.21 |
| 6823-197 | GEU | 1/2" | 3/8" | 5/16" | 30.88 |
| 6823-199 | IGU | 5/8" | 1/2" | 7/16" | 43.99 |
| 6823-202 | JGU | 3/4" | 1/2" | 3/8" | 51.14 |
| 6823-203 | JIU | 3/4" | 5/8" | 1/2" | 52.96 |
| 6823-205 | KJU | 7/8" | 3/4" | 5/8" | 59.77 |

## Di-Car Mills – Carbide

Di-Car mills are used in place of mounted grinding wheels to produce a fine finish on either soft or hard materials. They may be purchased individually or as an 8-piece Set No. 40W.

| ORDER NO. | SEVERANCE TOOL NAME | HEAD DIA.* | CUTTING LENGTH | SHAPE | EXTRA FINE TOOTH STYLE | LIST PRICE |
|---|---|---|---|---|---|---|
| 6822-150 | A-44-H-W | 1/4" | 5/8" | Cyl. flat end | Herringbone Cut | $53.74 |
| 6822-151 | A-48-D-W | 1/2" | 1" | Cyl. flat end | Double Cut | 97.11 |
| 6822-152 | B-44-H-W | 1/4" | 1/4" | Ball | Herringbone Cut | 48.78 |
| 6822-153 | C-44-D-W | 1/4" | 5/8" | Cyl. ball nose | Double Cut | 50.44 |
| 6822-154 | C-48-H-W | 1/2" | 1" | Cyl. ball nose | Herringbone Cut | 110.45 |
| 6822-155 | H-44-H-W | 1/4" | 3/8" | Taper, round nose | Herringbone Cut | 50.62 |
| 6822-156 | R-44-D-W | 1/4" | 1/2" | Tree, round nose | Double Cut | 48.78 |
| 6822-157 | R-48-H-W | 1/2" | 1" | Tree, round nose | Herringbone Cut | 105.99 |

* 1/2" tools have 1/4" alloy steel, hardened shanks; all 1/4" tools are solid carbide.

## Die Mills – Carbide

Die Mills are made with the shank and the cutting head of the same diameter. They are used extensively in template work, where the shank serves as a guide, and in other profiling operations. Die Mills may be reground many times for a long service life. When reground by Severance, a portion of the shank is reduced to match the new cutting diameter.

| ORDER NO. | SEVERANCE TOOL NAME | CUTTING DIA. | SHANK DIA. | HEAD LENGTH | FLUTE STYLE | OVERALL LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|
| 6817-260 | 4A-DIE-W | 1/8" | 1/8" | 1/2" | Double Cut | 1-1/2" | $21.68 |
| 6817-262 | AGA-DIE-W | 1/8" | 1/8" | 1/2" | Standard Cut | 1-1/2" | 17.30 |
| 6817-266 | 5GA-DIE-W | 5/32" | 3/16" | 1/2" | Standard Cut | 2" | 24.22 |
| 6817-270 | BJA-DIE-W | 3/16" | 3/16" | 3/4" | Standard Cut | 2" | 24.22 |
| 6817-272 | 8A-DIE-W | 1/4" | 1/4" | 3/4" | Double Cut | 2" | 39.58 |
| 6817-274 | CJA-DIE-W | 1/4" | 1/4" | 3/4" | Standard Cut | 2" | 31.60 |
| 6817-278 | DJA-DIE-W | 5/16" | 5/16" | 3/4" | Standard Cut | 2" | 36.44 |
| 6817-282 | ELA-DIE-W | 3/8" | 3/8" | 1" | Standard Cut | 2-1/2" | 46.04 |
| 6817-290 | GLA-DIE-W | 1/2" | 1/2" | 1" | Standard Cut | 2-1/2" | 78.57 |

## Outside Chamfering Mills – High Speed Steel

These outside chamfering mills are most efficient when used in screw machines, lathes, drill presses, or other chucking machines, or with work holding devices, although where requirements are not too exacting, may be used in a portable power tool on some materials. Chatterless teeth provide for amazing ease and speed of operation. It is recommended that guides such as V-blocks be positioned to facilitate quick positioning of the work.

Designed to economically chamfer a large variety of diameters on tubing, pipe, and rod:
- Chatterless teeth produce heavy chamfers • Large variety of shanks available
- One size will accommodate many size parts • May be reground many times
- Available in 60° and 90° angles

| ORDER NO. | SEVERANCE TOOL NAME | MAX. CUTTING DIA. | RECESS HOLE DIA. | MOUTH DIA. | BODY DIA. | BODY LENGTH | I.D. THREAD SIZE | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| 30° INTERNAL C/LINE ANGLE (60° INCL.) | | | | | | | | |
| 6825-230 | OC-1/8-30° | 1/8" | 1/32" | 3/16" | 1/2" | 1" | 5/16"-24 | $45.61 |
| 6825-231 | OC-1/4-30° | 1/4" | 3/64" | 5/16" | 1/2" | 1" | 5/16"-24 | 43.53 |
| 6825-232 | OC-1/2-30° | 1/2" | 1/8" | 5/8" | 7/8" | 1-5/16" | 3/8"-24 | 56.61 |
| 6825-233 | OC-3/4-30° | 3/4" | 1/4" | 7/8" | 1-1/8" | 1-3/4" | 1/2"-20 | 69.96 |
| 6825-234 | OC-1-30° | 1" | 1/4" | 1-1/8" | 1-1/2" | 2" | 3/4"-16 | 99.69 |
| 6825-235 | OC-1-3/4-30° | 1-3/4" | 1/2" | 1-7/8" | 2-1/4" | 2-15/16" | 1"-14 | 217.25 |
| 6825-236 | OC-2-30° | 2" | 7/8" | 2-1/8" | 2-1/2" | 3" | 1"-14 | 372.48 |
| 6825-237 | OC-3-30° | 3" | 1" | 3-1/4" | 3-3/4" | 3-3/4" | 1-1/4"-12 | 789.27 |
| 45° INTERNAL C/LINE ANGLE (90° INCL.) | | | | | | | | |
| 6825-250 | OC-1/8-45° | 1/8" | 1/32" | 3/16" | 1/2" | 1" | 5/16"-24 | $43.58 |
| 6825-251 | OC-1/4-45° | 1/4" | 3/64" | 5/16" | 1/2" | 1" | 5/16"-24 | 41.59 |
| 6825-252 | OC-1/2-45° | 1/2" | 1/8" | 5/8" | 7/8" | 1-5/16" | 3/8"-24 | 54.81 |
| 6825-253 | OC-3/4-45° | 3/4" | 3/16" | 7/8" | 1-1/8" | 1-5/16" | 1/2"-20 | 63.80 |
| 6825-254 | OC-1-45° | 1" | 1/4" | 1-1/8" | 1-1/2" | 1-3/4" | 3/4"-16 | 95.63 |
| 6825-255 | OC-1-1/2-45° | 1-1/2" | 3/8" | 1-5/8" | 2" | 1-7/8" | 3/4"-16 | 151.19 |
| 6825-256 | OC-2-45° | 2" | 7/8" | 2-1/8" | 2-1/2" | 2-1/2" | 1"-14 | 255.24 |
| 6825-257 | OC-3-45° | 3" | 1" | 3-1/4" | 3-3/4" | 2-7/8" | 1-1/4"-12 | 680.58 |

Tools furnished without shanks.

## Die Mills – High Speed Steel

| ORDER NO. | SEVERANCE TOOL NAME | CUTTING DIA. | SHANK DIA. | HEAD LENGTH | OVERALL LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|
| 6817-312 | AGA-DIE | 1/8" | 1/8" | 1/2" | 1-5/8" | $ 12.58 |
| 6817-314 | APA-DIE | 1/8" | 1/8" | 1-1/2" | 3" | 18.39 |
| 6817-316 | BJA-DIE | 3/16" | 3/16" | 3/4" | 2" | 14.00 |
| 6817-318 | CJA-DIE | 1/4" | 1/4" | 3/4" | 2-1/4" | 15.72 |

## Micro-Mills™ – Carbide

Micro-Mills are similar in application to the Bore Mills, but are used for finishing in the 6 to 8 microinch range. Micro-Mills should not be oscillated. Cut on the in-feed and burnish on the out-feed. Both Micro-Mills and Bore Mills will outlast grinding wheels, particularly on demanding operations such as chamfering and counter-boring.

| ORDER NO. | SEVERANCE TOOL NAME | HEAD DIA. | SHANK DIA. | OVERALL LENGTH | LIST PRICE |
|---|---|---|---|---|---|
| 6821-120 | MW-4 | .047 | 1/8" | 1-1/2" | $27.40 |
| 6821-130 | MW-5 | .065 | 1/8" | 1-1/2" | 27.40 |
| 6821-121 | MW-6 | .078 | 1/8" | 1-1/2" | 27.40 |
| 6821-131 | MW-7 | .096 | 1/8" | 1-1/2" | 27.40 |
| 6821-122 | MW-8 | .109 | 1/8" | 1-1/2" | 27.40 |
| 6821-132 | MW-9 | .127 | 1/8" | 1-1/2" | 27.40 |
| 6821-123 | MW-10 | .130 | 3/16" | 2" | 38.38 |
| 6821-133 | MW-11 | .158 | 3/16" | 2" | 38.38 |
| 6821-124 | MW-12 | .172 | 3/16" | 2" | 38.38 |
| 6821-134 | MW-13 | .190 | 3/16" | 2" | 38.38 |
| 6821-125 | MW-14 | .195 | 1/4" | 2" | 49.66 |
| 6821-126 | MW-16 | .219 | 1/4" | 2" | 49.66 |
| 6821-135 | MW-18 | .253 | 1/4" | 2" | 49.66 |
| 6821-127 | MW-20 | .281 | 1/4" | 2" | 60.20 |
| 6821-136 | MW-22 | .312 | 1/4" | 2" | 60.20 |
| 6821-128 | MW-24 | .344 | 1/4" | 2" | 69.10 |
| 6821-129 | MW-32 | .469 | 1/4" | 2" | 93.77 |

Other sizes available on request.

**NOTE: ALL MICRO-MILLS™ ARE COATED WITH TIN AT NO EXTRA CHARGE.**

## Tube End Deburring Cutters
### HSS and Carbide

**Economical methods of light deburring both inside and outside of tubing simultaneously:**

- Shear cutting teeth designed to avoid loading
- Chamfer 30° Degrees inside and 45° outside
- Operating speeds range from 50-200 RPM
- Two piece inside and outside cutting design consisting of plug and adjustable ring
- May be reground many times
- Adjustable
- Great for production deburring
- Large variety of shanks available

Cutting teeth are designed to give a shearing cut. They curl the fine chips away from the cutter to avoid loading. The inside member produces a chamfer of 30° angle with C/L and the outside member 45°.

The tube end deburring cutters, described here, are intended for light deburring only, and will quickly deburr tubes of most any machinable material. They can also be supplied in CARBIDE for the tougher and harder materials.

The tooth arrangement on these cutters has been adopted to cover the widest possible range of most commonly encountered materials. Any special material found not to be responsive to our Tube End Deburring Cutters should be given special consideration by our engineers.

Simple guides such as V-blocks correctly positioned are recommended.

The Ring or outside member is adjustable for more or less relative chamfer on the outside edge, and is secured after adjustment by socket and screws.

Operating speeds range from 50 to 200 R.P.M. depending on the size of the cutter, material and work condition.

**Tool numbers ML-Tube through TS-Tube require threaded shanks, priced separately.**
**For a wide variety of insertable threaded shanks . . .**

### Carbide

2

| ORDER NO. | SEVERANCE TOOL NAME | TUBING OD. SIZE | TUBING ID. SIZE | HOLE DIA. OF RING | SHANK DIAMETER | LIST PRICE |
|---|---|---|---|---|---|---|
| 6835-160 | A-Tube-W | 1/8” | 1/16” | .093 | 1/4” | $163.77 |
| 6835-161 | BA-Tube-W | 3/16” | 1/8” | .156 | 1/4” | 187.75 |
| 6835-162 | CB-Tube-W | 1/4” | 3/16” | .218 | 1/4” | 199.00 |
| 6835-163 | DC-Tube-W | 5/16” | 1/4” | .281 | 5/16” | 222.98 |
| 6835-164 | ED-Tube-W | 3/8” | 5/16” | .343 | 3/8” | 243.75 |
| 6835-166 | GF-Tube-W | 1/2” | 7/16” | .468 | 1/2” | 306.19 |
| 6835-168 | IH-Tube-W | 5/8” | 9/16” | .595 | 1/2” | 353.71 |
| 6835-169 | JI-Tube-W | 3/4” | 5/8” | .685 | 1/2” | 386.01 |
| 6835-170 | KJ-Tube-W | 7/8” | 3/4” | .805 | 1/2” | 427.83 |

### High Speed Steel

| | | | | | | |
|---|---|---|---|---|---|---|
| 6835-060 | A-Tube | 1/8” | 1/16” | .093 | 1/4” | $45.79 |
| 6835-061 | BA-Tube | 3/16” | 1/8” | .156 | 1/4” | 48.72 |
| 6835-062 | CB-Tube | 1/4” | 3/16” | .218 | 1/4” | 52.65 |
| 6835-063 | DC-Tube | 5/16” | 1/4” | .281 | 5/16” | 57.75 |
| 6835-064 | ED-Tube | 3/8” | 5/16” | .343 | 3/8” | 63.30 |
| 6835-065 | FE-Tube | 7/16” | 3/8” | .406 | 7/16” | 71.91 |
| 6835-066 | GF-Tube | 1/2” | 7/16” | .468 | 1/2” | 77.60 |
| 6835-067 | HG-Tube | 9/16” | 1/2” | .531 | 1/2” | 87.07 |
| 6835-068 | IH-Tube | 5/8” | 9/16” | .595 | 1/2” | 92.02 |
| 6835-069 | JI-Tube | 3/4” | 5/8” | .685 | 1/2” | 99.04 |
| 6835-070 | KJ-Tube | 7/8” | 3/4” | .805 | 1/2” | 120.77 |
| 6835-071 | LK-Tube | 1” | 7/8” | .930 | 1/2” | 132.13 |

## Handles

5

Handles generally used with radius debur tools. Other shank available.

| ORDER NO. | SEVERANCE TOOL NAME | FITS THIS RADIUS DEBURRING CUTTER | LIST PRICE |
|---|---|---|---|
| 6834-260 | H-100 | HR-1 | $15.36 |
| | H-100 | HR-2 | |
| | H-100 | HR-3 | |
| | H-100 | HR-5 | |
| | H-100 | HR-10 | |
| | H-100 | HR-15 | |
| 6834-261 | H-110 | HR-20 | 19.12 |
| | H-110 | HR-25 | |
| 6834-262 | H-121 | HR-30 | 22.18 |
| | H-121 | HR-35 | |
| | H-121 | HR-40 | |
| 6834-263 | H-131 | HR-45 | 31.22 |
| | H-131 | HR-50 | |

## Radius Deburring Cutters – High Speed Steel

**"Rounds" hole edges often an improvement over the chamfer:**

- Mounted on a handle, a **"Twist of the Wrist"** easily removes the burr
- Shank-mounted and chucked in a machine, parts may be applied manually or mechanically to the cutter
- Multi-flute design keeps cutter centered in hole
- Removes burrs safely from holes already sized
- No danger of marring hole-finish nor face of part
- Safer than ordinary deburring tools
- May be reground many times

Shanks and handles sold separately.

2

| ORDER NO. | SEVERANCE TOOL NAME | USE FOR NOMINAL HOLE SIZE | D CUTTING DIA. | L CUTTING LENGTH | R RADIUS | S NOSE DIA. | O O.A. LENGTH | T THREAD | LIST PRICE |
|---|---|---|---|---|---|---|---|---|---|
| 6825-140 | HR-1 | 3/32” | 3/16” | 1/16” | 3/32” | 0.046 | 7/8” | 1/4”-28 | $26.98 |
| 6825-141 | HR-2 | 1/8” | 9/32” | 3/32” | 1/8” | 0.063 | 7/8” | 1/4”-28 | 26.98 |
| 6825-142 | HR-3 | 3/16” | 3/8” | 1/8” | 3/16” | 0.093 | 7/8” | 1/4”-28 | 26.98 |
| 6825-143 | HR-5 | 1/4” | 9/16” | 3/16” | 1/4” | 1/8” | 3/4” | 1/4”-28 | 27.57 |
| 6825-144 | HR-10 | 5/16” | 5/8” | 1/4” | 5/16” | 3/16” | 3/4” | 1/4”-28 | 29.89 |
| 6825-145 | HR-15 | 3/8” | 3/4” | 1/4” | 3/8” | 1/4” | 3/4” | 1/4”-28 | 35.29 |
| 6825-146 | HR-20 | 7/16”-1/2” | 1” | 3/8” | 3/8” | 5/16” | 3/4” | 5/16”-24 | 39.96 |
| 6825-147 | HR-25 | 9/16”-5/8” | 1-1/8” | 1/4” | 1/2” | 3/8” | 5/8” | 5/16”-24 | 48.86 |
| 6825-148 | HR-30 | 3/4” | 1-3/8” | 3/8” | 9/16” | 7/16” | 3/4” | 3/8”-24 | 62.72 |
| 6825-149 | HR-35 | 7/8”-1” | 1-1/2” | 3/8” | 5/8” | 9/16” | 11/16” | 3/8”-24 | 69.56 |
| 6825-150 | HR-40 | 1-3/8” | 2” | 1/2” | 1” | 1” | 3/4” | 3/8”-24 | 119.73 |

## Tube End Chamfering Mills 2
### High Speed Steel

**Designed to chamfer both inside and outside of a tube or pipe simultaneously:**

- Chatterless
- Designed for heavy chamfering
- Liberal adjustment to accommodate different wall thickness
- Large variety of shanks available

The cutting teeth are so developed as to preclude chatter and provide ample chip room for every operating condition. Moderate speeds of about 100 R.P.M. for 1-inch steel tubing to about 200 R.P.M. for 1/2-inch tubing are recommended for these cutters. It is advisable to start at a slower speed on any given material or size and increase until best results are obtained.

| ORDER NO. | SEVERANCE TOOL NAME | STD. PIPE SIZE | STD. TUBING O.D. SIZE | WALL THICKNESS MIN. | WALL THICKNESS MAX. | PLUG DIA. | SHANK DIA. | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|---|
| 6834-960 | T-6 | | 3/16” | .022 | .045 | .152 | 1/4” | 7/8” | $57.80 |
| 6834-961 | T-8 | | 1/4” | .022 | .065 | .228 | 1/4” | 1” | 63.95 |
| 6834-962 | T-10 | | 5/16” | .022 | .095 | .290 | 1/4” | 1” | 71.61 |
| 6834-963 | T-12 | 1/8” | 3/8” | .022 | .095 | .353 | 3/8” | 1” | 79.88 |
| 6834-964 | T-14 | | 7/16” | .028 | .095 | .409 | 3/8” | 1” | 85.88 |
| 6834-965 | T-16 | 1/4” | 1/2” | .028 | .095 | .472 | 3/8” | 1” | 93.54 |
| 6834-966 | T-18 | | 9/16” | .028 | .120 | .534 | 1/2” | 1” | 100.28 |
| 6834-967 | T-20 | 3/8” | 5/8” | .028 | .120 | .597 | 1/2” | 1” | 109.60 |
| 6834-968 | T-24 | 1/2” | 3/4” | .028 | .120 | .722 | 1/2” | 1” | 125.97 |
| 6834-969 | T-28 | | 7/8” | .022 | .156 | .847 | 1/2” | 1” | 142.64 |
| 6834-970 | T-32 | 3/4” | 1” | .035 | .156 | .965 | 1/2” | 1-5/16” | 163.79 |
| 6834-971 | T-36 | | 1-1/8” | .035 | .187 | 1.090 | 1/2”-20 | | 224.46 |
| 6834-972 | T-40 | 1” | 1-1/4” | .035 | .187 | 1.215 | 5/8”-18 | | 264.85 |
| 6834-974 | T-44 | | 1-3/8” | .035 | .187 | 1.340 | 5/8”-18 | *Requires threaded | 304.34 |
| 6834-975 | T-48 | | 1-1/2” | .035 | .250 | 1.465 | 3/4”-16 | shanks | 349.81 |
| 6834-977 | T-56 | 1-1/2” | 1-3/4” | .035 | .250 | 1.715 | 3/4”-16 | sold | 460.92 |
| 6834-978 | T-60 | | 1-7/8” | .035 | .250 | 1.840 | 3/4”-16 | separately | 525.83 |
| 6834-979 | T-64 | | 2” | .035 | .312 | 1.965 | 1”-14 | | 602.05 |

* Threaded shanks sold separately.
Tool numbers T-36 thru T-64 require threaded shanks, priced separately.

## Tube End Forming Cutters
### High Speed Steel

These cutters are used to produce a smooth, round lip on all types of tubing, including steel, copper, aluminum, plastic and other materials. They are not recommended for tubing with irregular wall thickness or for interrupted cutting. Larger sizes (A-6 x .025 and up) can be supplied in carbide. Special cutting shapes can also be provided.

Speeds of about 50 to 350 RPM are suggested for these cutters. It is advisable to start at a slower speed on any given material or size, and increase until best results are obtained.

Order by tool number plus wall thickness of tubing: A-6-.035, A-16-.065, etc. **If possible, provide a sample of your tubing** when ordering, or, at least, give material specification.

| ORDER NO. | SEVERANCE TOOL NAME | WALL THICKNESS GAUGE | WALL THICKNESS INCH | SHANK DIA. | HEAD DIA. | OA LENGTH | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| **1/8" TUBING** | | | | | | | | |
| 6835-462 | A-2-020 | 25 | .020 | 1/4" | 1/4" | 2-1/4" | 2" | $77.30 |
| 6835-463 | A-2-028 | 22 | .028 | 1/4" | 1/4" | 2-1/4" | 2" | 77.30 |
| **3/16" TUBING** | | | | | | | | |
| 6835-466 | A-3-020 | 25 | .020 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-467 | A-3-028 | 22 | .028 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-468 | A-3-032 | 21 | .032 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-469 | A-3-035 | 20 | .035 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| **1/4" TUBING** | | | | | | | | |
| 6835-470 | A-4-020 | 25 | .020 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-471 | A-4-028 | 22 | .028 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-472 | A-4-032 | 21 | .032 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-473 | A-4-035 | 20 | .035 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| 6835-474 | A-4-049 | 18 | .049 | 3/8" | 1/2" | 1-9/16" | 1" | 77.30 |
| **5/16" TUBING** | | | | | | | | |
| 6835-476 | A-5-020 | 25 | .020 | 3/8" | 9/16" | 1-9/16" | 1" | 83.72 |
| 6835-477 | A-5-028 | 22 | .028 | 3/8" | 9/16" | 1-9/16" | 1" | 83.72 |
| 6835-478 | A-5-032 | 21 | .032 | 3/8" | 9/16" | 1-9/16" | 1" | 83.72 |
| 6835-479 | A-5-035 | 20 | .035 | 3/8" | 9/16" | 1-9/16" | 1" | 83.72 |
| 6835-480 | A-5-049 | 18 | .049 | 3/8" | 9/16" | 1-9/16" | 1" | 83.72 |
| 6835-481 | A-5-058 | 17 | .058 | 3/8" | 9/16" | 1-9/16" | 1" | 83.72 |
| **3/8" TUBING** | | | | | | | | |
| 6835-483 | A-6-020 | 25 | .020 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| 6835-484 | A-6-028 | 22 | .028 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| 6835-485 | A-6-032 | 21 | .032 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| 6835-486 | A-6-035 | 20 | .035 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| 6835-487 | A-6-049 | 18 | .049 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| 6835-488 | A-6-058 | 17 | .058 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| 6835-489 | A-6-065 | 16 | .065 | 1/2" | 3/4" | 1-9/16" | 1" | 90.44 |
| **7/16" TUBING** | | | | | | | | |
| 6835-493 | A-7-035 | 20 | .035 | 1/2" | 3/4" | 1-9/16" | 1" | 99.33 |
| 6835-494 | A-7-049 | 18 | .049 | 1/2" | 3/4" | 1-9/16" | 1" | 99.33 |
| 6835-495 | A-7-065 | 16 | .065 | 1/2" | 3/4" | 1-9/16" | 1" | 99.33 |
| **1/2" TUBING** | | | | | | | | |
| 6835-496 | A-8-020 | 25 | .020 | 1/2" | 3/4" | 1-9/16" | 1" | 108.23 |
| 6835-497 | A-8-028 | 22 | .028 | 1/2" | 3/4" | 1-9/16" | 1" | 108.23 |
| 6835-498 | A-8-032 | 21 | .032 | 1/2" | 3/4" | 1-9/16" | 1" | 108.23 |
| 6835-499 | A-8-035 | 20 | .035 | 1/2" | 3/4" | 1-9/16" | 1" | 108.23 |
| 6835-500 | A-8-049 | 18 | .049 | 1/2" | 3/4" | 1-9/16" | 1" | 108.23 |
| 6835-502 | A-8-065 | 16 | .065 | 1/2" | 3/4" | 1-9/16" | 1" | 108.23 |
| **9/16" TUBING** | | | | | | | | |
| 6835-505 | A-9-035 | 20 | .035 | 1/2" | 7/8" | 1-5/8" | 1" | 120.33 |
| 6835-506 | A-9-049 | 18 | .049 | 1/2" | 7/8" | 1-5/8" | 1" | 120.33 |
| 6835-507 | A-9-065 | 16 | .065 | 1/2" | 7/8" | 1-5/8" | 1" | 120.33 |

(continued)

## Tube End Forming Cutters – (Continued)
### High Speed Steel



| ORDER NO. | SEVERANCE TOOL NAME | WALL THICKNESS GAUGE | WALL THICKNESS INCH | SHANK DIA. | HEAD DIA. | OA LENGTH | SHANK LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|---|
| **5/8" TUBING** | | | | | | | | |
| 6835-509 | A-10-028 | 22 | .028 | 1/2" | 7/8" | 1-5/8" | 1" | $125.57 |
| 6835-510 | A-10-032 | 21 | .032 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| 6835-511 | A-10-035 | 20 | .035 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| 6835-512 | A-10-049 | 18 | .049 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| 6835-513 | A-10-058 | 17 | .058 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| 6835-514 | A-10-065 | 16 | .065 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| 6835-515 | A-10-083 | 14 | .083 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| 6835-516 | A-10-095 | 13 | .095 | 1/2" | 7/8" | 1-5/8" | 1" | 125.57 |
| **3/4" TUBING** | | | | | | | | |
| 6835-518 | A-12-032 | 21 | .032 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-519 | A-12-035 | 20 | .035 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-520 | A-12-049 | 18 | .049 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-521 | A-12-058 | 17 | .058 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-522 | A-12-065 | 16 | .065 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-523 | A-12-083 | 14 | .083 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-524 | A-12-095 | 13 | .095 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |
| 6835-525 | A-12-120 | 11 | .120 | 1/2" | 1" | 1-5/8" | 1" | 145.41 |

## Rod End Forming Cutters
### High Speed Steel

These cutters are used to form rounded ends on rods, wire, parts, etc. They perform well on many "Space Age" materials, as well as on the more common metals, plastics, etc.

SPECIALS – Rod-End Forming Cutters may be obtained to produce various radii, straight chamfers, etc. Send sketch of desired form and sample of part, if feasible.

| ORDER NO. | SEVERANCE TOOL NAME | FOR ROD* DIA. | RADIUS FORMED | BODY DIA. | SHANK DIA. | OVERALL LENGTH | LIST PRICE |
|---|---|---|---|---|---|---|---|
| 6828-630 | RFC-0 | 1/32 | 1/64 | 1/4" | 1/4" | 1-1/2" | $ 92.91 |
| 6828-631 | RFC-1 | 1/16 | 1/32 | 5/16" | 1/4" | 1-3/4" | 97.86 |
| 6828-632 | RFC-1-1/2 | 3/32 | 3/64 | 3/8" | 1/4" | 1-3/4" | 102.08 |
| 6828-633 | RFC-2 | 1/8 | 1/16 | 1/2" | 3/8" | 2-1/8" | 108.36 |
| 6828-634 | RFC-3 | 3/16 | 3/32 | 1/2" | 3/8" | 2-1/8" | 114.63 |
| 6828-635 | RFC-4 | 1/4 | 1/8 | 3/4" | 1/2" | 2-11/16" | 120.63 |
| 6828-636 | RFC-5 | 5/16 | 5/32 | 3/4" | 1/2" | 2-11/16" | 126.89 |
| 6828-637 | RFC-6 | 3/8 | 3/16 | 3/4" | 1/2" | 2-11/16" | 133.32 |
| 6828-638 | RFC-7 | 7/16 | 7/32 | 1" | 1/2" | 2-13/16" | 145.98 |
| 6828-639 | RFC-8 | 1/2 | 1/4 | 1" | 1/2" | 2-13/16" | 154.59 |
| 6828-640 | RFC-9 | 9/16 | 9/32 | 1" | 1/2" | 2-13/16" | 173.71 |
| 6828-641 | RFC-10 | 5/8 | 5/16 | 1-1/4" | 3/4" | 3-3/8" | 194.84 |
| 6828-642 | RFC-12 | 3/4 | 3/8 | 1-1/2" | 3/4" | 3-1/2" | 252.03 |
| 6828-644 | RFC-16 | 1" | 1/2 | 2" | 1" | 4-3/8" | 314.30 |

# Chucking Reamers - Straight Flute

## Fractional Sizes, High Speed Steel

| FRAC. SIZES | DEC. EQV. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY [3] ORDER NO. | PRICE EACH | LI [1] USA ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/64 | .0156 | 3/8 | 3/4 | – | – | 1970-001 | $13.25 |
| 1/32 | .0312 | 1/2 | 1-3/8 | – | – | 1970-002 | 11.06 |
| 3/64 | .0469 | 1/2 | 2-1/2 | 1920-003 | $ 8.47 | 1970-003 | 11.29 |
| 1/16 | .0625 | 1/2 | 2-1/2 | 1920-004 | 7.51 | 1970-004 | 10.07 |
| 5/64 | .0781 | 3/4 | 3 | 1920-005 | 7.06 | 1970-005 | 9.07 |
| 3/32 | .0937 | 3/4 | 3 | 1920-006 | 6.52 | 1970-006 | 8.12 |
| 7/64 | .1094 | 7/8 | 3-1/2 | 1920-007 | 7.39 | 1970-007 | 9.55 |
| 1/8 | .1250 | 7/8 | 3-1/2 | 1920-008 | 3.90 | 1970-008 | 9.55 |
| 9/64 | .1406 | 1 | 4 | 1920-009 | 6.02 | 1970-009 | 11.29 |
| 5/32 | .1562 | 1 | 4 | 1920-010 | 5.40 | 1970-010 | 11.29 |
| 11/64 | .1719 | 1-1/8 | 4-1/2 | 1920-011 | 6.02 | 1970-011 | 12.06 |
| 3/16 | .1875 | 1-1/8 | 4-1/2 | 1920-012 | 5.44 | 1970-012 | 12.06 |
| 13/64 | .2031 | 1-1/4 | 5 | 1920-013 | 7.22 | 1970-013 | 13.62 |
| 7/32 | .2187 | 1-1/4 | 5 | 1920-014 | 7.01 | 1970-014 | 13.62 |
| 15/64 | .2344 | 1-1/2 | 6 | 1920-015 | 7.22 | 1970-015 | 13.99 |
| 1/4 | .2500 | 1-1/2 | 6 | 1920-016 | 6.27 | 1970-016 | 12.03 |
| 17/64 | .2656 | 1-1/2 | 6 | 1920-017 | 8.05 | 1970-017 | 16.25 |
| 9/32 | .2812 | 1-1/2 | 6 | 1920-018 | 8.05 | 1970-018 | 14.58 |
| 19/64 | .2969 | 1-1/2 | 6 | 1920-019 | 8.51 | 1970-019 | 16.43 |
| 5/16 | .3125 | 1-1/2 | 6 | 1920-020 | 7.47 | 1970-020 | 14.73 |
| 21/64 | .3281 | 1-1/2 | 6 | 1920-021 | 9.21 | 1970-021 | 16.57 |
| 11/32 | .3437 | 1-1/2 | 6 | 1920-022 | 9.21 | 1970-022 | 17.58 |
| 23/64 | .3594 | 1-3/4 | 7 | 1920-023 | 9.21 | 1970-023 | 17.02 |
| 3/8 | .3750 | 1-3/4 | 7 | 1920-024 | 8.05 | 1970-024 | 15.84 |
| 25/64 | .3906 | 1-3/4 | 7 | 1920-025 | 9.50 | 1970-025 | 19.17 |
| 13/32 | .4062 | 1-3/4 | 7 | 1920-026 | 8.55 | 1970-026 | 18.70 |
| 27/64 | .4219 | 1-3/4 | 7 | 1920-027 | 10.38 | 1970-027 | 19.95 |
| 7/16 | .4375 | 1-3/4 | 7 | 1920-028 | 9.50 | 1970-028 | 18.50 |
| 29/64 | .4531 | 1-3/4 | 7 | 1920-029 | 11.58 | 1970-029 | 21.83 |
| 15/32 | .4687 | 1-3/4 | 7 | 1920-030 | 11.25 | 1970-030 | 21.83 |
| 31/64 | .4844 | 2 | 8 | 1920-031 | 11.58 | 1970-031 | 21.83 |
| 1/2 | .5000 | 2 | 8 | 1920-032 | 10.38 | 1970-032 | 20.58 |
| 33/64 | .5156 | 2 | 8 | 1920-033 | 12.68 | 1970-033 | 26.64 |
| 17/32 | .5312 | 2 | 8 | 1920-034 | 12.08 | 1970-034 | 26.64 |
| 35/64 | .5469 | 2 | 8 | 1920-035 | 12.68 | 1970-035 | 26.64 |
| 9/16 | .5625 | 2 | 8 | 1920-036 | 12.08 | 1970-036 | 26.64 |
| 37/64 | .5781 | 2 | 8 | 1920-037 | 14.82 | 1970-037 | 26.64 |
| 19/32 | .5938 | 2 | 8 | 1920-038 | 14.11 | 1970-038 | 26.64 |
| 39/64 | .6094 | 2-1/4 | 9 | 1920-039 | 14.82 | 1970-039 | 30.35 |
| 5/8 | .6250 | 2-1/4 | 9 | 1920-040 | 14.11 | 1970-040 | 30.35 |
| 41/64 | .6406 | 2-1/4 | 9 | 1920-041 | 14.82 | 1970-041 | 30.35 |
| 21/32 | .6562 | 2-1/4 | 9 | 1920-042 | 14.11 | 1970-042 | 32.57 |
| 43/64 | .6719 | 2-1/4 | 9 | 1920-043 | 16.82 | 1970-043 | 34.42 |
| 11/16 | .6875 | 2-1/4 | 9 | 1920-044 | 16.02 | 1970-044 | 34.42 |
| 45/64 | .7031 | 2-1/4 | 9 | 1920-045 | 19.56 | 1970-045 | 36.67 |

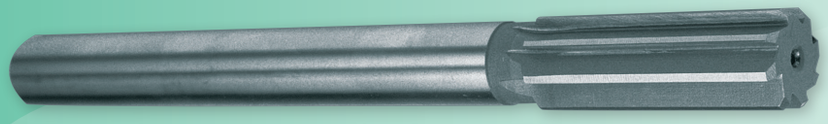
| FRAC. SIZES | DEC. EQV. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY [3] ORDER NO. | PRICE EACH | LI [1] USA ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 23/32 | .7188 | 2-1/4 | 9 | 1920-046 | $18.63 | 1970-046 | $36.67 |
| 47/64 | .7344 | 2-1/2 | 9-1/2 | 1920-047 | 18.74 | 1970-047 | 42.56 |
| 3/4 | .7500 | 2-1/2 | 9-1/2 | 1920-048 | 17.85 | 1970-048 | 42.56 |
| 49/64 | .7656 | 2-1/2 | 9-1/2 | 1920-049 | 21.79 | 1970-049 | 42.56 |
| 25/32 | .7812 | 2-1/2 | 9-1/2 | 1920-050 | 20.75 | 1970-050 | 42.56 |
| 51/64 | .7964 | 2-1/2 | 9-1/2 | 1920-051 | 21.79 | 1970-051 | 44.33 |
| 13/16 | .8125 | 2-1/2 | 9-1/2 | 1920-052 | 20.75 | 1970-052 | 44.33 |
| 53/64 | .8281 | 2-1/2 | 9-1/2 | 1920-053 | 24.79 | 1970-053 | 44.33 |
| 27/32 | .8438 | 2-1/2 | 9-1/2 | 1920-054 | 23.61 | 1970-054 | 51.07 |
| 55/64 | .8594 | 2-5/8 | 10 | 1920-055 | 24.28 | 1970-055 | 51.07 |
| 7/8 | .8750 | 2-5/8 | 10 | 1920-056 | 23.12 | 1970-056 | 51.07 |
| 57/64 | .8906 | 2-5/8 | 10 | 1920-057 | 27.24 | 1970-057 | 52.55 |
| 29/32 | .9062 | 2-5/8 | 10 | 1920-058 | 25.94 | 1970-058 | 54.00 |
| 59/64 | .9219 | 2-5/8 | 10 | 1920-059 | 27.24 | 1970-059 | 56.62 |
| 15/16 | .9375 | 2-5/8 | 10 | 1920-060 | 25.94 | 1970-060 | 56.62 |
| 61/64 | .9531 | 2-5/8 | 10 | 1920-061 | 30.63 | 1970-061 | 56.62 |
| 31/32 | .9688 | 2-5/8 | 10 | 1920-062 | 29.17 | 1970-062 | 59.95 |
| 63/64 | .9844 | 2-3/4 | 10-1/2 | 1920-063 | 30.07 | 1970-063 | 59.95 |
| 1 | 1.0000 | 2-3/4 | 10-1/2 | 1920-064 | 28.64 | 1970-064 | 59.95 |
| 1-1/32 | 1.0312 | 2-3/4 | 10-1/2 | 1920-066 | 37.75 | 1970-066 | 85.12 |
| 1-1/16 | 1.0625 | 2-3/4 | 10-1/2 | 1920-068 | 32.83 | 1970-068 | 66.61 |
| 1-3/32 | 1.0938 | 2-7/8 | 11 | 1920-070 | 40.33 | 1970-070 | 88.08 |
| 1-1/8 | 1.1250 | 2-7/8 | 11 | 1920-072 | 35.07 | 1970-072 | 70.31 |
| 1-5/32 | 1.1562 | 2-7/8 | 11 | 1920-074 | 45.44 | 1970-074 | 105.10 |
| 1-3/16 | 1.1875 | 2-7/8 | 11 | 1920-076 | 39.51 | 1970-076 | 85.12 |
| 1-7/32 | 1.2188 | 3 | 11-1/2 | 1920-078 | 49.44 | 1970-078 | 106.58 |
| 1-1/4 | 1.2500 | 3 | 11-1/2 | 1920-080 | 42.99 | 1970-080 | 88.59 |
| 1-9/32 | 1.2812 | 3 | 11-1/2 | 1920-082 | 54.60 | 1970-082 | 120.57 |
| 1-5/16 | 1.3125 | 3 | 11-1/2 | 1920-084 | 47.48 | 1970-084 | 103.62 |
| 1-11/32 | 1.3438 | 3-1/4 | 12 | 1920-086 | 59.27 | 1970-086 | 114.72 |
| 1-3/8 | 1.3750 | 3-1/4 | 12 | 1920-088 | 51.54 | 1970-088 | 108.58 |
| 1-13/32 | 1.4062 | 3-1/4 | 12 | 1920-090 | 65.04 | 1970-090 | 133.22 |
| 1-7/16 | 1.4375 | 3-1/4 | 12 | 1920-092 | 56.56 | 1970-092 | 116.20 |
| 1-15/32 | 1.4688 | 3-1/4 | 12 | 1920-094 | 70.21 | 1970-094 | 141.37 |
| 1-1/2 | 1.5000 | 3-1/2 | 12-1/2 | 1920-096 | 61.05 | 1970-096 | 125.82 |
| 1-9/16 | 1.5625 | 3-1/2 | 12-1/2 | 1920-100 | 99.76 | – | – |
| 1-5/8 | 1.6250 | 3-1/2 | 13 | 1920-104 | 111.32 | – | – |
| 1-11/16 | 1.6875 | 3-1/2 | 13 | 1920-108 | 122.71 | – | – |
| 1-3/4 | 1.7500 | 4 | 14 | 1920-112 | 128.69 | – | – |
| 1-13/16 | 1.8125 | 4 | 14 | 1920-116 | 192.22 | – | – |
| 1-7/8 | 1.8750 | 4 | 14 | 1920-120 | 148.24 | – | – |
| 1-15/16 | 1.9375 | 4 | 14 | 1920-124 | 204.41 | – | – |
| 2 | 2.0000 | 4 | 14 | 1920-128 | 156.92 | – | – |

Size not shown POA

* Price On Application

# Chucking Reamers - Dowel, Over & Under Sizes

## Straight Shank, Straight Flute, HSS



| DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY [3] ORDER NO. | PRICE EACH | LI [1] USA ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| .1230† | 7/8 | 3-1/2 | 1931-230 | $4.90 | 1971-230 | $9.99 |
| .1240 | 7/8 | 3-1/2 | 1931-240 | 4.90 | 1971-240 | 9.55 |
| .1247† | 7/8 | 3-1/2 | 1931-247 | 4.90 | 1971-247 | 9.99 |
| .1260 | 7/8 | 3-1/2 | 1931-260 | 4.90 | 1971-260 | 9.55 |
| .1855 | 1-1/8 | 3-1/2 | 1931-855 | 6.76 | 1971-855 | 12.95 |
| .1865† | 1-1/8 | 4-1/2 | 1931-865 | 6.76 | 1971-865 | 12.06 |
| .1870† | 1-1/8 | 4-1/2 | 1931-870 | 6.76 | 1971-870 | 12.95 |
| .1885 | 1-1/8 | 4-1/2 | 1931-885 | 6.76 | 1971-885 | 12.06 |
| .2480† | 1-1/2 | 6 | 1932-480 | 7.14 | 1972-480 | 13.84 |
| .2490 | 1-1/2 | 6 | 1932-490 | 7.14 | 1972-490 | 13.10 |

| DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY [3] ORDER NO. | PRICE EACH | LI [1] USA ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| .2495† | 1-1/2 | 6 | 1932-495 | $7.14 | 1972-495 | $13.84 |
| .2510 | 1-1/2 | 6 | 1932-510 | 7.14 | 1972-510 | 13.10 |
| .3105† | 1-1/2 | 6 | 1933-105 | 8.18 | 1973-105 | 16.58 |
| .3115 | 1-1/2 | 6 | 1933-115 | 8.18 | 1973-115 | 15.54 |
| .3120† | 1-1/2 | 6 | 1933-120 | 8.18 | 1973-120 | 16.58 |
| .3135 | 1-1/2 | 6 | 1933-135 | 8.18 | 1973-135 | 15.54 |
| .3730† | 1-3/4 | 7 | 1933-730 | 9.17 | 1973-730 | 18.50 |
| .3740 | 1-3/4 | 7 | 1933-740 | 9.17 | 1973-740 | 16.80 |
| .3745† | 1-3/4 | 7 | 1933-745 | 9.17 | 1973-745 | 18.50 |
| .3760 | 1-3/4 | 7 | 1933-760 | 9.17 | 1973-760 | 16.80 |

| DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY [3] ORDER NO. | PRICE EACH | LI [1] USA ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| .4355† | 1-3/4 | 5-1/2 | 1934-355 | $10.50 | 1974-355 | $20.17 |
| .4365 | 1-3/4 | 7 | 1934-365 | 10.50 | 1974-365 | 19.95 |
| .4370† | 1-3/4 | 5-1/2 | 1934-370 | 10.50 | 1974-370 | 20.17 |
| .4385 | 1-3/4 | 7 | 1934-385 | 10.50 | 1974-385 | 19.95 |
| .4980† | 2 | 8 | 1934-980 | 11.87 | 1974-980 | 22.13 |
| .4990 | 2 | 8 | 1934-990 | 11.87 | 1974-990 | 20.58 |
| .4995† | 2 | 8 | 1934-995 | 11.87 | 1974-995 | 22.13 |
| .5010 | 2 | 8 | 1935-010 | 11.87 | 1975-010 | 20.58 |
| 14 pc. Dowel Pin set | | | 1920-950 | $123.25 | | |
| 14 pc. Over/Under set | | | 1920-955 | 123.25 | | |

† Note: Dowel pin reamers made to a minus tolerance. All other reamers made to a plus tolerance.

# Chucking Reamers - Straight Shank, Straight Flute

## Wire Gage Sizes, High Speed Steel

| WIRE GAGE SIZES | DEC. EQV. | FLUTE LG'TH | OAL | [3] Pittsburg® ORDER NO. | [3] Pittsburg® PRICE EACH | [1] USA ORDER NO. | [1] USA PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1 | .2280 | 1-1/2 | 6 | 1920-201 | $7.14 | 1970-201 | $13.99 |
| 2 | .2210 | 1-1/2 | 6 | 1920-202 | 7.14 | 1970-202 | 13.99 |
| 3 | .2130 | 1-1/4 | 5 | 1920-203 | 7.14 | 1970-203 | 13.62 |
| 4 | .2090 | 1-1/4 | 5 | 1920-204 | 7.14 | 1970-204 | 13.62 |
| 5 | .2055 | 1-1/4 | 5 | 1920-205 | 7.14 | 1970-205 | 13.62 |
| 6 | .2040 | 1-1/4 | 5 | 1920-206 | 7.14 | 1970-206 | 13.62 |
| 7 | .2010 | 1-1/4 | 5 | 1920-207 | 7.14 | 1970-207 | 13.62 |
| 8 | .1990 | 1-1/4 | 5 | 1920-208 | 7.14 | 1970-208 | 13.62 |
| 9 | .1960 | 1-1/4 | 5 | 1920-209 | 7.14 | 1970-209 | 13.62 |
| 10 | .1935 | 5 | 5 | 1920-210 | 7.14 | 1970-210 | 13.62 |
| 11 | .1910 | 5 | 5 | 1920-211 | 7.01 | 1970-211 | 13.62 |
| 12 | .1890 | 4-1/2 | 4-1/2 | 1920-212 | 6.10 | 1970-212 | 12.06 |
| 13 | .1850 | 1-1/8 | 4-1/2 | 1920-213 | 6.64 | 1970-213 | 12.06 |
| 14 | .1820 | 1-1/8 | 4-1/2 | 1920-214 | 6.64 | 1970-214 | 12.06 |
| 15 | .1800 | 1-1/8 | 4-1/2 | 1920-215 | 6.64 | 1970-215 | 12.06 |
| 16 | .1770 | 1-1/8 | 4-1/2 | 1920-216 | 6.10 | 1970-216 | 12.06 |
| 17 | .1730 | 1-1/8 | 4-1/2 | 1920-217 | 6.10 | 1970-217 | 12.06 |
| 18 | .1695 | 1-1/8 | 4-1/2 | 1920-218 | 5.69 | 1970-218 | 12.06 |
| 19 | .1660 | 1-1/8 | 4-1/2 | 1920-219 | 5.69 | 1970-219 | 12.06 |
| 20 | .1610 | 1-1/8 | 4-1/2 | 1920-220 | 5.69 | 1970-220 | 12.06 |
| 21 | .1590 | 1-1/8 | 4-1/2 | 1920-221 | 5.69 | 1970-221 | 12.06 |
| 22 | .1570 | 1 | 4 | 1920-222 | 5.69 | 1970-222 | 11.29 |
| 23 | .1540 | 1 | 4 | 1920-223 | 5.69 | 1970-223 | 11.29 |
| 24 | .1520 | 1 | 4 | 1920-224 | 5.69 | 1970-224 | 11.29 |
| 25 | .1495 | 1 | 4 | 1920-225 | 5.69 | 1970-225 | 11.29 |
| 26 | .1470 | 1 | 4 | 1920-226 | 5.69 | 1970-226 | 11.29 |
| 27 | .1440 | 1 | 4 | 1920-227 | 5.69 | 1970-227 | 11.29 |
| 28 | .1405 | 1 | 4 | 1920-228 | 5.69 | 1970-228 | 11.29 |
| 29 | .1360 | 1 | 4 | 1920-229 | 5.69 | 1970-229 | 11.29 |
| 30 | .1285 | 7/8 | 3-1/2 | 1920-230 | 4.36 | 1970-230 | 9.55 |
| 31 | .1200 | 7/8 | 3-1/2 | 1920-231 | $5.81 | 1970-231 | $9.55 |
| 32 | .1160 | 7/8 | 3-1/2 | 1920-232 | 5.81 | 1970-232 | 9.55 |
| 33 | .1130 | 7/8 | 3-1/2 | 1920-233 | 5.81 | 1970-233 | 9.55 |
| 34 | .1110 | 7/8 | 3-1/2 | 1920-234 | 6.18 | 1970-234 | 9.55 |
| 35 | .1100 | 7/8 | 3-1/2 | 1920-235 | 6.18 | 1970-235 | 9.55 |
| 36 | .1065 | 7/8 | 3-1/2 | 1920-236 | 6.18 | 1970-236 | 9.29 |
| 37 | .1040 | 7/8 | 3-1/2 | 1920-237 | 6.18 | 1970-237 | 9.29 |
| 38 | .1015 | 7/8 | 3-1/2 | 1920-238 | 6.18 | 1970-238 | 9.29 |
| 39 | .0995 | 7/8 | 3-1/2 | 1920-239 | 6.18 | 1970-239 | 9.29 |
| 40 | .0980 | 7/8 | 3-1/2 | 1920-240 | 6.18 | 1970-240 | 9.29 |
| 41 | .0960 | 7/8 | 3-1/2 | 1920-241 | 6.47 | 1970-241 | 9.29 |
| 42 | .0935 | 3/4 | 3 | 1920-242 | 6.47 | 1970-242 | 9.07 |
| 43 | .0890 | 3/4 | 3 | 1920-243 | 6.47 | 1970-243 | 9.07 |
| 44 | .0860 | 3/4 | 3 | 1920-244 | 6.47 | 1970-244 | 9.07 |
| 45 | .0820 | 3/4 | 3 | 1920-245 | 6.47 | 1970-245 | 9.07 |
| 46 | .0810 | 3/4 | 3 | 1920-246 | 6.47 | 1970-246 | 9.07 |
| 47 | .0785 | 3/4 | 3 | 1920-247 | 6.47 | 1970-247 | 9.07 |
| 48 | .0760 | 3/4 | 3 | 1920-248 | 6.47 | 1970-248 | 9.07 |
| 49 | .0730 | 3/4 | 3 | 1920-249 | 6.47 | 1970-249 | 9.07 |
| 50 | .0700 | 3/4 | 3 | 1920-250 | 6.47 | 1970-250 | 9.07 |
| 51 | .0670 | 3/4 | 3 | 1920-251 | 6.47 | 1970-251 | 9.07 |
| 52 | .0635 | 1/2 | 2-1/2 | 1920-252 | 7.43 | 1970-252 | 10.07 |
| 53 | .0595 | 1/2 | 2-1/2 | 1920-253 | 7.43 | 1970-253 | 11.29 |
| 54 | .0550 | 1/2 | 2-1/2 | 1920-254 | 7.43 | 1970-254 | 11.29 |
| 55 | .0520 | 1/2 | 2-1/2 | 1920-255 | 7.43 | 1970-255 | 11.29 |
| 56 | .0465 | 1/2 | 2-1/2 | 1920-256 | 7.43 | 1970-256 | 11.29 |
| 57 | .0430 | 1/2 | 2-1/2 | 1920-257 | 7.43 | 1970-257 | 11.29 |
| 58 | .0420 | 1/2 | 2-1/2 | 1920-258 | 7.43 | 1970-258 | 11.29 |
| 59 | .0410 | 1/2 | 2-1/2 | 1920-259 | 7.43 | 1970-259 | 11.29 |
| 60 | .0400 | 1/2 | 2-1/2 | 1920-260 | 7.43 | 1970-260 | 11.29 |
| 61 | .0390 | 1/2 | 1-5/8 | 1970-261 | $11.29 | | |
| 62 | .0380 | 1/2 | 1-1/2 | 1970-262 | 11.29 | | |
| 63 | .0370 | 1/2 | 1-1/2 | 1970-263 | 11.29 | | |
| 64 | .0360 | 1/2 | 1-1/2 | 1970-264 | 11.29 | | |
| 65 | .0350 | 1/2 | 1-1/2 | 1970-265 | 11.29 | | |
| 66 | .0330 | 1/2 | 1-3/8 | 1970-266 | 11.29 | | |
| 67 | .0320 | 1/2 | 1-3/8 | 1970-267 | 11.29 | | |
| 68 | .0310 | 1/2 | 1-3/8 | 1970-268 | 13.25 | | |
| 69 | .0292 | 1/2 | 1-3/8 | 1970-269 | 13.25 | | |
| 70 | .0280 | 1/2 | 1-1/4 | 1970-270 | 13.25 | | |
| 71 | .0260 | 1/2 | 1-1/4 | 1970-271 | 13.25 | | |
| 72 | .0250 | 1/2 | 1-1/8 | 1970-272 | 13.25 | | |
| 73 | .0240 | 1/2 | 1-1/8 | 1970-273 | 13.25 | | |
| 74 | .0225 | 1/2 | 1 | 1970-274 | 13.25 | | |
| 75 | .0210 | 1/2 | 1 | 1970-275 | 13.25 | | |
| 76 | .0200 | 3/8 | 7/8 | 1970-276 | 13.25 | | |
| 77 | .0180 | 3/8 | 7/8 | 1970-277 | 13.25 | | |
| 78 | .0160 | 3/8 | 7/8 | 1970-278 | 13.25 | | |
| 79 | .0145 | 3/8 | 3/4 | 1970-279 | 13.25 | | |
| 80 | .0135 | 3/8 | 3/4 | 1970-280 | 13.25 | | |

***Reamer Selection?***
***We Stock:***
***High Speed Steel, Cobalt, Carbide Tipped & Solid Carbide***

## Letter Sizes, High Speed Steel

| LTR. SIZES | DEC. EQV. | FLUTE LG'TH | OAL | [3] Pittsburg® ORDER NO. | [3] Pittsburg® PRICE EACH | [1] USA ORDER NO. | [1] USA PRICE EACH |
|---|---|---|---|---|---|---|---|
| A | .2340 | 1-1/2 | 6 | 1920-301 | $7.68 | 1970-301 | $13.99 |
| B | .2380 | 1-1/2 | 6 | 1920-302 | 7.68 | 1970-302 | 14.65 |
| C | .2420 | 1-1/2 | 6 | 1920-303 | 7.68 | 1970-303 | 14.65 |
| D | .2460 | 1-1/2 | 6 | 1920-304 | 7.68 | 1970-304 | 14.65 |
| E | .2500 | 1-1/2 | 6 | 1920-305 | 6.27 | 1970-305 | POA |
| F | .2570 | 1-1/2 | 6 | 1920-306 | 7.68 | 1970-306 | 14.65 |
| G | .2610 | 1-1/2 | 6 | 1920-307 | 8.18 | 1970-307 | 14.65 |
| H | .2660 | 1-1/2 | 6 | 1920-308 | 8.59 | 1970-308 | 16.25 |
| I | .2720 | 1-1/2 | 6 | 1920-309 | 8.59 | 1970-309 | 16.25 |
| J | .2770 | 1-1/2 | 6 | 1920-310 | 8.59 | 1970-310 | 16.25 |
| K | .2810 | 1-1/2 | 6 | 1920-311 | 8.59 | 1970-311 | 16.25 |
| L | .2900 | 1-1/2 | 6 | 1920-312 | 8.59 | 1970-312 | 16.43 |
| M | .2950 | 1-1/2 | 6 | 1920-313 | 8.59 | 1970-313 | 16.43 |
| N | .3020 | 1-1/2 | 6 | 1920-314 | 8.59 | 1970-314 | 16.43 |
| O | .3160 | 1-1/2 | 6 | 1920-315 | 8.96 | 1970-315 | 16.43 |
| P | .3230 | 1-1/2 | 6 | 1920-316 | $9.21 | 1970-316 | $ 17.58 |
| Q | .3320 | 1-1/2 | 6 | 1920-317 | 9.21 | 1970-317 | 17.58 |
| R | .3390 | 1-1/2 | 6 | 1920-318 | 9.21 | 1970-318 | 17.58 |
| S | .3480 | 1-3/4 | 7 | 1920-319 | 9.21 | 1970-319 | 17.58 |
| T | .3580 | 1-3/4 | 7 | 1920-320 | 9.21 | 1970-320 | 17.58 |
| U | .3680 | 1-3/4 | 7 | 1920-321 | 9.21 | 1970-321 | 17.58 |
| V | .3770 | 1-3/4 | 7 | 1920-322 | 10.21 | 1970-322 | 19.17 |
| W | .3860 | 1-3/4 | 7 | 1920-323 | 10.21 | 1970-323 | 19.17 |
| X | .3970 | 1-3/4 | 7 | 1920-324 | 10.21 | 1970-324 | 19.17 |
| Y | .4040 | 1-3/4 | 7 | 1920-325 | 10.50 | 1970-325 | 19.95 |
| Z | .4130 | 1-3/4 | 7 | 1920-326 | 10.50 | 1970-326 | 19.95 |

[3] Pittsburg® Sets

**1/16 - 1/2 by 64th**
Order No. 1920-900
Price……$228.05

**A - Z**
Order No. 1920-910
Price……$223.90

**1/8-1/2 by 16th**
Order No. 1920-905
Price……$65.85

**#1 thru #60**
Order No. 1920-920
Price……$371.75

–all sets in plastic pouch–

# Chucking Reamers - Metric

## Straight Shank, Straight Flute, High Speed Steel

| DIAM. mm. | DEC. EQV. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY [2] PRICE EACH | USA [1] PRICE EACH | DIAM. mm. | DEC. EQV. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY [2] PRICE EACH | USA [1] PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.00 | 0.0394 | 1/2 | 2-1/2 | 2000-394† $8.00 | 5410-100 $11.29 | 13.50 | 0.5315 | 2 | 8 | 2005-315 $16.72 | 5411-350 $26.64 |
| 1.50 | 0.0591 | 1/2 | 2-1/2 | 2000-591† 8.00 | 5410-150 11.29 | 14.00 | 0.5512 | 2 | 8 | 2005-512 16.72 | 5411-400 26.64 |
| 2.00 | 0.0787 | 3/4 | 3 | 2000-787† 7.16 | 5410-200 9.07 | 14.50 | 0.5709 | 2 | 8 | 2005-709 16.72 | 5411-450 26.64 |
| 2.50 | 0.0984 | 7/8 | 3-1/2 | 2000-984† 7.16 | 5410-250 9.29 | 15.00 | 0.5906 | 2 | 8 | 2005-906 19.03 | 5411-500 26.64 |
| 3.00 | 0.1181 | 7/8 | 3-1/2 | 2001-181 5.33 | 5410-300 9.55 | 15.50 | 0.6102 | 2-1/4 | 9 | 2006-102 19.03 | 5411-550 30.35 |
| 3.50 | 0.1378 | 1 | 4 | 2001-378 7.73 | 5410-350 11.29 | 16.00 | 0.6299 | 2-1/4 | 9 | 2006-299 19.03 | 5411-600 30.35 |
| 4.00 | 0.1575 | 1-1/8 | 4-1/2 | 2001-575 7.73 | 5410-400 11.29 | 16.50 | 0.6496 | 2-1/4 | 9 | 2006-496 21.80 | 5411-650 30.35 |
| 4.50 | 0.1772 | 1-1/8 | 4-1/2 | 2001-772 7.73 | 5410-450 12.06 | 17.00 | 0.6693 | 2-1/4 | 9 | 2006-693 21.80 | 5411-700 34.42 |
| 5.00 | 0.1969 | 1-1/4 | 5 | 2001-969 9.45 | 5410-500 13.62 | 17.50 | 0.6890 | 2-1/4 | 9 | 2006-890 21.80 | 5411-750 36.67 |
| 5.50 | 0.2165 | 1-1/4 | 5 | 2002-165 9.45 | 5410-550 13.62 | 18.00 | 0.7087 | 2-1/4 | 9 | 2007-087 25.16 | 5411-800 36.67 |
| 6.00 | 0.2362 | 1-1/2 | 6 | 2002-362 9.45 | 5410-600 14.65 | 18.50 | 0.7283 | 2-1/2 | 9-1/2 | 2007-283 25.16 | 5411-850 42.56 |
| 6.50 | 0.2559 | 1-1/2 | 6 | 2002-559 9.45 | 5410-650 14.65 | 19.00 | 0.7480 | 2-1/2 | 9-1/2 | 2007-480 26.63 | 5411-900 42.56 |
| 7.00 | 0.2756 | 1-1/2 | 6 | 2002-756 10.58 | 5410-700 16.25 | 19.50 | 0.7677 | 2-1/2 | 9-1/2 | 2007-677 26.63 | 5411-950 42.56 |
| 7.50 | 0.2953 | 1-1/2 | 6 | 2002-953 10.58 | 5410-750 16.43 | 20.00 | 0.7874 | 2-1/2 | 9-1/2 | 2007-874 28.18 | 5412-000 44.33 |
| 8.00 | 0.3150 | 1-1/2 | 6 | 2003-150 10.58 | 5410-800 16.43 | 20.50 | 0.8071 | 2-1/2 | 9-1/2 | 2008-071 28.18 | 5412-050 44.33 |
| 8.50 | 0.3346 | 1-1/2 | 6 | 2003-346 11.84 | 5410-850 17.58 | 21.00 | 0.8268 | 2-1/2 | 9-1/2 | 2008-268 31.96 | 5412-100 44.33 |
| 9.00 | 0.3543 | 1-3/4 | 7 | 2003-543 11.84 | 5410-900 17.58 | 21.50 | 0.8465 | 2-1/2 | 9-1/2 | 2008-465 31.96 | 5412-150 51.07 |
| 9.50 | 0.3740 | 1-3/4 | 7 | 2003-740 11.84 | 5410-950 16.80 | 22.00 | 0.8661 | 2-5/8 | 10 | 2008-661 32.09 | 5412-200 51.07 |
| 10.00 | 0.3937 | 1-3/4 | 7 | 2003-937 12.39 | 5411-000 19.17 | 22.50 | 0.8858 | 2-5/8 | 10 | 2008-858 32.09 | 5412-250 52.55 |
| 10.50 | 0.4134 | 1-3/4 | 7 | 2004-134 12.85 | 5411-050 19.95 | 23.00 | 0.9055 | 2-5/8 | 10 | 2009-055 34.73 | 5412-300 52.55 |
| 11.00 | 0.4331 | 1-3/4 | 7 | 2004-331 13.65 | 5411-100 19.95 | 23.50 | 0.9252 | 2-5/8 | 10 | 2009-252 34.73 | 5412-350 56.62 |
| 11.50 | 0.4528 | 1-3/4 | 7 | 2004-528 14.99 | 5411-150 21.83 | 24.00 | 0.9449 | 2-5/8 | 10 | 2009-449 34.73 | 5412-400 56.62 |
| 12.00 | 0.4724 | 2 | 8 | 2004-724 14.99 | 5411-200 21.83 | 24.50 | 0.9646 | 2-5/8 | 10 | 2009-646 38.01 | 5412-450 56.62 |
| 12.50 | 0.4921 | 2 | 8 | 2004-921 14.99 | 5411-250 21.83 | 25.00 | 0.9843 | 2-3/4 | 10-1/2 | 2009-843 38.01 | 5412-500 59.95 |
| 13.00 | 0.5118 | 2 | 8 | 2005-118 14.99 | 5411-300 26.64 | 25.50 | 1.0039 | 2-3/4 | 10-1/2 | 2010-039 47.15 | 5412-550 63.47 |
| | | | | | | 30.00 | 1.1811 | 2-7/8 | 11 | 2011-811 54.78 | – – |

† Limited Quantities

# Chucking Reamers - Straight Shank, RHS - RHC

## High Speed Steel

Pittsburg® ALLEGHANY [2]

| FRAC. SIZES | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/32 | 0.0312 | 1/2 | 1-3/8 | 1921-002† | $6.84 |
| 3/64 | 0.0469 | 1/2 | 2-1/2 | 1921-003† | 6.84 |
| 1/16 | 0.0625 | 1/2 | 2-1/2 | 1921-004 | 7.92 |
| 5/64 | 0.0781 | 3/4 | 3 | 1921-005 | 7.92 |
| 3/32 | 0.0937 | 3/4 | 3 | 1921-006 | 7.92 |
| 7/64 | 0.1094 | 7/8 | 3-1/2 | 1921-007 | 8.00 |
| 1/8 | 0.1250 | 7/8 | 3-1/2 | 1921-008 | 4.72 |
| 9/64 | 0.1406 | 1 | 4 | 1921-009 | 6.20 |
| 5/32 | 0.1562 | 1 | 4 | 1921-010 | 6.20 |
| 11/64 | 0.1719 | 1-1/8 | 4-1/2 | 1921-011 | 6.20 |
| 3/16 | 0.1875 | 1-1/8 | 4-1/2 | 1921-012 | 6.20 |
| 13/64 | 0.2031 | 1-1/4 | 5 | 1921-013 | 7.29 |
| 7/32 | 0.2187 | 1-1/4 | 5 | 1921-014 | 7.06 |
| 15/64 | 0.2344 | 1-1/2 | 6 | 1921-015 | 7.29 |
| 1/4 | 0.2500 | 1-1/2 | 6 | 1921-016 | 6.67 |
| 17/64 | 0.2656 | 1-1/2 | 6 | 1921-017 | 7.96 |
| 9/32 | 0.2812 | 1-1/2 | 6 | 1921-018 | 7.96 |
| 19/64 | 0.2969 | 1-1/2 | 6 | 1921-019 | 7.96 |
| 5/16 | 0.3125 | 1-1/2 | 6 | 1921-020 | 8.51 |
| 21/64 | 0.3281 | 1-1/2 | 6 | 1921-021 | 9.05 |
| 11/32 | 0.3437 | 1-1/2 | 6 | 1921-022 | 9.05 |
| 23/64 | 0.3594 | 1-3/4 | 7 | 1921-023 | 9.05 |
| 3/8 | 0.3750 | 1-3/4 | 7 | 1921-024 | 8.70 |
| 25/64 | 0.3906 | 1-3/4 | 7 | 1921-025 | 9.98 |
| 13/32 | 0.4062 | 1-3/4 | 7 | 1921-026 | 9.98 |
| 27/64 | 0.4219 | 1-3/4 | 7 | 1921-027 | 9.98 |
| 7/16 | 0.4375 | 1-3/4 | 7 | 1921-028 | 9.91 |
| 29/64 | 0.4531 | 1-3/4 | 7 | 1921-029 | 9.91 |
| 15/32 | 0.4687 | 1-3/4 | 7 | 1921-030 | 11.47 |
| 31/64 | 0.4844 | 2 | 8 | 1921-031 | 11.47 |
| 1/2 | 0.5000 | 2 | 8 | 1921-032 | 10.18 |
| 17/32 | 0.5312 | 2 | 8 | 1921-034 | 12.91 |

* LHS – RHC Price On Application.

| FRAC. SIZES | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 35/64 | 0.5469 | 2 | 8 | 1921-035† | $13.56 |
| 9/16 | 0.5625 | 2 | 8 | 1921-036 | 12.91 |
| 19/32 | 0.5938 | 2 | 8 | 1921-038 | 14.55 |
| 39/64 | 0.6094 | 2-1/4 | 9 | 1921-039† | 15.28 |
| 5/8 | 0.6250 | 2-1/4 | 9 | 1921-040 | 13.96 |
| 21/32 | 0.6562 | 2-1/4 | 9 | 1921-042 | 16.38 |
| 11/16 | 0.6875 | 2-1/4 | 9 | 1921-044 | 16.38 |
| 45/64 | 0.7031 | 2-1/4 | 9 | 1921-045† | 19.49 |
| 23/32 | 0.7188 | 2-1/4 | 9 | 1921-046 | 18.56 |
| 47/64 | 0.7344 | 2-1/2 | 9-1/2 | 1921-047† | 19.49 |
| 3/4 | 0.7500 | 2-1/2 | 9-1/2 | 1921-048 | 18.21 |
| 25/32 | 0.7812 | 2-1/2 | 9-1/2 | 1921-050 | 20.94 |
| 51/64 | 0.7964 | 2-1/2 | 9-1/2 | 1921-051† | 21.99 |
| 13/16 | 0.8125 | 2-1/2 | 9-1/2 | 1921-052 | 20.94 |
| 53/64 | 0.8281 | 2-1/2 | 9-1/2 | 1921-053† | 24.61 |
| 27/32 | 0.8438 | 2-1/2 | 9-1/2 | 1921-054 | 23.44 |
| 55/64 | 0.8594 | 2-5/8 | 10 | 1921-055† | 24.61 |
| 7/8 | 0.8750 | 2-5/8 | 10 | 1921-056 | 23.44 |
| 29/32 | 0.9062 | 2-5/8 | 10 | 1921-058 | 26.01 |
| 15/16 | 0.9375 | 2-5/8 | 10 | 1921-060 | 26.01 |
| 61/64 | 0.9531 | 2-5/8 | 10 | 1921-061† | 30.84 |
| 31/32 | 0.9688 | 2-5/8 | 10 | 1921-062 | 29.37 |
| 63/64 | 0.9844 | 2-3/4 | 10-1/2 | 1921-063† | 30.84 |
| 1 | 1.0000 | 2-3/4 | 10-1/2 | 1921-064 | 29.37 |
| 1-1/16 | 1.0625 | 2-3/4 | 10-1/2 | 1921-068 | 32.96 |
| 1-1/8 | 1.1250 | 2-7/8 | 11 | 1921-072 | 36.04 |
| 1-3/16 | 1.1875 | 2-7/8 | 11 | 1921-076 | 39.90 |
| 1-1/4 | 1.2500 | 3 | 11-1/2 | 1921-080 | 44.27 |
| 1-5/16 | 1.3125 | 3 | 11-1/2 | 1921-084 | 48.67 |
| 1-3/8 | 1.3750 | 3-1/4 | 12 | 1921-088 | 53.35 |
| 1-7/16 | 1.4375 | 3-1/4 | 12 | 1921-092 | 57.72 |
| 1-1/2 | 1.5000 | 3-1/2 | 12-1/2 | 1921-096 | 61.78 |

† Limited Quantities

### Letter Sizes

| LTR. SIZES | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| A | 0.2340 | 1-1/2 | 6 | 1921-301 | $6.90 |
| B | 0.2380 | 1-1/2 | 6 | 1921-302 | 6.90 |
| C | 0.2420 | 1-1/2 | 6 | 1921-303 | 6.90 |
| D | 0.2460 | 1-1/2 | 6 | 1921-304 | 6.90 |
| E | 0.2500 | 1-1/2 | 6 | 1921-305 | 6.90 |
| F | 0.2570 | 1-1/2 | 6 | 1921-306 | 6.90 |
| G | 0.2610 | 1-1/2 | 6 | 1921-307 | 7.41 |
| H | 0.2660 | 1-1/2 | 6 | 1921-308 | 7.80 |
| I | 0.2720 | 1-1/2 | 6 | 1921-309 | 7.80 |
| J | 0.2770 | 1-1/2 | 6 | 1921-310 | 7.80 |
| K | 0.2810 | 1-1/2 | 6 | 1921-311 | 7.80 |
| L | 0.2900 | 1-1/2 | 6 | 1921-312 | 7.80 |
| M | 0.2950 | 1-1/2 | 6 | 1921-313 | 7.80 |
| N | 0.3020 | 1-1/2 | 6 | 1921-314 | 8.03 |
| O | 0.3160 | 1-1/2 | 6 | 1921-315 | 8.03 |
| P | 0.3230 | 1-1/2 | 6 | 1921-316 | 8.31 |
| Q | 0.3320 | 1-1/2 | 6 | 1921-317 | 8.31 |
| R | 0.3390 | 1-1/2 | 6 | 1921-318 | 8.31 |
| S | 0.3480 | 1-3/4 | 7 | 1921-319 | 8.31 |
| T | 0.3580 | 1-3/4 | 7 | 1921-320 | 8.31 |
| U | 0.3680 | 1-3/4 | 7 | 1921-321 | 8.31 |
| V | 0.3770 | 1-3/4 | 7 | 1921-322 | 9.20 |
| W | 0.3860 | 1-3/4 | 7 | 1921-323 | 9.20 |
| X | 0.3970 | 1-3/4 | 7 | 1921-324 | 9.20 |
| Y | 0.4040 | 1-3/4 | 7 | 1921-325 | 9.44 |
| Z | 0.4130 | 1-3/4 | 7 | 1921-326 | 9.44 |

# Chucking Reamers - Straight Shank, RHS - RHC (Continued)

## High Speed Steel

Pittsburg® ALLEGHANY [2]

### Wire Gage Sizes

| DIA. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | 0.2280 | 1-1/2 | 6 | 1921-201 | 6.47 |
| 2 | 0.2210 | 1-1/2 | 6 | 1921-202 | 6.47 |
| 3 | 0.2130 | 1-1/4 | 5 | 1921-203 | 6.47 |
| 4 | 0.2090 | 1-1/4 | 5 | 1921-204 | 6.47 |
| 5 | 0.2055 | 1-1/4 | 5 | 1921-205 | 6.47 |
| 6 | 0.2040 | 1-1/4 | 5 | 1921-206 | 6.47 |
| 7 | 0.2010 | 1-1/4 | 5 | 1921-207 | 6.47 |
| 8 | 0.1990 | 1-1/4 | 5 | 1921-208 | 6.47 |
| 9 | 0.1960 | 1-1/4 | 5 | 1921-209 | 6.47 |
| 10 | 0.1935 | 5 | 5 | 1921-210 | 6.47 |
| 11 | 0.1910 | 5 | 5 | 1921-211 | 6.28 |
| 12 | 0.1890 | 4-1/2 | 4-1/2 | 1921-212 | 5.46 |
| 13 | 0.1850 | 1-1/8 | 4-1/2 | 1921-213 | 6.01 |
| 14 | 0.1820 | 1-1/8 | 4-1/2 | 1921-214 | 6.01 |
| 15 | 0.1800 | 1-1/8 | 4-1/2 | 1921-215 | 6.01 |
| 16 | 0.1770 | 1-1/8 | 4-1/2 | 1921-216 | 5.46 |
| 17 | 0.1730 | 1-1/8 | 4-1/2 | 1921-217 | 5.46 |
| 18 | 0.1695 | 1-1/8 | 4-1/2 | 1921-218 | 5.11 |
| 19 | 0.1660 | 1-1/8 | 4-1/2 | 1921-219 | 5.11 |
| 20 | 0.1610 | 1-1/8 | 4-1/2 | 1921-220 | 5.11 |
| 21 | 0.1590 | 1-1/8 | 4-1/2 | 1921-221 | $5.11 |
| 22 | 0.1570 | 1 | 4 | 1921-222 | 5.11 |
| 23 | 0.1540 | 1 | 4 | 1921-223 | 5.11 |
| 24 | 0.1520 | 1 | 4 | 1921-224 | 5.11 |
| 25 | 0.1495 | 1 | 4 | 1921-225 | 5.11 |
| 26 | 0.1470 | 1 | 4 | 1921-226 | 5.11 |
| 27 | 0.1440 | 1 | 4 | 1921-227 | 5.11 |
| 28 | 0.1405 | 1 | 4 | 1921-228 | 5.11 |
| 29 | 0.1360 | 1 | 4 | 1921-229 | 5.11 |
| 30 | 0.1285 | 7/8 | 3-1/2 | 1921-230 | 3.90 |
| 31 | 0.1200 | 7/8 | 3-1/2 | 1921-231 | 5.07 |
| 32 | 0.1160 | 7/8 | 3-1/2 | 1921-232 | 5.07 |
| 33 | 0.1130 | 7/8 | 3-1/2 | 1921-233 | 5.07 |
| 34 | 0.1110 | 7/8 | 3-1/2 | 1921-234 | 5.34 |
| 35 | 0.1100 | 7/8 | 3-1/2 | 1921-235 | 5.34 |
| 36 | 0.1065 | 7/8 | 3-1/2 | 1921-236 | 5.34 |
| 37 | 0.1040 | 7/8 | 3-1/2 | 1921-237 | 5.34 |
| 38 | 0.1015 | 7/8 | 3-1/2 | 1921-238 | 5.34 |
| 39 | 0.0995 | 7/8 | 3-1/2 | 1921-239 | 5.34 |
| 40 | 0.0980 | 7/8 | 3-1/2 | 1921-240 | 5.34 |
| 41 | 0.0960 | 7/8 | 3-1/2 | 1921-241 | $5.58 |
| 42 | 0.0935 | 3/4 | 3 | 1921-242 | 5.58 |
| 43 | 0.0890 | 3/4 | 3 | 1921-243 | 5.58 |
| 44 | 0.0860 | 3/4 | 3 | 1921-244 | 5.58 |
| 45 | 0.0820 | 3/4 | 3 | 1921-245 | 5.58 |
| 46 | 0.0810 | 3/4 | 3 | 1921-246 | 5.58 |
| 47 | 0.0785 | 3/4 | 3 | 1921-247 | 5.58 |
| 48 | 0.0760 | 3/4 | 3 | 1921-248 | 5.58 |
| 49 | 0.0730 | 3/4 | 3 | 1921-249 | 5.58 |
| 50 | 0.0700 | 3/4 | 3 | 1921-250 | 5.58 |
| 51 | 0.0670 | 3/4 | 3 | 1921-251 | 5.58 |
| 52 | 0.0635 | 1/2 | 2-1/2 | 1921-252 | 5.58 |
| 53 | 0.0595 | 1/2 | 2-1/2 | 1921-253 | 6.86 |
| 54 | 0.0550 | 1/2 | 2-1/2 | 1921-254 | 6.86 |
| 55 | 0.0520 | 1/2 | 2-1/2 | 1921-255 | 6.86 |
| 56 | 0.0465 | 1/2 | 2-1/2 | 1921-256 | 6.86 |
| 57 | 0.0430 | 1/2 | 2-1/2 | 1921-257 | 6.86 |
| 58 | 0.0420 | 1/2 | 2-1/2 | 1921-258 | 6.86 |
| 59 | 0.0410 | 1/2 | 2-1/2 | 1921-259 | 6.86 |
| 60 | 0.0400 | 1/2 | 2-1/2 | 1921-260 | 6.86 |

RHS/RHC Available on request

# Chucking Reamers - Cobalt

## Straight Shank, Straight Flute

[1]

### Fractional Sizes

| FRAC. SIZES | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | LI USA | PRICE EACH |
|---|---|---|---|---|---|---|
| 3/64 | 1/2 | 2-1/2 | – | – | 1923-403 | $15.54 |
| 1/16 | 1/2 | 2-1/2 | – | – | 1923-404 | 15.54 |
| 5/64 | 3/4 | 3 | – | – | 1923-405 | 12.58 |
| 3/32 | 3/4 | 3 | – | – | 1923-406 | 12.58 |
| 7/64 | 7/8 | 3-1/2 | – | – | 1923-407 | 13.32 |
| 1/8 | 7/8 | 3-1/2 | 1923-008 | $7.45 | 1923-408 | 11.47 |
| 9/64 | 1 | 4 | 1923-009 | 12.10 | 1923-409 | 15.54 |
| 5/32 | 1 | 4 | 1923-010 | 11.13 | 1923-410 | 15.54 |
| 11/64 | 1-1/8 | 4-1/2 | 1923-011 | 12.10 | 1923-411 | 16.28 |
| 3/16 | 1-1/8 | 4-1/2 | 1923-012 | 10.81 | 1923-412 | 16.28 |
| 13/64 | 1-1/4 | 5 | 1923-013 | 14.21 | 1923-413 | 18.87 |
| 7/32 | 1-1/4 | 5 | 1923-014 | 13.85 | 1923-414 | 18.87 |
| 15/64 | 1-1/2 | 6 | 1923-015 | 14.21 | 1923-415 | 19.24 |
| 1/4 | 1-1/2 | 6 | 1923-016 | 12.47 | 1923-416 | 16.65 |
| 17/64 | 1-1/2 | 6 | 1923-017 | 16.05 | 1923-417 | 25.16 |
| 9/32 | 1-1/2 | 6 | 1923-018 | 16.70 | 1923-418 | $25.16 |
| 19/64 | 1-1/2 | 6 | 1923-019 | 18.31 | 1923-419 | 25.16 |
| 5/16 | 1-1/2 | 6 | 1923-020 | 15.27 | 1923-420 | 25.16 |
| 21/64 | 1-1/2 | 6 | 1923-021 | 18.86 | 1923-421 | 27.38 |
| 11/32 | 1-1/2 | 6 | 1923-022 | 18.86 | 1923-422 | 27.38 |
| 23/64 | 1-3/4 | 7 | 1923-023 | 19.23 | 1923-423 | 27.38 |
| 3/8 | 1-3/4 | 7 | 1923-024 | 16.70 | 1923-424 | 25.16 |
| 25/64 | 1-3/4 | 7 | 1923-025 | 23.46 | 1923-425 | 35.53 |
| 13/32 | 1-3/4 | 7 | 1923-026 | 24.43 | 1923-426 | 35.53 |
| 27/64 | 1-3/4 | 7 | 1923-027 | 25.85 | 1923-427 | 35.53 |
| 7/16 | 1-3/4 | 7 | 1923-028 | 23.41 | 1923-428 | 35.53 |
| 29/64 | 1-3/4 | 7 | 1923-029 | 28.43 | 1923-429 | 40.34 |
| 15/32 | 1-3/4 | 7 | 1923-030 | 28.43 | 1923-430 | 40.34 |
| 31/64 | 2 | 8 | 1923-031 | 28.43 | 1923-431 | 40.34 |
| 1/2 | 2 | 8 | 1923-032 | 25.67 | 1923-432 | 36.64 |
| 17/32 | 2 | 8 | – | – | 1923-434 | $45.89 |
| 9/16 | 2 | 8 | – | – | 1923-436 | 40.71 |
| 19/32 | 2 | 8 | – | – | 1923-438 | 40.71 |
| 5/8 | 2-1/4 | 9 | – | – | 1923-440 | 45.89 |
| 21/32 | 2-1/4 | 9 | – | – | 1923-442 | 56.99 |
| 11/16 | 2-1/4 | 9 | – | – | 1923-444 | 56.99 |
| 23/32 | 2-1/4 | 9 | – | – | 1923-446 | 67.35 |
| 3/4 | 2-1/2 | 9-1/2 | – | – | 1923-448 | 58.84 |
| 25/32 | 2-1/2 | 9-1/2 | – | – | 1923-450 | 62.54 |
| 13/16 | 2-1/2 | 9-1/2 | – | – | 1923-452 | 65.13 |
| 27/32 | 2-1/2 | 9-1/2 | – | – | 1923-454 | 75.49 |
| 7/8 | 2-5/8 | 10 | – | – | 1923-456 | 76.23 |
| 29/32 | 2-5/8 | 10 | – | – | 1923-458 | 82.89 |
| 15/16 | 2-5/8 | 10 | – | – | 1923-460 | 83.63 |
| 31/32 | 2-5/8 | 10 | – | – | 1923-462 | 94.74 |
| 1 | 2-3/4 | 10-1/2 | – | – | 1923-464 | 94.74 |

### Over & Under Sizes

| DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | LI ORDER NO. | USA PRICE EACH |
|---|---|---|---|---|---|---|
| .1240 | 7/8 | 3-1/2 | 1935-240 | $8.57 | 5415-240 | $13.32 |
| .1260 | 7/8 | 3-1/2 | 1935-260 | 8.57 | 5415-260 | 13.32 |
| .1865 | 1-1/8 | 4-1/2 | 1935-865 | 12.43 | 5415-865 | 16.28 |
| .1885 | 1-1/8 | 4-1/2 | 1935-885 | 12.43 | 5415-885 | 16.28 |
| .2490 | 1-1/2 | 6 | 1936-490 | 14.34 | 5416-490 | 19.24 |
| .2510 | 1-1/2 | 6 | 1936-510 | 14.34 | 5416-510 | 16.65 |
| .3115 | 1-1/2 | 6 | 1937-115 | 17.56 | 5417-115 | 25.16 |
| .3135 | 1-1/2 | 6 | 1937-135 | 17.56 | 5417-135 | 25.16 |
| .3740 | 1-3/4 | 7 | 1937-740 | 19.21 | 5417-740 | 28.13 |
| .3760 | 1-3/4 | 7 | 1937-760 | 19.21 | 5417-760 | 28.13 |
| .4365 | 1-3/4 | 7 | 1938-365 | 26.92 | 5418-365 | 35.53 |
| .4385 | 1-3/4 | 7 | 1938-385 | 26.92 | 5418-385 | 35.53 |
| .4990 | 2 | 8 | 1938-990 | 29.52 | 5418-990 | 40.34 |
| .5010 | 2 | 8 | 1939-010 | 29.52 | 5419-010 | 40.34 |

### Dowel Pin

| DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | LI ORDER NO. | USA PRICE EACH |
|---|---|---|---|---|---|---|
| .1230 | 7/8 | 3-1/2 | 1935-230 | $ 8.57 | 5415-230 | $11.84 |
| .1247 | 7/8 | 3-1/2 | 1935-247 | 8.57 | 5415-247 | 11.84 |
| .1855 | 1-1/8 | 3-1/2 | 1935-855 | 12.43 | 5415-855 | 14.43 |
| .1870 | 1-1/8 | 4-1/2 | 1935-870 | 12.43 | 5415-870 | 14.43 |
| .2480 | 1-1/2 | 6 | 1936-480 | 14.34 | 5416-480 | 15.91 |
| .2495 | 1-1/2 | 6 | 1936-495 | 14.34 | 5416-495 | 15.91 |
| .3105 | 1-1/2 | 6 | 1937-105 | 17.56 | 5417-105 | 22.57 |
| .3120 | 1-1/2 | 6 | 1937-120 | 17.56 | 5417-120 | 22.57 |
| .3730 | 1-3/4 | 7 | 1937-730 | 19.21 | 5417-730 | 24.79 |
| .3745 | 1-3/4 | 7 | 1937-745 | 19.21 | 5417-745 | 24.79 |
| .4355 | 1-3/4 | 5-1/2 | 1938-355 | 26.92 | 5418-355 | 31.09 |
| .4370 | 1-3/4 | 5-1/2 | 1938-370 | 26.92 | 5418-370 | 31.09 |
| .4980 | 2 | 8 | 1938-980 | 29.52 | 5418-980 | 36.27 |
| .4995 | 2 | 8 | 1938-995 | 29.52 | 5418-995 | 36.27 |

# Special Decimal Chucking Reamers

## Straight Flute - Straight Shank
## R.H. Cut - High Speed Steel

The following Standard sizes are NOT included in this Special Decimal Chart:

| Standard Dowel Sizes | Standard Over & Under Sizes | Standard Metric Sizes 1.00mm thru 25.00mm by 0.5mm |
|---|---|---|

Find these sizes in the Standard Reamer pricing charts.

| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.0295 | – | – | 5400-295 | $14.63 |
| 0.0300 | – | – | 5400-300 | 14.63 |
| 0.0335 | 2000-335† | $11.70 | 5400-335† | 14.63 |
| 0.0340 | – | – | 5400-340 | 25.08 |
| 0.0355 | – | – | 5400-355 | 21.00 |
| 0.0365 | – | – | 5400-365 | 22.90 |
| 0.0385 | – | – | 5400-385 | 22.90 |
| 0.0395 | – | – | 5400-395 | 14.63 |
| 0.0405 | – | – | 5400-405 | 18.60 |
| 0.0413 | – | – | 5400-413† | 18.60 |
| 0.0415 | – | – | 5400-415 | 18.60 |
| 0.0425 | – | – | 5400-425 | 18.60 |
| 0.0433 | – | – | 5400-433 | 18.60 |
| 0.0435 | – | – | 5400-435 | 18.60 |
| 0.0440 | 2000-440 | 10.08 | 5400-440 | 18.60 |
| 0.0445 | 2000-445 | 10.08 | 5400-445 | 18.60 |
| 0.0450 | – | – | 5400-450 | 18.60 |
| 0.0455 | – | – | 5400-455 | 18.60 |
| 0.0460 | – | – | 5400-460 | 18.60 |
| 0.0470 | – | – | 5400-470 | 18.60 |
| 0.0475 | – | – | 5400-475 | 18.60 |
| 0.0480 | – | – | 5400-480 | 18.60 |
| 0.0485 | – | – | 5400-485 | 18.60 |
| 0.0490 | – | – | 5400-490 | 18.60 |
| 0.0495 | 2000-495 | 10.08 | 5400-495 | 18.60 |
| 0.0500 | – | – | 5400-500 | 18.60 |
| 0.0505 | – | – | 5400-505 | 18.60 |
| 0.0510 | – | – | 5400-510 | 18.60 |
| 0.0515 | – | – | 5400-515 | 18.60 |
| 0.0525 | 2000-525 | 10.08 | 5400-525 | 18.60 |
| 0.0530 | – | – | 5400-530 | 18.60 |
| 0.0531 | – | – | 5400-531† | 18.60 |
| 0.0535 | – | – | 5400-535 | 18.60 |
| 0.0540 | – | – | 5400-540 | 18.60 |
| 0.0545 | – | – | 5400-545 | 18.60 |
| 0.0555 | – | – | 5400-555 | 18.60 |
| 0.0560 | – | – | 5400-560 | 18.60 |
| 0.0565 | – | – | 5400-565 | 18.60 |
| 0.0570 | – | – | 5400-570 | 18.60 |
| 0.0575 | – | – | 5400-575 | 18.60 |
| 0.0580 | – | – | 5400-580 | 18.60 |
| 0.0585 | – | – | 5400-585 | 18.60 |
| 0.0590 | 2000-590 | 10.08 | 5400-590 | 18.60 |
| 0.0600 | 2000-600 | 10.08 | 5400-600 | 18.60 |
| 0.0605 | – | – | 5400-605 | 18.60 |
| 0.0610 | 2000-610 | 10.08 | 5400-610 | 18.60 |
| 0.0615 | 2000-615 | 10.08 | 5400-615 | 18.60 |
| 0.0620 | 2000-620 | 10.08 | 5400-620 | 18.60 |
| 0.0630 | 2000-630 | 9.18 | 5400-630 | 18.60 |
| 0.0640 | 2000-640 | 9.18 | 5400-640 | 18.60 |
| 0.0645 | – | – | 5400-645 | 18.60 |
| 0.0650 | 2000-650 | 9.18 | 5400-650 | 18.60 |
| 0.0655 | 2000-655 | 9.18 | 5400-655 | 18.60 |
| 0.0660 | – | – | 5400-660 | 18.60 |
| 0.0665 | – | – | 5400-665 | 18.60 |
| 0.0675 | – | – | 5400-675 | 18.60 |
| 0.0677 | 2000-677† | 9.18 | – | – |
| 0.0680 | 2000-680 | 9.18 | 5400-680 | 18.60 |
| 0.0685 | – | – | 5400-685 | 18.60 |
| 0.0689 | – | – | 5400-689† | $18.60 |
| 0.0690 | – | – | 5400-690 | 18.60 |
| 0.0695 | – | – | 5400-695 | 18.60 |
| 0.0705 | – | – | 5400-705 | 18.60 |
| 0.0709 | – | – | 5400-709† | 18.60 |
| 0.0710 | 2000-710 | $9.18 | 5400-710 | 18.60 |
| 0.0715 | – | – | 5400-715 | 18.60 |
| 0.0720 | – | – | 5400-720 | 18.60 |
| 0.0725 | – | – | 5400-725 | 18.60 |
| 0.0728 | – | – | 5400-728† | 18.60 |
| 0.0735 | 2000-735 | 9.18 | 5400-735 | 18.60 |
| 0.0740 | – | – | 5400-740 | 18.60 |
| 0.0745 | – | – | 5400-745 | 18.60 |
| 0.0748 | – | – | 5400-748† | 18.60 |
| 0.0750 | 2000-750 | 9.18 | 5400-750 | 18.60 |
| 0.0755 | – | – | 5400-755 | 18.60 |
| 0.0765 | – | – | 5400-765 | 18.60 |
| 0.0765 | – | – | 5400-768† | 18.60 |
| 0.0770 | 2000-770 | 9.18 | 5400-770 | 18.60 |
| 0.0775 | – | – | 5400-775 | 18.60 |
| 0.0780 | 2000-780 | 9.18 | 5400-780 | 18.60 |
| 0.0790 | 2000-790 | 9.18 | 5400-790 | 18.60 |
| 0.0792 | 2000-792† | 9.18 | – | – |
| 0.0794 | 2000-794† | 9.18 | – | – |
| 0.0795 | 2000-795 | 9.18 | 5400-795 | 18.60 |
| 0.0800 | 2000-800 | 9.18 | 5400-800 | 18.60 |
| 0.0805 | 2000-805 | 9.18 | 5400-805 | 18.60 |
| 0.0807 | – | – | 5400-807† | 18.60 |
| 0.0815 | – | – | 5400-815 | 18.60 |
| 0.0825 | 2000-825 | 9.18 | 5400-825 | 18.60 |
| 0.0827 | – | – | 5400-827† | 18.60 |
| 0.0830 | – | – | 5400-830 | 18.60 |
| 0.0835 | – | – | 5400-835 | 18.60 |
| 0.0840 | 2000-840 | 9.18 | 5400-840 | 18.60 |
| 0.0845 | – | – | 5400-845 | 18.60 |
| 0.0845 | – | – | 5400-846† | 18.60 |
| 0.0850 | 2000-850 | 9.18 | 5400-850 | 18.60 |
| 0.0855 | 2000-855 | 9.18 | 5400-855 | 18.60 |
| 0.0865 | – | – | 5400-865 | 18.60 |
| 0.0866 | – | – | 5400-866† | 18.60 |
| 0.0870 | 2000-870 | 9.18 | 5400-870 | 18.60 |
| 0.0875 | – | – | 5400-875 | 18.60 |
| 0.0880 | 2000-880 | 9.18 | 5400-880 | 18.60 |
| 0.0885 | – | – | 5400-885 | 18.60 |
| 0.0886 | – | – | 5400-886† | 18.60 |
| 0.0895 | – | – | 5400-895 | 18.60 |
| 0.0900 | 2000-900 | 9.18 | 5400-900 | 18.60 |
| 0.0905 | – | – | 5400-905 | 18.60 |
| 0.0910 | 2000-910 | 9.18 | 5400-910 | 18.60 |
| 0.0915 | – | – | 5400-915 | 18.60 |
| 0.0920 | 2000-920 | 9.18 | 5400-920 | 18.60 |
| 0.0925 | – | – | 5400-925 | 18.60 |
| 0.0930 | 2000-930 | 9.18 | 5400-930 | 18.60 |
| 0.0931 | – | – | 5400-931† | 18.60 |
| 0.0940 | 2000-940 | 10.49 | 5400-940 | 18.60 |
| 0.0944 | 2000-944† | 10.49 | – | – |
| 0.0945 | – | – | 5400-945 | 18.60 |
| 0.0949 | 2000-949† | 10.49 | – | – |
| 0.0950 | 2000-950 | 10.49 | 5400-950 | 18.60 |
| 0.0955 | – | – | 5400-955 | 18.60 |
| 0.0965 | – | – | 5400-965 | $18.60 |
| 0.0970 | 2000-970 | $10.49 | 5400-970 | 18.60 |
| 0.0975 | – | – | 5400-975 | 18.60 |
| 0.0985 | – | – | 5400-985 | 18.60 |
| 0.0986 | 2000-986† | 10.49 | – | – |
| 0.0990 | 2000-990 | 10.49 | 5400-990 | 18.60 |
| 0.1000 | 2001-000 | 10.49 | 5401-000 | 18.60 |
| 0.1005 | – | – | 5401-005 | 18.60 |
| 0.1010 | 2001-010 | 10.49 | 5401-010 | 18.60 |
| 0.1020 | – | – | 5401-020 | 18.60 |
| 0.1025 | 2001-025 | 10.49 | 5401-025 | 18.60 |
| 0.1030 | – | – | 5401-030 | 18.60 |
| 0.1035 | – | – | 5401-035 | 18.60 |
| 0.1045 | – | – | 5401-045 | 18.60 |
| 0.1050 | 2001-050 | 10.49 | 5401-050 | 18.60 |
| 0.1055 | – | – | 5401-055 | 18.60 |
| 0.1060 | 2001-060 | 10.49 | 5401-060 | 18.60 |
| 0.1063 | – | – | 5401-063† | 18.60 |
| 0.1070 | 2001-070 | 10.49 | 5401-070 | 18.60 |
| 0.1075 | – | – | 5401-075 | 18.60 |
| 0.1080 | 2001-080 | 10.49 | 5401-080 | 18.60 |
| 0.1083 | – | – | 5401-083† | 18.60 |
| 0.1085 | – | – | 5401-085 | 18.60 |
| 0.1090 | – | – | 5401-090 | 18.60 |
| 0.1095 | – | – | 5401-095 | 16.05 |
| 0.1105 | 2001-105 | 9.66 | 5401-105 | 16.05 |
| 0.1115 | – | – | 5401-115 | 16.05 |
| 0.1120 | 2001-120 | 9.66 | 5401-120 | 16.05 |
| 0.1125 | – | – | 5401-125 | 16.05 |
| 0.1135 | – | – | 5401-135 | 16.05 |
| 0.1140 | 2001-140 | 9.66 | 5401-140 | 16.05 |
| 0.1145 | – | – | 5401-145 | 16.05 |
| 0.1150 | – | – | 5401-150 | 16.05 |
| 0.1155 | 2001-155 | 9.66 | 5401-155 | 16.05 |
| 0.1165 | – | – | 5401-165 | 16.05 |
| 0.1170 | 2001-170 | 9.66 | 5401-170 | 16.05 |
| 0.1175 | – | – | 5401-175 | 16.05 |
| 0.1180 | – | – | 5401-180 | 16.05 |
| 0.1185 | – | – | 5401-185 | 16.05 |
| 0.1190 | 2001-190 | 9.66 | 5401-190 | 16.05 |
| 0.1195 | – | – | 5401-195 | 16.05 |
| 0.1205 | – | – | 5401-205 | 16.05 |
| 0.1210 | 2001-210 | 9.66 | 5401-210 | 16.05 |
| 0.1215 | 2001-215 | 9.66 | 5401-215 | 16.05 |
| 0.1220 | 2001-220 | 8.86 | 5401-220 | 16.05 |
| 0.1225 | 2001-225 | 8.86 | 5401-225 | 16.05 |
| 0.1235 | 2001-235 | 8.86 | 5401-235 | 16.05 |
| 0.1243 | – | – | 5401-243† | 16.05 |
| 0.1245 | 2001-245 | 8.86 | 5401-245 | 16.05 |
| 0.1253 | 2001-253† | 10.49 | – | – |
| 0.1255 | 2001-255 | 10.49 | 5401-255 | 19.28 |
| 0.1257 | 2001-257† | 10.49 | – | – |
| 0.1265 | 2001-265 | 10.49 | 5401-265 | 19.28 |
| 0.1270 | 2001-270 | 10.49 | 5401-270 | 19.28 |
| 0.1275 | 2001-275 | 10.49 | 5401-275 | 19.28 |
| 0.1280 | 2001-280 | 10.49 | 5401-280 | 19.28 |
| 0.1290 | 2001-290 | 10.49 | 5401-290 | 19.28 |
| 0.1295 | 2001-295 | 10.49 | 5401-295 | 19.28 |
| 0.1299 | 2001-299† | 10.49 | – | – |

† Limited Quantities.

# Special Decimal Chucking Reamers

## Straight Flute - Straight Shank
## R.H. Cut - High Speed Steel

The following Standard sizes are NOT included in this Special Decimal Chart:

| Standard Dowel Sizes | Standard Over & Under Sizes | Standard Metric Sizes 1.00mm thru 25.00mm by 0.5mm |
|---|---|---|

Find these sizes in the Standard Reamer pricing charts.

| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.1300 | 2001-300 | $10.49 | 5401-300 | $19.28 |
| 0.1305 | 2001-305 | 10.49 | 5401-305 | 19.28 |
| 0.1310 | 2001-310 | 10.49 | 5401-310 | 19.28 |
| 0.1315 | 2001-315 | 10.49 | 5401-315 | 19.28 |
| 0.1320 | 2001-320 | 10.49 | 5401-320 | 19.28 |
| 0.1325 | 2001-325 | 10.49 | 5401-325 | 19.28 |
| 0.1330 | 2001-330 | 10.49 | 5401-330 | 19.28 |
| 0.1335 | 2001-335 | 10.49 | 5401-335 | 19.28 |
| 0.1340 | 2001-340 | 10.49 | 5401-340 | 19.28 |
| 0.1345 | 2001-345 | 10.49 | 5401-345 | 19.28 |
| 0.1350 | 2001-350 | 10.49 | 5401-350 | 19.28 |
| 0.1355 | 2001-355 | 10.49 | 5401-355 | 19.28 |
| 0.1365 | 2001-365 | 10.49 | 5401-365 | 19.28 |
| 0.1370 | 2001-370 | 10.49 | 5401-370 | 19.28 |
| 0.1375 | 2001-375 | 10.49 | 5401-375 | 19.28 |
| 0.1380 | 2001-380 | 10.49 | 5401-380 | 19.28 |
| 0.1385 | 2001-385 | 10.49 | 5401-385 | 19.28 |
| 0.1390 | 2001-390 | 10.49 | 5401-390 | 19.28 |
| 0.1395 | 2001-395 | 10.49 | 5401-395 | 19.28 |
| 0.1400 | 2001-400 | 10.49 | 5401-400 | 19.28 |
| 0.1410 | 2001-410 | 10.49 | 5401-410 | 19.28 |
| 0.1415 | 2001-415 | 10.49 | 5401-415 | 19.28 |
| 0.1420 | 2001-420 | 10.49 | 5401-420 | 19.28 |
| 0.1425 | 2001-425 | 10.49 | 5401-425 | 19.28 |
| 0.1430 | 2001-430 | 10.49 | 5401-430 | 19.28 |
| 0.1435 | 2001-435 | 10.49 | 5401-435 | 19.28 |
| 0.1445 | 2001-445 | 10.49 | 5401-445 | 19.28 |
| 0.1450 | 2001-450 | 10.49 | 5401-450 | 19.28 |
| 0.1455 | 2001-455 | 10.49 | 5401-455 | 19.28 |
| 0.1460 | 2001-460 | 10.49 | 5401-460 | 19.28 |
| 0.1465 | 2001-465 | 10.49 | 5401-465 | 19.28 |
| 0.1475 | 2001-475 | 10.49 | 5401-475 | 19.28 |
| 0.1480 | 2001-480 | 10.49 | 5401-480 | 19.28 |
| 0.1485 | 2001-485 | 10.49 | 5401-485 | 19.28 |
| 0.1490 | 2001-490 | 10.49 | 5401-490 | 19.28 |
| 0.1500 | 2001-500 | 10.49 | 5401-500 | 19.28 |
| 0.1505 | 2001-505 | 10.49 | 5401-505 | 19.28 |
| 0.1510 | 2001-510 | 10.49 | 5401-510 | 19.28 |
| 0.1515 | 2001-515 | 10.49 | 5401-515 | 19.28 |
| 0.1525 | 2001-525 | 10.49 | 5401-525 | 19.28 |
| 0.1528 | 2001-528† | 10.49 | – | – |
| 0.1530 | 2001-530 | 10.49 | 5401-530 | 19.28 |
| 0.1535 | 2001-535 | 10.49 | 5401-535 | 19.28 |
| 0.1545 | 2001-545 | 10.49 | 5401-545 | 19.28 |
| 0.1550 | 2001-550 | 10.49 | 5401-550 | 19.28 |
| 0.1552 | 2001-552† | 10.49 | – | – |
| 0.1555 | 2001-555 | 10.49 | 5401-555 | 19.28 |
| 0.1560 | 2001-560 | 10.49 | 5401-560 | 19.28 |
| 0.1565 | 2001-565 | 10.49 | 5401-565 | 19.28 |
| 0.1578 | 2001-578† | 10.49 | – | – |
| 0.1580 | 2001-580 | 10.49 | 5401-580 | 19.28 |
| 0.1585 | 2001-585 | 10.49 | 5401-585 | 19.28 |
| 0.1592 | 2001-592† | 10.49 | – | – |
| 0.1595 | 2001-595 | 10.49 | 5401-595 | 19.28 |
| 0.1600 | 2001-600 | 10.49 | 5401-600 | 19.28 |
| 0.1605 | 2001-605 | 10.49 | 5401-605 | 19.28 |
| 0.1615 | 2001-615 | 10.49 | 5401-615 | 19.28 |

| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.1620 | 2001-620 | $10.49 | 5401-620 | $19.28 |
| 0.1625 | 2001-625 | 10.49 | 5401-625 | 19.28 |
| 0.1630 | 2001-630 | 10.49 | 5401-630 | 19.28 |
| 0.1635 | 2001-635 | 10.49 | 5401-635 | 19.28 |
| 0.1640 | 2001-640 | 10.49 | 5401-640 | 19.28 |
| 0.1645 | 2001-645 | 10.49 | 5401-645 | 19.28 |
| 0.1650 | 2001-650 | 10.49 | 5401-650 | 19.28 |
| 0.1655 | 2001-655 | 10.49 | 5401-655 | 19.28 |
| 0.1665 | 2001-665 | 10.49 | 5401-665 | 19.28 |
| 0.1670 | 2001-670 | 10.49 | 5401-670 | 19.28 |
| 0.1675 | 2001-675 | 10.49 | 5401-675 | 19.28 |
| 0.1678 | 2001-678† | 10.49 | – | – |
| 0.1680 | 2001-680 | 10.49 | 5401-680 | 19.28 |
| 0.1685 | 2001-685 | 10.49 | 5401-685 | 19.28 |
| 0.1690 | 2001-690 | 10.49 | 5401-690 | 19.28 |
| 0.1700 | 2001-700 | 10.49 | 5401-700 | 19.28 |
| 0.1705 | 2001-705 | 10.49 | 5401-705 | 19.28 |
| 0.1710 | 2001-710 | 10.49 | 5401-710 | 19.28 |
| 0.1715 | 2001-715 | 10.49 | 5401-715 | 19.28 |
| 0.1720 | 2001-720 | 10.49 | 5401-720 | 19.28 |
| 0.1725 | 2001-725 | 10.49 | 5401-725 | 24.75 |
| 0.1735 | 2001-735 | 10.49 | 5401-735 | 19.28 |
| 0.1740 | 2001-740 | 10.49 | 5401-740 | 19.28 |
| 0.1745 | 2001-745 | 10.49 | 5401-745 | 19.28 |
| 0.1750 | 2001-750 | 10.49 | 5401-750 | 19.28 |
| 0.1755 | 2001-755 | 10.49 | 5401-755 | 19.28 |
| 0.1760 | 2001-760 | 10.49 | 5401-760 | 19.28 |
| 0.1765 | 2001-765 | 10.49 | 5401-765 | 19.28 |
| 0.1775 | 2001-775 | 10.49 | 5401-775 | 19.28 |
| 0.1780 | 2001-780 | 10.49 | 5401-780 | 19.28 |
| 0.1785 | 2001-785 | 10.49 | 5401-785 | 19.28 |
| 0.1790 | 2001-790 | 10.49 | 5401-790 | 19.28 |
| 0.1795 | 2001-795 | 10.49 | 5401-795 | 19.28 |
| 0.1805 | 2001-805 | 10.49 | 5401-805 | 19.28 |
| 0.1810 | 2001-810 | 10.49 | 5401-810 | 19.28 |
| 0.1815 | 2001-815 | 10.49 | 5401-815 | 19.28 |
| 0.1825 | 2001-825 | 10.49 | 5401-825 | 19.28 |
| 0.1830 | 2001-830 | 10.49 | 5401-830 | 19.28 |
| 0.1835 | 2001-835 | 10.49 | 5401-835 | 19.28 |
| 0.1840 | 2001-840 | 10.49 | 5401-840 | 19.28 |
| 0.1845 | 2001-845 | 10.49 | 5401-845 | 19.28 |
| 0.1860 | 2001-860 | 10.49 | 5401-860 | 19.28 |
| 0.1876 | 2001-876† | 12.02 | – | – |
| 0.1880 | 2001-880 | 12.02 | 5401-880 | 19.28 |
| 0.1895 | 2001-895 | 12.02 | 5401-895 | 24.75 |
| 0.1900 | 2001-900 | 12.02 | 5401-900 | 19.28 |
| 0.1905 | 2001-905 | 12.02 | 5401-905 | 19.28 |
| 0.1915 | 2001-915 | 12.02 | 5401-915 | 19.28 |
| 0.1920 | 2001-920 | 12.02 | 5401-920 | 19.28 |
| 0.1925 | 2001-925 | 12.02 | 5401-925 | 19.28 |
| 0.1929 | 2001-929† | 12.02 | – | – |
| 0.1930 | 2001-930 | 12.02 | 5401-930 | 19.28 |
| 0.1940 | 2001-940 | 12.02 | 5401-940 | 19.28 |
| 0.1945 | 2001-945 | 12.02 | 5401-945 | 19.28 |
| 0.1950 | 2001-950 | 12.02 | 5401-950 | 19.28 |
| 0.1955 | 2001-955 | 12.02 | 5401-955 | 19.28 |
| 0.1965 | 2001-965 | 12.02 | 5401-965 | 19.28 |
| 0.1970 | 2001-970 | 12.02 | 5401-970 | 19.28 |
| 0.1975 | 2001-975 | 12.02 | 5401-975 | 19.28 |

| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.1980 | 2001-980 | $12.02 | 5401-980 | $19.28 |
| 0.1985 | 2001-985 | 12.02 | 5401-985 | 19.28 |
| 0.1995 | 2001-995 | 12.02 | 5401-995 | 19.28 |
| 0.2000 | 2002-000 | 12.02 | 5402-000 | 19.28 |
| 0.2005 | 2002-005 | 12.02 | 5402-005 | 19.28 |
| 0.2015 | 2002-015 | 12.02 | 5402-015 | 19.28 |
| 0.2020 | 2002-020 | 12.02 | 5402-020 | 19.28 |
| 0.2025 | 2002-025 | 12.02 | 5402-025 | 19.28 |
| 0.2030 | 2002-030 | 12.02 | 5402-030 | 19.28 |
| 0.2035 | 2002-035 | 12.02 | 5402-035 | 19.28 |
| 0.2045 | 2002-045 | 12.02 | 5402-045 | 19.28 |
| 0.2050 | 2002-050 | 12.02 | 5402-050 | 19.28 |
| 0.2060 | 2002-060 | 12.02 | 5402-060 | 19.28 |
| 0.2070 | 2002-070 | 12.02 | 5402-070 | 19.28 |
| 0.2075 | 2002-075 | 12.02 | 5402-075 | 19.28 |
| 0.2080 | 2002-080 | 12.02 | 5402-080 | 19.28 |
| 0.2085 | 2002-085 | 12.02 | 5402-085 | 19.28 |
| 0.2095 | 2002-095 | 12.02 | 5402-095 | 19.28 |
| 0.2100 | 2002-100 | 12.02 | 5402-100 | 19.28 |
| 0.2105 | 2002-105 | 12.02 | 5402-105 | 19.28 |
| 0.2110 | 2002-110 | 12.02 | 5402-110 | 19.28 |
| 0.2115 | 2002-115 | 12.02 | 5402-115 | 19.28 |
| 0.2120 | 2002-120 | 12.02 | 5402-120 | 19.28 |
| 0.2125 | 2002-125 | 12.02 | 5402-125 | 19.28 |
| 0.2135 | 2002-135 | 12.02 | 5402-135 | 19.28 |
| 0.2140 | 2002-140 | 12.02 | 5402-140 | 19.28 |
| 0.2145 | 2002-145 | 12.02 | 5402-145 | 19.28 |
| 0.2150 | 2002-150 | 12.02 | 5402-150 | 19.28 |
| 0.2155 | 2002-155 | 12.02 | 5402-155 | 19.28 |
| 0.2160 | 2002-160 | 12.02 | 5402-160 | 19.28 |
| 0.2166 | – | – | 5402-166† | 19.28 |
| 0.2170 | 2002-170 | 12.02 | 5402-170 | 19.28 |
| 0.2175 | 2002-175 | 12.02 | 5402-175 | 19.28 |
| 0.2180 | 2002-180 | 12.02 | 5402-180 | 19.28 |
| 0.2185 | 2002-185 | 12.02 | 5402-185 | 19.28 |
| 0.2190 | 2002-190 | 12.02 | 5402-190 | 19.28 |
| 0.2195 | 2002-195 | 12.02 | 5402-195 | 19.28 |
| 0.2200 | 2002-200 | 12.02 | 5402-200 | 19.28 |
| 0.2205 | 2002-205 | 12.02 | 5402-205 | 19.28 |
| 0.2215 | 2002-215 | 12.02 | 5402-215 | 19.28 |
| 0.2220 | 2002-220 | 12.02 | 5402-220 | 19.28 |
| 0.2225 | 2002-225 | 12.02 | 5402-225 | 19.28 |
| 0.2230 | 2002-230 | 12.02 | 5402-230 | 19.28 |
| 0.2235 | 2002-235 | 12.02 | 5402-235 | 19.28 |
| 0.2240 | 2002-240 | 12.02 | 5402-240 | 19.28 |
| 0.2245 | 2002-245 | 12.02 | 5402-245 | 19.28 |
| 0.2250 | 2002-250 | 12.02 | 5402-250 | 19.28 |
| 0.2260 | 2002-260 | 12.02 | 5402-260 | 19.28 |
| 0.2265 | 2002-265 | 12.02 | 5402-265 | 19.28 |
| 0.2270 | 2002-270 | 12.02 | 5402-270 | 19.28 |
| 0.2275 | 2002-275 | 12.02 | 5402-275 | 19.28 |
| 0.2285 | 2002-285 | 12.02 | 5402-285 | 19.28 |
| 0.2290 | 2002-290 | 12.02 | 5402-290 | 19.28 |
| 0.2295 | 2002-295 | 12.02 | 5402-295 | 19.28 |
| 0.2300 | 2002-300 | 12.02 | 5402-300 | 19.28 |
| 0.2305 | 2002-305 | 12.02 | 5402-305 | 19.28 |
| 0.2310 | 2002-310 | 12.02 | 5402-310 | 19.28 |
| 0.2315 | 2002-315 | 12.02 | 5402-315 | 19.28 |

† Limited Quantities.

# Special Decimal Chucking Reamers

## Straight Flute - Straight Shank - R.H. Cut - High Speed Steel

| SIZE | [2] Pittsburg® ALLEGHANY ORDER NO. | [2] PRICE EACH | [1] USA ORDER NO. | [1] PRICE EACH |
|---|---|---|---|---|
| 0.2320 | 2002-320 | $12.02 | 5402-320 | $19.28 |
| 0.2325 | 2002-325 | 12.02 | 5402-325 | 19.28 |
| 0.2330 | 2002-330 | 12.02 | 5402-330 | 19.28 |
| 0.2335 | 2002-335 | 12.89 | 5402-335 | 19.28 |
| 0.2345 | 2002-345 | 12.89 | 5402-345 | 19.28 |
| 0.2350 | 2002-350 | 12.89 | 5402-350 | 19.28 |
| 0.2355 | 2002-355 | 12.89 | 5402-355 | 19.28 |
| 0.2360 | 2002-360 | 12.89 | 5402-360 | 19.28 |
| 0.2365 | 2002-365 | 12.89 | 5402-365 | 19.28 |
| 0.2370 | 2002-370 | 12.89 | 5402-370 | 19.28 |
| 0.2375 | 2002-375 | 12.89 | 5402-375 | 19.28 |
| 0.2385 | 2002-385 | 12.89 | 5402-385 | 19.28 |
| 0.2390 | 2002-390 | 12.89 | 5402-390 | 19.28 |
| 0.2395 | 2002-395 | 12.89 | 5402-395 | 19.28 |
| 0.2400 | 2002-400 | 12.89 | 5402-400 | 19.28 |
| 0.2405 | 2002-405 | 12.89 | 5402-405 | 19.28 |
| 0.2410 | 2002-410 | 12.89 | 5402-410 | 19.28 |
| 0.2415 | 2002-415 | 12.89 | 5402-415 | 19.28 |
| 0.2425 | 2002-425 | 12.89 | 5402-425 | 19.28 |
| 0.2430 | 2002-430 | 12.89 | 5402-430 | 19.28 |
| 0.2435 | 2002-435 | 12.89 | 5402-435 | 19.28 |
| 0.2440 | 2002-440 | 12.89 | 5402-440 | 19.28 |
| 0.2445 | 2002-445 | 12.89 | 5402-445 | 19.28 |
| 0.2450 | 2002-450 | 12.89 | 5402-450 | 19.28 |
| 0.2455 | 2002-455 | 12.89 | 5402-455 | 19.28 |
| 0.2465 | 2002-465 | 12.89 | 5402-465 | 19.28 |
| 0.2470 | 2002-470 | 11.81 | 5402-470 | 19.28 |
| 0.2475 | 2002-475 | 11.81 | 5402-475 | 19.28 |
| 0.2485 | 2002-485 | 11.81 | 5402-485 | 19.28 |
| 0.2505 | 2002-505 | 13.41 | 5402-505 | 24.15 |
| 0.2515 | 2002-515 | 13.41 | 5402-515 | 24.15 |
| 0.2520 | 2002-520 | 13.41 | 5402-520 | 24.15 |
| 0.2525 | 2002-525 | 13.41 | 5402-525 | 24.15 |
| 0.2530 | 2002-530 | 13.41 | 5402-530 | 24.15 |
| 0.2535 | 2002-535 | 13.46 | 5402-535 | 24.15 |
| 0.2540 | 2002-540 | 13.46 | 5402-540 | 24.15 |
| 0.2545 | – | – | 5402-545 | 24.15 |
| 0.2550 | 2002-550 | 13.46 | 5402-550 | 24.15 |
| 0.2560 | 2002-560 | 13.46 | 5402-560 | 24.15 |
| 0.2580 | 2002-580 | 13.46 | 5402-580 | 24.15 |
| 0.2590 | 2002-590 | 13.46 | 5402-590 | 24.15 |
| 0.2595 | – | – | 5402-595 | 24.15 |
| 0.2600 | 2002-600 | 13.46 | 5402-600 | 24.15 |
| 0.2620 | 2002-620 | 13.46 | 5402-620 | 24.15 |
| 0.2630 | 2002-630 | 13.46 | 5402-630 | 24.15 |
| 0.2640 | 2002-640 | 13.46 | 5402-640 | 24.15 |
| 0.2650 | 2002-650 | 13.46 | 5402-650 | 24.15 |
| 0.2655 | 2002-655 | 13.46 | 5402-655 | 24.15 |
| 0.2657 | 2002-657† | 13.46 | – | – |
| 0.2665 | 2002-665 | 13.46 | 5402-665 | 24.15 |
| 0.2670 | 2002-670 | 13.46 | 5402-670 | 24.15 |
| 0.2675 | 2002-675 | 13.46 | 5402-675 | 24.15 |
| 0.2677 | 2002-677† | 13.46 | – | – |
| 0.2680 | 2002-680 | 13.46 | 5402-680 | 24.15 |
| 0.2690 | 2002-690 | 13.46 | 5402-690 | 24.15 |
| 0.2700 | 2002-700 | 13.46 | 5402-700 | 24.15 |
| 0.2705 | 2002-705 | 13.46 | 5402-705 | 24.15 |
| 0.2710 | 2002-710 | 13.46 | 5402-710 | 24.15 |
| 0.2725 | 2002-725 | 13.46 | 5402-725 | 24.15 |
| 0.2730 | 2002-730 | 13.46 | 5402-730 | 24.15 |
| 0.2735 | 2002-735 | 13.46 | 5402-735 | 24.15 |
| 0.2740 | 2002-740 | 13.46 | 5402-740 | 24.15 |
| 0.2745 | 2002-745 | 13.46 | 5402-745 | 24.15 |
| 0.2750 | 2002-750 | 13.46 | 5402-750 | 24.15 |
| 0.2760 | 2002-760 | 13.46 | 5402-760 | 24.15 |
| 0.2765 | 2002-765 | 13.46 | 5402-765 | 24.15 |
| 0.2775 | 2002-775 | 13.46 | 5402-775 | 24.15 |
| 0.2780 | 2002-780 | 13.46 | 5402-780 | 24.15 |
| 0.2785 | 2002-785 | 13.46 | 5402-785 | 24.15 |
| 0.2790 | 2002-790 | 13.46 | 5402-790 | 24.15 |

| SIZE | [2] Pittsburg® ALLEGHANY ORDER NO. | [2] PRICE EACH | [1] USA ORDER NO. | [1] PRICE EACH |
|---|---|---|---|---|
| 0.2795 | 2002-795 | $13.46 | 5402-795 | $24.15 |
| 0.2800 | 2002-800 | 13.46 | 5402-800 | 24.15 |
| 0.2805 | 2002-805 | 13.46 | 5402-805 | 24.15 |
| 0.2811 | 2202-811† | 13.46 | – | – |
| 0.2815 | 2002-815 | 13.46 | 5402-815 | 24.15 |
| 0.2820 | 2002-820 | 13.46 | 5402-820 | 24.15 |
| 0.2825 | 2002-825 | 13.46 | 5402-825 | 24.15 |
| 0.2830 | 2002-830 | 13.46 | 5402-830 | 24.15 |
| 0.2835 | 2002-835 | 13.46 | 5402-835 | 24.15 |
| 0.2840 | 2002-840 | 13.46 | 5402-840 | 24.15 |
| 0.2845 | 2002-845 | 13.46 | 5402-845 | 24.15 |
| 0.2850 | 2002-850 | 13.46 | 5402-850 | 24.15 |
| 0.2855 | 2002-855 | 13.46 | 5402-855 | 24.15 |
| 0.2860 | 2002-860 | 13.46 | 5402-860 | 24.15 |
| 0.2865 | 2002-865 | 13.46 | 5402-865 | 24.15 |
| 0.2870 | 2002-870 | 13.46 | 5402-870 | 24.15 |
| 0.2874 | 2002-874† | 13.46 | – | – |
| 0.2875 | 2002-875 | 13.46 | 5402-875 | 24.15 |
| 0.2880 | 2002-880 | 13.46 | 5402-880 | 24.15 |
| 0.2885 | 2002-885 | 13.46 | 5402-885 | 24.15 |
| 0.2890 | 2002-890 | 13.46 | 5402-890 | 24.15 |
| 0.2895 | 2002-895 | 13.46 | 5402-895 | 24.15 |
| 0.2905 | 2002-905 | 13.46 | 5402-905 | 24.15 |
| 0.2910 | 2002-910 | 13.46 | 5402-910 | 24.15 |
| 0.2915 | 2002-915 | 13.46 | 5402-915 | 24.15 |
| 0.2920 | 2002-920 | 13.46 | 5402-920 | 24.15 |
| 0.2925 | 2002-925 | 13.46 | 5402-925 | 24.15 |
| 0.2930 | 2002-930 | 13.46 | 5402-930 | 24.15 |
| 0.2935 | 2002-935 | 13.46 | 5402-935 | 24.15 |
| 0.2940 | 2002-940 | 13.46 | 5402-940 | 24.15 |
| 0.2945 | 2002-945 | 13.46 | 5402-945 | 24.15 |
| 0.2946 | – | – | 5402-946† | 24.15 |
| 0.2955 | 2002-955 | 13.46 | 5402-955 | 24.15 |
| 0.2960 | 2002-960 | 13.46 | 5402-960 | 24.15 |
| 0.2965 | 2002-965 | 13.46 | 5402-965 | 24.15 |
| 0.2970 | 2002-970 | 13.46 | 5402-970 | 24.15 |
| 0.2975 | 2002-975 | 13.46 | 5402-975 | 24.15 |
| 0.2980 | 2002-980 | 13.46 | 5402-980 | 24.15 |
| 0.2985 | 2002-985 | 13.46 | 5402-985 | 24.15 |
| 0.2990 | 2002-990 | 13.46 | 5402-990 | 24.15 |
| 0.2992 | 2002-992† | 13.46 | – | – |
| 0.2995 | 2002-995 | 13.46 | 5402-995 | 24.15 |
| 0.3000 | 2003-000 | 13.46 | 5403-000 | 24.15 |
| 0.3005 | 2003-005 | 13.46 | 5403-005 | 24.15 |
| 0.3010 | 2003-010 | 13.46 | 5403-010 | 24.15 |
| 0.3015 | 2003-015 | 13.46 | 5403-015 | 24.15 |
| 0.3025 | 2003-025 | 13.46 | 5403-025 | 24.15 |
| 0.3030 | 2003-030 | 13.46 | 5403-030 | 24.15 |
| 0.3031 | 2003-031† | 13.46 | – | – |
| 0.3035 | 2003-035 | 13.46 | 5403-035 | 24.15 |
| 0.3040 | 2003-040 | 13.46 | 5403-040 | 24.15 |
| 0.3045 | 2003-045 | 13.46 | 5403-045 | 24.15 |
| 0.3050 | 2003-050 | 13.46 | 5403-050 | 24.15 |
| 0.3051 | 2003-051† | 13.46 | – | – |
| 0.3055 | 2003-055 | 13.46 | 5403-055 | 24.15 |
| 0.3060 | 2003-060 | 13.46 | 5403-060 | 24.15 |
| 0.3065 | 2003-065 | 13.46 | 5403-065 | 24.15 |
| 0.3070 | 2003-070 | 13.46 | 5403-070 | 24.15 |
| 0.3071 | 2003-071† | 13.46 | – | – |
| 0.3075 | 2003-075 | 13.46 | 5403-075 | 24.15 |
| 0.3076 | – | – | 5403-076† | 24.15 |
| 0.3080 | 2003-080 | 13.46 | 5403-080 | 24.15 |
| 0.3085 | 2003-085 | 13.46 | 5403-085 | 24.15 |
| 0.3090 | 2003-090 | 13.46 | 5403-090 | 24.15 |
| 0.3095 | 2003-095 | 13.46 | 5403-095 | 24.15 |
| 0.3100 | 2003-100 | 13.46 | 5403-100 | 24.15 |
| 0.3110 | 2003-110 | 13.46 | 5403-110 | 24.15 |
| 0.3130 | 2003-130 | 13.46 | 5403-130 | 28.35 |
| 0.3140 | 2003-140 | 13.46 | 5403-140 | 28.35 |
| 0.3145 | 2003-145 | 13.46 | 5403-145 | 28.35 |
| 0.3155 | 2003-155 | 13.46 | 5403-155 | 28.35 |

| SIZE | [2] Pittsburg® ALLEGHANY ORDER NO. | [2] PRICE EACH | [1] USA ORDER NO. | [1] PRICE EACH |
|---|---|---|---|---|
| 0.3165 | 2003-165 | $13.46 | 5403-165 | $28.35 |
| 0.3170 | 2003-170 | 13.46 | 5403-170 | 28.35 |
| 0.3175 | 2003-175 | 13.46 | 5403-175 | 28.35 |
| 0.3180 | 2003-180 | 13.46 | 5403-180 | 28.35 |
| 0.3185 | 2003-185 | 13.46 | 5403-185 | 28.35 |
| 0.3190 | 2003-190 | 13.46 | 5403-190 | 28.35 |
| 0.3195 | 2003-195 | 13.46 | 5403-195 | 28.35 |
| 0.3200 | 2003-200 | 13.46 | 5403-200 | 28.35 |
| 0.3205 | 2003-205 | 13.46 | 5403-205 | 28.35 |
| 0.3210 | 2003-210 | 13.46 | 5403-210 | 28.35 |
| 0.3215 | 2003-215 | 13.46 | 5403-215 | 28.35 |
| 0.3220 | 2003-220 | 13.46 | 5403-220 | 28.35 |
| 0.3225 | 2003-225 | 13.46 | 5403-225 | 28.35 |
| 0.3240 | 2003-240 | 13.46 | 5403-240 | 28.35 |
| 0.3245 | 2003-245 | 13.46 | 5403-245 | 28.35 |
| 0.3250 | 2003-250 | 13.46 | 5403-250 | 28.35 |
| 0.3255 | 2003-255 | 13.46 | 5403-255 | 28.35 |
| 0.3260 | 2003-260 | 13.46 | 5403-260 | 28.35 |
| 0.3265 | 2003-265 | 13.46 | 5403-265 | 28.35 |
| 0.3270 | 2003-270 | 13.46 | 5403-270 | 28.35 |
| 0.3275 | 2003-275 | 13.46 | 5403-275 | 28.35 |
| 0.3280 | 2003-280 | 13.46 | 5403-280 | 28.35 |
| 0.3285 | 2003-285 | 13.46 | 5403-285 | 28.35 |
| 0.3290 | 2003-290 | 13.46 | 5403-290 | 28.35 |
| 0.3295 | 2003-295 | 13.46 | 5403-295 | 28.35 |
| 0.3300 | 2003-300 | 13.46 | 5403-300 | 28.35 |
| 0.3305 | 2003-305 | 13.46 | 5403-305 | 28.35 |
| 0.3310 | 2003-310 | 13.46 | 5403-310 | 28.35 |
| 0.3315 | 2003-315 | 13.46 | 5403-315 | 28.35 |
| 0.3325 | – | – | 5403-325 | 28.35 |
| 0.3330 | 2003-330 | 13.46 | 5403-330 | 28.35 |
| 0.3335 | 2003-335 | 13.46 | 5403-335 | 28.35 |
| 0.3340 | 2003-340 | 13.46 | 5403-340 | 28.35 |
| 0.3345 | 2003-345 | 13.46 | 5403-345 | 28.35 |
| 0.3350 | 2003-350 | 13.46 | 5403-350 | 28.35 |
| 0.3355 | 2003-355 | 13.46 | 5403-355 | 28.35 |
| 0.3360 | 2003-360 | 13.46 | 5403-360 | 28.35 |
| 0.3365 | 2003-365 | 13.46 | 5403-365 | 28.35 |
| 0.3370 | 2003-370 | 13.46 | 5403-370 | 28.35 |
| 0.3375 | 2003-375 | 13.46 | 5403-375 | 28.35 |
| 0.3380 | 2003-380 | 13.46 | 5403-380 | 28.35 |
| 0.3385 | 2003-385 | 13.46 | 5403-385 | 28.35 |
| 0.3395 | 2003-395 | 13.46 | 5403-395 | 28.35 |
| 0.3400 | 2003-400 | 13.46 | 5403-400 | 28.35 |
| 0.3410 | 2003-410 | 13.46 | 5403-410 | 28.35 |
| 0.3415 | 2003-415 | 13.46 | 5403-415 | 28.35 |
| 0.3420 | 2003-420 | 13.46 | 5403-420 | 28.35 |
| 0.3425 | 2003-425 | 13.46 | 5403-425 | 28.35 |
| 0.3430 | 2003-430 | 13.46 | 5403-430 | 28.35 |
| 0.3435 | 2003-435 | 13.46 | 5403-435 | 28.35 |
| 0.3440 | 2003-440 | 13.46 | 5403-440 | 28.35 |
| 0.3445 | 2003-445 | 16.62 | 5403-445 | 28.35 |
| 0.3450 | 2003-450 | 16.62 | 5403-450 | 28.35 |
| 0.3455 | 2003-455 | 16.62 | 5403-455 | 28.35 |
| 0.3460 | 2003-460 | 16.62 | 5403-460 | 28.35 |
| 0.3465 | 2003-465 | 16.62 | 5403-465 | 28.35 |
| 0.3470 | 2003-470 | 16.62 | 5403-470 | 28.35 |
| 0.3475 | 2003-475 | 16.62 | 5403-475 | 28.35 |
| 0.3476 | – | – | 5403-476 | 28.35 |
| 0.3485 | 2003-485 | 16.62 | 5403-485 | 28.35 |
| 0.3490 | 2003-490 | 16.62 | 5403-490 | 28.35 |
| 0.3495 | 2003-495 | 16.62 | 5403-495 | 28.35 |
| 0.3497 | 2003-497† | 16.62 | – | – |
| 0.3500 | 2003-500 | 16.62 | 5403-500 | 28.35 |
| 0.3505 | 2003-505 | 16.62 | 5403-505 | 28.35 |
| 0.3510 | 2003-510 | 16.62 | 5403-510 | 28.35 |
| 0.3515 | 2003-515 | 16.62 | 5403-515 | 28.35 |
| 0.3520 | 2003-520 | 16.62 | 5403-520 | 28.35 |
| 0.3525 | 2003-525 | 16.62 | 5403-525 | 28.35 |
| 0.3529 | – | – | 5403-529† | 28.35 |
| 0.3530 | 2003-530 | 16.62 | 5403-530 | 28.35 |

† Limited Quantities.

# Special Decimal Chucking Reamers

## Straight Flute - Straight Shank
## R.H. Cut - High Speed Steel

**The following Standard sizes are NOT included in this Special Decimal Chart:**

Standard Dowel Sizes  Standard Over & Under Sizes  Standard Metric Sizes 1.00mm - 25.00mm by 0.5mm

**Find these sizes in the Standard Reamer pricing charts.**

| SIZE | Pittsburg® ALLEGHANY [2] ORDER NO. | PRICE EACH | USA [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 0.3535 | 2003-535 | $16.62 | 5403-535 | $28.35 |
| 0.3540 | 2003-540 | 16.62 | 5403-540 | 28.35 |
| 0.3545 | 2003-545 | 16.62 | 5403-545 | 28.35 |
| 0.3546 | – | – | 5403-546† | 28.35 |
| 0.3550 | 2003-550 | 16.62 | 5403-550 | 28.35 |
| 0.3555 | 2003-555 | 16.62 | 5403-555 | 28.35 |
| 0.3560 | 2003-560 | 16.62 | 5403-560 | 28.35 |
| 0.3565 | 2003-565 | 16.62 | 5403-565 | 28.35 |
| 0.3570 | 2003-570 | 16.62 | 5403-570 | 28.35 |
| 0.3575 | 2003-575 | 16.62 | 5403-575 | 28.35 |
| 0.3583 | 2003-583† | 16.62 | – | – |
| 0.3585 | 2003-585 | 16.62 | 5403-585 | 28.35 |
| 0.3590 | 2003-590 | 16.62 | 5403-590 | 28.35 |
| 0.3595 | 2003-595 | 16.62 | 5403-595 | 28.35 |
| 0.3600 | 2003-600 | 15.94 | 5403-600 | 28.35 |
| 0.3610 | 2003-610 | 15.94 | 5403-610 | 28.35 |
| 0.3615 | 2003-615 | 15.94 | 5403-615 | 28.35 |
| 0.3620 | 2003-620 | 15.94 | 5403-620 | 28.35 |
| 0.3625 | 2003-625 | 15.94 | 5403-625 | 28.35 |
| 0.3630 | 2003-630 | 15.94 | 5403-630 | 28.35 |
| 0.3635 | 2003-635 | 15.94 | 5403-635 | 28.35 |
| 0.3640 | 2003-640 | 15.94 | 5403-640 | 28.35 |
| 0.3650 | 2003-650 | 15.94 | 5403-650 | 28.35 |
| 0.3655 | 2003-655 | 15.94 | 5403-655 | 28.35 |
| 0.3660 | 2003-660 | 15.94 | 5403-660 | 28.35 |
| 0.3665 | 2003-665 | 15.94 | 5403-665 | 28.35 |
| 0.3670 | 2003-670 | 15.94 | 5403-670 | 28.35 |
| 0.3675 | 2003-675 | 15.94 | 5403-675 | 28.35 |
| 0.3685 | 2003-685 | 15.94 | 5403-685 | 28.35 |
| 0.3690 | 2003-690 | 15.94 | 5403-690 | 28.35 |
| 0.3695 | 2003-695 | 15.94 | 5403-695 | 28.35 |
| 0.3700 | 2003-700 | 15.94 | 5403-700 | 28.35 |
| 0.3701 | 2003-701† | 15.94 | – | – |
| 0.3705 | 2003-705 | 15.94 | 5403-705 | 28.35 |
| 0.3710 | 2003-710 | 15.94 | 5403-710 | 28.35 |
| 0.3715 | 2003-715 | 15.94 | 5403-715 | 28.35 |
| 0.3720 | 2003-720 | 15.94 | 5403-720 | 28.35 |
| 0.3725 | 2003-725 | 15.94 | 5403-725 | 28.35 |
| 0.3735 | 2003-735 | 14.61 | 5403-735 | 28.35 |
| 0.3755 | 2003-755 | 16.46 | 5403-755 | 28.35 |
| 0.3765 | 2003-765 | 16.46 | 5403-765 | 28.35 |
| 0.3775 | 2003-775 | 16.74 | 5403-775 | 28.35 |
| 0.3780 | 2003-780 | 16.74 | 5403-780 | 28.35 |
| 0.3785 | 2003-785 | 16.74 | 5403-785 | 28.35 |
| 0.3790 | 2003-790 | 16.74 | 5403-790 | 28.35 |
| 0.3795 | 2003-795 | 16.74 | 5403-795 | 28.35 |
| 0.3800 | 2003-800 | 16.74 | 5403-800 | 28.35 |
| 0.3805 | 2003-805 | 16.74 | 5403-805 | 28.35 |
| 0.3810 | 2003-810 | 16.74 | 5403-810 | 28.35 |
| 0.3815 | 2003-815 | 16.74 | 5403-815 | 28.35 |
| 0.3819 | 2003-819† | 16.74 | – | – |
| 0.3820 | 2003-820 | 16.74 | 5403-820 | 28.35 |
| 0.3825 | 2003-825 | 16.74 | 5403-825 | 28.35 |
| 0.3830 | 2003-830 | 16.74 | 5403-830 | 28.35 |
| 0.3835 | 2003-835 | 16.74 | 5403-835 | 28.35 |
| 0.3839 | 2003-839† | 16.74 | – | – |
| 0.3840 | 2003-840 | 16.74 | 5403-840 | 28.35 |
| 0.3845 | 2003-845 | 16.74 | 5403-845 | 28.35 |
| 0.3850 | 2003-850 | 16.74 | 5403-850 | 28.35 |
| 0.3855 | 2003-855 | 16.74 | 5403-855 | 28.35 |
| 0.3865 | 2003-865 | 16.74 | 5403-865 | 28.35 |
| 0.3870 | 2003-870 | 16.74 | 5403-870 | 28.35 |
| 0.3875 | 2003-875 | 16.74 | 5403-875 | 28.35 |
| 0.3880 | 2003-880 | 16.74 | 5403-880 | 28.35 |
| 0.3885 | 2003-885 | 16.74 | 5403-885 | 28.35 |
| 0.3890 | 2003-890 | 16.74 | 5403-890 | 28.35 |
| 0.3895 | 2003-895 | 16.74 | 5403-895 | 28.35 |
| 0.3900 | 2003-900 | 16.74 | 5403-900 | 28.35 |

† Limited Quantities

| SIZE | Pittsburg® ALLEGHANY [2] ORDER NO. | PRICE EACH | USA [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 0.3905 | 2003-905 | $16.74 | 5403-905 | $28.35 |
| 0.3910 | 2003-910 | 16.74 | 5403-910 | 29.03 |
| 0.3915 | 2003-915 | 16.74 | 5403-915 | 29.03 |
| 0.3920 | 2003-920 | 16.74 | 5403-920 | 29.03 |
| 0.3925 | 2003-925 | 16.74 | 5403-925 | 29.03 |
| 0.3930 | 2003-930 | 16.74 | 5403-930 | 29.03 |
| 0.3935 | 2003-935 | 16.74 | 5403-935 | 29.03 |
| 0.3940 | 2003-940 | 16.74 | 5403-940 | 29.03 |
| 0.3945 | 2003-945 | 16.74 | 5403-945 | 29.03 |
| 0.3950 | 2003-950 | 16.74 | 5403-950 | 29.03 |
| 0.3955 | 2003-955 | 16.74 | 5403-955 | 29.03 |
| 0.3960 | 2003-960 | 16.74 | 5403-960 | 29.03 |
| 0.3965 | 2003-965 | 16.74 | 5403-965 | 29.03 |
| 0.3975 | 2003-975 | 16.74 | 5403-975 | 29.03 |
| 0.3980 | 2003-980 | 16.74 | 5403-980 | 29.03 |
| 0.3985 | 2003-985 | 16.74 | 5403-985 | 29.03 |
| 0.3990 | 2003-990 | 16.74 | 5403-990 | 29.03 |
| 0.3995 | 2003-995 | 16.74 | 5403-995 | 29.03 |
| 0.4000 | 2004-000 | 16.74 | 5404-000 | 29.03 |
| 0.4005 | 2004-005 | 16.74 | 5404-005 | 29.03 |
| 0.4010 | 2004-010 | 16.74 | 5404-010 | 29.03 |
| 0.4015 | 2004-015 | 16.74 | 5404-015 | 29.03 |
| 0.4020 | 2004-020 | 16.74 | 5404-020 | 29.03 |
| 0.4025 | 2004-025 | 16.74 | 5404-025 | 29.03 |
| 0.4030 | 2004-030 | 16.74 | 5404-030 | 29.03 |
| 0.4033 | – | – | 5404-033† | 29.03 |
| 0.4035 | 2004-035 | 16.74 | 5404-035 | 29.03 |
| 0.4045 | 2004-045 | 16.74 | 5404-045 | 29.03 |
| 0.4050 | 2004-050 | 16.74 | 5404-050 | 29.03 |
| 0.4052 | 2004-052† | 16.74 | – | – |
| 0.4055 | 2004-055 | 16.74 | 5404-055 | 29.03 |
| 0.4060 | 2004-060 | 16.74 | 5404-060 | 29.03 |
| 0.4065 | 2004-065 | 16.74 | 5404-065 | 29.03 |
| 0.4070 | 2004-070 | 16.74 | 5404-070 | 29.03 |
| 0.4075 | 2004-075 | 16.74 | 5404-075 | 29.03 |
| 0.4080 | 2004-080 | 16.74 | 5404-080 | 29.03 |
| 0.4085 | 2004-085 | 16.74 | 5404-085 | 29.03 |
| 0.4086 | – | – | 5404-086† | 29.03 |
| 0.4090 | 2004-090 | 16.74 | 5404-090 | 29.03 |
| 0.4095 | 2004-095 | 16.74 | 5404-095 | 29.03 |
| 0.4100 | 2004-100 | 16.74 | 5404-100 | 29.03 |
| 0.4105 | 2004-105 | 16.74 | 5404-105 | 29.03 |
| 0.4110 | 2004-110 | 16.74 | 5404-110 | 29.03 |
| 0.4115 | 2004-115 | 16.74 | 5404-115 | 29.03 |
| 0.4120 | 2004-120 | 16.74 | 5404-120 | 29.03 |
| 0.4125 | 2004-125 | 16.74 | 5404-125 | 29.03 |
| 0.4135 | 2004-135 | 16.74 | 5404-135 | 29.03 |
| 0.4140 | 2004-140 | 16.74 | 5404-140 | 29.03 |
| 0.4145 | 2004-145 | 16.74 | 5404-145 | 29.03 |
| 0.4150 | 2004-150 | 16.74 | 5404-150 | 29.03 |
| 0.4155 | 2004-155 | 16.74 | 5404-155 | 29.03 |
| 0.4160 | 2004-160 | 16.74 | 5404-160 | 29.03 |
| 0.4165 | 2004-165 | 16.74 | 5404-165 | 29.03 |
| 0.4170 | 2004-170 | 16.74 | 5404-170 | 29.03 |
| 0.4175 | 2004-175 | 16.74 | 5404-175 | 29.03 |
| 0.4180 | 2004-180 | 16.74 | 5404-180 | 29.03 |
| 0.4185 | 2004-185 | 16.74 | 5404-185 | 29.03 |
| 0.4190 | 2004-190 | 16.74 | 5404-190 | 29.03 |
| 0.4195 | 2004-195 | 16.74 | 5404-195 | 29.03 |
| 0.4200 | 2004-200 | 16.74 | 5404-200 | 29.03 |
| 0.4205 | 2004-205 | 16.74 | 5404-205 | 29.03 |
| 0.4210 | 2004-210 | 16.74 | 5404-210 | 29.03 |
| 0.4215 | 2004-215 | 16.74 | 5404-215 | 29.03 |
| 0.4220 | 2004-220 | 16.74 | 5404-220 | 29.03 |
| 0.4225 | 2004-225 | 16.74 | 5404-225 | 29.03 |
| 0.4230 | 2004-230 | 16.74 | 5404-230 | 29.03 |
| 0.4235 | 2004-235 | 16.74 | 5404-235 | 29.03 |
| 0.4240 | 2004-240 | 16.74 | 5404-240 | 29.03 |

| SIZE | Pittsburg® ALLEGHANY [2] ORDER NO. | PRICE EACH | USA [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 0.4245 | 2004-245 | $16.74 | 5404-245 | $29.03 |
| 0.4250 | 2004-250 | 16.74 | 5404-250 | 29.03 |
| 0.4255 | 2004-255 | 16.74 | 5404-255 | 29.03 |
| 0.4260 | 2004-260 | 16.74 | 5404-260 | 29.03 |
| 0.4265 | 2004-265 | 16.74 | 5404-265 | 29.03 |
| 0.4270 | 2004-270 | 16.74 | 5404-270 | 29.03 |
| 0.4275 | 2004-275 | 16.74 | 5404-275 | 29.03 |
| 0.4280 | 2004-280 | 16.74 | 5404-280 | 29.03 |
| 0.4285 | 2004-285 | 16.74 | 5404-285 | 29.03 |
| 0.4290 | 2004-290 | 16.74 | 5404-290 | 29.03 |
| 0.4295 | 2004-295 | 16.74 | 5404-295 | 29.03 |
| 0.4300 | 2004-300 | 16.74 | 5404-300 | 29.03 |
| 0.4305 | 2004-305 | 16.74 | 5404-305 | 29.03 |
| 0.4310 | 2004-310 | 16.74 | 5404-310 | 29.03 |
| 0.4315 | 2004-315 | 16.74 | 5404-315 | 29.03 |
| 0.4320 | 2004-320 | 16.74 | 5404-320 | 29.03 |
| 0.4325 | 2004-325 | 16.74 | 5404-325 | 29.03 |
| 0.4330 | 2004-330 | 16.74 | 5404-330 | 29.03 |
| 0.4335 | 2004-335 | 16.74 | 5404-335 | 29.03 |
| 0.4336 | – | – | 5404-336† | 29.03 |
| 0.4340 | 2004-340 | 16.74 | 5404-340 | 29.03 |
| 0.4345 | 2004-345 | 16.74 | 5404-345 | 29.03 |
| 0.4350 | 2004-350 | 16.74 | 5404-350 | 29.03 |
| 0.4360 | 2004-360 | 16.74 | 5404-360 | 29.03 |
| 0.4380 | 2004-380 | 16.74 | 5404-380 | 30.75 |
| 0.4390 | 2004-390 | 16.74 | 5404-390 | 30.75 |
| 0.4395 | 2004-395 | 16.74 | 5404-395 | 30.75 |
| 0.4400 | 2004-400 | 16.74 | 5404-400 | 30.75 |
| 0.4405 | 2004-405 | 16.74 | 5404-405 | 30.75 |
| 0.4410 | 2004-410 | 16.74 | 5404-410 | 30.75 |
| 0.4415 | 2004-415 | 16.74 | 5404-415 | 30.75 |
| 0.4420 | 2004-420 | 16.74 | 5404-420 | 30.75 |
| 0.4425 | 2004-425 | 16.74 | 5404-425 | 30.75 |
| 0.4430 | 2004-430 | 16.74 | 5404-430 | 30.75 |
| 0.4435 | 2004-435 | 16.74 | 5404-435 | 30.75 |
| 0.4440 | 2004-440 | 16.74 | 5404-440 | 30.75 |
| 0.4445 | 2004-445 | 16.74 | 5404-445 | 30.75 |
| 0.4450 | 2004-450 | 16.74 | 5404-450 | 30.75 |
| 0.4455 | 2004-455 | 16.74 | 5404-455 | 30.75 |
| 0.4460 | 2004-460 | 16.74 | 5404-460 | 30.75 |
| 0.4465 | 2004-465 | 16.74 | 5404-465 | 30.75 |
| 0.4470 | 2004-470 | 16.74 | 5404-470 | 30.75 |
| 0.4475 | 2004-475 | 16.74 | 5404-475 | 30.75 |
| 0.4480 | 2004-480 | 16.74 | 5404-480 | 30.75 |
| 0.4485 | 2004-485 | 16.74 | 5404-485 | 30.75 |
| 0.4490 | 2004-490 | 16.74 | 5404-490 | 30.75 |
| 0.4495 | 2004-495 | 16.74 | 5404-495 | 30.75 |
| 0.4500 | 2004-500 | 16.74 | 5404-500 | 30.75 |
| 0.4505 | 2004-505 | 16.74 | 5404-505 | 30.75 |
| 0.4510 | 2004-510 | 16.74 | 5404-510 | 30.75 |
| 0.4515 | 2004-515 | 16.74 | 5404-515 | 30.75 |
| 0.4520 | 2004-520 | 16.74 | 5404-520 | 30.75 |
| 0.4525 | 2004-525 | 16.74 | 5404-525 | 30.75 |
| 0.4530 | 2004-530 | 16.74 | 5404-530 | 30.75 |
| 0.4535 | 2004-535 | 16.74 | 5404-535 | 30.75 |
| 0.4535 | – | – | 5404-536† | 30.75 |
| 0.4540 | 2004-540 | 16.74 | 5404-540 | 30.75 |
| 0.4545 | 2004-545 | 16.74 | 5404-545 | 30.75 |
| 0.4550 | 2004-550 | 16.74 | 5404-550 | 30.75 |
| 0.4555 | 2004-555 | 16.74 | 5404-555 | 30.75 |
| 0.4560 | 2004-560 | 16.74 | 5404-560 | 30.75 |
| 0.4565 | 2004-565 | 16.74 | 5404-565 | 30.75 |
| 0.4570 | 2004-570 | 16.74 | 5404-570 | 30.75 |
| 0.4575 | 2004-575 | 16.74 | 5404-575 | 30.75 |
| 0.4580 | 2004-580 | 16.74 | 5404-580 | 30.75 |
| 0.4585 | 2004-585 | 16.74 | 5404-585 | 30.75 |
| 0.4590 | 2004-590 | 16.74 | 5404-590 | 30.75 |

# Special Decimal Chucking Reamers

## Straight Flute - Straight Shank - R.H. Cut - High Speed Steel

| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.4595 | 2004-595 | $16.74 | 5404-595 | $30.75 |
| 0.4600 | 2004-600 | 16.74 | 5404-600 | 30.75 |
| 0.4605 | 2004-605 | 16.74 | 5404-605 | 30.75 |
| 0.4610 | 2004-610 | 16.74 | 5404-610 | 30.75 |
| 0.4615 | 2004-615 | 16.74 | 5404-615 | 30.75 |
| 0.4620 | 2004-620 | 16.74 | 5404-620 | 30.75 |
| 0.4625 | 2004-625 | 16.74 | 5404-625 | 30.75 |
| 0.4630 | 2004-630 | 16.74 | 5404-630 | 30.75 |
| 0.4635 | 2004-635 | 16.74 | 5404-635 | 30.75 |
| 0.4640 | 2004-640 | 16.74 | 5404-640 | 30.75 |
| 0.4645 | 2004-645 | 16.74 | 5404-645 | 30.75 |
| 0.4650 | 2004-650 | 16.74 | 5404-650 | 30.75 |
| 0.4655 | 2004-655 | 16.74 | 5404-655 | 30.75 |
| 0.4660 | 2004-660 | 16.74 | 5404-660 | 30.75 |
| 0.4665 | 2004-665 | 16.74 | 5404-665 | 30.75 |
| 0.4670 | 2004-670 | 16.74 | 5404-670 | 30.75 |
| 0.4675 | 2004-675 | 16.74 | 5404-675 | 30.75 |
| 0.4680 | 2004-680 | 16.74 | 5404-680 | 30.75 |
| 0.4685 | 2004-685 | 16.74 | 5404-685 | 30.75 |
| 0.4695 | 2004-695 | 18.36 | 5404-695 | 30.75 |
| 0.4700 | 2004-700 | 18.36 | 5404-700 | 30.75 |
| 0.4705 | 2004-705 | 18.36 | 5404-705 | 30.75 |
| 0.4710 | 2004-710 | 18.36 | 5404-710 | 30.75 |
| 0.4715 | 2004-715 | 18.36 | 5404-715 | 41.25 |
| 0.4720 | 2004-720 | 18.36 | 5404-720 | 30.75 |
| 0.4725 | 2004-725 | 18.36 | 5404-725 | 30.75 |
| 0.4730 | 2004-730 | 18.36 | 5404-730 | 30.75 |
| 0.4735 | 2004-735 | 18.36 | 5404-735 | 30.75 |
| 0.4740 | 2004-740 | 18.36 | 5404-740 | 30.75 |
| 0.4745 | 2004-745 | 18.36 | 5404-745 | 30.75 |
| 0.4750 | 2004-750 | 18.36 | 5404-750 | 30.75 |
| 0.4755 | 2004-755 | 18.36 | 5404-755 | 30.75 |
| 0.4760 | 2004-760 | 18.36 | 5404-760 | 30.75 |
| 0.4765 | 2004-765 | 18.36 | 5404-765 | 30.75 |
| 0.4770 | 2004-770 | 18.36 | 5404-770 | 30.75 |
| 0.4775 | 2004-775 | 18.36 | 5404-775 | 30.75 |
| 0.4780 | 2004-780 | 18.36 | 5404-780 | 30.75 |
| 0.4785 | 2004-785 | 18.36 | 5404-785 | 30.75 |
| 0.4790 | 2004-790 | 18.36 | 5404-790 | 30.75 |
| 0.4795 | 2004-795 | 18.36 | 5404-795 | 30.75 |
| 0.4800 | 2004-800 | 18.36 | 5404-800 | 30.75 |
| 0.4805 | 2004-805 | 18.36 | 5404-805 | 30.75 |
| 0.4810 | 2004-810 | 18.36 | 5404-810 | 30.75 |
| 0.4815 | 2004-815 | 18.36 | 5404-815 | 30.75 |
| 0.4820 | 2004-820 | 18.36 | 5404-820 | 30.75 |
| 0.4825 | 2004-825 | 18.36 | 5404-825 | 30.75 |
| 0.4830 | 2004-830 | 18.36 | 5404-830 | 30.75 |
| 0.4835 | 2004-835 | 18.36 | 5404-835 | 30.75 |
| 0.4840 | 2004-840 | 18.36 | 5404-840 | 30.75 |
| 0.4845 | 2004-845 | 18.36 | 5404-845 | 30.75 |
| 0.4850 | 2004-850 | 18.36 | 5404-850 | 30.75 |
| 0.4855 | 2004-855 | 18.36 | 5404-855 | 30.75 |
| 0.4860 | 2004-860 | 18.36 | 5404-860 | 30.75 |
| 0.4865 | 2004-865 | 18.36 | 5404-865 | 30.75 |
| 0.4870 | 2004-870 | 18.36 | 5404-870 | 30.75 |
| 0.4875 | 2004-875 | 18.36 | 5404-875 | 30.75 |
| 0.4880 | 2004-880 | 18.36 | 5404-880 | 30.75 |
| 0.4885 | 2004-885 | 18.36 | 5404-885 | 30.75 |
| 0.4890 | 2004-890 | 18.36 | 5404-890 | 30.75 |
| 0.4895 | 2004-895 | 18.36 | 5404-895 | 30.75 |
| 0.4900 | 2004-900 | 18.36 | 5404-900 | 30.75 |
| 0.4905 | 2004-905 | 18.36 | 5404-905 | 30.75 |
| 0.4910 | 2004-910 | 18.36 | 5404-910 | 30.75 |
| 0.4915 | 2004-915 | 18.36 | 5404-915 | 30.75 |
| 0.4920 | 2004-920 | 18.36 | 5404-920 | 30.75 |
| 0.4925 | 2004-925 | 18.36 | 5404-925 | 30.75 |
| 0.4930 | 2004-930 | 18.36 | 5404-930 | 30.75 |
| 0.4935 | 2004-935 | 18.36 | 5404-935 | 30.75 |
| 0.4940 | 2004-940 | 18.36 | 5404-940 | 30.75 |
| 0.4945 | 2004-945 | 18.36 | 5404-945 | 30.75 |
| 0.4950 | 2004-950 | 18.36 | 5404-950 | 30.75 |
| 0.4955 | 2004-955 | 18.36 | 5404-955 | 30.75 |
| 0.4960 | 2004-960 | 18.36 | 5404-960 | 30.75 |
| 0.4965 | 2004-965 | 18.36 | 5404-965 | 30.75 |
| 0.4970 | 2004-970 | 18.36 | 5404-970 | 30.75 |

| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.4975 | 2004-975 | $18.36 | 5404-975 | $30.75 |
| 0.4985 | 2004-985 | 18.36 | 5404-985 | 30.75 |
| 0.5005 | 2005-005 | 18.36 | 5405-005 | 48.00 |
| 0.5013 | 2005-013† | 18.36 | – | – |
| 0.5015 | 2005-015 | 18.36 | 5405-015 | 48.00 |
| 0.5020 | 2005-020 | 18.36 | 5405-020 | 48.00 |
| 0.5025 | 2005-025 | 24.48 | 5405-025 | 48.00 |
| 0.5030 | 2005-030 | 24.48 | 5405-030 | 48.00 |
| 0.5035 | 2005-035 | 24.48 | 5405-035 | 48.00 |
| 0.5040 | 2005-040 | 24.48 | 5405-040 | 48.00 |
| 0.5045 | 2005-045 | 24.48 | 5405-045 | 48.00 |
| 0.5050 | 2005-050 | 24.48 | 5405-050 | 48.00 |
| 0.5060 | 2005-060 | 24.48 | 5405-060 | 48.00 |
| 0.5070 | 2005-070 | 24.48 | 5405-070 | 48.00 |
| 0.5080 | 2005-080 | 24.48 | 5405-080 | 48.00 |
| 0.5090 | 2005-090 | 24.48 | 5405-090 | 48.00 |
| 0.5100 | 2005-100 | 24.48 | 5405-100 | 48.00 |
| 0.5110 | 2005-110 | 24.48 | 5405-110 | 48.00 |
| 0.5120 | 2005-120 | 24.48 | 5405-120 | 48.00 |
| 0.5130 | 2005-130 | 24.48 | 5405-130 | 48.00 |
| 0.5140 | 2005-140 | 24.48 | 5405-140 | 48.00 |
| 0.5150 | 2005-150 | 24.48 | 5405-150 | 48.00 |
| 0.5160 | 2005-160 | 24.48 | 5405-160 | 48.00 |
| 0.5170 | 2005-170 | 24.48 | 5405-170 | 48.00 |
| 0.5180 | 2005-180 | 24.48 | – | – |
| 0.5200 | 2005-200 | 24.48 | 5405-200 | 48.00 |
| 0.5210 | 2005-210 | 24.48 | 5405-210 | 48.00 |
| 0.5240 | 2005-240 | 24.48 | – | – |
| 0.5250 | 2005-250 | 24.48 | 5405-250 | 48.00 |
| 0.5280 | 2005-280 | 24.48 | – | – |
| 0.5300 | 2005-300 | 24.48 | 5405-300 | 48.00 |
| 0.5310 | 2005-310 | 24.48 | 5405-310 | 48.00 |
| 0.5320 | 2005-320 | 24.48 | 5405-320 | 48.00 |
| 0.5370 | 2005-370 | 24.48 | 5405-370 | 48.00 |
| 0.5410 | 2005-410 | 24.48 | – | – |
| 0.5420 | 2005-420 | 24.48 | – | – |
| 0.5450 | 2005-450 | 24.48 | 5405-450 | 48.00 |
| 0.5480 | 2005-480 | 24.48 | 5405-480 | 48.00 |
| 0.5500 | 2005-500 | 24.48 | 5405-500 | 48.00 |
| 0.5510 | 2005-510 | 24.48 | 5405-510 | 48.00 |
| 0.5520 | 2005-520 | 24.48 | 5405-520 | 48.00 |
| 0.5530 | 2005-530 | 24.48 | 5405-530 | 48.00 |
| 0.5540 | 2005-540 | 24.48 | 5405-540 | 48.00 |
| 0.5550 | 2005-550 | 24.48 | 5405-550 | 48.00 |
| 0.5570 | 2005-570 | 24.48 | 5405-570 | 48.00 |
| 0.5590 | 2005-590 | 24.48 | 5405-590 | 48.00 |
| 0.5600 | 2005-600 | 24.48 | 5405-600 | 48.00 |
| 0.5605 | 2005-605 | 24.48 | 5405-605 | 48.00 |
| 0.5610 | 2005-610 | 24.48 | 5405-610 | 48.00 |
| 0.5615 | 2005-615 | 20.95 | 5405-615 | 24.65 |
| 0.5620 | 2005-620 | 24.48 | 5405-620 | 48.00 |
| 0.5630 | 2005-630 | 24.48 | 5405-630 | 48.00 |
| 0.5635 | 2005-635 | 20.95 | 5405-635 | 27.00 |
| 0.5645 | 2005-645 | 24.48 | 5405-645 | 48.00 |
| 0.5655 | 2005-655 | 24.48 | 5405-655 | 48.00 |
| 0.5665 | 2005-665 | 24.48 | 5405-665 | 48.00 |
| 0.5670 | 2005-670 | 24.48 | 5405-670 | 48.00 |
| 0.5680 | – | – | 5405-680 | 48.00 |
| 0.5690 | – | – | 5405-690 | 48.00 |
| 0.5830 | – | – | 5405-830 | 48.00 |
| 0.5840 | 2005-840 | 24.48 | 5405-840 | – |
| 0.5890 | 2005-890 | 24.48 | 5405-890 | – |
| 0.5910 | 2005-910 | 24.48 | 5405-910 | – |
| 0.5920 | 2005-920 | 24.48 | 5405-920 | – |
| 0.5937 | 2005-937 | 24.48 | 5405-937 | – |
| 0.5950 | 2005-950 | 24.48 | 5405-950 | – |
| 0.5960 | 2005-960 | 24.48 | 5405-960 | – |
| 0.6120 | 2006-120 | 24.48 | 5406-120 | 48.00 |
| 0.6130 | – | – | 5406-130 | 48.00 |
| 0.6150 | 2006-150 | 24.48 | – | – |
| 0.6160 | 2006-160 | 24.48 | 5406-160 | 48.00 |

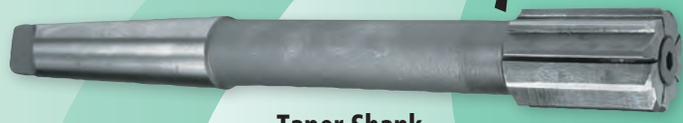
| SIZE | Pittsburg® ALLEGHANY ORDER NO. [2] | PRICE EACH | USA ORDER NO. [1] | PRICE EACH |
|---|---|---|---|---|
| 0.6220 | 2006-220 | $24.48 | 5406-220 | $48.00 |
| 0.6230 | 2006-230 | 24.48 | 5406-230 | 48.00 |
| 0.6240 | 2006-240 | 24.45 | 5406-240 | 28.77 |
| 0.6245 | 2006-245 | 25.96 | 5406-245 | 48.00 |
| 0.6255 | 2006-255 | 25.96 | 5406-255 | 48.00 |
| 0.6260 | 2006-260 | 24.45 | 5406-260 | 30.75 |
| 0.6270 | 2006-270 | 29.21 | 5406-270 | 55.50 |
| 0.6280 | 2006-280 | 31.86 | 5406-280 | 55.50 |
| 0.6290 | 2006-290 | 31.86 | 5406-290 | 55.50 |
| 0.6300 | 2006-300 | 31.86 | 5406-300 | 55.50 |
| 0.6310 | 2006-310 | 31.86 | 5406-310 | 55.50 |
| 0.6320 | 2006-320 | 31.86 | 5406-320 | 55.50 |
| 0.6325 | 2006-325 | 31.86 | 5406-325 | 55.50 |
| 0.6340 | 2006-340 | 31.86 | 5406-340 | 55.50 |
| 0.6350 | 2006-350 | 31.86 | 5406-350 | 55.50 |
| 0.6600 | 2006-600 | 31.86 | 5406-600 | 55.50 |
| 0.6680 | 2006-680 | 31.86 | 5406-680 | 55.50 |
| 0.6700 | 2006-700 | 31.86 | – | – |
| 0.6840 | 2006-840 | 31.86 | – | – |
| 0.6850 | 2006-850 | 31.86 | 5406-850 | 55.50 |
| 0.6860 | 2006-860 | 31.86 | 5406-860 | 55.50 |
| 0.6865 | – | – | 5406-865 | 34.88 |
| 0.6870 | 2006-870 | 31.86 | 5406-870 | 60.75 |
| 0.6880 | 2006-880 | 32.53 | 5406-880 | 60.75 |
| 0.6885 | – | – | 5406-885 | 37.16 |
| 0.6900 | 2006-900 | 32.53 | 5406-900 | 60.75 |
| 0.7200 | 2007-200 | 32.53 | 5407-200 | 62.25 |
| 0.7270 | 2007-270 | 32.53 | – | – |
| 0.7300 | 2007-300 | 32.53 | – | – |
| 0.7465 | 2007-465 | 35.28 | – | – |
| 0.7470 | 2007-470 | 35.28 | 5407-470 | 62.25 |
| 0.7490 | 2007-490 | 34.80 | 5407-490 | 43.13 |
| 0.7495 | 2007-495 | 35.28 | 5407-495 | 66.75 |
| 0.7505 | 2007-505 | 39.36 | 5407-505 | 66.75 |
| 0.7510 | 2007-510 | 34.80 | 5407-510 | 43.13 |
| 0.7515 | 2007-515 | 39.36 | 5407-515 | 66.75 |
| 0.7520 | 2007-520 | 39.36 | 5407-520 | 66.75 |
| 0.7530 | 2007-530 | 39.36 | 5407-530 | 66.75 |
| 0.7540 | 2007-540 | 39.36 | 5407-540 | 66.75 |
| 0.7550 | 2007-550 | 39.36 | 5407-550 | 66.75 |
| 0.7560 | 2007-560 | 39.36 | 5407-560 | 66.75 |
| 0.7580 | 2007-580 | 39.36 | 5407-580 | 66.75 |
| 0.7600 | 2007-600 | 39.36 | 5407-600 | 66.75 |
| 0.7840 | 2007-840 | 39.36 | 5407-840 | 66.75 |
| 0.7860 | 2007-860 | 39.36 | 5407-860 | 66.75 |
| 0.8100 | 2008-100 | 39.36 | 5408-100 | 66.75 |
| 0.8110 | 2008-110 | 39.36 | 5408-110 | 66.75 |
| 0.8115 | 2008-115 | 35.22 | 5408-115 | 44.93 |
| 0.8135 | – | – | 5408-135 | 44.93 |
| 0.8140 | 2008-140 | 39.36 | 5408-140 | 69.75 |
| 0.8150 | 2008-150 | 39.36 | 5408-150 | 69.75 |
| 0.8700 | 2008-700 | 39.36 | 5408-700 | 72.75 |
| 0.8710 | 2008-710 | 39.36 | 5408-710 | 72.75 |
| 0.8720 | 2008-720 | 39.36 | 5408-720 | 72.75 |
| 0.8730 | 2008-730 | 39.36 | 5408-730 | 72.75 |
| 0.8740 | 2008-740 | 42.33 | 5408-740 | 51.75 |
| 0.8760 | 2008-760 | 42.33 | 5408-760 | 51.75 |
| 0.8770 | 2008-770 | 47.28 | 5408-770 | 76.50 |
| 0.9155 | 2009-155† | 47.28 | – | – |
| 0.9350 | 2009-350 | 47.28 | – | – |
| 0.9360 | 2009-360 | 47.28 | 5409-360 | 79.50 |
| 0.9365 | – | – | 5409-365 | 67.43 |
| 0.9385 | 2009-385 | 45.90 | 5409-385 | 67.43 |
| 0.9390 | 2009-390 | 51.12 | – | – |
| 0.9660 | 2009-660 | 51.12 | 5409-660 | 86.25 |
| 0.9980 | 2009-980 | 51.12 | 5409-980 | 87.00 |
| 0.9990 | 2009-990 | 49.09 | 5409-990 | 60.75 |
| 1.0010 | 2010-010 | 51.89 | 5409-992 | 64.31 |
| 1.0020 | 2010-020 | 59.85 | – | – |
| 1.0030 | 2010-030 | 59.85 | – | – |
| 1.0040 | 2010-040 | 59.85 | – | – |
| 1.0050 | 2010-050 | 59.85 | – | – |

# Chucking Reamers - Expansion, Straight Flute

## High Speed Steel, Straight & Taper Shank

Pittsburg® ALLEGHANY [2]

Straight Shank



Taper Shank

| DIAM. | DECM'L EQUIV | FLUTE LG'TH | OVER. LG'TH | TAPER SHANK NO. | STRAIGHT SHANK ORDER NO. | STRAIGHT SHANK PRICE EACH | TAPER SHANK ORDER NO. | TAPER SHANK PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/8 | 0.3750 | 3/4 | 7 | 1 | 2030-024 | $27.36 | 2040-241 | $27.50 |
| 13/32 | 0.4062 | 3/4 | 7 | 1 | 2030-026 | 27.36 | 2040-261 | 27.50 |
| 7/16 | 0.4375 | 7/8 | 7 | 1 | 2030-028 | 28.40 | 2040-281 | 28.40 |
| 15/32 | 0.4688 | 7/8 | 7 | 1 | 2030-030 | 29.61 | 2040-301 | 29.07 |
| 1/2 | 0.5000 | 1 | 8 | 1 | 2030-032 | 30.11 | 2040-321 | 29.70 |
| 17/32 | 0.5312 | 1 | 8 | 1 | 2030-034 | 31.37 | 2040-341 | 30.83 |
| 9/16 | 0.5625 | 1-1/8 | 8 | 1 | 2030-036 | 32.09 | 2040-361 | 31.28 |
| 19/32 | 0.5938 | 1-1/8 | 8 | 1 | 2030-038 | 32.58 | 2040-381 | 32.18 |
| 5/8 | 0.6250 | 1-1/4 | 9 | 2 | 2030-040 | 33.57 | 2040-402 | 33.26 |
| 21/32 | 0.6562 | 1-1/4 | 9 | 2 | 2030-042 | 34.83 | 2040-422 | 33.93 |
| 11/16 | 0.6875 | 1-1/4 | 9 | 2 | 2030-044 | 35.28 | 2040-442 | 34.38 |
| 23/32 | 0.7188 | 1-1/4 | 9 | 2 | 2030-046 | 37.58 | 2040-462 | 36.32 |
| 3/4 | 0.7500 | 1-3/8 | 9-1/2 | 2 | 2030-048 | 38.84 | 2040-482 | 37.85 |
| 25/32 | 0.7812 | 1-3/8 | 9-1/2 | 2 | 2030-050 | 41.00 | 2040-502 | 39.42 |
| 13/16 | 0.8125 | 1-3/8 | 9-1/2 | 2 | 2030-052 | 42.75 | 2040-522 | 40.05 |
| 27/32 | 0.8438 | 1-3/8 | 9-1/2 | 2 | 2030-054 | 39.24 | 2040-542 | 42.26 |
| 7/8 | 0.8750 | 1-1/2 | 10 | 2 | 2030-056 | 46.26 | 2040-562 | 44.01 |
| 29/32 | 0.9062 | 1-1/2 | 10 | 2 | 2030-058 | 49.91 | 2040-582 | 46.22 |
| 15/16 | 0.9375 | 1-1/2 | 10 | 3 | 2030-060 | 52.25 | 2040-603 | 47.57 |
| 31/32 | 0.9688 | 1-1/2 | 10 | 3 | 2030-062 | 54.54 | 2040-623 | 52.02 |
| 1 | 1.0000 | 1-5/8 | 10-1/2 | 3 | 2030-064 | 57.38 | 2040-643 | 55.08 |
| 1-1/32 | 1.0312 | 1-5/8 | 10-1/2 | 3 | 2030-066† | 69.89 | 2040-663† | 65.64 |
| 1-1/16 | 1.0625 | 1-5/8 | 10-1/2 | 3 | 2030-068 | 63.54 | 2040-683 | 59.67 |
| 1-3/32 | 1.0938 | 1-5/8 | 10-1/2 | 3 | 2030-070† | 76.38 | 2040-703† | 70.98 |
| 1-1/8 | 1.1250 | 1-3/4 | 11 | 3 | 2030-072 | $69.44 | 2040-723 | $64.53 |
| 1-5/32 | 1.1562 | 1-3/4 | 11 | 3 | 2030-074† | 74.79 | 2040-743† | 77.08 |
| 1-3/16 | 1.1875 | 1-3/4 | 11 | 3 | 2030-076 | 67.99 | 2040-763 | 70.07 |
| 1-7/32 | 1.2188 | 1-3/4 | 11 | 3 | 2030-078† | 86.88 | 2040-783† | 83.66 |
| 1-1/4 | 1.2500 | 1-7/8 | 11-1/2 | 4 | 2030-080 | 78.98 | 2040-804 | 76.05 |
| 1-5/16 | 1.3125 | 1-7/8 | 11-1/2 | 4 | 2030-084 | 81.54 | 2040-844 | 79.07 |
| 1-3/8 | 1.3750 | 2 | 12 | 4 | 2030-088 | 84.60 | 2040-884 | 82.31 |
| 1-7/16 | 1.4375 | 2 | 12 | 4 | 2030-092 | 87.93 | 2040-924 | 86.90 |
| 1-1/2 | 1.5000 | 2-1/8 | 12-1/2 | 4 | 2030-096 | 91.53 | 2040-964 | 98.73 |
| 1-9/16 | 1.5625 | 2-1/8 | 12-1/2 | 4 | 2030-100 | 96.71 | 2041-004 | 106.97 |
| 1-5/8 | 1.6250 | 2-1/4 | 13 | 4 | 2030-104 | 100.80 | 2041-044 | 112.19 |
| 1-11/16 | 1.6875 | 2-1/4 | 13 | 4 | 2030-108 | 105.17 | 2041-084 | 117.66 |
| 1-3/4 | 1.7500 | 2-3/8 | 13-1/2 | 5 | 2030-112 | 110.12 | 2041-125 | 123.12 |
| 1-13/16 | 1.8125 | 2-3/8 | 13-1/2 | 5 | 2030-116 | 115.70 | 2041-165 | 129.15 |
| 1-7/8 | 1.8750 | 2-1/2 | 14 | 5 | 2030-120 | 120.60 | 2041-205 | 135.99 |
| 1-15/16 | 1.9375 | 2-1/2 | 14 | 5 | 2030-124 | 126.50 | 2041-245 | 142.86 |
| 2 | 2.0000 | 2-1/2 | 14 | 5 | 2030-128 | 132.39 | 2041-285 | 149.72 |

Our Drill Selection Is Unbeatable!
More Sizes – More Types

† Limited Quantities

# Chucking Reamers – Extra Long

## High Speed Steel

[1]

| DIAM. | FLUTE x OVERALL ORDER NO. | STD. x 6 | ORDER NO. | STD. x 8 | ORDER NO. | STD. x 12 | ORDER NO. | 8 x 12 | ORDER NO. | 12 x 16 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 1960-080 | $12.80 | 1960-081 | $14.00 | 1960-082 | $ 28.75 | – | – | – | – |
| 5/32 | 1960-100 | 18.00 | 1960-101 | 19.70 | 1960-102 | 32.00 | – | – | – | – |
| 3/16 | 1960-120 | 13.70 | 1960-121 | 14.95 | 1960-122 | 28.75 | – | – | – | – |
| 7/32 | – | – | 1960-141 | 25.45 | 1960-142 | 32.00 | – | – | – | – |
| 1/4 | – | – | 1960-161 | 21.20 | 1960-162 | 28.75 | – | – | – | – |
| 9/32 | – | – | – | – | 1960-182 | 36.80 | – | – | – | – |
| 5/16 | – | – | – | – | 1960-202 | 34.30 | – | – | – | – |
| 11/32 | – | – | – | – | 1960-222 | 41.95 | – | – | – | – |
| 3/8 | – | – | – | – | 1960-242 | 36.80 | – | – | – | – |
| 13/32 | – | – | – | – | 1960-262 | 44.10 | – | – | – | – |
| 7/16 | – | – | – | – | 1960-282 | 42.55 | 1960-283† | $52.35 | – | – |
| 15/32 | – | – | – | – | 1960-302 | 50.55 | – | – | – | – |
| 1/2 | – | – | – | – | 1960-322 | 46.70 | – | – | – | – |
| 17/32 | – | – | – | – | 1960-342 | 55.60 | – | – | – | – |
| 9/16 | – | – | – | – | 1960-362 | 54.40 | 1960-363† | 66.90 | 1960-364† | $89.20 |
| 19/32 | – | – | – | – | 1960-382 | 63.40 | 1960-383† | 84.90 | – | – |
| 5/8 | – | – | – | – | 1960-402 | 63.40 | – | – | – | – |
| 21/32 | – | – | – | – | 1960-422 | 72.60 | 1960-423† | 97.40 | – | – |
| 11/16 | – | – | – | – | 1960-442 | 72.00 | 1960-443† | 97.40 | 1960-444† | 129.80 |
| 23/32 | – | – | – | – | 1960-462 | 83.55 | 1960-463† | 106.20 | – | – |
| 3/4 | – | – | – | – | 1960-482 | 144.30 | – | – | – | – |
| 13/16 | – | – | – | – | 1960-522 | 168.55 | – | – | – | – |
| 7/8 | – | – | – | – | 1960-562 | 186.55 | – | – | – | – |
| 15/16 | – | – | – | – | 1960-602 | 203.80 | – | – | 1960-604† | 265.95 |
| 1 | – | – | – | – | 1960-642 | 218.40 | – | – | – | – |

† Limited Quantities

# Chucking Reamers – Taper Shank

## Straight Flute & RHS-RHC, High Speed Steel

### Straight Flute

| DIAM. | DECM'L EQUIV | FLUTE LG'TH | OVER. LG'TH | SHANK NO. | STR. FLUTE [2] ORDER NO. | STR. FLUTE [2] PRICE EACH | RHS-RHC [2] ORDER NO. | RHS-RHC [2] PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 9/64 | .1406 | 1 | 4 | 1 | 1980-091† | $9.06 | – | – |
| 11/64 | .1719 | 1-1/8 | 4-1/2 | 1 | 1980-111† | 10.42 | 1990-111† | $8.84 |
| 7/32 | .2188 | 1-1/4 | 5 | 1 | 1980-141† | 9.06 | – | – |
| 15/64 | .2344 | 1-1/2 | 6 | 1 | 1980-151† | 10.42 | 1990-151† | 12.06 |
| 1/4 | .2500 | 1-1/2 | 6 | 1 | 1980-161 | 9.06 | 1990-161 | 10.49 |
| 17/64 | .2656 | 1-1/2 | 6 | 1 | – | – | 1990-171† | 12.06 |
| 9/32 | .2812 | 1-1/2 | 6 | 1 | 1980-181 | 9.85 | 1990-181 | 10.49 |
| 19/64 | .2969 | 1-1/2 | 6 | 1 | 1980-191† | 10.82 | – | – |
| 5/16 | .3125 | 1-1/2 | 6 | 1 | 1980-201 | 9.41 | 1990-201 | 10.49 |
| 11/32 | .3438 | 1-1/2 | 6 | 1 | 1980-221 | 10.40 | 1990-221 | 10.49 |
| 23/64 | .3594 | 1-3/4 | 7 | 1 | 1980-231† | 12.18 | 1990-231† | 12.06 |
| 3/8 | .3750 | 1-3/4 | 7 | 1 | 1980-241 | 10.59 | 1990-241 | 10.49 |
| 25/64 | .3906 | 1-3/4 | 7 | 1 | – | – | 1990-251† | 13.43 |
| 13/32 | .4062 | 1-3/4 | 7 | 1 | 1980-261 | 10.89 | 1990-261 | 11.68 |
| 7/16 | .4375 | 1-3/4 | 7 | 1 | 1980-281 | 10.89 | 1990-281 | 11.68 |
| 15/32 | .4688 | 1-3/4 | 7 | 1 | 1980-301 | 11.98 | 1990-301 | 12.28 |
| 31/64 | .4844 | 2 | 8 | 1 | 1980-311† | 13.66 | 1990-311† | 14.12 |
| 1/2 | .5000 | 2 | 8 | 1 | 1980-321 | 11.88 | 1990-321 | 12.28 |
| 17/32 | .5312 | 2 | 8 | 1 | 1980-341 | 13.22 | 1990-341 | 14.45 |
| 35/64 | .5469 | 2-1/2 | 9-1/2 | 2 | 1980-352† | 14.86 | – | – |
| 9/16 | .5625 | 2 | 8 | 1 | 1980-361 | 12.92 | 1990-361 | 14.45 |
| 19/32 | .5938 | 2 | 8 | 1 | 1980-381 | 14.31 | 1990-381 | 15.54 |
| 39/64 | .6094 | 2-1/4 | 9 | 2 | – | – | 1990-392† | 17.65 |
| 5/8 | .6250 | 2-1/4 | 9 | 2 | 1980-402 | 14.01 | 1990-402 | 15.35 |
| 21/32 | .6562 | 2-1/4 | 9 | 2 | 1980-422 | 15.39 | 1990-422 | 16.83 |
| 11/16 | .6875 | 2-1/4 | 9 | 2 | 1980-442 | 15.25 | 1990-442 | 16.83 |
| 23/32 | .7188 | 2-1/4 | 9 | 2 | 1980-462 | 17.37 | 1990-462 | 18.96 |

† Limited Quantities

### Right Hand Spiral

| DIAM. | DECM'L EQUIV | FLUTE LG'TH | OVER. LG'TH | SHANK NO. | STR. FLUTE [2] ORDER NO. | STR. FLUTE [2] PRICE EACH | RHS-RHC [2] ORDER NO. | RHS-RHC [2] PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/4 | .7500 | 2-1/2 | 9-1/2 | 2 | 1980-482 | $17.03 | 1990-482 | $18.81 |
| 25/32 | .7812 | 2-1/2 | 9-1/2 | 2 | 1980-502 | 19.85 | 1990-502 | 21.63 |
| 13/16 | .8125 | 2-1/2 | 9-1/2 | 2 | 1980-522 | 19.85 | 1990-522 | 21.63 |
| 27/32 | .8438 | 2-1/2 | 9-1/2 | 2 | 1980-542 | 22.62 | 1990-542 | 24.80 |
| 55/64 | .8594 | 2-5/8 | 10 | 2 | 1980-552† | 25.67 | 1990-552† | 28.52 |
| 7/8 | .8750 | 2-5/8 | 10 | 2 | 1980-562 | 22.32 | 1990-562 | 24.80 |
| 29/32 | .9062 | 2-5/8 | 10 | 2 | 1980-582 | 24.65 | 1990-582 | 27.13 |
| 59/64 | .9219 | 2-5/8 | 10 | 3 | 1980-593† | 28.35 | – | – |
| 15/16 | .9375 | 2-5/8 | 10 | 3 | 1980-603 | 24.65 | 1990-603 | 27.13 |
| 31/32 | .9688 | 2-5/8 | 10 | 3 | 1980-623 | 27.47 | 1990-623 | 30.39 |
| 63/64 | .9844 | 2-3/4 | 10-1/2 | 3 | – | – | 1990-633† | 34.67 |
| 1 | 1.0000 | 2-3/4 | 10-1/2 | 3 | 1980-643 | 27.23 | 1990-643 | 30.15 |
| 1-1/16 | 1.0625 | 2-3/4 | 10-1/2 | 3 | 1980-683 | 30.59 | 1990-683 | 33.41 |
| 1-5/64 | 1.0781 | 2-7/8 | 11 | 3 | 1980-693† | 38.03 | – | – |
| 1-7/64 | 1.1094 | 2-7/8 | 11 | 3 | 1980-713† | 38.03 | – | – |
| 1-1/8 | 1.1250 | 2-7/8 | 11 | 3 | 1980-723 | 33.07 | 1990-723 | 36.88 |
| 1-3/16 | 1.1875 | 2-7/8 | 11 | 3 | 1980-763 | 37.08 | 1990-763 | 40.14 |
| 1-15/64 | 1.2344 | 3 | 11-1/2 | 4 | – | – | 1990-794† | 50.77 |
| 1-1/4 | 1.2500 | 3 | 11-1/2 | 4 | 1980-804 | 40.10 | 1990-804 | 44.15 |
| 1-5/16 | 1.3125 | 3 | 11-1/2 | 4 | 1980-844 | 44.85 | 1990-844 | 48.36 |
| 1-23/64 | 1.3594 | 3-1/4 | 12 | 4 | – | – | 1990-874† | 60.17 |
| 1-3/8 | 1.3750 | 3-1/4 | 12 | 4 | 1980-884 | 48.51 | 1990-884 | 52.32 |
| 1-7/16 | 1.4375 | 3-1/4 | 12 | 4 | 1980-924 | 52.57 | 1990-924 | 56.97 |
| 1-1/2 | 1.5000 | 3-1/2 | 12-1/2 | 4 | 1980-964 | 56.18 | 1990-964 | 60.49 |

**Need a Decimal Size?**
**We Deliver Fast!**

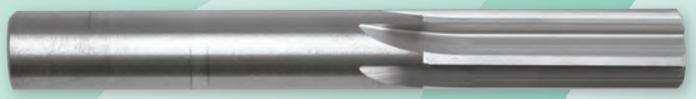
# Solid Carbide Chucking Reamers

## Straight Shank – Straight Flute

2

Look for ALLEGIANCE® AMERICANMADE

NEW



### Fractional Sizes

| FRAC. SIZES | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/32 | .0312 | 3/8 | 1-1/2 | 2967-002 | $11.80 |
| 3/64 | .0469 | 3/8 | 1-1/2 | 2967-003 | 11.05 |
| 1/16 | .0625 | 3/8 | 1-1/2 | 2967-004 | 10.65 |
| 5/64 | .0781 | 1-1/2 | 1-3/4 | 2967-005 | 11.00 |
| 3/32 | .0937 | 1/2 | 2 | 2967-006 | 12.55 |
| 7/64 | .1094 | 5/8 | 2-1/4 | 2967-007 | 13.35 |
| 1/8 | .1250 | 5/8 | 2-1/4 | 2967-008 | 13.80 |
| 9/64 | .1406 | 3/4 | 2-1/2 | 2967-009 | 14.55 |
| 5/32 | .1562 | 3/4 | 2-1/2 | 2967-010 | 14.80 |
| 11/64 | .1719 | 7/8 | 2-3/4 | 2967-011 | 16.55 |
| 3/16 | .1875 | 7/8 | 2-3/4 | 2967-012 | 16.80 |
| 13/64 | .2031 | 1 | 3 | 2967-013 | 19.10 |
| 7/32 | .2187 | 1 | 3 | 2967-014 | 19.90 |
| 15/64 | .2344 | 1 | 3 | 2967-015 | 21.55 |
| 1/4 | .2500 | 1 | 3 | 2967-016 | 21.80 |
| 17/64 | .2656 | 1-1/8 | 3-1/4 | 2967-017 | 26.70 |
| 9/32 | .2812 | 1-1/8 | 3-1/4 | 2967-018 | 26.95 |
| 19/64 | .2969 | 1-1/8 | 3-1/4 | 2967-019 | 27.15 |
| 5/16 | .3125 | 1-1/8 | 3-1/4 | 2967-020 | 27.40 |
| 21/64 | .3281 | 1-1/4 | 3-1/2 | 2967-021 | 33.60 |
| 11/32 | .3437 | 1-1/4 | 3-1/2 | 2967-022 | 33.85 |
| 23/64 | .3594 | 1-1/4 | 3-1/2 | 2967-023 | 34.25 |
| 3/8 | .3750 | 1-1/4 | 3-1/2 | 2967-024 | 36.80 |
| 13/32 | .4062 | 1-1/2 | 4 | 2967-026 | 44.05 |
| 7/16 | .4375 | 1-1/2 | 4 | 2967-028 | 53.10 |
| 15/32 | .4687 | 1-1/2 | 4 | 2967-030 | 66.15 |
| 1/2 | .5000 | 1-1/2 | 4 | 2967-032 | 67.20 |

**Tolerance +.0001/+.0003**

### Letter Sizes

| DIA. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| A | .2340 | 1 | 3 | 2967-201 | $21.80 |
| B | .2380 | 1 | 3 | 2967-202 | 21.80 |
| C | .2420 | 1 | 3 | 2967-203 | 21.80 |
| D | .2460 | 1 | 3 | 2967-204 | 21.80 |
| E | .2500 | 1 | 3 | 2967-205 | 19.85 |
| F | .2570 | 1 | 3 | 2967-206 | 27.50 |
| G | .2610 | 1 | 3 | 2967-207 | 27.50 |
| H | .2660 | 1 | 3 | 2967-208 | 27.50 |
| I | .2720 | 1 | 3 | 2967-209 | 27.50 |
| J | .2770 | 1-1/8 | 3-1/4 | 2967-210 | 27.50 |
| K | .2810 | 1-1/8 | 3-1/4 | 2967-211 | 27.50 |
| L | .2900 | 1-1/8 | 3-1/4 | 2967-212 | 27.50 |
| M | .2950 | 1-1/8 | 3-1/4 | 2967-213 | 27.50 |
| N | .3020 | 1-1/8 | 3-1/4 | 2967-214 | 28.25 |
| O | .3160 | 1-1/8 | 3-1/4 | 2967-215 | 29.05 |
| P | .3230 | 1-1/8 | 3-1/4 | 2967-216 | 37.45 |
| Q | .3320 | 1-1/4 | 3-1/2 | 2967-217 | 37.45 |
| R | .3390 | 1-1/4 | 3-1/2 | 2967-218 | 37.45 |
| S | .3480 | 1-1/4 | 3-1/2 | 2967-219 | 38.50 |
| T | .3580 | 1-1/4 | 3-1/2 | 2967-220 | 38.50 |
| U | .3680 | 1-1/4 | 3-1/2 | 2967-221 | 41.55 |
| V | .3770 | 1-1/4 | 3-1/2 | 2967-222 | 47.05 |
| W | .3860 | 1-1/4 | 3-1/2 | 2967-223 | 48.55 |
| X | .3970 | 1-1/4 | 3-1/2 | 2967-224 | 49.60 |
| Y | .4040 | 1-1/4 | 3-1/2 | 2967-225 | 49.60 |
| Z | .4130 | 1-1/2 | 4 | 2967-226 | 51.65 |

### Wire Gage Sizes

| DIA. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | .2280 | 1 | 3 | 2967-101 | $21.75 |
| 2 | .2210 | 1 | 3 | 2967-102 | 21.75 |
| 3 | .2130 | 1 | 3 | 2967-103 | 21.20 |
| 4 | .2090 | 1 | 3 | 2967-104 | 21.20 |
| 5 | .2055 | 1 | 3 | 2967-105 | 21.20 |
| 6 | .2040 | 1 | 3 | 2967-106 | 21.20 |
| 7 | .2010 | 1 | 3 | 2967-107 | 21.20 |
| 8 | .1990 | 1 | 3 | 2967-108 | 21.20 |
| 9 | .1960 | 1 | 3 | 2967-109 | 21.20 |
| 10 | .1935 | 7/8 | 2-3/4 | 2967-110 | 21.20 |
| 11 | .1910 | 7/8 | 2-3/4 | 2967-111 | 17.80 |
| 12 | .1890 | 7/8 | 2-3/4 | 2967-112 | 17.80 |
| 13 | .1850 | 7/8 | 2-3/4 | 2967-113 | 17.80 |
| 14 | .1820 | 7/8 | 2-3/4 | 2967-114 | 17.80 |
| 15 | .1800 | 7/8 | 2-3/4 | 2967-115 | 17.80 |
| 16 | .1770 | 7/8 | 2-3/4 | 2967-116 | 17.80 |
| 17 | .1730 | 7/8 | 2-3/4 | 2967-117 | 17.80 |
| 18 | .1695 | 7/8 | 2-3/4 | 2967-118 | 17.80 |
| 19 | .1660 | 7/8 | 2-3/4 | 2967-119 | 17.80 |
| 20 | .1610 | 7/8 | 2-3/4 | 2967-120 | 17.80 |
| 21 | .1590 | 3/4 | 2-1/2 | 2967-121 | 16.15 |
| 22 | .1570 | 3/4 | 2-1/2 | 2967-122 | 15.10 |
| 23 | .1540 | 3/4 | 2-1/2 | 2967-123 | 15.10 |
| 24 | .1520 | 3/4 | 2-1/2 | 2967-124 | 15.10 |
| 25 | .1495 | 3/4 | 2-1/2 | 2967-125 | 15.10 |
| 26 | .1470 | 3/4 | 2-1/2 | 2967-126 | 15.10 |
| 27 | .1440 | 3/4 | 2-1/2 | 2967-127 | 15.10 |
| 28 | .1405 | 3/4 | 2-1/2 | 2967-128 | 15.10 |
| 29 | .1360 | 3/4 | 2-1/2 | 2967-129 | 15.10 |
| 30 | .1285 | 5/8 | 2-1/4 | 2967-130 | 12.55 |
| 31 | .1200 | 5/8 | 2-1/4 | 2967-131 | 12.55 |
| 32 | .1160 | 5/8 | 2-1/4 | 2967-132 | 12.55 |
| 33 | .1130 | 5/8 | 2-1/4 | 2967-133 | 12.55 |
| 34 | .1110 | 5/8 | 2-1/4 | 2967-134 | 12.55 |
| 35 | .1100 | 5/8 | 2-1/4 | 2967-135 | 12.55 |
| 36 | .1065 | 5/8 | 2-1/4 | 2967-136 | 12.55 |
| 37 | .1040 | 5/8 | 2-1/4 | 2967-137 | 12.55 |
| 38 | .1015 | 5/8 | 2-1/4 | 2967-138 | 12.55 |
| 39 | .0995 | 5/8 | 2-1/4 | 2967-139 | 12.55 |
| 40 | .0980 | 5/8 | 2-1/4 | 2967-140 | 12.55 |
| 41 | .0960 | 5/8 | 2-1/4 | 2967-141 | 12.40 |
| 42 | .0935 | 1/2 | 1-3/4 | 2967-142 | 12.40 |
| 43 | .0890 | 1/2 | 1-3/4 | 2967-143 | 12.40 |
| 44 | .0860 | 1/2 | 1-3/4 | 2967-144 | 12.40 |
| 45 | .0820 | 1/2 | 1-3/4 | 2967-145 | 12.40 |
| 46 | .0810 | 1/2 | 1-3/4 | 2967-146 | 12.10 |
| 47 | .0785 | 1/2 | 1-3/4 | 2967-147 | 12.10 |
| 48 | .0760 | 1/2 | 1-3/4 | 2967-148 | 12.10 |
| 49 | .0730 | 1/2 | 1-3/4 | 2967-149 | 12.10 |
| 50 | .0700 | 1/2 | 1-3/4 | 2967-150 | 12.10 |
| 51 | .0670 | 1/2 | 1-1/2 | 2967-151 | 12.10 |
| 52 | .0635 | 1/2 | 1-1/2 | 2967-152 | 12.80 |
| 53 | .0595 | 1/2 | 1-1/2 | 2967-153 | 12.80 |
| 54 | .0550 | 1/2 | 1-1/2 | 2967-154 | 12.80 |
| 55 | .0520 | 1/2 | 1-1/2 | 2967-155 | 12.80 |
| 56 | .0465 | 1/2 | 1-1/2 | 2967-156 | 12.80 |
| 57 | .0430 | 1/2 | 1-1/2 | 2967-157 | 12.80 |
| 58 | .0420 | 1/2 | 1-1/2 | 2967-158 | 12.80 |
| 59 | .0410 | 1/2 | 1-1/2 | 2967-159 | 12.80 |
| 60 | .0400 | 1/2 | 1-1/2 | 2967-160 | 12.80 |
| 61 | .0390 | 3/8 | 1-1/2 | 2967-161 | 12.80 |
| 62 | .0380 | 3/8 | 1-1/2 | 2967-162 | 12.80 |
| 63 | .0370 | 3/8 | 1-1/2 | 2967-163 | 12.80 |
| 64 | .0360 | 3/8 | 1-1/2 | 2967-164 | 12.80 |
| 65 | .0350 | 3/8 | 1-1/2 | 2967-165 | 14.75 |
| 66 | .0330 | 3/8 | 1-1/2 | 2967-166 | 14.75 |
| 67 | .0320 | 3/8 | 1-1/2 | 2967-167 | 14.75 |
| 68 | .0310 | 3/8 | 1-1/2 | 2967-168 | 14.75 |
| 69 | .0292 | 3/8 | 1-1/2 | 2967-169 | 14.75 |
| 70 | .0280 | 3/8 | 1-1/2 | 2967-170 | 14.75 |

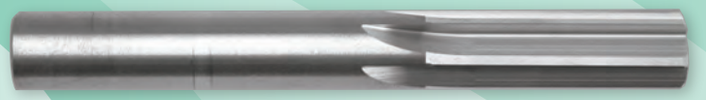
### Metric Sizes

| DIA. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1.0 | .0394 | 1/4 | 1-1/2 | 3090-394 | $12.80 |
| 1.5 | .0591 | 3/8 | 1-1/2 | 3090-591 | 12.80 |
| 2.0 | .0787 | 1/2 | 1-3/4 | 3090-787 | 12.10 |
| 2.5 | .0984 | 5/8 | 2-1/4 | 3090-984 | 12.55 |
| 3.0 | .1181 | 5/8 | 2-1/4 | 3091-181 | 12.55 |
| 3.5 | .1378 | 3/4 | 2-1/2 | 3091-378 | 15.10 |
| 4.0 | .1575 | 3/4 | 2-1/2 | 3091-575 | 16.15 |
| 4.5 | .1772 | 7/8 | 2-3/4 | 3091-772 | 17.90 |
| 5.0 | .1969 | 1 | 3 | 3091-969 | 20.05 |
| 5.5 | .2165 | 1 | 3 | 3092-165 | 20.60 |
| 6.0 | .2362 | 1 | 3 | 3092-362 | 22.00 |
| 6.5 | .2559 | 1-1/8 | 3-1/4 | 3092-559 | 27.75 |
| 7.0 | .2756 | 1-1/8 | 3-1/4 | 3092-756 | 27.75 |
| 7.5 | .2953 | 1-1/8 | 3-1/4 | 3092-953 | 28.55 |
| 8.0 | .3150 | 1-1/8 | 3-1/4 | 3093-150 | 29.30 |
| 8.5 | .3346 | 1-1/4 | 3-1/2 | 3093-346 | 35.20 |
| 9.0 | .3543 | 1-1/4 | 3-1/2 | 3093-543 | 36.20 |
| 9.5 | .3740 | 1-1/4 | 3-1/2 | 3093-740 | 39.15 |
| 10.0 | .3937 | 1-1/4 | 3-1/2 | 3093-937 | 46.65 |
| 10.5 | .4134 | 1-1/4 | 3-1/2 | 3094-134 | 48.60 |
| 11.0 | .4331 | 1-3/8 | 4 | 3094-331 | 54.10 |
| 11.5 | .4528 | 1-3/8 | 4 | 3094-528 | 68.65 |
| 12.0 | .4724 | 1-3/8 | 4 | 3094-724 | 69.85 |
| 12.5 | .4921 | 1-1/2 | 4 | 3094-921 | 71.10 |

Tolerance +.0001/+.0003
Sizes in .0001 increments will be quoted on request.

# Solid Carbide Chucking Reamers, Decimal Sizes

NEW



2

Look for ALLEGIANCE® AMERICANMADE

Tolerance +. Sizes in .0001 increments will be quoted on request.

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| ▼ 1/4 LOC x 1-1/2 OAL ▼ | | |
| 0.0300 | 3090-300 | $15.85 |
| 0.0315 | 3090-315 | 15.85 |
| 0.0325 | 3090-325 | 15.85 |
| 0.0335 | 3090-335 | 15.85 |
| 0.0340 | 3090-340 | 15.85 |
| 0.0345 | 3090-345 | 15.85 |
| 0.0355 | 3090-355 | 13.50 |
| 0.0365 | 3090-365 | 13.50 |
| 0.0375 | 3090-375 | 13.50 |
| 0.0385 | 3090-385 | 13.50 |
| 0.0395 | 3090-395 | 13.50 |
| 0.0405 | 3090-405 | 13.50 |
| 0.0415 | 3090-415 | 13.50 |
| ▼ 3/8 LOC x 1-1/2 OAL ▼ | | |
| 0.0425 | 3090-425 | $13.50 |
| 0.0435 | 3090-435 | 13.50 |
| 0.0440 | 3090-440 | 13.50 |
| 0.0445 | 3090-445 | 13.50 |
| 0.0450 | 3090-450 | 13.50 |
| 0.0455 | 3090-455 | 13.50 |
| 0.0460 | 3090-460 | 13.50 |
| 0.0470 | 3090-470 | 13.05 |
| 0.0475 | 3090-475 | 13.05 |
| 0.0480 | 3090-480 | 13.05 |
| 0.0485 | 3090-485 | 13.05 |
| 0.0490 | 3090-490 | 13.05 |
| 0.0495 | 3090-495 | 13.05 |
| 0.0500 | 3090-500 | 13.05 |
| 0.0505 | 3090-505 | 13.05 |
| 0.0510 | 3090-510 | 13.05 |
| 0.0515 | 3090-515 | 13.05 |
| 0.0525 | 3090-525 | 13.05 |
| 0.0530 | 3090-530 | 13.05 |
| 0.0535 | 3090-535 | 13.05 |
| 0.0540 | 3090-540 | 13.05 |
| 0.0545 | 3090-545 | 13.05 |
| 0.0555 | 3090-555 | 13.05 |
| 0.0560 | 3090-560 | 13.05 |
| 0.0565 | 3090-565 | 13.05 |
| 0.0570 | 3090-570 | 13.05 |
| 0.0575 | 3090-575 | 13.05 |
| 0.0580 | 3090-580 | 13.05 |
| 0.0585 | 3090-585 | 13.05 |
| 0.0590 | 3090-590 | 13.05 |
| 0.0600 | 3090-600 | 13.05 |
| 0.0605 | 3090-605 | 13.05 |
| 0.0610 | 3090-610 | 13.05 |
| 0.0615 | 3090-615 | 13.05 |
| 0.0620 | 3090-620 | 13.05 |
| 0.0630 | 3090-630 | 13.05 |
| 0.0640 | 3090-640 | 13.30 |
| 0.0645 | 3090-645 | 13.30 |
| 0.0650 | 3090-650 | 13.30 |
| ▼ 1/2 LOC x 1-3/4 OAL ▼ | | |
| 0.0655 | 3090-655 | $13.45 |
| 0.0660 | 3090-660 | 13.45 |
| 0.0665 | 3090-665 | 13.45 |
| 0.0675 | 3090-675 | 13.45 |
| 0.0680 | 3090-680 | 13.45 |
| 0.0685 | 3090-685 | 13.45 |
| 0.0690 | 3090-690 | 13.45 |
| 0.0695 | 3090-695 | 13.45 |
| 0.0705 | 3090-705 | 13.45 |
| 0.0710 | 3090-710 | 13.45 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| ▼ 1/2 LOC x 2 OAL ▼ | | |
| 0.0715 | 3090-715 | $13.45 |
| 0.0720 | 3090-720 | 13.45 |
| 0.0725 | 3090-725 | 13.45 |
| 0.0735 | 3090-735 | 13.45 |
| 0.0740 | 3090-740 | 13.45 |
| 0.0745 | 3090-745 | 13.45 |
| 0.0750 | 3090-750 | 13.45 |
| 0.0755 | 3090-755 | 13.45 |
| 0.0765 | 3090-765 | 13.45 |
| 0.0770 | 3090-770 | 13.45 |
| 0.0775 | 3090-775 | 13.45 |
| 0.0780 | 3090-780 | 13.45 |
| 0.0790 | 3090-790 | 15.00 |
| 0.0795 | 3090-795 | 15.00 |
| 0.0800 | 3090-800 | 15.00 |
| 0.0805 | 3090-805 | 15.00 |
| 0.0815 | 3090-815 | 15.40 |
| 0.0825 | 3090-825 | 15.40 |
| 0.0830 | 3090-830 | 15.40 |
| 0.0835 | 3090-835 | 15.40 |
| 0.0840 | 3090-840 | 15.40 |
| 0.0845 | 3090-845 | 15.40 |
| 0.0850 | 3090-850 | 15.40 |
| 0.0855 | 3090-855 | 15.40 |
| 0.0865 | 3090-865 | 15.40 |
| 0.0870 | 3090-870 | 15.40 |
| 0.0875 | 3090-875 | 15.40 |
| 0.0880 | 3090-880 | 15.40 |
| 0.0885 | 3090-885 | 15.40 |
| 0.0895 | 3090-895 | 15.40 |
| 0.0900 | 3090-900 | 15.40 |
| 0.0905 | 3090-905 | 15.40 |
| 0.0910 | 3090-910 | 15.40 |
| 0.0915 | 3090-915 | 15.40 |
| 0.0920 | 3090-920 | 15.40 |
| 0.0925 | 3090-925 | 15.40 |
| 0.0930 | 3090-930 | 15.40 |
| 0.0940 | 3090-940 | 15.40 |
| 0.0945 | 3090-945 | 15.40 |
| 0.0950 | 3090-950 | 15.40 |
| 0.0955 | 3090-955 | 15.40 |
| 0.0965 | 3090-965 | 15.40 |
| ▼ 5/8 LOC x 2-1/4 OAL ▼ | | |
| 0.0970 | 3090-970 | $15.50 |
| 0.0975 | 3090-975 | 15.70 |
| 0.0985 | 3090-985 | 15.70 |
| 0.0990 | 3090-990 | 15.70 |
| 0.1000 | 3091-000 | 15.70 |
| 0.1005 | 3091-005 | 15.70 |
| 0.1010 | 3091-010 | 15.70 |
| 0.1020 | 3091-020 | 15.70 |
| 0.1025 | 3091-025 | 15.70 |
| 0.1030 | 3091-030 | 15.70 |
| 0.1035 | 3091-035 | 15.70 |
| 0.1045 | 3091-045 | 15.70 |
| 0.1050 | 3091-050 | 15.70 |
| 0.1055 | 3091-055 | 15.70 |
| 0.1060 | 3091-060 | 15.70 |
| 0.1070 | 3091-070 | 15.70 |
| 0.1075 | 3091-075 | 15.70 |
| 0.1080 | 3091-080 | 15.70 |
| 0.1085 | 3091-085 | 15.70 |
| 0.1090 | 3091-090 | 15.70 |
| 0.1095 | 3091-095 | 16.70 |
| 0.1105 | 3091-105 | 16.70 |
| 0.1115 | 3091-115 | 16.70 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| ▼ 5/8 LOC x 2-1/4 OAL ▼ | | |
| 0.1125 | 3091-125 | $16.70 |
| 0.1135 | 3091-135 | 16.70 |
| 0.1140 | 3091-140 | 16.70 |
| 0.1145 | 3091-145 | 16.70 |
| 0.1150 | 3091-150 | 16.70 |
| 0.1155 | 3091-155 | 16.70 |
| 0.1165 | 3091-165 | 16.70 |
| 0.1170 | 3091-170 | 16.70 |
| 0.1175 | 3091-175 | 16.70 |
| 0.1180 | 3091-180 | 16.70 |
| 0.1185 | 3091-185 | 16.70 |
| 0.1190 | 3091-190 | 16.70 |
| 0.1195 | 3091-195 | 16.70 |
| 0.1205 | 3091-205 | 16.70 |
| 0.1210 | 3091-210 | 16.70 |
| 0.1215 | 3091-215 | 16.70 |
| 0.1220 | 3091-220 | 16.70 |
| 0.1225 | 3091-225 | 16.70 |
| 0.1230 | 3091-230 | 16.70 |
| 0.1235 | 3091-235 | 16.70 |
| 0.1240 | 3091-240 | 16.70 |
| 0.1245 | 3091-245 | 16.70 |
| 0.1247 | 3091-247 | 16.70 |
| 0.1255 | 3091-255 | 16.70 |
| 0.1260 | 3091-260 | 16.70 |
| 0.1265 | 3091-265 | 16.70 |
| 0.1270 | 3091-270 | 16.70 |
| 0.1275 | 3091-275 | 16.70 |
| 0.1280 | 3091-280 | 16.70 |
| 0.1290 | 3091-290 | 16.70 |
| 0.1295 | 3091-295 | 18.45 |
| 0.1300 | 3091-300 | 18.45 |
| ▼ 3/4 LOC x 2-1/2 OAL ▼ | | |
| 0.1305 | 3091-305 | $20.45 |
| 0.1310 | 3091-310 | 20.45 |
| 0.1315 | 3091-315 | 20.45 |
| 0.1320 | 3091-320 | 20.45 |
| 0.1325 | 3091-325 | 20.45 |
| 0.1330 | 3091-330 | 20.45 |
| 0.1335 | 3091-335 | 20.45 |
| 0.1340 | 3091-340 | 20.45 |
| 0.1345 | 3091-345 | 20.45 |
| 0.1350 | 3091-350 | 20.45 |
| 0.1355 | 3091-355 | 20.45 |
| 0.1365 | 3091-365 | 20.45 |
| 0.1370 | 3091-370 | 20.45 |
| 0.1375 | 3091-375 | 20.45 |
| 0.1380 | 3091-380 | 20.45 |
| 0.1385 | 3091-385 | 20.45 |
| 0.1390 | 3091-390 | 20.45 |
| 0.1395 | 3091-395 | 20.45 |
| 0.1400 | 3091-400 | 20.45 |
| 0.1410 | 3091-410 | 20.45 |
| 0.1415 | 3091-415 | 20.45 |
| 0.1420 | 3091-420 | 20.45 |
| 0.1425 | 3091-425 | 20.45 |
| 0.1430 | 3091-430 | 20.45 |
| 0.1435 | 3091-435 | 20.45 |
| 0.1445 | 3091-445 | 20.45 |
| 0.1450 | 3091-450 | 20.45 |
| 0.1455 | 3091-455 | 20.45 |
| 0.1460 | 3091-460 | 20.45 |
| 0.1465 | 3091-465 | 20.45 |
| 0.1475 | 3091-475 | 20.45 |
| 0.1480 | 3091-480 | 20.45 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| ▼ 3/4 LOC x 2-1/2 OAL ▼ | | |
| 0.1485 | 3091-485 | $20.45 |
| 0.1490 | 3091-490 | 20.45 |
| 0.1500 | 3091-500 | 20.45 |
| 0.1505 | 3091-505 | 20.45 |
| 0.1507 | 3091-507 | 20.45 |
| 0.1510 | 3091-510 | 20.45 |
| 0.1515 | 3091-515 | 20.45 |
| 0.1525 | 3091-525 | 20.45 |
| 0.1530 | 3091-530 | 20.45 |
| 0.1535 | 3091-535 | 20.45 |
| 0.1541 | 3091-541 | 20.45 |
| 0.1545 | 3091-545 | 20.45 |
| 0.1550 | 3091-550 | 20.45 |
| 0.1555 | 3091-555 | 20.45 |
| 0.1560 | 3091-560 | 20.45 |
| 0.1565 | 3091-565 | 20.45 |
| 0.1580 | 3091-580 | 21.30 |
| 0.1585 | 3091-585 | 21.30 |
| 0.1595 | 3091-595 | 21.30 |
| 0.1600 | 3091-600 | 21.30 |
| 0.1605 | 3091-605 | 21.30 |
| ▼ 7/8 LOC x 2-3/4 OAL ▼ | | |
| 0.1615 | 3091-615 | $23.30 |
| 0.1620 | 3091-620 | 23.30 |
| 0.1625 | 3091-625 | 23.30 |
| 0.1630 | 3091-630 | 23.30 |
| 0.1635 | 3091-635 | 23.30 |
| 0.1640 | 3091-640 | 23.30 |
| 0.1645 | 3091-645 | 23.30 |
| 0.1650 | 3091-650 | 23.30 |
| 0.1655 | 3091-655 | 23.30 |
| 0.1665 | 3091-665 | 23.30 |
| 0.1670 | 3091-670 | 23.30 |
| 0.1675 | 3091-675 | 23.30 |
| 0.1680 | 3091-680 | 23.30 |
| 0.1685 | 3091-685 | 23.30 |
| 0.1690 | 3091-690 | 23.30 |
| 0.1700 | 3091-700 | 23.30 |
| 0.1705 | 3091-705 | 23.30 |
| 0.1710 | 3091-710 | 23.30 |
| 0.1715 | 3091-715 | 23.30 |
| 0.1720 | 3091-720 | 23.30 |
| 0.1725 | 3091-725 | 23.30 |
| 0.1735 | 3091-735 | 23.30 |
| 0.1740 | 3091-740 | 23.30 |
| 0.1745 | 3091-745 | 23.30 |
| 0.1750 | 3091-750 | 23.30 |
| 0.1755 | 3091-755 | 23.30 |
| 0.1760 | 3091-760 | 23.30 |
| 0.1765 | 3091-765 | 23.30 |
| 0.1775 | 3091-775 | 23.30 |
| 0.1780 | 3091-780 | 23.30 |
| 0.1785 | 3091-785 | 23.30 |
| 0.1790 | 3091-790 | 23.30 |
| 0.1795 | 3091-795 | 23.30 |
| 0.1805 | 3091-805 | 23.30 |
| 0.1810 | 3091-810 | 23.30 |
| 0.1814 | 3091-814 | 23.30 |
| 0.1815 | 3091-815 | 23.30 |
| 0.1825 | 3091-825 | 23.30 |
| 0.1830 | 3091-830 | 23.30 |
| 0.1835 | 3091-835 | 23.30 |
| 0.1840 | 3091-840 | 23.30 |
| 0.1845 | 3091-845 | 23.30 |
| 0.1855 | 3091-855 | 23.30 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| ▼ 7/8 LOC x 2-3/4 OAL ▼ | | |
| 0.1860 | 3091-860 | $23.30 |
| 0.1865 | 3091-865 | 23.30 |
| 0.1870 | 3091-870 | 23.30 |
| 0.1872 | 3091-872 | 23.30 |
| 0.1880 | 3091-880 | 23.30 |
| 0.1885 | 3091-885 | 23.30 |
| 0.1895 | 3091-895 | 23.30 |
| 0.1900 | 3091-900 | 23.30 |
| 0.1905 | 3091-905 | 23.30 |
| 0.1915 | 3091-915 | 23.30 |
| ▼ 1 LOC x 3 OAL ▼ | | |
| 0.1920 | 3091-920 | $25.80 |
| 0.1925 | 3091-925 | 25.80 |
| 0.1930 | 3091-930 | 25.80 |
| 0.1940 | 3091-940 | 25.80 |
| 0.1945 | 3091-945 | 25.80 |
| 0.1950 | 3091-950 | 25.80 |
| 0.1955 | 3091-955 | 25.80 |
| 0.1965 | 3091-965 | 25.80 |
| 0.1970 | 3091-970 | 25.80 |
| 0.1975 | 3091-975 | 25.80 |
| 0.1980 | 3091-980 | 25.80 |
| 0.1985 | 3091-985 | 25.80 |
| 0.1995 | 3091-995 | 25.80 |
| 0.2000 | 3092-000 | 25.80 |
| 0.2005 | 3092-005 | 25.80 |
| 0.2015 | 3092-015 | 25.80 |
| 0.2020 | 3092-020 | 25.80 |
| 0.2025 | 3092-025 | 25.80 |
| 0.2030 | 3092-030 | 25.80 |
| 0.2035 | 3092-035 | 25.80 |
| 0.2045 | 3092-045 | 25.80 |
| 0.2050 | 3092-050 | 25.80 |
| 0.2060 | 3092-060 | 25.80 |
| 0.2065 | 3092-065 | 25.80 |
| 0.2070 | 3092-070 | 25.80 |
| 0.2075 | 3092-075 | 25.80 |
| 0.2080 | 3092-080 | 25.80 |
| 0.2085 | 3092-085 | 25.80 |
| 0.2095 | 3092-095 | 25.80 |
| 0.2100 | 3092-100 | 25.80 |
| 0.2105 | 3092-105 | 25.80 |
| 0.2110 | 3092-110 | 25.80 |
| 0.2115 | 3092-115 | 25.80 |
| 0.2120 | 3092-120 | 25.80 |
| 0.2125 | 3092-125 | 25.80 |
| 0.2135 | 3092-135 | 25.80 |
| 0.2140 | 3092-140 | 25.80 |
| 0.2145 | 3092-145 | 25.80 |
| 0.2150 | 3092-150 | 26.45 |
| 0.2155 | 3092-155 | 26.45 |
| 0.2160 | 3092-160 | 26.45 |
| 0.2170 | 3092-170 | 26.45 |
| 0.2175 | 3092-175 | 26.45 |
| 0.2177 | 3092-177 | 26.45 |
| 0.2180 | 3092-180 | 26.45 |
| 0.2185 | 3092-185 | 26.45 |
| 0.2190 | 3092-190 | 26.45 |
| 0.2195 | 3092-195 | 26.45 |
| 0.2200 | 3092-200 | 26.45 |
| 0.2205 | 3092-205 | 26.45 |
| 0.2215 | 3092-215 | 26.45 |
| 0.2220 | 3092-220 | 26.45 |
| 0.2225 | 3092-225 | 26.45 |

# Solid Carbide Chucking Reamers, Decimal Sizes

## (Continued)

NEW

2

ALLEGIANCE®
Made in USA

**Tolerance +. Sizes in .0001 increments will be quoted on request.**

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| **1 LOC x 3 OAL** | | |
| 0.2230 | 3092-230 | $26.45 |
| 0.2235 | 3092-235 | 26.45 |
| 0.2240 | 3092-240 | 26.45 |
| 0.2245 | 3092-245 | 26.45 |
| 0.2250 | 3092-250 | 26.45 |
| 0.2255 | 3092-255 | 26.45 |
| 0.2260 | 3092-260 | 26.45 |
| 0.2265 | 3092-265 | 26.45 |
| 0.2270 | 3092-270 | 26.45 |
| 0.2275 | 3092-275 | 26.45 |
| 0.2285 | 3092-285 | 26.45 |
| 0.2290 | 3092-290 | 26.45 |
| 0.2295 | 3092-295 | 26.45 |
| 0.2300 | 3092-300 | 26.45 |
| 0.2305 | 3092-305 | 26.45 |
| 0.2310 | 3092-310 | 26.45 |
| 0.2315 | 3092-315 | 26.45 |
| 0.2320 | 3092-320 | 26.45 |
| 0.2325 | 3092-325 | 26.45 |
| 0.2330 | 3092-330 | 26.45 |
| 0.2335 | 3092-335 | 26.45 |
| 0.2345 | 3092-345 | 28.10 |
| 0.2350 | 3092-350 | 28.10 |
| 0.2355 | 3092-355 | 28.10 |
| 0.2360 | 3092-360 | 28.10 |
| 0.2365 | 3092-365 | 28.10 |
| 0.2370 | 3092-370 | 28.10 |
| 0.2375 | 3092-375 | 28.10 |
| 0.2385 | 3092-385 | 28.10 |
| 0.2390 | 3092-390 | 28.10 |
| 0.2395 | 3092-395 | 28.10 |
| 0.2400 | 3092-400 | 28.10 |
| 0.2405 | 3092-405 | 28.10 |
| 0.2410 | 3092-410 | 28.10 |
| 0.2415 | 3092-415 | 28.10 |
| 0.2425 | 3092-425 | 28.10 |
| 0.2430 | 3092-430 | 28.10 |
| 0.2435 | 3092-435 | 28.10 |
| 0.2440 | 3092-440 | 28.10 |
| 0.2445 | 3092-445 | 28.10 |
| 0.2450 | 3092-450 | 28.10 |
| 0.2455 | 3092-455 | 28.10 |
| 0.2465 | 3092-465 | 28.10 |
| 0.2470 | 3092-470 | 28.10 |
| 0.2475 | 3092-475 | 28.10 |
| 0.2480 | 3092-480 | 28.10 |
| 0.2485 | 3092-485 | 28.10 |
| 0.2490 | 3092-490 | 28.10 |
| 0.2495 | 3092-495 | 28.10 |
| 0.2505 | 3092-505 | 28.10 |
| 0.2510 | 3092-510 | 28.10 |
| 0.2515 | 3092-515 | 28.10 |
| 0.2520 | 3092-520 | 28.10 |
| 0.2525 | 3092-525 | 29.50 |
| 0.2530 | 3092-530 | 29.50 |
| 0.2535 | 3092-535 | 29.50 |
| 0.2540 | 3092-540 | 29.50 |
| 0.2545 | 3092-545 | 29.50 |
| 0.2550 | 3092-550 | 29.50 |
| **1-1/8 LOC x 3-1/4 OAL** | | |
| 0.2560 | 3092-560 | $34.95 |
| 0.2565 | 3092-565 | 34.95 |
| 0.2575 | 3092-575 | 34.95 |
| 0.2580 | 3092-580 | 34.95 |
| 0.2590 | 3092-590 | 34.95 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| **1-1/8 LOC x 3-1/4 OAL** | | |
| 0.2600 | 3092-600 | $34.95 |
| 0.2620 | 3092-620 | 34.95 |
| 0.2630 | 3092-630 | 34.95 |
| 0.2640 | 3092-640 | 34.95 |
| 0.2650 | 3092-650 | 34.95 |
| 0.2670 | 3092-670 | 34.95 |
| 0.2680 | 3092-680 | 34.95 |
| 0.2690 | 3092-690 | 34.95 |
| 0.2700 | 3092-700 | 34.95 |
| 0.2710 | 3092-710 | 34.95 |
| 0.2730 | 3092-730 | 34.95 |
| 0.2740 | 3092-740 | 34.95 |
| 0.2750 | 3092-750 | 34.95 |
| 0.2760 | 3092-760 | 34.95 |
| 0.2780 | 3092-780 | 34.95 |
| 0.2790 | 3092-790 | 34.95 |
| 0.2800 | 3092-800 | 34.95 |
| 0.2818 | 3092-818 | 36.05 |
| 0.2820 | 3092-820 | 36.05 |
| 0.2830 | 3092-830 | 36.05 |
| 0.2840 | 3092-840 | 36.05 |
| 0.2850 | 3092-850 | 36.05 |
| 0.2860 | 3092-860 | 36.05 |
| 0.2870 | 3092-870 | 36.05 |
| 0.2880 | 3092-880 | 36.05 |
| 0.2890 | 3092-890 | 36.05 |
| 0.2910 | 3092-910 | 36.05 |
| 0.2920 | 3092-920 | 36.05 |
| 0.2930 | 3092-930 | 36.05 |
| 0.2940 | 3092-940 | 36.05 |
| 0.2960 | 3092-960 | 36.05 |
| 0.2970 | 3092-970 | 36.05 |
| 0.2980 | 3092-980 | 36.05 |
| 0.2990 | 3092-990 | 36.05 |
| 0.3000 | 3093-000 | 36.05 |
| 0.3010 | 3093-010 | 36.05 |
| 0.3030 | 3093-030 | 36.05 |
| 0.3040 | 3093-040 | 36.05 |
| 0.3050 | 3093-050 | 36.05 |
| 0.3060 | 3093-060 | 36.05 |
| 0.3070 | 3093-070 | 36.05 |
| 0.3080 | 3093-080 | 36.05 |
| 0.3090 | 3093-090 | 36.05 |
| 0.3100 | 3093-100 | 36.05 |
| 0.3110 | 3093-110 | 36.05 |
| 0.3120 | 3093-120 | 37.10 |
| 0.3130 | 3093-130 | 37.10 |
| 0.3140 | 3093-140 | 37.10 |
| **1-1/4 LOC x 3-1/2 OAL** | | |
| 0.3170 | 3093-170 | $46.90 |
| 0.3180 | 3093-180 | 46.90 |
| 0.3190 | 3093-190 | 46.90 |
| 0.3200 | 3093-200 | 46.90 |
| 0.3210 | 3093-210 | 46.90 |
| 0.3220 | 3093-220 | 46.90 |
| 0.3240 | 3093-240 | 46.90 |
| 0.3250 | 3093-250 | 46.90 |
| 0.3260 | 3093-260 | 46.90 |
| 0.3270 | 3093-270 | 46.90 |
| 0.3280 | 3093-280 | 46.90 |
| 0.3290 | 3093-290 | 46.90 |
| 0.3300 | 3093-300 | 46.90 |
| 0.3310 | 3093-310 | 46.90 |
| 0.3330 | 3093-330 | 46.90 |
| 0.3340 | 3093-340 | 46.90 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| **1-1/4 LOC x 3-1/2 OAL** | | |
| 0.3350 | 3093-350 | $46.90 |
| 0.3360 | 3093-360 | 46.90 |
| 0.3370 | 3093-370 | 46.90 |
| 0.3380 | 3093-380 | 46.90 |
| 0.3400 | 3093-400 | 46.90 |
| 0.3410 | 3093-410 | 46.90 |
| 0.3420 | 3093-420 | 46.90 |
| 0.3430 | 3093-430 | 46.90 |
| 0.3440 | 3093-440 | 48.35 |
| 0.3450 | 3093-450 | 48.35 |
| 0.3460 | 3093-460 | 48.35 |
| 0.3470 | 3093-470 | 48.35 |
| 0.3490 | 3093-490 | 48.35 |
| 0.3500 | 3093-500 | 48.35 |
| 0.3510 | 3093-510 | 48.35 |
| 0.3520 | 3093-520 | 48.35 |
| 0.3530 | 3093-530 | 48.35 |
| 0.3540 | 3093-540 | 48.35 |
| 0.3550 | 3093-550 | 48.35 |
| 0.3560 | 3093-560 | 48.35 |
| 0.3570 | 3093-570 | 48.35 |
| 0.3590 | 3093-590 | 48.35 |
| 0.3600 | 3093-600 | 52.60 |
| 0.3610 | 3093-610 | 52.60 |
| 0.3620 | 3093-620 | 52.60 |
| 0.3630 | 3093-630 | 52.60 |
| 0.3640 | 3093-640 | 52.60 |
| 0.3650 | 3093-650 | 52.60 |
| 0.3660 | 3093-660 | 52.60 |
| 0.3670 | 3093-670 | 52.60 |
| 0.3690 | 3093-690 | 52.60 |
| 0.3700 | 3093-700 | 52.60 |
| 0.3710 | 3093-710 | 52.60 |
| 0.3720 | 3093-720 | 52.60 |
| 0.3730 | 3093-730 | 52.60 |
| 0.3745 | 3093-745 | 52.60 |
| 0.3755 | 3093-755 | 52.60 |
| 0.3760 | 3093-760 | 52.60 |
| 0.3765 | 3093-765 | 52.60 |
| 0.3780 | 3093-780 | 54.75 |
| 0.3790 | 3093-790 | 61.10 |
| 0.3800 | 3093-800 | 61.10 |
| 0.3810 | 3093-810 | 61.10 |
| 0.3820 | 3093-820 | 61.10 |
| 0.3830 | 3093-830 | 61.10 |
| 0.3840 | 3093-840 | 61.10 |
| 0.3850 | 3093-850 | 61.10 |
| 0.3870 | 3093-870 | 61.10 |
| 0.3880 | 3093-880 | 61.10 |
| 0.3890 | 3093-890 | 61.10 |
| 0.3900 | 3093-900 | 61.10 |
| 0.3910 | 3093-910 | 62.55 |
| 0.3920 | 3093-920 | 62.55 |
| 0.3930 | 3093-930 | 62.55 |
| 0.3940 | 3093-940 | 62.55 |
| 0.3950 | 3093-950 | 62.55 |
| 0.3960 | 3093-960 | 62.55 |
| 0.3980 | 3093-980 | 62.55 |
| 0.3990 | 3093-990 | 62.55 |
| 0.4000 | 3094-000 | 62.55 |
| 0.4010 | 3094-010 | 62.55 |
| 0.4020 | 3094-020 | 62.55 |
| 0.4030 | 3094-030 | 62.55 |
| 0.4050 | 3094-050 | 62.55 |
| 0.4060 | 3094-060 | 62.55 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| **1-1/4 LOC x 3-1/2 OAL** | | |
| 0.4070 | 3094-070 | $65.40 |
| 0.4080 | 3094-080 | 65.40 |
| 0.4090 | 3094-090 | 65.40 |
| 0.4100 | 3094-100 | 65.40 |
| 0.4110 | 3094-110 | 65.40 |
| 0.4120 | 3094-120 | 65.40 |
| 0.4140 | 3094-140 | 65.40 |
| 0.4150 | 3094-150 | 65.40 |
| 0.4160 | 3094-160 | 65.40 |
| **1-3/8 LOC x 4 OAL** | | |
| 0.4170 | 3094-170 | $65.65 |
| 0.4180 | 3094-180 | 65.65 |
| 0.4190 | 3094-190 | 65.65 |
| 0.4200 | 3094-200 | 65.65 |
| 0.4210 | 3094-210 | 65.65 |
| 0.4230 | 3094-230 | 68.15 |
| 0.4240 | 3094-240 | 68.15 |
| 0.4250 | 3094-250 | 68.15 |
| 0.4260 | 3094-260 | 68.15 |
| 0.4270 | 3094-270 | 68.15 |
| 0.4280 | 3094-280 | 68.15 |
| 0.4290 | 3094-290 | 68.15 |
| 0.4300 | 3094-300 | 68.15 |
| 0.4310 | 3094-310 | 68.15 |
| 0.4320 | 3094-320 | 68.15 |
| 0.4340 | 3094-340 | 68.15 |
| 0.4350 | 3094-350 | 68.15 |
| 0.4360 | 3094-360 | 68.15 |
| 0.4370 | 3094-370 | 68.15 |
| 0.4380 | 3094-380 | 68.15 |
| 0.4390 | 3094-390 | 68.15 |
| 0.4400 | 3094-400 | 74.70 |
| 0.4410 | 3094-410 | 74.70 |
| 0.4420 | 3094-420 | 74.70 |
| 0.4430 | 3094-430 | 74.70 |
| 0.4440 | 3094-440 | 74.70 |
| 0.4450 | 3094-450 | 74.70 |
| 0.4460 | 3094-460 | 74.70 |
| 0.4470 | 3094-470 | 74.70 |
| 0.4480 | 3094-480 | 74.70 |
| 0.4490 | 3094-490 | 74.70 |
| 0.4500 | 3094-500 | 74.70 |
| 0.4510 | 3094-510 | 74.70 |
| 0.4520 | 3094-520 | 74.70 |
| 0.4530 | 3094-530 | 74.70 |
| 0.4540 | 3094-540 | 76.80 |
| 0.4550 | 3094-550 | 76.80 |
| 0.4560 | 3094-560 | 76.80 |
| 0.4570 | 3094-570 | 76.80 |
| 0.4580 | 3094-580 | 76.80 |
| 0.4590 | 3094-590 | 76.80 |
| 0.4600 | 3094-600 | 76.80 |
| 0.4610 | 3094-610 | 76.80 |
| 0.4620 | 3094-620 | 76.80 |
| 0.4630 | 3094-630 | 76.80 |
| 0.4640 | 3094-640 | 76.80 |
| 0.4650 | 3094-650 | 76.80 |
| 0.4660 | 3094-660 | 76.80 |
| 0.4670 | 3094-670 | 76.80 |
| 0.4680 | 3094-680 | 76.80 |
| 0.4690 | 3094-690 | 76.80 |
| 0.4700 | 3094-700 | 76.80 |
| 0.4710 | 3094-710 | 76.80 |
| 0.4720 | 3094-720 | 76.80 |
| 0.4730 | 3094-730 | 76.80 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| **1-3/8 LOC x 4 OAL** | | |
| 0.4740 | 3094-740 | $76.80 |
| 0.4750 | 3094-750 | 76.80 |
| 0.4760 | 3094-760 | 76.80 |
| 0.4770 | 3094-770 | 76.80 |
| 0.4780 | 3094-780 | 76.80 |
| **1-1/2 LOC x 4 OAL** | | |
| 0.4790 | 3094-790 | $76.80 |
| 0.4800 | 3094-800 | 76.80 |
| 0.4805 | 3094-805 | 76.80 |
| 0.4810 | 3094-810 | 76.80 |
| 0.4820 | 3094-820 | 76.80 |
| 0.4830 | 3094-830 | 76.80 |
| 0.4840 | 3094-840 | 76.80 |
| 0.4850 | 3094-850 | 76.80 |
| 0.4860 | 3094-860 | 76.80 |
| 0.4870 | 3094-870 | 76.80 |
| 0.4880 | 3094-880 | 76.80 |
| 0.4890 | 3094-890 | 76.80 |
| 0.4900 | 3094-900 | 76.80 |
| 0.4910 | 3094-910 | 76.80 |
| 0.4930 | 3094-930 | 76.80 |
| 0.4940 | 3094-940 | 76.80 |
| 0.4950 | 3094-950 | 76.80 |
| 0.4960 | 3094-960 | 76.80 |
| 0.4970 | 3094-970 | 76.80 |
| 0.4980 | 3094-980 | 76.80 |
| 0.4990 | 3094-990 | 76.80 |
| 0.4995 | 3094-995 | 76.80 |
| 0.5005 | 3095-005 | 76.80 |
| 0.5010 | 3095-010 | 76.80 |
| 0.5015 | 3095-015 | 76.80 |
| 0.5020 | 3095-020 | 76.80 |
| 0.5030 | 3095-030 | 76.80 |
| 0.5040 | 3095-040 | 76.80 |
| 0.5050 | 3095-050 | 76.80 |

# Carbide Tipped Chucking Reamers

## Straight Shank– Straight Flute– Long– RHS RHC & LHS RHC

Straight Flute

Right Hand Spiral

Left Hand Spiral

| DIAM. | FLUTE LENGTH | OVERALL LENGTH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | STRAIGHT FLUTE LONG CARBIDE FLUTE LENGTH | STRAIGHT FLUTE LONG CARBIDE ORDER NO. | STRAIGHT FLUTE LONG CARBIDE PRICE EACH | RHS - RHC FLUTE ORDER NO. | RHS - RHC FLUTE PRICE EACH | LHS - RHC - FLUTE ORDER NO. | LHS - RHC - FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/16 | 1-1/8 | 4-1/2 | 1954-012 | $31.75 | – | – | – | – | – | – | – |
| 13/64 | 1-1/8 | 4-1/2 | 1954-013 | 33.65 | – | – | – | – | – | – | – |
| 7/32 | 1-1/4 | 5 | 1954-014 | 31.75 | – | – | – | – | – | – | – |
| 15/64 | 1-1/2 | 6 | 1954-015 | 33.65 | – | – | – | – | – | – | – |
| 1/4 | 1-1/2 | 6 | 1954-016 | 31.75 | 1-1/2 | 3021-016 | $38.00 | 3020-216 | $44.75 | 3020-416 | $44.75 |
| 17/64 | 1-1/2 | 6 | 1954-017 | 34.40 | – | – | – | – | – | – | – |
| 9/32 | 1-1/2 | 6 | 1954-018 | 32.45 | 1-1/2 | 3021-018 | 38.85 | 3020-218 | 44.90 | 3020-418 | 44.90 |
| 19/64 | 1-1/2 | 6 | 1954-019 | 34.40 | – | – | – | – | – | – | – |
| 5/16 | 1-1/2 | 6 | 1954-020 | 32.45 | 1-1/2 | 3021-020 | 38.85 | 3020-220 | 44.90 | 3020-420 | 44.90 |
| 21/64 | 1-1/2 | 6 | 1954-021 | 35.65 | – | – | – | – | – | – | – |
| 11/32 | 1-1/2 | 6 | 1954-022 | 33.60 | 1-1/2 | 3021-022 | 40.25 | 3020-222 | 49.40 | 3020-422 | 49.40 |
| 23/64 | 1-3/4 | 7 | 1954-023 | 35.65 | – | – | – | – | – | – | – |
| 3/8 | 1-3/4 | 7 | 1954-024 | 33.60 | 1-3/4 | 3021-024 | 40.25 | 3020-224 | 49.85 | 3020-424 | 49.85 |
| 25/64 | 1-3/4 | 7 | 1954-025 | 37.45 | – | – | – | – | – | – | – |
| 13/32 | 1-3/4 | 7 | 1954-026 | 35.25 | 1-3/4 | 3021-026 | 42.25 | 3020-226 | 52.10 | 3020-426 | 52.10 |
| 27/64 | 1-3/4 | 7 | 1954-027 | 39.85 | – | – | – | – | – | – | – |
| 7/16 | 1-3/4 | 7 | 1954-028 | 37.65 | 1-3/4 | 3021-028 | 45.70 | 3020-228 | 54.20 | 3020-428 | 54.20 |
| 29/64 | 1-3/4 | 7 | 1954-029 | 40.50 | – | – | – | – | – | – | – |
| 15/32 | 1-3/4 | 7 | 1954-030 | 38.15 | 1-3/4 | 3021-030 | 49.35 | 3020-230 | 57.50 | 3020-430 | 57.50 |
| 31/64 | 2 | 8 | 1954-031 | 43.75 | – | – | – | – | – | – | – |
| 1/2 | 2 | 8 | 1954-032 | 45.40 | 2 | 3021-032 | 52.85 | 3020-232 | 59.70 | 3020-432 | 59.70 |
| 33/64 | 2 | 8 | 1954-033 | 49.40 | – | – | – | – | – | – | – |
| 17/32 | 2 | 8 | 1954-034 | 49.40 | – | – | – | 3020-234 | 61.50 | 3020-434 | 61.50 |
| 35/64 | 2 | 8 | 1954-035 | 49.40 | – | – | – | – | – | – | – |
| 9/16 | 2 | 8 | 1954-036 | 49.40 | 2 | 3021-036 | 54.40 | 3020-236 | 61.50 | 3020-436 | 61.50 |
| 37/64 | 2 | 8 | 1954-037 | 51.40 | – | – | – | – | – | – | – |
| 19/32 | 2 | 8 | 1954-038 | 51.40 | – | – | – | 3020-238 | 63.35 | 3020-438 | 63.35 |
| 39/64 | 2-1/4 | 9 | 1954-039 | 51.40 | – | – | – | – | – | – | – |
| 5/8 | 2-1/4 | 9 | 1954-040 | 51.40 | 2 | 3021-040 | 56.50 | 3020-240 | 63.35 | 3020-440 | 63.35 |
| 41/64 | 2-1/4 | 9 | 1954-041 | 52.30 | – | – | – | – | – | – | – |
| 21/32 | 2-1/4 | 9 | 1954-042 | 52.30 | – | – | – | 3020-242 | 65.15 | 3020-442 | 65.15 |
| 43/64 | 2-1/4 | 9 | 1954-043 | 52.30 | – | – | – | – | – | – | – |
| 11/16 | 2-1/4 | 9 | 1954-044 | 52.30 | 2 | 3021-044 | 57.50 | 3020-244 | 69.40 | 3020-444 | 69.40 |
| 45/64 | 2-1/4 | 9 | 1954-045 | 54.75 | – | – | – | – | – | – | – |
| 23/32 | 2-1/4 | 9 | 1954-046 | 54.75 | – | – | – | 3020-246 | 70.35 | 3020-446 | 70.35 |
| 47/64 | 2-1/2 | 9-1/2 | 1954-047 | 54.75 | – | – | – | – | – | – | – |
| 3/4 | 2-1/2 | 9-1/2 | 1954-048 | 54.75 | 2 | 3021-048 | 60.15 | 3020-248 | 71.45 | 3020-448 | 71.45 |
| 49/64 | 2-1/2 | 9-1/2 | 1954-049 | 56.55 | – | – | – | – | – | – | – |
| 25/32 | 2-1/2 | 9-1/2 | 1954-050 | 56.55 | – | – | – | 3020-250 | 73.25 | 3020-450 | 73.25 |
| 51/64 | 2-1/2 | 9-1/2 | 1954-051 | 56.55 | – | – | – | – | – | – | – |
| 13/16 | 2-1/2 | 9-1/2 | 1954-052 | 56.55 | 2 | 3021-052 | 62.20 | 3020-252 | 73.25 | 3020-452 | 73.25 |
| 53/64 | 2-1/2 | 9-1/2 | 1954-053 | 58.80 | – | – | – | – | – | – | – |
| 27/32 | 2-1/2 | 9-1/2 | 1954-054 | 58.80 | 2 | 3021-054 | 64.75 | 3020-254 | 77.25 | 3020-454 | 77.25 |
| 55/64 | 2-5/8 | 10 | 1954-055 | 58.80 | – | – | – | – | – | – | – |
| 7/8 | 2-5/8 | 10 | 1954-056 | 61.05 | 2-1/4 | 3021-056 | 67.15 | 3020-256 | 80.20 | 3020-456 | 80.20 |
| 57/64 | 2-5/8 | 10 | 1954-057 | 71.10 | – | – | – | – | – | – | – |
| 29/32 | 2-5/8 | 10 | 1954-058 | 71.10 | 2-1/4 | 3021-058 | 78.15 | 3020-258 | 93.45 | 3020-458 | 93.45 |
| 59/64 | 2-5/8 | 10 | 1954-059 | 71.10 | – | – | – | – | – | – | – |
| 15/16 | 2-5/8 | 10 | 1954-060 | 71.10 | 2-1/4 | 3021-060 | 78.15 | 3020-260 | 93.45 | 3020-460 | 93.45 |
| 61/64 | 2-5/8 | 10 | 1954-061 | 74.55 | – | – | – | – | – | – | – |
| 31/32 | 2-5/8 | 10 | 1954-062 | 74.55 | 2-1/4 | 3021-062 | 81.90 | 3020-262 | 97.95 | 3020-462 | 97.95 |
| 63/64 | 2-3/4 | 10-1/2 | 1954-063 | 74.55 | – | – | – | – | – | – | – |
| 1 | 2-3/4 | 10-1/2 | 1954-064 | 74.55 | 2-1/4 | 3021-064 | 81.90 | 3020-264 | 97.95 | 3020-464 | 97.95 |
| 1-1/16 | 2-3/4 | 10-1/2 | 1954-068 | 77.05 | – | – | – | – | – | – | – |
| 1-1/8 | 2-7/8 | 11 | 1954-072 | 83.30 | 2-1/4 | 3021-072 | 91.70 | – | – | – | – |
| 1-3/16 | 2-7/8 | 11 | 1954-076 | 87.60 | – | – | – | – | – | – | – |
| 1-1/4 | 3 | 11-1/2 | 1954-080 | 92.60 | 2-1/2 | 3021-080 | 112.05 | – | – | – | – |
| 1-5/16 | 3 | 11-1/2 | 1954-084 | 97.45 | – | – | – | – | – | – | – |
| 1-3/8 | 3-1/4 | 12 | 1954-088 | 103.40 | 2-1/2 | 3021-088 | 113.70 | – | – | – | – |
| 1-7/16 | 3-1/4 | 12 | 1954-092 | 115.20 | – | – | – | – | – | – | – |
| 1-1/2 | 3-1/2 | 12-1/2 | 1954-096 | 121.80 | 2-1/2 | 3021-096 | 150.75 | – | – | – | – |

### Over/Undersize Dowel Pin Reamers

| DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|
| .1855 | 3019-205 | $39.95 |
| .1865+ | 3019-105 | 39.95 |
| .1870+ | 3019-210 | 39.95 |
| .1885 | 3019-110 | 39.95 |
| .2480+ | 3019-215 | 39.95 |
| .2490 | 3019-115 | 39.95 |
| .2495+ | 3019-220 | 39.95 |
| .2510 | 3019-120 | 39.95 |
| .3105+ | 3019-225 | 40.85 |
| .3115 | 3019-125 | 40.85 |
| .3120+ | 3019-230 | 40.85 |
| .3135 | 3019-130 | 40.85 |
| .3730+ | 3019-235 | 42.35 |
| .3740 | 3019-135 | 42.35 |
| .3745+ | 3019-240 | 42.35 |
| .3760 | 3019-140 | 42.35 |
| .4355+ | 3019-245 | 47.35 |
| .4365 | 3019-145 | 47.35 |
| .4370+ | 3019-250 | 47.35 |
| .4385 | 3019-150 | 47.35 |
| .4980+ | 3019-255 | 51.90 |
| .4990 | 3019-155 | 51.90 |
| .4995+ | 3019-260 | 51.90 |
| .5010 | 3019-160 | 51.90 |

Tolerance:
0/U= + .0002 - .0000
+Dowel= + .0000 -.0002

### Special Decimal Sizes

| SIZE RANGE | PRICE EACH |
|---|---|
| 0.1560–0.1765 | POA |
| 0.1770–0.2210 | POA |
| 0.2215–0.2380 | POA |
| 0.2385–0.2530 | POA |
| 0.2535–0.3150 | POA |
| 0.3155–0.3780 | POA |
| 0.3785–0.4090 | POA |
| 0.4098–0.4410 | POA |
| 0.4415–0.4720 | POA |
| 0.4825–0.5030 | POA |
| 0.5035–0.5660 | POA |
| 0.5665–0.6280 | POA |
| 0.6285–0.6910 | POA |
| 0.6915–0.7530 | POA |
| 0.7535–0.7555 | POA |

**Metric Chucking Reamers In Stock!**

# Carbide Tipped Chucking Reamers

## Taper Shank – Straight Flute

| DIAM. | FLUTE LG'TH | OVER. LG'TH | TAPER SHANK | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | FLUTE LONG CARBIDE FLUTE LG'TH | FLUTE LONG CARBIDE ORDER NO. | FLUTE LONG CARBIDE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 1-1/2 | 6 | 1 | 3022-016 | $36.60 | 1-1/2 | 3023-016 | $43.75 |
| 9/32 | 1-1/2 | 6 | 1 | 3022-018 | 37.30 | 1-1/2 | 3023-018 | 44.35 |
| 5/16 | 1-1/2 | 6 | 1 | 3022-020 | 37.30 | 1-1/2 | 3023-020 | 44.35 |
| 11/32 | 1-1/2 | 6 | 1 | 3022-022 | 38.70 | 1-1/2 | 3023-022 | 45.35 |
| 3/8 | 1-3/4 | 7 | 1 | 3022-024 | 35.50 | 1-3/4 | 3023-024 | 45.85 |
| 13/32 | 1-3/4 | 7 | 1 | 3022-026 | 40.60 | 1-3/4 | 3023-026 | 48.30 |
| 7/16 | 1-3/4 | 7 | 1 | 3022-028 | 43.20 | 1-3/4 | 3023-028 | 51.45 |
| 15/32 | 1-3/4 | 7 | 1 | 3022-030 | 44.35 | 1-3/4 | 3023-030 | 52.55 |
| 1/2 | 2 | 8 | 1 | 3022-032 | 52.20 | 2 | 3023-032 | 56.65 |
| 17/32 | 2 | 8 | 1 | 3022-034 | 56.40 | – | – | – |
| 9/16 | 2 | 8 | 1 | 3022-036 | 56.40 | 2 | 3023-036 | 62.05 |
| 19/32 | 2 | 8 | 2 | 3022-038 | 59.10 | – | – | – |
| 5/8 | 2-1/4 | 9 | 2 | 3022-040 | 59.10 | 2 | 3023-040 | 64.90 |
| 21/32 | 2-1/4 | 9 | 2 | 3022-042 | 60.15 | – | – | – |
| 11/16 | 2-1/4 | 9 | 2 | 3022-044 | 60.15 | 2 | 3023-044 | 66.10 |
| 23/32 | 2-1/4 | 9 | 2 | 3022-046 | 62.90 | – | – | – |
| 3/4 | 2-1/2 | 9-1/2 | 2 | 3022-048 | 62.90 | 2 | 3023-048 | 69.20 |
| 25/32 | 2-1/2 | 9-1/2 | 2 | 3022-050 | 64.85 | – | – | – |
| 13/16 | 2-1/2 | 9-1/2 | 2 | 3022-052 | 64.85 | 2 | 3023-052 | 71.35 |
| 27/32 | 2-1/2 | 9-1/2 | 2 | 3022-054 | 67.65 | – | – | – |
| 7/8 | 2-5/8 | 10 | 2 | 3022-056 | 70.25 | 2 | 3023-056 | 77.30 |
| 29/32 | 2-5/8 | 10 | 2 | 3022-058 | 82.35 | – | – | – |
| 15/16 | 2-5/8 | 10 | 3 | 3022-060 | 82.35 | 3 | 3023-060 | 90.50 |
| 31/32 | 2-5/8 | 10 | 3 | 3022-062 | 85.85 | – | – | – |
| 1 | 2-3/4 | 10-1/2 | 3 | 3022-064 | 85.85 | 3 | 3023-064 | 94.25 |
| 1-1/16 | 2-3/4 | 10-1/2 | 3 | 3022-068 | 117.85 | – | – | – |
| 1-1/8 | 2-7/8 | 11 | 3 | 3022-072 | 125.55 | – | – | – |
| 1-3/16 | 2-7/8 | 11 | 3 | 3022-076 | 132.95 | – | – | – |
| 1-1/4 | 3 | 11-1/2 | 4 | 3022-080 | 147.80 | – | – | – |
| 1-5/16 | 3 | 11-1/2 | 4 | 3022-084 | 159.35 | – | – | – |
| 1-3/8 | 3-1/4 | 12 | 4 | 3022-088 | 165.75 | – | – | – |
| 1-7/16 | 3-1/4 | 12 | 4 | 3022-092 | 169.20 | – | – | – |
| 1-1/2 | 3-1/2 | 12-1/2 | 4 | 3022-096 | 177.65 | – | – | – |

## Taper Shank – RHS RHC & LHS RHC

Closeout!

| DIAM. | FLUTE LG'TH | OVER. LG'TH | TAPER SHANK | RHS/RHC ORDER NO. | RHS/RHC PRICE EACH | LHS/RHC ORDER ORDER | LHS/RHC PRICE PRICE |
|---|---|---|---|---|---|---|---|
| 9/32 | 1-1/2 | 6 | 1 | 3023-118 | $33.75 | – | – |
| 5/16 | 1-1/2 | 6 | 1 | 3023-120 | 33.75 | – | – |
| 11/32 | 1-1/2 | 6 | 1 | 3023-122 | 34.50 | – | – |
| 13/32 | 1-3/4 | 7 | 1 | 3023-126 | 36.75 | 3023-226 | $36.75 |
| 7/16 | 1-3/4 | 7 | 1 | – | – | 3023-228 | 39.10 |
| 15/32 | 1-3/4 | 7 | 1 | 3023-130 | 40.40 | 3023-230 | 40.40 |
| 1/2 | 2 | 8 | 1 | 3023-132 | 41.40 | 3023-232 | 41.40 |
| 17/32 | 2 | 8 | 1 | 3023-134 | 44.05 | 3023-234 | 44.05 |
| 9/16 | 2 | 8 | 1 | – | – | 3023-236 | 44.05 |
| 19/32 | 2 | 8 | 2 | 3023-138 | 46.80 | – | – |
| 5/8 | 2-1/4 | 9 | 2 | – | – | 3023-240 | 46.80 |
| 21/32 | 2-1/4 | 9 | 2 | 3023-142 | 47.60 | – | – |
| 11/16 | 2-1/4 | 9 | 2 | 3023-144 | 47.60 | – | – |
| 23/32 | 2-1/4 | 9 | 2 | 3023-146 | 49.50 | 3023-246 | 49.50 |
| 3/4 | 2-1/2 | 9-1/2 | 2 | 3023-148 | 49.50 | 3023-248 | 49.50 |
| 13/16 | 2-1/2 | 9-1/2 | 2 | 3023-152 | 50.65 | – | – |
| 7/8 | 2-5/8 | 10 | 2 | – | – | 3023-256 | 53.10 |
| 15/16 | 2-5/8 | 10 | 3 | – | – | 3023-260 | 65.65 |
| 1-1/8 | 2-7/8 | 11 | 3 | 3023-172 | 104.50 | 3023-272 | 104.50 |
| 1-1/4 | 3 | 11-1/2 | 4 | 3023-180 | 123.00 | 3023-280 | 123.00 |
| 1-3/8 | 3-1/4 | 12 | 4 | – | – | 3023-288 | 138.00 |
| 1-1/2 | 3-1/2 | 12-1/2 | 4 | 3023-196 | 147.90 | 3023-296 | 147.90 |

## Expansion – Straight Flute

2

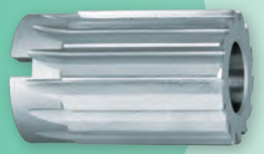
Straight Shank

Taper Shank

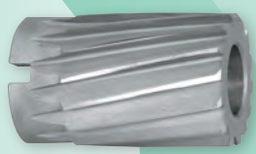
| DIAM. | FLUTE LG'TH | OVER. LG'TH | STRAIGHT SHANK ORDER NO. | STRAIGHT SHANK PRICE EACH | TAPER SHANK TAPER SHANK NO. | TAPER SHANK ORDER NO. | TAPER SHANK PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3/8 | 1 | 7 | 3024-024 | $ 54.95 | 1 | 3025-024 | $ 61.95 |
| 13/32 | 1 | 7 | 3024-026 | 58.35 | 1 | 3025-026 | 63.85 |
| 7/16 | 1 | 7 | 3024-028 | 58.35 | 1 | 3025-028 | 63.85 |
| 15/32 | 1 | 7 | 3024-030 | 61.85 | 1 | 3025-030 | 66.95 |
| 1/2 | 1 | 8 | 3024-032 | 61.85 | 1 | 3025-032 | 66.95 |
| 17/32 | 1 | 8 | 3024-034 | 63.35 | 1 | 3025-034 | 69.00 |
| 9/16 | 1-1/8 | 8 | 3024-036 | 63.35 | 1 | 3025-036 | 69.00 |
| 19/32 | 1-1/8 | 8 | 3024-038 | 66.15 | 1 | 3025-038 | 71.75 |
| 5/8 | 1-1/4 | 9 | 3024-040 | 66.15 | 2 | 3025-040 | 71.75 |
| 21/32 | 1-1/4 | 9 | 3024-042 | 72.35 | 2 | 3025-042 | 80.80 |
| 11/16 | 1-1/4 | 9 | 3024-044 | 72.35 | 2 | 3025-044 | 80.80 |
| 23/32 | 1-1/4 | 9 | 3024-046 | 75.00 | 2 | 3025-046 | 81.00 |
| 3/4 | 1-3/8 | 9-1/2 | 3024-048 | 75.00 | 2 | 3025-048 | 81.00 |
| 25/32 | 1-3/8 | 9-1/2 | 3024-050 | 80.85 | 2 | 3025-050 | 87.00 |
| 13/16 | 1-3/8 | 9-1/2 | 3024-052 | 80.85 | 2 | 3025-052 | 87.00 |
| 27/32 | 1-3/8 | 9-1/2 | 3024-054 | 84.05 | 2 | 3025-054 | 90.65 |
| 7/8 | 1-1/2 | 10 | 3024-056 | 87.20 | 2 | 3025-056 | 94.10 |
| 29/32 | 1-1/2 | 10 | 3024-058 | 92.85 | 2 | 3025-058 | 99.50 |
| 15/16 | 1-1/2 | 10 | 3024-060 | 92.85 | 3 | 3025-060 | 99.50 |
| 31/32 | 1-1/2 | 10 | 3024-062 | 96.45 | 3 | 3025-062† | 103.10 |
| 1 | 1-5/8 | 10-1/2 | 3024-064 | 96.45 | 3 | 3025-064 | 103.10 |
| 1-1/32 | 1-5/8 | 10-1/2 | 3024-066 | 105.70 | 3 | 3025-066 | 112.80 |
| 1-1/16 | 1-5/8 | 10-1/2 | 3024-068 | 105.70 | 3 | 3025-068 | 112.80 |
| 1-3/32 | 1-5/8 | 10-1/2 | 3024-070 | 105.70 | 3 | 3025-070 | 112.80 |
| 1-1/8 | 1-3/4 | 11 | 3024-072 | 105.70 | 3 | 3025-072 | 112.80 |
| 1-3/16 | 1-3/4 | 11 | 3024-076 | 115.35 | 3 | 3025-076 | 126.90 |
| 1-1/4 | 1-7/8 | 11-1/2 | 3024-080 | 115.35 | 4 | 3025-080 | 128.60 |
| 1-5/16 | 1-7/8 | 11-1/2 | 3024-084 | 127.85 | 4 | 3025-084 | 140.55 |
| 1-3/8 | 2 | 12 | 3024-088 | 133.90 | 4 | 3025-088 | 154.00 |
| 1-7/16 | 2 | 12 | 3024-092 | 158.25 | 4 | 3025-092 | 172.85 |
| 1-1/2 | 2-1/8 | 12-1/2 | 3024-096 | 162.85 | 4 | 3025-096 | 178.95 |
| 1-9/16 | 2-1/8 | 12-1/2 | 3024-100 | 213.85 | 4 | 3025-100 | 245.90 |
| 1-5/8 | 2-1/4 | 13 | 3024-104 | 213.85 | 4 | 3025-104 | 245.90 |
| 1-11/16 | 2-1/4 | 13 | 3024-108 | 236.85 | 4 | 3025-108 | 272.35 |
| 1-3/4 | 2-3/8 | 13-1/2 | 3024-112 | 236.85 | 4 | 3025-112 | 272.35 |
| 1-13/16 | 2-3/8 | 13-1/2 | 3024-116 | 280.45 | 4 | 3025-116 | 322.45 |
| 1-7/8 | 2-1/2 | 14 | 3024-120 | 280.45 | 4 | 3025-120 | 322.45 |
| 1-15/16 | 2-1/2 | 14 | 3024-124 | 306.40 | 4 | 3025-124 | 352.40 |
| 2 | 2-1/2 | 14 | 3024-128 | 306.40 | 4 | 3025-128 | 352.40 |

† Limited Quantities

# Shell Reamers



Straight Flute



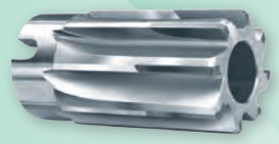
Spiral Flute

## High Speed Steel

Pittsburg® ALLEGHANY [3]

| DIAM. | OVER-ALL LENGTH | HOLE SIZE | ARBOR NO. | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3/4 | 2-1/4 | 3/8 | 4 | 2050-048 | $ 35.33 | 2051-048 | $43.15 |
| 13/16 | 2-1/2 | 1/2 | 5 | 2050-052 | 36.57 | 2051-052 | 43.73 |
| 7/8 | 2-1/2 | 1/2 | 5 | 2050-056 | 39.24 | 2051-056 | 44.83 |
| 15/16 | 2-1/2 | 1/2 | 5 | 2050-060 | 41.07 | 2051-060 | 45.93 |
| 1 | 2-1/2 | 1/2 | 5 | 2050-064 | 43.53 | 2051-064 | 49.25 |
| 1-1/16 | 2-3/4 | 5/8 | 6 | 2050-068 | 47.20 | 2051-068 | 52.87 |
| 1-1/8 | 2-3/4 | 5/8 | 6 | 2050-072 | 50.11 | 2051-072 | 55.15 |
| 1-3/16 | 2-3/4 | 5/8 | 6 | 2050-076 | 51.78 | 2051-076 | 57.06 |
| 1-1/4 | 2-3/4 | 5/8 | 6 | 2050-080 | 52.54 | 2051-080 | 59.55 |
| 1-5/16 | 3 | 3/4 | 7 | 2050-084 | 55.77 | 2051-084 | 62.06 |
| 1-3/8 | 3 | 3/4 | 7 | 2050-088 | 59.35 | 2051-088 | 65.30 |
| 1-7/16 | 3 | 3/4 | 7 | 2050-092 | 65.24 | 2051-092 | 72.03 |
| 1-1/2 | 3 | 3/4 | 7 | 2050-096 | 69.15 | 2051-096 | 76.05 |
| 1-9/16 | 3 | 3/4 | 7 | 2050-100 | 77.79 | 2051-100 | 85.24 |
| 1-5/8 | 3 | 3/4 | 7 | 2050-104 | 82.81 | 2051-104 | 92.98 |
| 1-11/16 | 3-1/2 | 1 | 8 | 2050-108 | 91.05 | 2051-108 | 101.79 |
| 1-3/4 | 3-1/2 | 1 | 8 | 2050-112 | 96.39 | 2051-112 | 108.02 |
| 1-13/16 | 3-1/2 | 1 | 8 | 2050-116 | 102.88 | 2051-116 | 115.75 |
| 1-7/8 | 3-1/2 | 1 | 8 | 2050-120 | 109.70 | 2051-120 | 122.74 |
| 1-15/16 | 3-1/2 | 1 | 8 | 2050-124 | 116.55 | 2051-124 | 130.83 |
| 2 | 3-1/2 | 1 | 8 | 2050-128 | 120.85 | 2051-128 | 134.46 |
| 2-1/16 | 3-3/4 | 1-1/4 | 9 | 2050-132 | 130.65 | 2051-132 | 146.94 |
| 2-1/8 | 3-3/4 | 1-1/4 | 9 | 2050-136 | 137.14 | 2051-136 | 153.98 |
| 2-3/16 | 3-3/4 | 1-1/4 | 9 | 2050-140 | 145.75 | 2051-140 | 163.94 |
| 2-1/4 | 3-3/4 | 1-1/4 | 9 | 2050-144 | 150.80 | 2051-144 | 169.07 |
| 2-5/16 | 3-3/4 | 1-1/4 | 9 | 2050-148 | 159.32 | 2051-148 | 179.03 |
| 2-3/8 | 3-3/4 | 1-1/4 | 9 | 2050-152 | 165.94 | 2051-152 | 186.35 |
| 2-7/16 | 3-3/4 | 1-1/4 | 9 | 2050-156 | 171.24 | 2051-156 | 193.80 |
| 2-1/2 | 3-3/4 | 1-1/4 | 9 | 2050-160 | 177.38 | 2051-160 | 199.13 |
| 2-9/16 | 4 | 1-1/2 | 10 | 2050-164 | 194.40 | 2051-164 | 215.55 |
| 2-5/8 | 4 | 1-1/2 | 10 | 2050-168 | 207.00 | 2051-168 | 223.56 |
| 2-11/16 | 4 | 1-1/2 | 10 | 2050-172 | 219.92 | 2051-172 | 231.46 |
| 2-3/4 | 4 | 1-1/2 | 10 | 2050-176 | 230.85 | 2051-176 | 250.88 |
| 2-13/16 | 4 | 1-1/2 | 10 | 2050-180 | 244.22 | 2051-180 | 269.55 |
| 2-7/8 | 4 | 1-1/2 | 10 | 2050-184 | 258.19 | 2051-184 | 278.82 |
| 2-15/16 | 4 | 1-1/2 | 10 | 2050-188 | 272.48 | 2051-188 | 292.50 |
| 3 | 4 | 1-1/2 | 10 | 2050-192 | 286.13 | 2051-192 | 308.61 |
| 3-1/16 | 4-1/2 | 1-3/4 | 11 | 2050-196 | 327.22 | 2051-196 | 339.27 |
| 3-1/8 | 4-1/2 | 1-3/4 | 11 | 2050-200 | 395.73 | 2051-200 | 399.91 |
| 3-3/16 | 4-1/2 | 1-3/4 | 11 | 2050-204 | 408.84 | 2051-204 | 421.02 |
| 3-1/4 | 4-1/2 | 1-3/4 | 11 | 2050-208 | 422.04 | 2051-208 | 441.73 |
| 3-5/16 | 4-1/2 | 1-3/4 | 11 | 2050-212 | 436.45 | 2051-212 | 457.56 |
| 3-3/8 | 4-1/2 | 1-3/4 | 11 | 2050-216 | 451.07 | 2051-216 | 474.11 |
| 3-7/16 | 4-1/2 | 1-3/4 | 11 | 2050-220 | 464.06 | 2051-220 | 487.20 |
| 3-1/2 | 4-1/2 | 1-3/4 | 11 | 2050-224 | 476.64 | 2051-224 | 500.40 |
| 3-9/16 | 5 | 2 | 12 | 2050-228 | 489.64 | 2051-228 | 513.57 |
| 3-5/8 | 5 | 2 | 12 | 2050-232 | 501.41 | 2051-232 | 526.18 |
| 3-11/16 | 5 | 2 | 12 | 2050-236 | 514.00 | 2051-236 | 539.88 |
| 3-3/4 | 5 | 2 | 12 | 2050-240 | 527.80 | 2051-240 | 552.97 |
| 3-13/16 | 5 | 2 | 12 | 2050-244 | 548.10 | 2051-244 | 573.68 |
| 3-7/8 | 5 | 2 | 12 | 2050-248 | 566.78 | 2051-248 | 594.79 |
| 3-15/16 | 5 | 2 | 12 | 2050-252 | 583.83 | 2051-252 | 613.47 |
| 4 | 5 | 2 | 12 | 2050-256 | 602.91 | 2051-256 | 632.14 |

ROCK RIVER



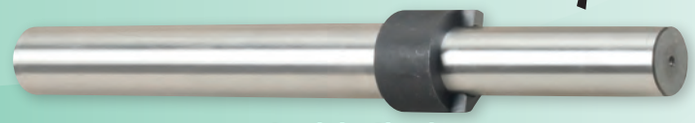
## Carbide Tipped

[2]

| DIAM. | NO. OF FLUTES | FLUTE LENGTH | OVER-ALL LENGTH | HOLE DIAM. LARGE END | FITS ARBOR NO. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3/4 | 6 | 1-7/16 | 2-1/4 | 3/8 | 4 | 1958-048 | $151.15 |
| 13/16 | 6 | 1-11/16 | 2-1/2 | 1/2 | 5 | 1958-052 | 154.10 |
| 7/8 | 6 | 1-11/16 | 2-1/2 | 1/2 | 5 | 1958-056 | 172.20 |
| 15/16 | 8 | 1-11/16 | 2-1/2 | 1/2 | 5 | 1958-060 | 172.20 |
| 1 | 8 | 1-11/16 | 2-1/2 | 1/2 | 5 | 1958-064 | 175.35 |
| 1-1/16 | 8 | 1-13/16 | 2-3/4 | 5/8 | 6 | 1958-068 | 181.45 |
| 1-1/8 | 8 | 1-13/16 | 2-3/4 | 5/8 | 6 | 1958-072 | 184.50 |
| 1-3/16 | 8 | 1-13/16 | 2-3/4 | 5/8 | 6 | 1958-076 | 187.65 |
| 1-1/4 | 8 | 1-13/16 | 2-3/4 | 5/8 | 6 | 1958-080 | 199.90 |
| 1-5/16 | 8 | 2 | 3 | 3/4 | 7 | 1958-084 | 202.90 |
| 1-3/8 | 8 | 2 | 3 | 3/4 | 7 | 1958-088 | 209.05 |
| 1-7/16 | 8 | 2 | 3 | 3/4 | 7 | 1958-092 | 215.25 |
| 1-1/2 | 8 | 2 | 3 | 3/4 | 7 | 1958-096 | 224.50 |
| 1-9/16 | 8 | 2 | 3 | 3/4 | 7 | 1958-100 | 259.90 |
| 1-5/8 | 8 | 2 | 3 | 3/4 | 7 | 1958-104 | 272.70 |
| 1-11/16 | 10 | 2-11/32 | 3-1/2 | 1 | 8 | 1958-108 | 295.20 |
| 1-3/4 | 10 | 2-11/32 | 3-1/2 | 1 | 8 | 1958-112 | 295.20 |
| 1-13/16 | 10 | 2-11/32 | 3-1/2 | 1 | 8 | 1958-116 | 317.60 |
| 1-7/8 | 10 | 2-11/32 | 3-1/2 | 1 | 8 | 1958-120 | 317.60 |
| 1-15/16 | 10 | 2-11/32 | 3-1/2 | 1 | 8 | 1958-124 | 340.15 |
| 2 | 10 | 2-11/32 | 3-1/2 | 1 | 8 | 1958-128 | 340.15 |
| 2-1/16 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-132 | 365.75 |
| 2-1/8 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-136 | 365.75 |
| 2-3/16 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-140 | 397.85 |
| 2-1/4 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-144 | 397.85 |
| 2-5/16 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-148 | 420.30 |
| 2-3/8 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-152 | 420.30 |
| 2-7/16 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-156 | 442.85 |
| 2-1/2 | 12 | 2-7/16 | 3-3/4 | 1-1/4 | 9 | 1958-160 | 442.85 |

## Shell Reamer Arbors

Pittsburg® ALLEGHANY



Straight Shank

Taper Shank

[3]

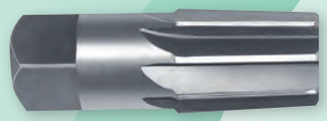
| SIZE | FITTING SIZE | OVER. LG'TH | STR. SHANK DIAM. | TAPER SHANK NO. | STR. SHANK ORDER NO. | PRICE EACH | TAPER SHANK ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3 | 1/2 to 5/8 | 8 | 7/8 | 1 | 3141-803 | $18.41 | 3141-823 | $24.51 |
| 4 | 21/32 to 25/32 | 9 | 1/2 | 2 | 3141-804 | 19.38 | 3141-824 | 25.80 |
| 5 | 13/16 to 1-1/32 | 9-1/2 | 5/8 | 2 | 3141-805 | 21.57 | 3141-825 | 28.35 |
| 6 | 1-1/16 to 1-9/32 | 10 | 3/4 | 3 | 3141-806 | 23.67 | 3141-826 | 30.94 |
| 7 | 1-5/16 to 1-21/32 | 11 | 7/8 | 3 | 3141-807 | 26.01 | 3141-827 | 33.66 |
| 8 | 1-11/16 to 2 | 12 | 1-1/8 | 4 | 3141-808 | 28.94 | 3141-828 | 38.25 |
| 9 | 2-1/16 to 2-1/2 | 13 | 1-3/8 | 4 | 3141-809 | 34.94 | 3141-829 | 48.75 |
| 10 | 2-9/16 to 3 | 14 | 1-5/8 | 5 | 3141-810 | 51.79 | 3141-830 | 63.50 |
| 11 | 3-1/16 to 3-1/2 | 15 | 2 | 5 | 3141-811 | 83.34 | 3141-831 | 101.32 |
| 12 | 3-9/16 to 4 | 16 | 2-1/8 | 5 | 3141-812 | 100.46 | 3141-832 | 111.69 |

# Taper Pipe Reamers - High Speed Steel

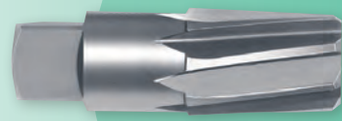
## Straight & Spiral Flute

Pittsburg® ALLEGHANY 2

| SIZE | DIAM. LARGE END | DIAM. SMALL END | FLUTE LG'TH | OVER. LG'TH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/16 | .291 | – | 3/4 | 2 | 2221-004 | $ 10.35 | 2222-004 | $11.75 |
| 1/8 | .362 | .316 | 3/4 | 2-1/8 | 2221-008 | 10.35 | 2222-008 | 11.75 |
| 1/4 | .472 | .406 | 1-1/16 | 2-7/16 | 2221-016 | 12.35 | 2222-016 | 14.00 |
| 3/8 | .606 | .540 | 1-1/16 | 2-9/16 | 2221-024 | 13.40 | 2222-024 | 15.25 |
| 1/2 | .751 | .665 | 1-3/8 | 3-1/8 | 2221-032 | 16.80 | 2222-032 | 19.10 |
| 3/4 | .962 | .876 | 1-3/8 | 3-1/4 | 2221-048 | 24.55 | 2222-048 | 28.05 |
| 1 | 1.212 | 1.103 | 1-3/4 | 3-3/4 | 2221-064 | 35.90 | 2222-064 | 40.85 |
| 1-1/4 | 1.553 | 1.444 | 1-3/4 | 4 | 2221-080 | 59.45 | 2222-080 | 67.40 |
| 1-1/2 | 1.793 | 1.684 | 1-3/4 | 4-1/4 | 2221-096 | 77.50 | 2222-096 | 81.45 |
| 2 | 2.268 | 2.159 | 1-3/4 | 4-1/2 | 2221-128 | 110.15 | 2222-128 | 115.20 |
| 2-1/2 | 2.722 | 2.561 | 2-5/8 | 5-1/2 | 2221-160 | 256.70 | 2222-160 | 285.55 |
| 3 | 3.380 | 3.202 | 2-3/4 | 6 | 2221-192 | 285.55 | 2222-192 | 374.40 |
| **SETS** | | | | | | | | |
| SETS | 4 pc. | | 3/8"–1" | | 2221-198 | 86.15 | 2222-198 | 98.10 |



Straight Flute



Spiral Flute

4-Pc. Straight Flute Set
Order No. 2221-198

4-Pc. Spiral Flute Set
Order No. 2222-198

# Taper Pin Reamers - High Speed Steel

Pittsburg® ALLEGHANY 2

Straight Flute

Spiral Flute

Helical Flute

| SIZE | SHANK DIAM. | SMALL END | LARGE END | FLUTE LG'TH | OVER. LG'TH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH | HELICAL FLUTE ORDER NO. | HELICAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/0 | 5/64 | .0497 | .0666 | 13/16 | 1-13/16 | 2190-070 | $ 10.00 | 2191-070 | $ 10.35 | 2192-070 | $ 10.05 |
| 6/0 | 3/32 | .0611 | .0806 | 15/32 | 1-15/16 | 2190-060 | 10.00 | 2191-060 | 10.35 | 2192-060 | 8.65 |
| 5/0 | 7/64 | .0719 | .0966 | 1-3/16 | 2-3/16 | 2190-050 | 9.25 | 2191-050 | 10.00 | 2192-050 | 9.00 |
| 4/0 | 1/8 | .0869 | .1142 | 1-5/16 | 2-5/16 | 2190-040 | 9.25 | 2191-040 | 9.90 | 2192-040 | 9.00 |
| 3/0 | 9/64 | .1029 | .1302 | 1-5/16 | 2-5/16 | 2190-030 | 7.80 | 2191-030 | 8.55 | 2192-030 | 8.55 |
| 2/0 | 5/32 | .1137 | .1462 | 1-9/16 | 2-9/16 | 2190-020 | 7.00 | 2191-020 | 7.45 | 2192-020 | 7.85 |
| 0 | 11/64 | .1287 | .1638 | 1-11/16 | 2-15/16 | 2190-000 | 6.70 | 2191-000 | 7.20 | 2192-000 | 8.10 |
| 1 | 3/16 | .1447 | .1798 | 1-11/16 | 2-15/16 | 2190-001 | 6.55 | 2191-001 | 7.35 | 2192-001 | 8.20 |
| 2 | 13/64 | .1605 | .2008 | 1-15/16 | 3-3/16 | 2190-002 | 6.55 | 2191-002 | 7.40 | 2192-002 | 8.80 |
| 3 | 15/64 | .1813 | .2294 | 2-5/16 | 3-11/16 | 2190-003 | 6.55 | 2191-003 | 7.40 | 2192-003 | 8.80 |
| 4 | 17/64 | .2071 | .2604 | 2-9/16 | 4-1/16 | 2190-004 | 7.35 | 2191-004 | 7.90 | 2192-004 | 11.00 |
| 5 | 5/16 | .2409 | .2994 | 2-13/16 | 4-5/16 | 2190-005 | 7.80 | 2191-005 | 8.45 | 2192-005 | 12.30 |
| 6 | 23/64 | .2773 | .3540 | 3-11/16 | 5-7/16 | 2190-006 | 9.35 | 2191-006 | 10.35 | 2192-006 | 13.80 |
| 7 | 13/32 | .3297 | .4220 | 4-7/16 | 6-5/16 | 2190-007 | 11.95 | 2191-007 | 13.05 | 2192-007 | 16.70 |
| 8 | 7/16 | .3971 | .5050 | 5-3/16 | 7-3/16 | 2190-008 | 15.35 | 2191-008 | 16.80 | 2192-008 | 20.85 |
| 9 | 9/16 | .4805 | .6066 | 6-1/16 | 8-5/16 | 2190-009 | 18.60 | 2191-009 | 20.25 | 2192-009 | 24.00 |
| 10 | 5/8 | .5799 | .7216 | 6-13/16 | 9-5/16 | 2190-010 | 26.20 | 2191-010 | 29.55 | 2192-010 | 32.50 |
| 11 | 3/4 | .706 | .878 | 8-1/4 | 11-1/4 | 2190-011 | 60.00 | 2191-011 | 64.15 | 2192-011 | 72.20 |
| 12 | 15/16 | .842 | 1.050 | 10 | 13-3/8 | 2190-012 | 87.10 | 2191-012 | 102.15 | 2192-012 | 114.95 |
| 13 | 1-1/16 | 1.009 | 1.259 | 12 | 16 | 2190-013 | 129.20 | 2191-013 | 143.90 | 2192-013 | 161.90 |
| 14 | 1-13/32 | 1.250 | 1.542 | 14 | 18-1/4 | 2190-014 | 172.35 | 2191-014 | 178.65 | 2192-014 | 201.00 |
| **SETS** | | | | | | | | | | | |
| 0-5 | | | 6 PCS. | | | 2190-090 | 46.95 | 2191-090 | 46.95 | 2192-090 | 46.95 |
| 0-10 | | | 11 PCS. | | | 2190-092 | 166.85 | 2191-092 | 166.85 | 2192-092 | 166.85 |

11 Pc. Set - Straight Flute
Order No. 2190-092

# Hand Reamers - High Speed Steel

Pittsburg® ALLEGHANY 2

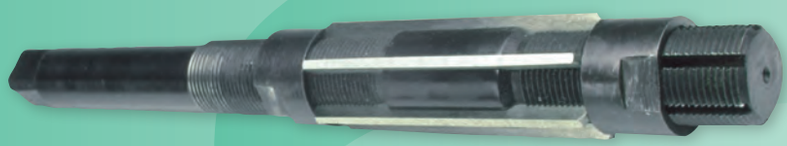
Straight Flute

Spiral Flute

| DIAM. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/16 | 0.0625 | 1 | 2 | 2090-004† | $10.15 | 2091-004† | $10.95 |
| 5/64 | 0.0781 | 1 | 2 | 2090-005† | 10.15 | 2091-005† | 10.95 |
| 3/32 | 0.0938 | 1-1/4 | 2-1/2 | 2090-006† | 10.15 | 2091-006† | 10.95 |
| 7/64 | 0.1094 | 1-1/4 | 2-1/2 | 2090-007† | 10.15 | 2091-007† | 10.95 |
| 1/8 | 0.1250 | 1-1/2 | 3 | 2090-008 | 10.95 | 2091-008 | 11.22 |
| 9/64 | 0.1406 | 1-5/8 | 3-1/4 | 2090-009† | 11.87 | 2091-009† | 12.19 |
| 5/32 | 0.1562 | 1-5/8 | 3-1/4 | 2090-010 | 11.87 | 2091-010 | 12.19 |
| 11/64 | 0.1719 | 1-3/4 | 3-1/2 | 2090-011† | 12.19 | 2091-011† | 13.25 |
| 3/16 | 0.1875 | 1-3/4 | 3-1/2 | 2090-012 | 12.19 | 2091-012 | 13.25 |
| 13/64 | 0.2031 | 1-7/8 | 3-3/4 | 2090-013† | 12.24 | 2091-013† | 13.25 |
| 7/32 | 0.2188 | 1-7/8 | 3-3/4 | 2090-014 | 12.24 | 2091-014 | 13.25 |
| 15/64 | 0.2344 | 2 | 4 | 2090-015† | 12.24 | 2091-015† | 13.25 |
| 1/4 | 0.2500 | 2 | 4 | 2090-016 | 12.24 | 2091-016 | 13.25 |
| 17/64 | 0.2656 | 2-1/8 | 4-1/4 | 2090-017† | 13.25 | 2091-017† | 14.12 |
| 9/32 | 0.2812 | 2-1/8 | 4-1/4 | 2090-018 | 13.25 | 2091-018 | 14.12 |
| 19/64 | 0.2969 | 2-1/4 | 4-1/2 | 2090-019† | 13.25 | 2091-019† | 14.12 |
| 5/16 | 0.3125 | 2-1/4 | 4-1/2 | 2090-020 | 13.25 | 2091-020 | 14.12 |
| 21/64 | 0.3281 | 2-3/8 | 4-3/4 | 2090-021† | 15.09 | 2091-021† | 16.93 |
| 11/32 | 0.3438 | 2-3/8 | 4-3/4 | 2090-022 | 15.09 | 2091-022 | 16.93 |
| 23/64 | 0.3594 | 2-1/2 | 5 | 2090-023† | 15.09 | 2091-023† | 16.93 |
| 3/8 | 0.3750 | 2-1/2 | 5 | 2090-024 | 15.09 | 2091-024 | 16.93 |
| 25/64 | 0.3906 | 2-5/8 | 5-1/4 | – | – | 2091-025† | 18.77 |
| 13/32 | 0.4062 | 2-5/8 | 5-1/4 | 2090-026 | 16.05 | 2091-026 | 18.77 |
| 27/64 | 0.4219 | 2-3/4 | 5-1/2 | 2090-027† | 16.05 | 2091-027† | 18.77 |
| 7/16 | 0.4375 | 2-3/4 | 5-1/2 | 2090-028 | 16.05 | 2091-028 | 18.77 |
| 29/64 | 0.4531 | 2-7/8 | 5-3/4 | 2090-029† | 18.77 | 2091-029† | 20.70 |
| 15/32 | 0.4688 | 2-7/8 | 5-3/4 | 2090-030 | 18.77 | 2091-030 | 20.70 |
| 31/64 | 0.4864 | 3 | 6 | 2090-031† | 18.77 | 2091-031† | 20.70 |
| 1/2 | 0.5000 | 3 | 6 | 2090-032 | 18.77 | 2091-032 | 20.70 |
| 17/32 | 0.5312 | 3-1/8 | 6-1/4 | 2090-034 | 20.98 | 2091-034 | 23.46 |
| 35/64 | 0.5469 | 3-1/4 | 6-1/2 | 2090-035† | 20.98 | 2091-035† | 23.46 |
| 9/16 | 0.5625 | 3-1/4 | 6-1/2 | 2090-036 | 20.98 | 2091-036 | 23.46 |
| 37/64 | 0.5781 | 3-3/8 | 6-3/4 | 2090-037† | 22.31 | 2091-037† | 25.35 |
| 19/32 | 0.5938 | 3-3/8 | 6-3/4 | 2090-038 | 22.31 | 2091-038 | 25.35 |
| 39/64 | 0.6094 | 3-1/2 | 7 | 2090-039† | $22.31 | 2091-039† | $25.35 |
| 5/8 | 0.6250 | 3-1/2 | 7 | 2090-040 | 22.31 | 2091-040 | 25.35 |
| 21/32 | 0.6562 | 3-11/16 | 7-3/8 | 2090-042 | 24.29 | 2091-042 | 27.28 |
| 43/64 | 0.6719 | 3-7/8 | 7-3/4 | – | – | 2091-043† | 27.28 |
| 11/16 | 0.6875 | 3-7/8 | 7-3/4 | 2090-044 | 24.29 | 2091-044 | 27.28 |
| 45/64 | 0.7031 | 4-1/16 | 8-1/8 | 2090-045† | 26.27 | 2091-045† | 29.07 |
| 23/32 | 0.7188 | 4-1/16 | 8-1/8 | 2090-046 | 26.27 | 2091-046 | 29.07 |
| 47/64 | 0.7344 | 4-3/16 | 8-3/8 | – | – | 2091-047† | 29.07 |
| 3/4 | 0.7500 | 4-3/16 | 8-3/8 | 2090-048 | 26.27 | 2091-048 | 29.07 |
| 25/32 | 0.7812 | 4-3/8 | 8-3/4 | – | – | 2091-050† | 37.86 |
| 51/64 | 0.7969 | 4-9/16 | 9-1/8 | 2090-051† | 34.33 | – | – |
| 13/16 | 0.8125 | 4-9/16 | 9-1/8 | 2090-052 | 34.33 | 2091-052 | 37.86 |
| 53/64 | 0.8281 | 4-11/16 | 9-3/8 | 2090-053† | 37.86 | 2091-053† | 41.27 |
| 27/32 | 0.8438 | 4-11/16 | 9-3/8 | – | – | 2091-054† | 41.27 |
| 55/64 | 0.8594 | 4-7/8 | 9-3/4 | 2090-055† | 37.86 | 2091-055† | 41.27 |
| 7/8 | 0.8750 | 4-7/8 | 9-3/4 | 2090-056 | 37.86 | 2091-056 | 41.27 |
| 57/64 | 0.8906 | 5 | 10 | 2090-057† | 42.62 | 2091-057† | 47.26 |
| 29/32 | 0.9062 | 5 | 10 | 2090-058† | 42.62 | 2091-058† | 47.26 |
| 59/64 | 0.9219 | 5-1/8 | 10-1/4 | 2090-059† | 42.62 | – | – |
| 15/16 | 0.9375 | 5-1/8 | 10-1/4 | 2090-060 | 42.62 | 2091-060 | 47.26 |
| 61/64 | 0.9531 | 5-5/16 | 10-5/8 | 2090-061† | 46.14 | 2091-061† | 51.30 |
| 31/32 | 0.9688 | 5-5/16 | 10-5/8 | 2090-062† | 46.14 | 2091-062† | 51.30 |
| 63/64 | 0.9844 | 5-7/16 | 10-7/8 | 2090-063† | 46.14 | – | – |
| 1 | 1.000 | 5-7/16 | 10-7/8 | 2090-064 | 46.14 | 2091-064 | 51.30 |
| 1-1/16 | 1.0625 | 5-5/8 | 11-1/4 | – | – | 2091-068† | 56.11 |
| 1-1/8 | 1.1250 | 5-13/16 | 11-5/8 | 2090-072 | 56.67 | 2091-072 | 61.94 |
| 1-1/4 | 1.2500 | 6-1/8 | 12-1/4 | 2090-080 | 69.66 | 2091-080 | 77.28 |
| 1-5/16 | 1.3125 | 6-1/4 | 12-1/2 | 2090-084† | 76.66 | 2091-084† | 84.45 |
| 1-3/8 | 1.3750 | 6-5/16 | 12-5/8 | 2090-088 | 82.49 | 2091-088 | 92.06 |
| 1-7/16 | 1.4375 | 6-7/16 | 12-7/8 | – | – | 2091-092† | 100.24 |
| 1-1/2 | 1.5000 | 6-1/2 | 13 | 2090-096 | 98.45 | 2091-096 | 108.42 |

† Limited Quantities

# Adjustable Hand Reamers



Pittsburg® ALLEGHANY

3

| SIZE | RANGE FOR ADJUST. | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 8/A | 1/4 - 9/32 | 3-1/4 | 2092-010 | $13.50 |
| 7/A | 9/32 - 5/16 | 3-1/2 | 2092-012 | 13.50 |
| 6/A | 5/16 - 11/32 | 4-1/8 | 2092-014 | 12.20 |
| 5/A | 11/32 - 3/8 | 4-3/8 | 2092-016 | 12.20 |
| 4/A | 3/8 - 13/32 | 4-3/4 | 2092-018 | 12.90 |
| 3/A | 13/32 - 7/16 | 5 | 2092-020 | 13.70 |
| 2/A | 7/16 - 15/32 | 5-1/4 | 2092-022 | 13.70 |
| A | 15/32 - 17/32 | 5-1/2 | 2092-024 | 14.10 |
| B | 17/32 - 19/32 | 5-3/4 | 2092-026 | 14.70 |
| C | 19/32 - 21/32 | 6-1/2 | 2092-028 | 15.70 |
| D | 21/32 - 23/32 | 6-3/4 | 2092-030 | 16.05 |

| SIZE | RANGE FOR ADJUST. | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| E | 23/32 - 25/32 | 7 | 2092-032 | $ 16.25 |
| F | 25/32 - 27/32 | 7-3/8 | 2092-034 | 16.75 |
| G | 27/32 - 15/16 | 8 | 2092-036 | 17.85 |
| H | 15/16 - 1-1/16 | 9 | 2092-038 | 20.25 |
| I | 1-1/16 - 1-3/16 | 10 | 2092-040 | 25.90 |
| J | 1-3/16 - 1-11/32 | 11 | 2092-042 | 29.65 |
| K | 1-11/32 - 1-1/2 | 12 | 2092-044 | 35.65 |
| L | 1-1/2 - 1-13/16 | 14 | 2092-046 | 53.65 |
| M | 1-13/16 - 2-7/32 | 16 | 2092-048 | 71.65 |
| N | 2-7/32 - 2-3/4 | 18 | 2092-050 | 133.35 |
| O | 2-3/4 - 3-11/32 | 20 | 2092-052 | 208.85 |

## Sets

| SET RANGE | NO. OF PCS. | ORDER NO. | PRICE EACH |
|---|---|---|---|
| A - H | 8 | 2092-082 | $ 91.30 |
| A - K | 11 | 2092-084 | 161.15 |
| 8/A - 5/A | 4 | 2092-086 | 50.85 |
| 4/A - 2/A | 3 | 2092-088 | 38.20 |
| 4/A - M | 16 | 2092-090 | 349.65 |

# Expansion Hand Reamers

## Straight & Spiral Flute, High Speed Steel

Pittsburg® ALLEGHANY 2

### Straight Flute

| DIAM. | FLUTE LG'TH | OVER. LG'TH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|
| 9/32 | 1-3/4 | 4 | 2093-018 | $35.40 | 2094-018 | $37.20 |
| 5/16 | 1-3/4 | 4 | 2093-020 | 38.60 | 2094-020 | 42.50 |
| 11/32 | 1-3/4 | 4-1/4 | 2093-022 | 37.50 | 2094-022 | 39.40 |
| 3/8 | 1-3/4 | 4-1/4 | 2093-024 | 41.60 | 2094-024 | 46.20 |
| 13/32 | 1-3/4 | 4-1/2 | 2093-026 | 42.70 | 2094-026 | 47.70 |
| 7/16 | 1-3/4 | 4-1/2 | 2093-028 | 43.30 | 2094-028 | 47.70 |
| 15/32 | 1-13/16 | 5 | 2093-030 | 43.50 | 2094-030 | 49.30 |
| 1/2 | 1-13/16 | 5 | 2093-032 | 44.00 | 2094-032 | 49.30 |
| 17/32 | 2-1/8 | 5-1/2 | 2093-034 | 47.80 | 2094-034 | 52.70 |
| 9/16 | 2-1/8 | 5-1/2 | 2093-036 | 49.20 | 2094-036 | 52.70 |
| 19/32 | 2-1/2 | 6 | 2093-038 | 51.30 | 2094-038 | 56.50 |
| 5/8 | 2-1/2 | 6 | 2093-040 | 53.10 | 2094-040 | 56.50 |
| 21/32 | 2-1/2 | 6-1/4 | 2093-042 | 57.20 | 2094-042 | 65.10 |
| 11/16 | 2-1/2 | 6-1/4 | 2093-044 | 60.40 | 2094-044 | 65.10 |
| 23/32 | 2-11/16 | 6-9/16 | 2093-046 | 63.10 | 2094-046 | 72.00 |
| 3/4 | 2-11/16 | 6-9/16 | 2093-048 | 66.90 | 2094-048 | 72.00 |
| 25/32 | 3-1/16 | 7-1/16 | 2093-050 | 70.40 | 2094-050 | 76.40 |
| 13/16 | 3-1/16 | 7-1/16 | 2093-052 | 75.60 | 2094-052 | 79.50 |
| 27/32 | 3-5/16 | 7-1/2 | 2093-054 | 77.40 | 2094-054 | 82.00 |
| 7/8 | 3-5/16 | 7-1/2 | 2093-056 | 81.50 | 2094-056 | 85.20 |
| 29/32 | 3-9/16 | 7-7/8 | 2093-058 | 86.90 | 2094-058 | 98.40 |
| 15/16 | 3-9/16 | 7-7/8 | 2093-060 | 91.50 | 2094-060 | 98.40 |
| 31/32 | 3-3/4 | 8-3/8 | 2093-062 | 97.10 | 2094-062 | 102.60 |
| 1 | 3-3/4 | 8-3/8 | 2093-064 | 100.50 | 2094-064 | 107.90 |
| 1-1/32 | 4 | 8-11/16 | 2093-066† | 111.70 | 2094-066† | 118.20 |
| 1-1/16 | 4 | 8-11/16 | 2093-068 | 111.70 | 2094-068 | 118.20 |
| 1-3/32 | 4-1/8 | 9 | 2093-070† | 119.60 | 2094-070† | 121.40 |
| 1-1/8 | 4-1/8 | 9 | 2093-072 | 119.60 | 2094-072 | 121.40 |
| 1-5/32 | 4-1/4 | 9-3/8 | 2093-074† | 130.50 | 2094-074† | 129.70 |

### Spiral Flute

| DIAM. | FLUTE LG'TH | OVER. LG'TH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|
| 1-3/16 | 4-1/4 | 9-3/8 | 2093-076 | $130.50 | 2094-076 | $129.70 |
| 1-7/32 | 4-3/8 | 9-3/4 | 2093-078† | 135.70 | 2094-078† | 138.30 |
| 1-1/4 | 4-3/8 | 9-3/4 | 2093-080 | 135.70 | 2094-080 | 138.30 |
| 1-9/32 | 4-1/2 | 10-1/8 | 2093-082† | 151.60 | 2094-082† | 147.60 |
| 1-5/16 | 4-1/2 | 10-1/8 | 2093-084 | 151.60 | 2094-084 | 147.60 |
| 1-11/32 | 4-9/16 | 10-1/2 | 2093-086† | 169.00 | 2094-086† | 169.50 |
| 1-3/8 | 4-9/16 | 10-1/2 | 2093-088 | 169.00 | 2094-088 | 169.50 |
| 1-13/32 | 4-3/4 | 10-7/8 | 2093-090† | 197.60 | 2094-090† | 197.90 |
| 1-7/16 | 4-3/4 | 10-7/8 | 2093-092 | 197.60 | 2094-092 | 197.90 |
| 1-15/32 | 4-13/16 | 11-1/8 | 2093-094† | 220.60 | 2094-094† | 218.90 |
| 1-1/2 | 4-13/16 | 11-1/8 | 2093-096 | 220.60 | 2094-096 | 218.90 |
| 1-9/16 | 4-7/8 | 11-1/4 | 2093-100† | 269.50 | 2094-100† | 214.60 |
| 1-5/8 | 4-7/8 | 11-1/2 | 2093-104† | 269.50 | – | – |
| 1-11/16 | 4-7/8 | 11-5/8 | – | – | 2094-108† | 279.30 |
| 1-3/4 | 5 | 11-7/8 | 2093-112 | 277.40 | 2094-112 | 279.30 |
| 1-13/16 | 5 | 12-1/16 | 2093-116† | 307.20 | 2094-116† | 325.80 |
| 1-7/8 | 5 | 12-1/4 | 2093-120 | 307.20 | 2094-120 | 325.80 |
| 1-15/16 | 5 | 12-3/8 | 2093-124† | 353.80 | 2094-124† | 367.70 |
| 2 | 5 | 12-9/16 | 2093-128 | 353.80 | 2094-128 | 367.70 |
| 2-1/8 | 5-1/8 | 13-1/4 | 2093-136† | POA | 2094-136† | POA |
| 2-1/4 | 5-1/8 | 13-1/2 | 2093-144† | POA | – | – |
| 2-3/8 | 5-1/4 | 14 | 2093-152† | POA | 2094-152† | POA |
| 2-1/2 | 5-3/8 | 14-1/2 | – | – | 2094-160† | POA |
| 2-5/8 | 5-1/2 | 15 | 2093-168† | POA | 2094-168† | POA |
| 2-3/4 | 5-3/4 | 15-1/2 | 2093-176† | POA | 2094-176† | POA |
| 2-7/8 | 5-3/4 | 15-1/2 | – | – | 2094-184† | POA |
| 3 | 6 | 16-1/2 | 2093-192† | POA | – | – |

† Limited Quantities

# Jig Borer Reamers - RHS-RHC

## Straight Shank, High Speed Steel

Pittsburg® ALLEGHANY 1

| SIZES | DEC. EQUIV. | SHANK DIAM. | OVER. LG'TH | NO. OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/8 | .1250 | 3/8 | 2-9/16 | 4 | 2220-408 | $77.17 |
| 5/32 | .1562 | 3/8 | 2-9/16 | 4 | 2220-410 | 77.17 |
| 3/16 | .1875 | 3/8 | 2-13/16 | 4 | 2220-412 | 87.44 |
| 7/32 | .2188 | 3/8 | 2-13/16 | 4 | 2220-414 | 87.44 |
| 1/4 | .2500 | 3/8 | 3-5/16 | 4 | 2220-416 | 88.91 |
| 9/32 | .2812 | 3/8 | 3-5/16 | 4 | 2220-418 | 88.91 |
| 5/16 | .3125 | 3/8 | 3-9/16 | 6 | 2220-420 | 97.59 |
| 11/32 | .3438 | 3/8 | 3-9/16 | 6 | 2220-422 | 97.59 |
| 3/8 | .3750 | 3/8 | 3-9/16 | 6 | 2220-424 | 97.59 |
| 13/32 | .4062 | 1/2 | 4-5/16 | 6 | 2220-426 | 113.04 |

| SIZES | DEC. EQUIV. | SHANK DIAM. | OVER. LG'TH | NO. OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 7/16 | .4375 | 1/2 | 4-5/16 | 6 | 2220-428 | $113.04 |
| 15/32 | .4688 | 1/2 | 4-5/16 | 6 | 2220-430 | 113.04 |
| 1/2 | .5000 | 1/2 | 4-5/16 | 6 | 2220-432 | 113.04 |
| 9/16 | .5625 | 1/2 | 4-5/16 | 6 | 2220-436 | 115.70 |
| 5/8 | .6250 | 1/2 | 4-5/16 | 6 | 2220-440 | 141.36 |
| 11/16 | .6875 | 1/2 | 4-5/16 | 6 | 2220-444 | 146.38 |
| 3/4 | .7500 | 1/2 | 4-5/16 | 8 | 2220-448 | 152.81 |
| 13/16 | .8125 | 1/2 | 4-5/16 | 8 | 2220-452 | 207.44 |
| 7/8 | .8750 | 1/2 | 4-5/16 | 8 | 2220-456 | 210.51 |
| 15/16 | .9375 | 1/2 | 4-5/16 | 8 | 2220-460 | 218.65 |
| 1 | 1.0000 | 1/2 | 4-5/16 | 8 | 2220-464 | 229.63 |

# Construction Reamers

3

Pittsburg® Spiral Flute

USA Made Spiral Flute

MADE IN USA

USA Made Spiral Flute

MADE IN USA

Pittsburg® Helical Flute

USA Made Helical Flute

USA Made Helical Flute

**The Ultra High Performance Round Shank Taper Reamer has a Ferritic Nitro Carburizing treatment, giving a surface hardness of RC 75-80 without increasing brittleness, versus a normal hardness of RC 63-66. The bronze and black surface provides additional lubricity.**

| | | | | | Pittsburg® ALLEGHANY | | | | USA MADE | | USA MADE | | USA MADE HIGH PERFORMANCE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | SPIRAL FLUTE | | HELICAL FLUTE | | SPIRAL FLUTE | | HELICAL FLUTE | | SPIRAL FLUTE | | HELICAL FLUTE | |
| DIAM. | SHANK DIAM. | SHANK LG'TH | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/4 | 1/4 | 1-1/2 | 2-1/2 | 4-3/8 | 2161-116 | $17.11 | 2161-216 | $17.11 | 2160-912 | $35.25 | 2161-012 | $40.15 | 2161-412 | $39.05 | 2161-512 | $41.75 |
| 5/16 | 5/16 | 1-1/2 | 2-3/4 | 4-5/8 | 2161-120 | 17.11 | 2161-220 | 17.11 | 2160-920 | 35.50 | 2161-020 | 38.80 | 2161-420 | 34.90 | 2161-520 | 40.35 |
| 3/8 | 3/8 | 1-1/2 | 2-3/4 | 4-5/8 | 2161-124 | 17.11 | 2161-224 | 17.11 | 2160-924 | 32.60 | 2161-024 | 36.40 | 2161-424 | 34.20 | 2161-524 | 37.90 |
| 7/16 | 7/16 | 1-1/2 | 3-1/2 | 5-3/8 | 2161-128 | 20.12 | 2161-228 | 20.12 | 2160-928 | 33.85 | 2161-028 | 35.75 | 2161-428 | 35.70 | 2161-528 | 39.50 |
| 1/2 | 1/2 | 1-1/2 | 4 | 5-7/8 | 2161-132 | 20.12 | 2161-232 | 20.12 | 2160-932 | 34.90 | 2161-032 | 38.40 | 2161-432 | 38.70 | 2161-532 | 42.60 |
| 9/16 | 1/2 | 1-1/2 | 4 | 5-7/8 | 2161-136 | 21.17 | 2161-236 | 21.17 | 2160-936 | 37.05 | 2161-036 | 40.75 | 2161-436 | 41.10 | 2161-536 | 45.20 |
| 5/8 | 1/2 | 1-1/2 | 4-1/2 | 6-3/8 | 2161-140 | 23.32 | 2161-240 | 23.32 | 2160-940 | 41.45 | 2161-040 | 46.45 | 2161-440 | 45.65 | 2161-540 | 51.35 |
| 21/32 | 1/2 | 1-1/2 | 4-1/2 | 6-3/8 | – | – | – | – | 2160-942 | 46.60 | 2161-042 | 52.30 | 2161-442 | 49.90 | 2161-542 | 54.85 |
| 11/16 | 1/2 | 1-1/2 | 4-1/2 | 6-3/8 | 2161-144 | 25.67 | 2161-244 | 25.67 | 2160-944 | 46.40 | 2161-044 | 55.10 | 2161-444 | 50.95 | 2161-544 | 57.30 |
| 3/4 | 1/2 | 1-1/2 | 5 | 6-7/8 | 2161-148 | 31.49 | 2161-248 | 31.49 | 2160-948 | 53.90 | 2161-048 | 59.30 | 2161-448 | 59.80 | 2161-548 | 65.80 |
| 25/32 | 1/2 | 1-1/2 | 5 | 6-7/8 | – | – | – | – | 2160-950 | 55.30 | 2161-050 | 62.60 | 2161-450 | 59.80 | 2161-550 | 65.75 |
| 13/16 | 1/2 | 1-1/2 | 5 | 6-7/8 | 2161-152 | 34.12 | 2161-252 | 34.12 | 2160-952 | 53.90 | 2161-052 | 59.30 | 2161-452 | 59.80 | 2161-552 | 65.75 |
| 7/8 | 1/2 | 1-1/2 | 5 | 6-7/8 | 2161-156 | 37.87 | 2161-256 | 37.87 | 2160-956 | 60.90 | 2161-056 | 67.00 | 2161-456 | 67.60 | 2161-556 | 74.00 |
| 15/16 | 1/2 | 1-1/2 | 5 | 6-7/8 | 2161-160 | 39.02 | 2161-260 | 39.02 | 2160-960 | 60.90 | 2161-060 | 67.00 | 2161-460 | 67.60 | 2161-560 | 74.00 |
| 1 | 1/2 | 1-1/2 | 5 | 6-7/8 | 2161-164 | 43.30 | 2161-264 | 43.30 | 2160-964 | 72.70 | 2161-064 | 79.95 | 2161-464 | 80.65 | 2161-564 | 88.75 |
| 1-1/16 | 1/2 | 1-1/2 | 5 | 6-7/8 | 2161-168 | 47.58 | 2161-268 | 47.58 | 2160-968 | 83.15 | 2161-068 | 101.00 | 2161-468 | 92.30 | 2161-568 | 93.95 |
| 1-1/8 | 3/4 | 1-1/2 | 4-1/2 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-472 | 107.95 | 2161-572 | 111.60 |
| 1-3/16 | 3/4 | 1-1/2 | 4-1/4 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-476 | 118.45 | 2161-576 | 130.30 |
| 1-1/4 | 3/4 | 1-1/2 | 4-1/4 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-480 | 126.85 | 2161-580 | 136.60 |
| 1-5/16 | 3/4 | 1-1/2 | 4-1/4 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-484 | 147.80 | 2161-584 | 161.20 |
| 1-3/8 | 3/4 | 1-1/2 | 4-1/4 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-488 | 206.25 | 2161-588 | 211.60 |
| 1-7/16 | 3/4 | 1-1/2 | 4-1/4 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-492 | 209.30 | 2161-592 | 228.00 |
| 1-1/2 | 3/4 | 1-1/2 | 4-1/4 | 6-7/8 | – | – | – | – | – | – | – | – | 2161-496 | 199.90 | 2161-596 | 231.40 |

# Erector Reamers

3

Pittsburg® Hex Shank

USA Made Black Oxide

MADE IN USA

USA Made Safety Spiral Flute

**The Safety First Erector Reamer is magnetic, which secures the reamer in sockets.**

MADE IN USA

| REAMER DIA. | HEX SHANK INCHES | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | USA MADE SPIRAL FLUTE ORDER NO. | USA MADE SPIRAL FLUTE PRICE EACH | USA MADE SAFETY SPIRAL FLUTE ORDER NO. | USA MADE SAFETY SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 11/16 | 1-1/16 | 4-1/2 | 6-1/2 | 2161-344 | $37.98 | 2161-644 | $61.40 | 2161-744 | $68.30 |
| 3/4 | 1-1/4 | 5” | 7” | – | – | 2161-648 | 73.40 | 2161-748 | 73.40 |
| 13/16 | 1-1/4 | 5” | 7” | 2161-352 | 39.36 | 2161-652 | 73.40 | 2161-752 | 74.70 |
| 7/8 | 1-7/16 | 5” | 7” | – | – | 2161-656 | 82.95 | 2161-756 | 82.95 |
| 15/16 | 1-7/16 | 5” | 7” | 2161-360 | 42.08 | 2161-660 | 82.95 | 2161-760 | 85.10 |
| 1” | 1-7/16 | 5” | 7” | – | – | 2161-664 | 98.85 | 2161-764 | 99.70 |
| 1-1/16 | 1-5/8 | 5” | 7” | 2161-368 | 55.69 | 2161-668 | 109.85 | 2161-768 | 110.00 |
| 1-1/8 | 1-5/8 | 5” | 7” | – | – | 2161-672 | 126.85 | 2161-772 | 126.85 |
| 1-3/16 | 1-13/16 | 5” | 7” | – | – | 2161-676 | 136.75 | 2161-776 | 136.75 |
| 1-1/4 | 1-13/16 | 5” | 7” | – | – | 2161-680 | 148.65 | 2161-780 | 146.15 |
| 1-5/16 | 2” | 5” | 7-7/8 | – | – | 2161-684 | 163.50 | 2161-784 | 169.90 |

# Bridge Reamers – High Speed Steel

Straight Flute – Taper Shank

Spiral Flute – Taper Shank

| DIAM. | FLUTE LENGTH | OVER-ALL LENGTH | TAPER SHANK NO. | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 13/32 | 4-3/8 | 8-1/4 | 2 | 2170-262 | $21.25 | 2180-262 | $19.40 |
| 7/16 | 4-3/8 | 8-1/4 | 2 | 2170-282 | 21.25 | 2180-282 | 19.40 |
| 15/32 | 5-1/8 | 9 | 2 | 2170-302 | 22.40 | 2180-302 | 21.20 |
| 1/2 | 5-1/8 | 9 | 2 | 2170-322 | 22.40 | 2180-322 | 21.20 |
| 17/32 | 5-1/8 | 9 | 2 | 2170-342 | 22.95 | 2180-342 | 22.25 |
| 9/16 | 5-1/8 | 9 | 2 | 2170-362 | 22.95 | 2180-362 | 22.25 |
| 19/32 | 6-1/8 | 10 | 2 | 2170-382† | 17.40 | 2180-382† | 17.55 |
| 5/8 | 6-1/8 | 10 | 2 | 2170-402 | 24.85 | 2180-402 | 25.10 |
| 21/32 | 6-1/8 | 10 | 2 | 2170-422† | 18.25 | – | – |
| 21/32 | 7-1/8 | 11-3/4 | 3 | – | – | 2180-423† | 21.55 |
| 11/16 | 7-1/8 | 11-3/4 | 3 | 2170-443 | 28.95 | 2180-443 | 30.80 |
| 23/32 | 7-3/8 | 12 | 3 | 2170-463† | 21.85 | – | – |
| 3/4 | 7-3/8 | 12 | 3 | 2170-483 | 31.20 | 2180-483 | 33.60 |
| 25/32 | 7-3/8 | 12 | 3 | 2170-503† | 23.30 | – | – |
| 13/16 | 7-3/8 | 12 | 3 | 2170-523 | 33.30 | 2180-523 | 34.85 |
| 27/32 | 7-3/8 | 12 | 3 | 2170-543† | 27.15 | 2180-543† | 28.15 |
| 7/8 | 7-3/8 | 12 | 3 | 2170-563 | 38.75 | 2180-563 | 40.20 |
| 29/32 | 7-3/8 | 12 | 3 | 2170-583† | 26.40 | 2180-583† | 28.35 |
| 15/16 | 7-3/8 | 12 | 3 | 2170-603 | 37.75 | 2180-603 | 40.50 |
| 31/32 | 7-3/8 | 12 | 3 | 2170-623† | 30.45 | – | – |
| 1 | 7-3/8 | 12 | 3 | 2170-643 | 43.50 | 2180-643 | $46.30 |
| 1-1/16 | 7-3/8 | 12 | 3 | 2170-683 | 48.00 | 2180-683 | 51.10 |
| 1-1/8 | 7-3/8 | 12 | 3 | 2170-723 | 53.70 | 2180-723 | 57.05 |
| 1-3/16 | 7-3/8 | 12 | 3 | 2170-763 | 59.85 | 2180-763 | 62.80 |
| 1-1/4 | 7-3/8 | 13 | 4 | 2170-804 | 65.75 | 2180-804 | 68.55 |
| 1-5/16 | 7-3/8 | 13 | 4 | 2170-844 | 75.80 | 2180-844 | 80.05 |
| 1-3/8 | 7-3/8 | 13 | 4 | 2170-884 | 78.75 | 2180-884 | 81.90 |
| 1-7/16 | 7-3/8 | 13 | 4 | 2170-924 | 82.35 | 2180-924 | 85.65 |
| 1-1/2 | 7-3/8 | 13 | 4 | 2170-964 | 87.20 | 2180-964 | 92.10 |
| 1-9/16 | 7-3/8 | 13 | 4 | 2171-004 | 114.13 | 2181-004 | 126.10 |
| 1-5/8 | 7-3/8 | 13 | 4 | 2171-044 | 114.13 | 2181-044 | 129.70 |
| 1-11/16 | 7-3/8 | 13 | 4 | 2171-084 | 120.01 | 2181-084 | 145.55 |
| 1-3/4 | 7-3/8 | 13 | 4 | 2171-124 | 145.19 | 2181-124 | 161.40 |
| 1-13/16 | 7-3/8 | 13 | 4 | 2171-164 | 145.19 | 2181-164 | 165.60 |
| 1-7/8 | 7-3/8 | 13 | 4 | 2171-204 | 145.19 | 2181-204 | 168.40 |
| 1-15/16 | 7-3/8 | 13 | 4 | 2171-244 | 167.84 | 2181-244 | 187.30 |
| 2 | 7-3/8 | 13 | 4 | 2171-282 | 167.84 | 2181-284 | 192.35 |

† Limited Quantities

**Diameters through 4-1/2" Available On Request**

# Die Maker's Reamers

## High Speed Steel

Pittsburg® ALLEGHANY

1

| SIZE | DIAM. LARGE END | DIAM. SMALL END | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| AAA | .070 | .055 | 1-1/8 | 2-1/4 | 2220-099 | $16.20 |
| AA | .080 | .065 | 1-1/8 | 2-1/4 | 2220-100 | 15.26 |
| A | .090 | .075 | 1-1/8 | 2-1/4 | 2220-101 | 14.66 |
| C | .113 | .095 | 1-3/8 | 2-1/2 | 2220-103 | 13.05 |
| F | .148 | .125 | 1-3/4 | 3 | 2220-106 | 9.24 |
| G | .158 | .135 | 1-3/4 | 3 | 2220-107 | 9.24 |
| H | .169 | .145 | 1-7/8 | 3-1/4 | 2220-108 | 10.89 |
| I | .184 | .160 | 1-7/8 | 3-1/4 | 2220-109 | 10.89 |
| K | .219 | .190 | 2-1/4 | 3-1/2 | 2220-111 | 13.20 |
| L | .234 | .205 | 2-1/4 | 3-1/2 | 2220-112 | 13.20 |
| M | .252 | .220 | 2-1/2 | 4 | 2220-113 | 13.20 |
| N | .274 | .235 | 3 | 4-1/2 | 2220-114 | 15.42 |

| SIZE | DIAM. LARGE END | DIAM. SMALL END | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| O | .296 | .250 | 3-1/2 | 5 | 2220-115 | $16.29 |
| P | .327 | .275 | 4 | 5-1/2 | 2220-116 | 18.56 |
| Q | .358 | .300 | 4-1/2 | 6 | 2220-117 | 19.27 |
| R | .397 | .335 | 4-3/4 | 6-1/2 | 2220-118 | 19.98 |
| S | .425 | .370 | 5 | 6-3/4 | 2220-119 | 20.72 |
| T | .473 | .405 | 5-1/4 | 7 | 2220-120 | 22.60 |
| U | .511 | .440 | 5-1/2 | 7-1/4 | 2220-121 | 23.44 |
| V | .564 | .483 | 6-1/4 | 8-3/8 | 2220-122 | 24.43 |
| W | .613 | .525 | 6-3/4 | 8-3/4 | 2220-123 | 27.73 |
| X | .688 | .574 | 7-1/4 | 9-1/2 | 2220-124 | 29.33 |
| Y | .730 | .629 | 7-3/4 | 10 | 2220-125 | 34.28 |
| Z | .806 | .699 | 8-1/4 | 10-1/2 | 2220-126 | 38.57 |

# Jobber Reamers - Taper Shank

## Straight & Spiral Flutes, High Speed Steel

Pittsburg® ALLEGHANY

2

Straight Flute

Spiral Flute

| DIAM. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | SHANK NO. | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | .2500 | 2 | 5-3/16 | 1 | 2130-161 | $12.57 | 2140-161 | $12.57 |
| 17/64 | .2656 | 2 | 5-3/16 | 1 | 2130-171 | 12.57 | – | – |
| 9/32 | .2812 | 2 | 5-3/16 | 1 | 2130-181 | 12.57 | 2140-181 | 12.57 |
| 19/64 | .2967 | 2-1/4 | 5-1/2 | 1 | 2130-191 | 12.57 | – | – |
| 5/16 | .3125 | 2-1/4 | 5-1/2 | 1 | 2130-201 | 12.57 | 2140-201 | 12.57 |
| 21/64 | .3281 | 2-1/4 | 5-1/2 | 1 | 2130-211 | 13.06 | – | – |
| 11/32 | .3438 | 2-1/4 | 5-1/2 | 1 | 2130-221 | 13.06 | 2140-221 | 13.06 |
| 23/64 | .3594 | 2-1/2 | 5-13/16 | 1 | 2130-231 | 13.06 | – | – |
| 3/8 | .3750 | 2-1/2 | 5-13/16 | 1 | 2130-241 | 13.06 | 2140-241 | 13.06 |
| 25/64 | .3906 | 2-1/2 | 5-13/16 | 1 | 2130-251 | 13.06 | – | – |
| 13/32 | .4063 | 2-1/2 | 5-13/16 | 1 | 2130-261 | 13.06 | 2140-261 | 13.06 |
| 27/64 | .4219 | 2-3/4 | 6-1/8 | 1 | 2130-271 | 13.06 | – | – |
| 7/16 | .4375 | 2-3/4 | 6-1/8 | 1 | 2130-281 | 13.06 | 2140-281 | 13.06 |
| 29/64 | .4531 | 2-3/4 | 6-1/8 | 1 | 2130-291 | 14.11 | – | – |
| 15/32 | .4688 | 2-3/4 | 6-1/8 | 1 | 2130-301 | 14.11 | 2140-301 | 14.11 |
| 31/64 | .4844 | 3 | 6-7/16 | 1 | 2130-311 | 15.05 | – | – |
| 1/2 | .5000 | 3 | 6-7/16 | 1 | 2130-321 | 15.05 | 2140-321 | 15.05 |
| 33/64 | .5156 | 3 | 6-7/16 | 1 | 2130-331 | 15.88 | – | – |
| 17/32 | .5312 | 3 | 6-7/16 | 1 | 2130-341 | 15.88 | 2140-341 | 15.88 |
| 35/64 | .5469 | 3-1/4 | 6-3/4 | 1 | 2130-351 | 17.26 | – | – |
| 9/16 | .5625 | 3-1/4 | 6-3/4 | 1 | 2130-361 | 17.26 | 2140-361 | 17.26 |
| 37/64 | .5781 | 3-1/4 | 6-3/4 | 1 | 2130-371 | 18.47 | – | – |
| 19/32 | .5938 | 3-1/4 | 6-3/4 | 1 | 2130-381 | 18.47 | 2140-381 | 18.47 |
| 39/64 | .6094 | 3-1/4 | 6-3/4 | 1 | 2130-391 | 19.08 | – | – |
| 5/8 | .6250 | 3-1/2 | 7-9/16 | 2 | 2130-402 | 19.08 | – | – |
| 41/64 | .6406 | 3-1/2 | 7-9/16 | 2 | 2130-412 | 19.95 | – | – |
| 21/32 | .6562 | 3-1/2 | 7-9/16 | 2 | 2130-422 | 19.95 | 2140-422 | 19.95 |
| 11/16 | .6875 | 3-7/8 | 8 | 2 | 2130-442 | 19.95 | 2140-442 | 19.95 |

| DIAM. | DECM'L EQUIV. | FLUTE LG'TH | OVER. LG'TH | SHANK NO. | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 23/32 | .7188 | 3-7/8 | 8 | 2 | 2130-462 | $21.16 | 2140-462 | $21.16 |
| 47/64 | .7344 | 4-3/16 | 8-3/8 | 2 | 2130-472 | 22.26 | – | – |
| 3/4 | .7500 | 4-3/16 | 8-3/8 | 2 | – | – | 2140-482 | 22.26 |
| 25/32 | .7812 | 4-3/16 | 8-3/8 | 2 | 2130-502 | 22.98 | – | – |
| 13/16 | .8125 | 4-9/16 | 8-13/16 | 2 | 2130-522 | 23.92 | 2140-522 | 23.92 |
| 27/32 | .8438 | 4-9/16 | 8-13/16 | 2 | 2130-542 | 24.20 | 2140-542 | 24.20 |
| 55/64 | .8594 | 4-9/16 | 8-13/16 | 2 | 2130-552 | 28.44 | – | – |
| 7/8 | .8750 | 4-7/8 | 9-3/16 | 2 | – | – | 2140-562 | 28.44 |
| 29/32 | .9062 | 4-7/8 | 9-3/16 | 2 | 2130-582 | 31.48 | – | – |
| 59/64 | .9219 | 5-1/8 | 10 | 3 | 2130-593 | 31.48 | – | – |
| 15/16 | .9375 | 5-1/8 | 10 | 3 | 2130-603 | 31.48 | 2140-603 | 31.48 |
| 61/64 | .9331 | 5-1/8 | 10 | 3 | 2130-613 | 34.84 | – | – |
| 31/32 | .9688 | 5-1/8 | 10 | 3 | 2130-623 | 34.84 | – | – |
| 63/64 | .9844 | 5-1/8 | 10 | 3 | 2130-633 | 34.84 | – | – |
| 1 | 1.0000 | 5-7/16 | 10-3/8 | 3 | – | – | 2140-643 | 34.84 |
| 1-3/16 | 1.1875 | 6 | 11-1/8 | 3 | 2130-763 | 45.97 | 2140-763 | 45.97 |
| 1-5/16 | 1.3125 | 6-1/4 | 12-11/16 | 4 | – | – | – | – |
| 1-3/8 | 1.3750 | 6-5/16 | 12-13/16 | 4 | 2130-884 | 60.63 | – | – |
| 1-7/16 | 1.4375 | 6-7/16 | 13 | 4 | 2130-924 | 63.67 | 2140-924 | 63.67 |

**Special Reamers From Prints Are Our Specialty!**

# Taper Reamers

## Repairman's Taper Reamers - Carbon Steel

Type T-5

Type 135

[2]

| REAMER NO. | OVER-ALL LG'TH | DIAM. LARGE END | DIAM. SMALL END | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| T-5 | 5-1/2 | 1/2 | 1/8 | 2220-280 | $8.95 |
| 135 | 5-1/2 | 1/2 | 1/8 | 2220-282 | 8.20 |

# Burring Reamers

## Carbon Steel

2† – 3†

232 – 234

241† – 244†

[2]

| ORDER NO. | DESCRIPTION | NO. | CAPACITY PIPE INCHES | DIAM. AT POINT | PRICE EACH |
|---|---|---|---|---|---|
| 2223-106<br>2223-108<br>2223-110 | Spiral Fluted<br>1/2" Round<br>Shank | 232<br>233<br>234 | 1/8 – 1<br>1/4 – 1-1/4<br>1/4 – 2 | 3/16<br>1/4<br>1/4 | $19.67<br>23.87<br>40.23 |
| 2223-120<br>2223-122 | Spiral Fluted<br>T-Handle Shank | 254<br>257 | 1/4 – 2<br>1-1/2 – 3-1/2 | 1/4<br>1-1/2 | 53.49<br>252.37 |
| 2223-100†<br>2223-102† | Straight<br>Fluted Bit | 2<br>3 | 1/8 – 1<br>1/4 – 1-1/4 | 3/16<br>1/4 | 11.16<br>13.50 |
| 2223-112†<br>2223-114†<br>2223-116† | Spiral Fluted<br>Bit Brace<br>Shank | 241<br>242<br>243 | 1/8 – 1/2<br>1/8 – 1<br>1/4 – 1-1/4 | 3/16<br>3/16<br>1/4 | 14.52<br>17.94<br>22.56 |

† Limited Quantities

## Browne & Sharpe Taper Reamers - Square Shank - High Speed Steel

Straight Flute

Spiral Flute

[2]

| TAPER NO. | DIAM. LARGE END | DIAM. SMALL END | FLUTE LG'TH | OVER. LG'TH | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3 | .4510 | .3099 | 3-3/8 | 5-1/2 | 2220-303 | $18.70 | 2220-323 | $21.50 |
| 5 | .6145 | .4474 | 4 | 6-3/8 | 2220-305 | 22.15 | – | – |
| 6 | .6808 | .4974 | 4-3/8 | 6-7/8 | 2220-306 | 23.35 | – | – |
| 12 | 1.844 | 1.500 | 8-1/4 | 11-3/8 | 2220-312 | 123.20 | 2220-332 | 141.70 |

## Machine Taper Reamers - Taper Shank High Speed Steel

Straight Flute

Spiral Flute

† Limited Quantities

[2]

| SIZE | DIAM. LARGE END | DIAM. SMALL END | FLUTE LG'TH | OVER-ALL LG'TH | MORSE TAPER SHANK | STRAIGHT FLUTE ORDER NO. | STRAIGHT FLUTE PRICE EACH | SPIRAL FLUTE ORDER NO. | SPIRAL FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 0 | .3674 | .2503 | 2-1/4 | 5-11/32 | 0 | 2220-240 | $28.20 | – | – |
| 1 | .5170 | .3674 | 3 | 6-5/16 | 1 | 2220-241 | 33.30 | – | – |
| 2 | .7444 | .5696 | 3-1/2 | 7-3/8 | 2 | 2220-242 | 40.30 | 2220-262† | $30.23 |
| 3 | .9881 | .7748 | 4-1/4 | 8-7/8 | 3 | 2220-243 | 55.70 | 2220-263† | 41.78 |
| 4 | 1.2893 | 1.0167 | 5-1/4 | 10-7/8 | 4 | 2220-244 | 87.90 | 2220-264† | 65.93 |
| 5 | 1.8005 | 1.4717 | 6-1/4 | 13-1/8 | 5 | 2220-245 | 179.40 | 2220-265† | 134.55 |

## Morse Taper Reamers - Square Shank High Speed Steel

Finishing

Roughing

[2]

| SIZE | DIAM. LARGE END | DIAM. SMALL END | FLUTE LG'TH | OVER. LG'TH | FINISH STR. FLUTE ORDER NO. | FINISH STR. FLUTE PRICE EACH | ROUGH STR. FLUTE ORDER NO. | ROUGH STR. FLUTE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 0 | .3674 | .2503 | 2-1/4 | 3-3/4 | 2220-200 | $18.80 | 2220-210 | $22.40 |
| 1 | .5170 | .3674 | 3 | 5 | 2220-201 | 24.25 | 2220-211 | 28.35 |
| 2 | .7444 | .5696 | 3-1/2 | 6 | 2220-202 | 28.65 | 2220-212 | 33.60 |
| 3 | .9881 | .7748 | 4-1/4 | 7-1/4 | 2220-203 | 41.75 | 2220-213 | 49.00 |
| 4 | 1.2893 | 1.0167 | 5-1/4 | 8-1/2 | 2220-204 | 61.75 | 2220-214 | 71.85 |
| 5 | 1.8005 | 1.4717 | 6-1/4 | 9-3/4 | 2220-205 | 117.65 | 2220-215 | 138.05 |
| 6 | 2.555 | 2.112 | 8-1/2 | 12-1/4 | 2220-206 | 255.10 | 2220-216 | 298.47 |

# Counterbores – Short Set, Interchangeable Pilot

## Short Set, High Speed Steel & Carbide Tipped

Pittsburg® ALLEGHANY
Straight Shank

Pittsburg® ALLEGHANY
Taper Shank
3

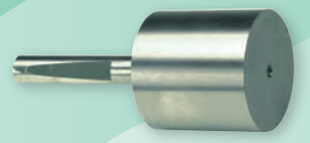
ROCK RIVER
Straight Shank
3 2

ROCK RIVER
Taper Shank
2 2

| | | | | | Pittsburg® ALLEGHANY HIGH SPEED STEEL | | | | | ROCK RIVER CARBIDE TIPPED | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRAIGHT SHANK | | TAPER SHANK | | | STEEL STRAIGHT SHANK | | CAST IRON STRAIGHT SHANK | | CAST IRON TAPER SHANK | | |
| DIAM. | OVERALL LENGTH | NO. OF FLUTES | HOLE DIAM. | RANGE OF PILOT SIZES | ORDER NO. | PRICE EACH | TAPER SHANK | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | TAPER SHANK | ORDER NO. | PRICE EACH |
| 3/16 | 3 | 3 | 3/32 | 1/8 – 3/16 | 2230-012 | $17.10 | – | – | – | – | – | – | – | – | – | – |
| 13/64 | 3 | 3 | 3/32 | 1/8 – 3/16 | 2230-013 | 24.16 | – | – | – | – | – | – | – | – | – | – |
| 7/32 | 3 | 3 | 3/32 | 1/8 – 7/32 | 2230-014 | 16.15 | – | – | – | – | – | – | – | – | – | – |
| 15/64 | 3-13/16 | 3 | 3/32 | 1/8 – 7/32 | 2230-015 | 23.54 | – | – | – | – | – | – | – | – | – | – |
| 1/4 | 3-13/16 | 3 | 3/32 | 1/8 – 3/16 | 2230-016 | 16.15 | 1 | 2231-016 | $ 16.97 | 1951-016 | $ 67.70 | 1952-016 | $ 57.90 | 1 | 1953-016 | $ 67.70 |
| 17/64 | 3-13/16 | 3 | 3/32 | 1/8 – 1/14 | 2230-017 | 23.54 | 1 | 2231-017 | 21.21 | – | – | – | – | – | – | – |
| 9/32 | 3-13/16 | 3 | 3/32 | 1/8 – 7/32 | 2230-018 | 16.15 | 1 | 2231-018 | 16.97 | – | – | – | – | – | – | – |
| 19/64 | 3-13/16 | 3 | 3/32 | 1/8 – 9/32 | 2230-019 | 24.26 | – | – | – | – | – | – | – | – | – | – |
| 5/16 | 3-13/16 | 3 | 3/32 | 1/8 – 1/4 | 2230-020 | 16.42 | 1 | 2231-020 | 17.39 | 1951-020 | 74.10 | 1952-020 | 64.30 | 1 | 1953-020 | 74.10 |
| 21/64 | 3-13/16 | 3 | 3/32 | 1/8 – 5/16 | 2230-021 | 24.08 | 1 | 2231-021 | 21.74 | – | – | – | – | – | – | – |
| 11/32 | 3-13/16 | 3 | 3/32 | 1/8 – 9/32 | 2230-022 | 16.79 | 1 | 2231-022 | 17.39 | – | – | – | – | – | – | – |
| 23/64 | 3-13/16 | 3 | 3/32 | 1/8 – 11/32 | 2230-023 | 24.08 | 1 | 2231-023 | 21.74 | – | – | – | – | – | – | – |
| 3/8 | 4-1/16 | 3 | 5/32 | 3/16 – 5/16 | 2230-024 | 16.79 | 1 | 2231-024 | 17.39 | 1951-024 | 76.45 | 1952-024 | 68.15 | 1 | 1953-024 | 76.45 |
| 25/64 | 4-1/16 | 3 | 5/32 | 3/16 – 3/18 | 2230-025 | 24.86 | 1 | 2231-025 | 23.00 | – | – | – | – | – | – | – |
| 13/32 | 4-1/16 | 3 | 5/32 | 3/16 – 11/32 | 2230-026 | 16.93 | 1 | 2231-026 | 18.40 | – | – | – | – | – | – | – |
| 27/64 | 4-1/16 | 3 | 5/32 | 3/16 – 13/32 | 2230-027 | 24.86 | 1 | 2231-027 | 23.00 | – | – | – | – | – | – | – |
| 7/16 | 4-1/16 | 3 | 5/32 | 3/16 – 3/8 | 2230-028 | 16.93 | 1 | 2231-028 | 18.40 | 1951-028 | 78.55 | 1952-028 | 69.95 | 1 | 1953-028 | 78.55 |
| 29/64 | 4-5/16 | 3 | 3/16 | 3/16 – 7/16 | 2230-029 | 25.73 | 1 | 2231-029 | 24.21 | – | – | – | – | – | – | – |
| 15/32 | 4-5/16 | 3 | 3/16 | 1/4 – 13/32 | 2230-030 | 18.03 | 1 | 2231-030 | 19.37 | – | – | – | – | – | – | – |
| 31/64 | 4-5/16 | 3 | 3/16 | 3/16 – 15/32 | 2230-031 | 26.24 | 1 | 2231-031 | 24.21 | – | – | – | – | – | – | – |
| 1/2 | 4-5/16 | 3 | 3/16 | 1/4 – 7/16 | 2230-032 | 18.03 | 1 | 2231-032 | 19.37 | 1951-032 | 86.70 | 1952-032 | 77.65 | 1 | 1953-032 | 86.70 |
| 17/32 | 4-5/16 | 3 | 3/16 | 1/4 – 15/32 | 2230-034 | 19.96 | 1 | 2231-034 | 20.61 | – | – | – | – | – | – | – |
| 9/16 | 4-5/16 | 3 | 3/16 | 1/4 – 1/2 | 2230-036 | 19.96 | 1 | 2231-036 | 20.61 | 1951-036 | 88.30 | 1952-036 | 79.90 | 1 | 1953-036 | 88.30 |
| 19/32 | 5-1/8 | 3 | 3/16 | 1/4 – 17/32 | 2230-038 | 21.39 | 1 | 2231-038 | 23.18 | – | – | – | – | – | – | – |
| 5/8 | 5-1/8 | 3 | 3/16 | 1/4 – 9/16 | 2230-040 | 21.39 | 2 | 2231-040 | 23.18 | 1951-040 | 90.65 | 1952-040 | 80.70 | 2 | 1953-040 | 90.65 |
| 21/32 | 5-1/8 | 3 | 3/16 | 1/4 – 19/32 | 2230-042 | 23.64 | 2 | 2231-042 | 26.91 | – | – | – | – | – | – | – |
| 11/16 | 5-1/8 | 3 | 3/16 | 1/4 – 5/8 | 2230-044 | 23.64 | 2 | 2231-044 | 26.91 | 1951-044 | 95.65 | 1952-044 | 85.45 | 2 | 1953-044 | 95.65 |
| 23/32 | 5-3/8 | 3 | 1/4 | 5/16 – 21/32 | 2230-046 | 24.89 | 2 | 2231-046 | 27.72 | – | – | – | – | – | – | – |
| 3/4 | 5-3/8 | 3 | 1/4 | 5/16 – 11/16 | 2230-048 | 24.89 | 2 | 2231-048 | 27.72 | 1951-048 | 97.30 | 1952-048 | 87.40 | 2 | 1953-048 | 97.30 |
| 25/32 | 5-3/8 | 3 | 1/4 | 5/16 – 23/32 | 2230-050 | 28.12 | 2 | 2231-050 | 29.14 | – | – | – | – | – | – | – |
| 13/16 | 5-3/8 | 3 | 1/4 | 5/16 – 3/4 | 2230-052 | 28.12 | 2 | 2231-052 | 29.14 | 1951-052 | 99.00 | 1952-052 | 89.25 | 2 | 1953-052 | 99.00 |
| 27/32 | 5-3/8 | 3 | 1/4 | 5/16 – 25/32 | 2230-054 | 29.51 | 2 | 2231-054 | 30.56 | – | – | – | – | – | – | – |
| 7/8 | 5-3/8 | 3 | 1/4 | 5/16 – 13/16 | 2230-056 | 29.51 | 2 | 2231-056 | 30.56 | 1951-056 | 104.05 | 1952-056 | 94.60 | 2 | 1953-056 | 104.05 |
| 29/32 | 6-1/8 | 3 | 1/4 | 5/16 – 27/32 | 2230-058 | 30.90 | 2 | 2231-058 | 38.00 | – | – | – | – | – | – | – |
| 15/16 | 6-1/8 | 3 | 1/4 | 5/16 – 7/8 | 2230-060 | 30.90 | 3 | 2231-060 | 38.00 | 1951-060 | 106.90 | 1952-060 | 96.55 | 3 | 1953-060 | 106.90 |
| 31/32 | 6-3/8 | 3 | 5/16 | 3/8 – 29/32 | 2230-062 | 35.42 | 3 | 2231-062 | 38.24 | – | – | – | – | – | – | – |
| 1 | 6-3/8 | 3 | 5/16 | 3/8 – 15/16 | 2230-064 | 35.42 | 3 | 2231-064 | 38.24 | 1951-064 | 113.50 | 1952-064 | 99.35 | 3 | 1953-064 | 113.50 |
| 1-1/16 | 6-3/8 | 3 | 5/16 | 3/8 – 1 | 2230-068 | 45.46 | 3 | 2231-068 | 45.48 | 1951-068 | 115.00 | 1952-068 | 100.40 | 3 | 1953-068 | 115.00 |
| 1-1/8 | 6-3/8 | 3 | 5/16 | 3/8 – 1-1/16 | 2230-072 | 46.65 | 3 | 2231-072 | 45.48 | 1951-072 | 118.60 | 1952-072 | 102.95 | 3 | 1953-072 | 118.60 |
| 1-3/16 | 6-3/8 | 3 | 5/16 | 3/8 – 1-1/8 | 2230-076 | 49.18 | 3 | 2231-076 | 56.86 | 1951-076 | 122.65 | 1952-076 | 107.50 | 3 | 1953-076 | 122.65 |
| 1-1/4 | 6-5/8 | 5 | 3/8 | 7/16 – 1-3/16 | 2230-080 | 57.53 | 3 | 2231-080 | 58.14 | 1951-080 | 136.35 | 1952-080 | 119.75 | 3 | 1953-080 | 136.35 |
| 1-5/16 | 6-5/8 | 5 | 3/8 | 7/16 – 1-1/4 | 2230-084 | 60.66 | 3 | 2231-084 | 59.27 | 1951-084 | 146.15 | 1952-084 | 129.25 | 3 | 1953-084 | 146.15 |
| 1-3/8 | 6-5/8 | 5 | 3/8 | 7/16 – 1-5/16 | 2230-088 | 65.73 | 3 | 2231-088 | 63.87 | 1951-088 | 153.15 | 1952-088 | 136.00 | 3 | 1953-088 | 153.15 |
| 1-7/16 | 7-7/8 | 5 | 3/8 | 7/16 – 1-3/8 | 2230-092 | 73.53 | 3 | 2231-092 | 68.99 | 1951-092 | 170.35 | 1952-092 | 149.05 | 4 | 1953-092 | 170.35 |
| 1-1/2 | 7-7/8 | 5 | 3/8 | 7/16 – 1-7/16 | 2230-096 | 73.53 | 4 | 2231-096 | 71.78 | 1951-096 | 188.90 | 1952-096 | 166.05 | 4 | 1953-096 | 188.90 |
| 1-9/16 | 8-1/8 | 5 | 7/16 | 1/2 – 1-1/2 | 2230-100 | 92.50 | 4 | 2231-100 | 93.72 | 1951-100 | 202.95 | 1952-100 | 170.90 | 4 | 1953-100 | 202.95 |
| 1-5/8 | 8-1/8 | 5 | 7/16 | 1/2 – 1-9/16 | 2230-104 | 92.50 | 4 | 2231-104 | 94.67 | 1951-104 | 206.60 | 1952-104 | 174.50 | 4 | 1953-104 | 206.60 |
| 1-11/16 | 8-1/8 | 5 | 7/16 | 1/2 – 1-5/8 | 2230-108 | 99.61 | 4 | 2231-108 | 102.39 | – | – | 1952-108 | 208.80 | 4 | 1953-108 | 247.20 |
| 1-3/4 | 8-1/8 | 5 | 7/16 | 1/2 – 1-11/16 | 2230-112 | 99.61 | 4 | 2231-112 | 102.39 | 1951-112 | 247.20 | 1952-112 | 208.80 | 4 | 1953-112 | 247.20 |
| 1-13/16 | 8-1/8 | 5 | 7/16 | 1/2 – 1-3/4 | 2230-116 | 109.49 | 4 | 2231-116 | 112.24 | – | – | 1952-116 | 247.20 | 4 | 1953-116 | 292.60 |
| 1-7/8 | 8-1/8 | 5 | 7/16 | 1/2 – 1-13/16 | 2230-120 | 109.49 | 4 | 2231-120 | 112.24 | – | – | 1952-120 | 247.20 | 4 | 1953-120 | 292.60 |
| 1-15/16 | 8-1/8 | 5 | 7/16 | 1/2 – 1-7/8 | 2230-124 | 123.85 | 4 | 2231-124 | 126.84 | – | – | 1952-124 | 270.15 | 4 | 1953-124 | 319.65 |
| 2 | 8-3/8 | 5 | 1/2 | 9/16 – 1-15/16 | 2230-128 | 123.85 | 4 | 2231-128 | 126.84 | 1951-128 | 319.65 | 1952-128 | 270.15 | 4 | 1953-128 | 319.65 |
| 2-1/8 | 9-7/8 | 5 | 1/2 | 9/16 – 2-1/16 | 2230-136 | 192.93 | 5 | 2231-136 | 160.24 | – | – | – | – | – | – | – |
| 2-1/4 | 9-7/8 | 5 | 1/2 | 9/16 – 2-3/16 | 2230-144 | 206.18 | 5 | 2231-144 | 169.15 | – | – | – | – | – | – | – |
| 2-3/8 | 9-7/8 | 5 | 1/2 | 9/16 – 2-5/16 | 2230-152 | 220.79 | 5 | 2231-152 | 183.88 | – | – | – | – | – | – | – |
| 2-1/2 | 9-7/8 | 5 | 1/2 | 9/16 – 2-7/16 | 2230-160 | 234.79 | 5 | 2231-160 | 183.88 | – | – | – | – | – | – | – |
| 2-5/8 | 9-7/8 | 5 | 1/2 | 9/16 – 2-9/16 | 2230-168 | 287.61 | 5 | 2231-168 | 197.91 | – | – | – | – | – | – | – |
| 2-3/4 | 9-7/8 | 5 | 1/2 | 9/16 – 2-11/16 | 2230-176 | 304.79 | 5 | 2231-176 | 229.79 | – | – | – | – | – | – | – |
| 2-7/8 | 9-7/8 | 5 | 1/2 | 9/16 – 2-13/16 | 2230-184 | 317.18 | 5 | 2231-184 | 252.77 | – | – | – | – | – | – | – |
| 3 | 9-7/8 | 5 | 1/2 | 9/16 – 2-15/16 | 2230-192 | 328.82 | 5 | 2231-192 | 260.45 | – | – | – | – | – | – | – |

# Counterbores

## Pilots for Counterbores– Carbon Steel



Pittsburg® ALLEGHANY

3

| PILOT DIAM. (IN.) | SHANK DIAMETER (INCHES) 3/32 | 1/8 | 5/32 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 2241-008 | 2242-008 | – | – | – | – | – | – | – | $2.50 |
| 5/32 | 2241-010 | 2242-010 | 2243-010 | – | – | – | – | – | – | 2.50 |
| 3/16 | 2241-012 | 2242-012 | 2243-012 | 2244-012 | – | – | – | – | – | 2.50 |
| 7/32 | 2241-014 | 2242-014 | 2243-014 | 2244-014 | – | – | – | – | – | 2.50 |
| 1/4 | 2241-016 | 2242-016 | 2243-016 | 2244-016 | 2245-016 | – | – | – | – | 2.50 |
| 9/32 | 2241-018 | 2242-018 | 2243-018 | 2244-018 | 2245-018 | – | – | – | – | 2.50 |
| 5/16 | 2241-020 | 2242-020 | 2243-020 | 2244-020 | 2245-020 | 2246-020 | – | – | – | 3.45 |
| 11/32 | 2241-022 | 2242-022 | 2243-022 | 2244-022 | 2245-022 | 2246-022 | – | – | – | 3.65 |
| 3/8 | 2241-024 | 2242-024 | 2243-024 | 2244-024 | 2245-024 | 2246-024 | 2247-024 | – | – | 3.65 |
| 13/32 | – | 2242-026 | 2243-026 | 2244-026 | 2245-026 | 2246-026 | 2247-026 | – | – | 4.55 |
| 7/16 | – | 2242-028 | 2243-028 | 2244-028 | 2245-028 | 2246-028 | 2247-028 | 2248-028 | – | 4.55 |
| 15/32 | – | 2242-030 | 2243-030 | 2244-030 | 2245-030 | 2246-030 | 2247-030 | – | – | 4.55 |
| 1/2 | – | 2242-032 | 2243-031 | 2244-032 | 2245-032 | 2246-032 | 2247-032 | 2248-032 | 2249-032 | 4.55 |
| 17/32 | – | 2242-034 | – | 2244-034 | 2245-034 | 2246-034 | 2247-034 | 2248-034 | 2249-034 | 5.15 |
| 9/16 | – | 2242-036 | – | 2244-036 | 2245-036 | 2246-036 | 2247-036 | 2248-036 | 2249-036 | 5.15 |
| 19/32 | – | – | – | 2244-038 | 2245-038 | 2246-038 | 2247-038† | – | – | 5.15 |
| 5/8 | – | – | – | 2244-040 | 2245-040 | 2246-040 | 2247-040 | 2248-040 | 2249-040 | 5.70 |
| 21/32 | – | – | – | 2244-042 | 2245-042 | 2246-042 | 2247-042† | 2248-042 | – | 5.70 |
| 11/16 | – | – | – | 2244-044 | 2245-044 | 2246-044 | 2247-044 | 2248-044 | 2249-044 | 5.70 |
| 23/32 | – | – | – | – | 2245-046† | 2246-046† | 2247-046† | 2248-046 | – | 5.70 |
| 3/4 | – | – | – | 2244-048 | 2245-048 | 2246-048 | 2247-048 | 2248-048 | 2249-048 | 5.70 |
| 25/32 | – | – | – | – | 2245-050† | 2246-050† | 2247-050† | 2248-050 | 2249-050 | 6.35 |
| 13/16 | – | – | – | – | 2245-052 | 2246-052 | 2247-052 | 2248-052 | 2249-052 | 6.35 |
| 7/8 | – | – | – | – | 2245-056 | 2246-056 | 2247-056 | 2248-056 | 2249-056 | 6.35 |
| 15/16 | – | – | – | – | 2245-060 | 2246-060 | 2247-060 | 2248-060 | 2249-060 | 6.95 |
| 1 | – | – | – | – | 2245-064 | 2246-064 | 2247-064 | 2248-064 | 2249-064 | 7.20 |
| 1-1/16 | – | – | – | – | – | 2246-068 | 2247-068 | 2248-068 | 2249-068 | 8.65 |
| 1-1/8 | – | – | – | – | – | 2246-072 | 2247-072 | 2248-072 | 2249-072 | 9.75 |
| 1-3/16 | – | – | – | – | – | 2246-076 | 2247-076 | 2248-076 | 2249-076 | 10.35 |
| 1-1/4 | – | – | – | – | – | 2246-080 | 2247-080 | 2248-080 | 2249-080 | 10.80 |
| 1-5/16 | – | – | – | – | – | – | 2247-084 | 2248-084 | 2249-084 | 11.25 |
| 1-3/8 | – | – | – | – | – | – | 2247-088 | 2248-088 | 2249-088 | 12.10 |
| 1-7/16 | – | – | – | – | – | – | 2247-092 | 2248-092 | 2249-092 | 12.60 |
| 1-1/2 | – | – | – | – | – | – | – | 2248-096 | 2249-096 | 12.95 |
| 1-9/16 | – | – | – | – | – | – | – | 2248-100 | 2249-100 | 14.25 |
| 1-5/8 | – | – | – | – | – | – | – | 2248-104 | 2249-104 | 15.00 |
| 1-11/16 | – | – | – | – | – | – | – | 2248-108 | 2249-108 | 16.15 |
| 1-3/4 | – | – | – | – | – | – | – | 2248-112 | 2249-112 | 17.55 |
| 1-13/16 | – | – | – | – | – | – | – | 2248-116 | 2249-116 | 19.35 |
| 1-7/8 | – | – | – | – | – | – | – | 2248-120 | 2249-120 | 21.15 |
| 1-15/16 | – | – | – | – | – | – | – | – | 2249-124 | 22.50 |
| 2 | – | – | – | – | – | – | – | – | 2249-128 | 25.15 |

† Limited Quantities.

Huot

## Counterbore Dispenser

1

All steel cabinet with vinyl drawer dividers to help protect and separate counterbores. Stackable with all Huot "Original" style dispensers. Holds continuous pilot counterbores sizes #4, #5, #6,#8, #10, #12, 1/4", 5/16", 3/8", 7/16", & 1/2". Dimensions: 14 5/8" W x 7 3/8" D x 7 3/4" H, Ship Weight: 14 lbs.

**ORDER NO. 1919-336**
**PRICE EACH: $93.50**

## Continuous Pilot Counterbores High-Speed Steel

BRUBAKER TOOL CORPORATION

### 1936 Series: Straight Shank – High Speed Steel

2

| PILOT DIA. | CUTTER DIA. | FOR U.S.S. CAP SCREW | SHANK DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| .135 | .230 | 6 | 7/32 | 3 | 2237-906 | $39.52 |
| .150 | .242 | 6 | 7/32 | 3 | 2237-907 | 41.39 |
| .161 | .274 | 8 | 1/4 | 3 | 2237-908 | 39.52 |
| .178 | .286 | 8 | 1/4 | 3 | 2237-909 | 41.39 |
| .187 | .316 | 10 | 5/16 | 3-1/2 | 2237-910 | 36.87 |
| .204 | .328 | 10 | 5/16 | 3-1/2 | 2237-911 | 35.20 |
| .213 | .348 | 12 | 11/32 | 3-1/2 | 2237-912 | 36.87 |
| .229 | .360 | 12 | 11/32 | 3-1/2 | 2237-913 | 36.87 |
| 1/4 | 3/8 | 1/4 | 3/8 | 5-3/4 | 2237-916 | 40.44 |
| 17/64 | 25/64 | 1/4 | 3/8 | 5-3/4 | 2237-917 | 42.37 |
| 9/32 | 13/32 | 1/4 | 3/8 | 5-3/4 | 2237-918 | 40.44 |
| 5/16 | 7/16 | 5/16 | 7/16 | 6 | 2237-920 | 45.51 |
| 21/64 | 29/64 | 5/16 | 7/16 | 6 | 2237-921 | 45.51 |
| 11/32 | 15/32 | 5/16 | 7/16 | 6 | 2237-922 | 43.44 |
| 3/8 | 9/16 | 3/8 | 1/2 | 6-1/2 | 2237-924 | 51.65 |

2

| PILOT DIA. | CUTTER DIA. | FOR U.S.S. CAP SCREW | SHANK DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 25/64 | 37/64 | 3/8 | 1/2 | 6-1/2 | 2237-925 | $51.65 |
| 13/32 | 19/32 | 3/8 | 1/2 | 6-1/2 | 2237-926 | 49.29 |
| 7/16 | 5/8 | 7/16 | 1/2 | 7 | 2237-928 | 61.51 |
| 29/64 | 41/64 | 7/16 | 1/2 | 7 | 2237-929 | 61.51 |
| 15/32 | 21/32 | 7/16 | 1/2 | 7 | 2237-930 | 61.51 |
| 1/2 | 3/4 | 1/2 | 1/2 | 7-1/4 | 2237-932 | 68.65 |
| 33/64 | 49/64 | 1/2 | 1/2 | 7-1/4 | 2237-933 | 68.65 |
| 17/32 | 25/32 | 1/2 | 1/2 | 7-1/4 | 2237-934 | 64.28 |
| 9/16 | 13/16 | 9/16 | 3/4 | 7-1/2 | 2237-936 | 76.90 |
| 19/32 | 27/32 | 9/16 | 3/4 | 7-1/2 | 2237-937 | 82.14 |
| 5/8 | 7/8 | 5/8 | 3/4 | 8-1/4 | 2237-940 | 95.15 |
| 21/32 | 29/32 | 5/8 | 3/4 | 8-1/4 | 2237-941 | 95.15 |
| 11/16 | 15/16 | 5/8 | 3/4 | 8-1/4 | 2237-942 | 103.50 |
| 3/4 | 1 | 3/4 | 1 | 8-13/16 | 2237-948 | 101.27 |
| 25/32 | 1-1/32 | 3/4 | 1 | 8-13/16 | 2237-949 | 120.64 |
| 13/16 | 1-1/16 | 3/4 | 1 | 8-13/16 | 2237-950 | 126.88 |

### 1960 Series: Straight Shank – High Speed Steel

2

| PILOT DIA. | CUTTER DIA. | FOR U.S.S. CAP SCREW | SHK DIA. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 5/16 | 15/32 | 5/16 | 7/16 | 6 | 2237-820 | $ 46.13 |
| 21/64 | 31/64 | 5/16 | 7/16 | 6 | 2237-821 | 46.13 |
| 11/32 | 1/2 | 5/16 | 7/16 | 6 | 2237-822 | 43.20 |
| 7/16 | 21/32 | 7/16 | 1/2 | 7 | 2237-828 | 61.51 |
| 29/64 | 43/64 | 7/16 | 1/2 | 7 | 2237-829 | 61.51 |
| 15/32 | 11/16 | 7/16 | 1/2 | 7 | 2237-830 | 61.51 |
| 5/8 | 15/16 | 5/8 | 3/4 | 8-1/4 | 2237-840 | 100.56 |
| 21/32 | 31/32 | 5/8 | 3/4 | 8-1/4 | 2237-841 | 91.46 |
| 11/16 | 1 | 5/8 | 3/4 | 8-1/4 | 2237-842 | 103.50 |
| 3/4 | 1-1/8 | 3/4 | 1 | 8-13/16 | 2237-848 | 124.64 |
| 25/32 | 1-5/32 | 3/4 | 1 | 8-13/16 | 2237-849 | 133.28 |
| 13/16 | 1-3/16 | 3/4 | 1 | 8-13/16 | 2237-850 | 132.70 |
| 1 | 1-1/2 | 1 | 1 | 8-13/16 | 2237-864 | 219.98 |
| 1-1/16 | 1-9/16 | 1 | 1 | 8-13/16 | 2237-865 | 255.84 |

# Counterbores

## Cap Screw Counterbores -
### High Speed Steel

MADE IN USA

1

| SIZE/ APPLICATION | PILOT DIAM. | PILOT LG'TH. | FLUTE DIAM. | FLUTE LG'TH. | OAL | SH'K. DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| #4 STD. | .1120 | | .1860 | | | | 2237-003 | $23.65 |
| #4 1/64 o/s | .1270 | 5/32 | .2020 | 11/16 | 3-7/8 | .1562 | 2237-002 | 23.65 |
| #4 1/32 o/s | .1430 | | .2180 | | | | 2237-001 | 23.65 |
| #5 STD. | .1250 | | .2050 | | | | 2237-006 | 23.65 |
| #5 1/64 o/s | .1400 | 3/16 | .2210 | 11/16 | 4-1/8 | .1875 | 2237-005 | 23.65 |
| #5 1/32 o/s | .1560 | | .2370 | | | | 2237-004 | 23.65 |
| #6 STD. | .1380 | | .2280 | | | | 2237-009 | 23.90 |
| #6 1/64 o/s | .1530 | 7/32 | .2440 | 7/8 | 4-5/8 | .2188 | 2237-008 | 23.90 |
| #6 1/32 o/s | .1690 | | .2600 | | | | 2237-007 | 23.90 |
| #8 STD. | .1640 | | .2720 | | | | 2237-012 | 25.90 |
| #8 1/64 o/s | .1790 | 1/4 | .2880 | 15/16 | 5 | .2500 | 2237-011 | 25.90 |
| #8 1/32 o/s | .1950 | | .3040 | | | | 2237-010 | 25.90 |
| #10 STD. | .1900 | | .3140 | | | | 2237-015 | 26.75 |
| #10 1/64 o/s | .2050 | 9/32 | .3300 | 1-1/8 | 5-1/4 | .2812 | 2237-014 | 26.75 |
| #10 1/32 o/s | .2210 | | .3460 | | | | 2237-013 | 26.75 |
| 1/4" STD. | .2500 | | .3820 | | | | 2237-018 | 28.65 |
| 1/4" 1/64 o/s | .2650 | 5/16 | .3980 | 1-5/16 | 5-5/8 | .3125 | 2237-017 | 28.65 |
| 1/4" 1/32 o/s | .2810 | | .4140 | | | | 2237-016 | 28.65 |
| 5/16" STD. | .3125 | | .4750 | | | | 2237-021 | 34.65 |
| 5/16" 1/64 o/s | .3280 | 3/8 | .4910 | 1-5/16 | 6-1/8 | .3750 | 2237-020 | 34.65 |
| 5/16" 1/32 o/s | .3430 | | .5070 | | | | 2237-019 | 34.65 |
| 3/8" STD. | .3750 | | .5720 | | | | 2237-024 | 37.75 |
| 3/8" 1/64 o/s | .3900 | 1/2 | .5880 | 1-5/8 | 6-1/2 | .5000 | 2237-023 | 37.75 |
| 3/8" 1/32 o/s | .4060 | | .6040 | | | | 2237-022 | 37.75 |
| 7/16" STD. | .4375 | | .6630 | | | | 2237-027 | 47.85 |
| 7/16" 1/64 o/s | .4520 | 1/2 | .6790 | 1-11/16 | 7 | .5000 | 2237-026 | 47.85 |
| 7/16" 1/32 o/s | .4680 | | .6950 | | | | 2237-025 | 47.85 |
| 1/2" STD. | .5000 | | .7570 | | | | 2237-030 | 54.60 |
| 1/2" 1/64 o/s | .5150 | 1/2 | .7730 | 2 | 7-1/2 | .5000 | 2237-029 | 54.60 |
| 1/2" 1/32 o/s | .5310 | | .7890 | | | | 2237-028 | 54.60 |
| 5/8" STD. | .6250 | | .9450 | | | | 2237-033 | 96.85 |
| 5/8" 1/64 o/s | .6400 | 5/8 | .9610 | 2 | 7-5/8 | .6250 | 2237-032 | 96.85 |
| 5/8" 1/32 o/s | .6560 | | .9770 | | | | 2237-031 | 96.85 |
| 3/4" STD. | .7500 | | 1.1330 | | | | 2237-036 | 110.65 |
| 3/4" 1/64 o/s | .7650 | 3/4 | 1.1490 | 2-1/8 | 7-3/4 | .7500 | 2237-035 | 110.65 |
| 3/4" 1/32 o/s | .7810 | | 1.1650 | | | | 2237-034 | 110.65 |
| 7/8" STD. | .8750 | | 1.3220 | | | | 2237-039 | 135.50 |
| 7/8" 1/64 o/s | .8910 | 7/8 | 1.3380 | 2-1/8 | 8 | .8750 | 2237-038 | 135.50 |
| 7/8" 1/32 o/s | .9060 | | 1.3540 | | | | 2237-037 | 135.50 |
| 1" STD. | 1.000 | | 1.5100 | | | | 2237-042 | 171.00 |
| 1" 1/64 o/s | 1.0150 | 1 | 1.5260 | 2-1/4 | 8-1/2 | 1.0000 | 2237-041 | 171.00 |
| 1" 1/32 o/s | 1.0310 | | 1.5420 | | | | 2237-040 | 171.00 |

**SOCKET CAP SCREW COUNTERBORE SETS**

**10 counterbores 4-40 - 1/2"**

**Standard Set: Order No. 2237-047 Set Price...$336.10**

**1/64" Oversize Set: Order No. 2237-046 Set Price...$336.10**

**1/32" Oversize Set: Order No. 2237-045 Set Price...$336.10**

NEW ITEM

KOUNTERBORE

KEO

## Precision Cap Screw Counterbores -
### Cobalt High Speed Steel

**FEATURES:**

- Micro-smooth CNC precision ground for precision smooth counterboring
- M-35 Cobalt – long tool life in all types of materials
- High performance cutting action due to secondary relief behind cutting edge margin
- Optimized helix for chip evacuation

3

| SIZE/ APPLICATION | PILOT DIAM. | C'BORE DIAM. | SH'K. DIAM. | SH'K. OAL. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| #4 STD. | .1120 | .1860 | 5/32 | 3 | 2237-103 | $ 39.22 |
| #4 1/64 o/s | .1270 | .2020 | 5/32 | 3 | 2237-102 | 39.22 |
| #4 1/32 o/s | .1430 | .2170 | 5/32 | 3 | 2237-101 | 39.22 |
| #5 STD. | .1250 | .2050 | 3/16 | 3 | 2237-106 | 41.83 |
| #5 1/64 o/s | .1400 | .2210 | 3/16 | 3 | 2237-105 | 41.83 |
| #5 1/32 o/s | .1560 | .2370 | 3/16 | 3 | 2237-104 | 41.83 |
| #6 STD. | .1380 | .2280 | 7/32 | 3 | 2237-109 | 46.14 |
| #6 1/64 o/s | .1530 | .2440 | 7/32 | 3 | 2237-108 | 46.14 |
| #6 1/32 o/s | .1690 | .2600 | 7/32 | 3 | 2237-107 | 46.14 |
| #8 STD. | .1640 | .2720 | 1/4 | 3 | 2237-112 | 47.33 |
| #8 1/64 o/s | .1790 | .2880 | 1/4 | 3 | 2237-111 | 47.33 |
| #8 1/32 o/s | .1950 | .3040 | 1/4 | 3 | 2237-110 | 47.33 |
| #10 STD. | .1900 | .3140 | 9/32 | 4.5 | 2237-115 | 49.81 |
| #10 1/64 o/s | .2050 | .3300 | 9/32 | 4.5 | 2237-114 | 49.81 |
| #10 1/32 o/s | .2210 | .3460 | 9/32 | 4.5 | 2237-113 | 49.81 |
| 1/4" STD. | .2500 | .3820 | 5/16 | 4.5 | 2237-118 | 50.37 |
| 1/4" 1/64 o/s | .2650 | .3980 | 5/16 | 4.5 | 2237-117 | 50.37 |
| 1/4" 1/32 o/s | .2810 | .4140 | 5/16 | 4.5 | 2237-116 | 50.37 |
| 5/16" STD. | .3125 | .4750 | 3/8 | 4.5 | 2237-121 | 53.12 |
| 5/16" 1/64 o/s | .3280 | .4910 | 3/8 | 4.5 | 2237-120 | 53.12 |
| 5/16" 1/32 o/s | .3430 | .5070 | 3/8 | 4.5 | 2237-119 | 53.12 |
| 3/8" STD. | .3750 | .5720 | 1/2 | 5 | 2237-124 | 60.18 |
| 3/8" 1/64 o/s | .3900 | .5880 | 1/2 | 5 | 2237-123 | 60.18 |
| 3/8" 1/32 o/s | .4060 | .6040 | 1/2 | 5 | 2237-122 | 60.18 |
| 7/16" STD. | .4375 | .6630 | 1/2 | 5 | 2237-127 | 71.93 |
| 7/16" 1/64 o/s | .4520 | .6790 | 1/2 | 5 | 2237-126 | 71.93 |
| 7/16" 1/32 o/s | .4680 | .6950 | 1/2 | 5 | 2237-125 | 71.93 |
| 1/2" STD. | .5000 | .7570 | 1/2 | 6 | 2237-130 | 79.53 |
| 1/2" 1/64 o/s | .5150 | .7730 | 1/2 | 6 | 2237-129 | 79.53 |
| 1/2" 1/32 o/s | .5310 | .7890 | 1/2 | 6 | 2237-128 | 79.53 |
| 5/8" STD. | .6250 | .9450 | 5/8 | 6 | 2237-133 | 117.79 |
| 5/8" 1/64 o/s | .6400 | .9610 | 5/8 | 6 | 2237-132 | 117.79 |
| 5/8" 1/32 o/s | .6560 | .9770 | 5/8 | 6 | 2237-131 | 117.79 |
| 3/4" STD. | .7500 | 1.1870 | 3/4 | 7 | 2237-135 | 169.16 |
| 3/4" 1/32 o/s | .7810 | 1.2030 | 3/4 | 7 | 2237-134 | 169.16 |
| 7/8" STD. | .8910 | 1.3750 | 7/8 | 7 | 2237-137 | 258.01 |
| 7/8" 1/32 o/s | .9060 | 1.3910 | 7/8 | 7 | 2237-136 | 258.01 |
| 1" STD. | 1.016 | 1.5620 | 1 | 7 | 2237-139 | 355.40 |
| 1" 1/32 o/s | 1.0310 | 1.5880 | 1 | 7 | 2237-138 | 355.40 |

**PRECISION CAP SCREW COUNTERBORE SETS**

**7-pc. tool set: #6, #8, #10, 1/4", 5/16", 3/8", 1/2"**

**Standard Set: Order No. 2237-142 Set Price: $386.49**

**1/64" Oversize Set: Order No. 2237-141 Set Price: $386.49**

**1/32" Oversize Set: Order No. 2237-140 Set Price: $386.49**

# Counterbores

## Capscrew Counterbores

### Straight Shank - High Speed Steel

| CAP SCREW SIZE | PILOT DIAM. | CUTTER DIAM. | SHANK DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| #5 | .141 | .221 | 3/16 | 3 | 2237-505 | $11.57 |
| #6 | .150 | .242 | 7/32 | 3 | 2237-506 | 11.57 |
| #8 | 11/64 | 19/64 | 1/4 | 3 | 2237-508 | 11.57 |
| #10 | 13/64 | 21/64 | 5/16 | 3-1/2 | 2237-510 | 12.29 |
| 1/4 | 9/32 | 13/32 | 3/8 | 5 | 2237-616 | 14.45 |
| 5/16 | 11/32 | 1/2 | 7/16 | 5 | 2237-620 | 17.10 |
| 3/8 | 13/32 | 19/32 | 1/2 | 6 | 2237-624 | 17.78 |
| 7/16 | 15/32 | 11/16 | 1/2 | 7 | 2237-628 | 19.89 |
| 1/2* | 17/32 | 25/32 | 1/2 | 7-1/2 | 2237-631 | 21.69 |
| 1/2 | 17/32 | 25/32 | 3/4 | 7-1/2 | 2237-632 | 21.69 |
| 1/2* | 9/16 | 13/16 | 3/4 | 7-1/2 | 2237-633 | 24.89 |
| 5/8 | 21/32 | 31/32 | 3/4 | 7-1/2 | 2237-640 | 31.64 |
| 5/8* | 11/16 | 1 | 3/4 | 7-1/2 | 2237-641 | 35.64 |
| 3/4 | 13/16 | 1-3/16 | 1 | 8 | 2237-648 | 42.80 |
| 7/8 | 15/16 | 1-3/8 | 1 | 8 | 2237-656 | 55.71 |
| 1 | 1-1/16 | 1-9/16 | 1 | 10 | 2237-664 | 77.49 |

#### COUNTERBORE SETS

| SETS | | | | |
|---|---|---|---|---|
| | 6 PC. | 1/4-3/4 | 2237-698 | 131.45 |
| | 7 PC. | #6-1/2 | 2237-697 | 94.05 |

*Not included in any set.

### Taper Shank - High Speed Steel

| CAP SCREW SIZE | PILOT DIAM. | CUTTER DIAM. | SHANK TAPER | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/4 | 9/32 | 13/32 | 2MT | 5-3/4 | 2237-716 | $16.65 |
| 5/16 | 11/32 | 1/2 | 2MT | 6 | 2237-720 | 19.62 |
| 3/8 | 13/32 | 19/32 | 2MT | 6-1/2 | 2237-724 | 22.28 |
| 7/16 | 15/32 | 11/16 | 2MT | 7 | 2237-728 | 29.97 |
| 1/2 | 17/32 | 25/32 | 2MT | 7-1/4 | 2237-732 | 30.83 |
| 5/8 | 21/32 | 31/32 | 2MT | 7-1/2 | 2237-740 | 36.23 |
| 5/8 | 11/16 | 1 | 2MT | 7-1/2 | 2237-741 | 41.49 |
| 3/4 | 13/16 | 1-3/16 | 3MT | 9 | 2237-748 | 54.36 |
| 7/8 | 15/16 | 1-3/8 | 3MT | 9 | 2237-756 | 74.75 |
| 1 | 1-1/16 | 1-9/16 | 3MT | 10 | 2237-764 | 98.24 |

### Metric – Straight Shank – High Speed Steel

All Measurements (mm)

| CAP SCREW SIZE | PILOT DIAM. | CUTTER DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| M3 | 3.4 | 6 | 2232-030 | $12.29 |
| M4 | 4.5 | 8 | 2232-040 | 13.32 |
| M5 | 5.5 | 10 | 2232-050 | 17.10 |
| M6 | 6.6 | 11 | 2232-060 | 18.86 |
| M8 | 9 | 15 | 2232-080 | 18.86 |
| M10 | 11 | 18 | 2232-100 | 20.75 |
| M12 | 14 | 20 | 2232-120 | 22.50 |
| M14 | 15 | 24 | 2232-140 | 25.56 |
| M16 | 17 | 26 | 2232-160 | 30.42 |
| M20 | 21 | 33 | 2232-200 | 56.52 |
| TAPER SHANK - #2MT | | | | |
| M14 | 15 | 24 | 2232-314 | 25.56 |
| M16 | 17 | 26 | 2232-316 | 30.42 |
| M20 | 21 | 33 | 2232-320 | 56.52 |

## Aircraft Counterbores & Spot Facers - High Speed Steel

Pittsburg® ALLEGHANY

### 1/4" Shank Diameter

### Long Set

| DIAM. | SHANK SIZE OVER. LENGTH | SHANK SIZE DIAM. | SHANK SIZE LENGTH | NO. OF FLUTES | HOLE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 2-3/8 | 1/4 | 1 | 4 | 3/32 | 2235-016 | $16.43 |
| 9/32 | 2-3/8 | 1/4 | 1 | 4 | 3/32 | 2235-018 | 15.26 |
| 5/16 | 2-3/8 | 1/4 | 1 | 4 | 3/32 | 2235-020 | 15.26 |
| 11/32 | 2-3/8 | 1/4 | 1 | 4 | 3/32 | 2235-022 | 15.48 |
| 3/8 | 2-3/8 | 1/4 | 1 | 4 | 3/32 | 2235-024 | 15.48 |
| 13/32 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-026 | 16.16 |
| 7/16 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-028 | 16.16 |
| 15/32 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-030 | 17.06 |
| 1/2 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-032 | 17.06 |
| 17/32 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-034 | 20.97 |
| 9/16 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-036 | 20.97 |
| 19/32 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-038 | 22.05 |
| 5/8 | 2-13/16 | 1/4 | 7/8 | 4 | 1/8 | 2235-040 | 22.05 |
| 21/32 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-042 | 23.63 |
| 11/16 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-044 | 24.21 |
| 23/32 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-046 | 25.29 |
| 3/4 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-048 | 25.97 |
| 25/32 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-050 | 27.27 |
| 13/16 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-052 | 27.86 |
| 27/32 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-054 | 29.16 |
| 7/8 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-056 | 29.16 |
| 29/32 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-058 | 31.46 |
| 15/16 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-060 | 31.46 |
| 31/32 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-062 | 33.30 |
| 1 | 3-1/8 | 1/4 | 7/8 | 4 | 3/16 | 2235-064 | 33.30 |

| DIAM. | SHANK SIZE OVER. LENGTH | SHANK SIZE DIAM. | SHANK SIZE LENGTH | NO. OF FLUTES | HOLE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 4 | 15/64 | 3-1/4 | 4 | 3/32 | 2236-016 | $18.38 |
| 9/32 | 4 | 17/64 | 3-1/4 | 4 | 3/32 | 2236-018 | 18.38 |
| 5/16 | 4 | 19/64 | 3-1/4 | 4 | 3/32 | 2236-020 | 19.66 |
| 11/32 | 4 | 5/16 | 3-1/4 | 4 | 3/32 | 2236-022 | 20.39 |
| 3/8 | 4 | 5/16 | 3-1/4 | 4 | 3/32 | 2236-024 | 20.89 |
| 13/32 | 4 | 5/16 | 3-1/4 | 4 | 1/8 | 2236-026 | 21.23 |
| 7/16 | 4 | 5/16 | 3-1/4 | 4 | 1/8 | 2236-028 | 21.67 |
| 15/32 | 4-1/4 | 7/16 | 3-1/16 | 4 | 1/8 | 2236-030 | 21.95 |
| 1/2 | 4-1/4 | 7/16 | 3-1/16 | 4 | 1/8 | 2236-032 | 22.23 |
| 17/32 | 4-1/4 | 1/2 | 3-1/16 | 4 | 1/8 | 2236-034 | 23.57 |
| 9/16 | 4-1/4 | 1/2 | 3-1/16 | 4 | 1/8 | 2236-036 | 24.47 |
| 19/32 | 4-1/4 | 1/2 | 3-1/16 | 4 | 1/8 | 2236-038 | 25.81 |
| 5/8 | 4-1/4 | 1/2 | 3-1/16 | 4 | 1/8 | 2236-040 | 26.09 |
| 21/32 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-042 | 27.31 |
| 11/16 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-044 | 27.87 |
| 23/32 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-046 | 29.77 |
| 3/4 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-048 | 30.83 |
| 25/32 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-050 | 31.00 |
| 13/16 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-052 | 32.45 |
| 27/32 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-054 | 34.30 |
| 7/8 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-056 | 35.53 |
| 29/32 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-058 | 35.86 |
| 15/16 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-060 | 37.09 |
| 31/32 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-062 | 39.60 |
| 1 | 5-3/8 | 1/2 | 3-5/8 | 4 | 3/16 | 2236-064 | 40.61 |

# Triple Crown Series - High Performance Taps



## Blue Band Spiral Point Taps - For Tough Materials

Blue TC-SS

| SIZE | LIMIT | OAL | THD. LG'TH. | SHANK DIA. | UNC - COARSE PITCH THREADS PER INCH | UNC ORDER NO. | UNC PRICE EACH | UNF - FINE PITCH THREADS PER INCH | UNF ORDER NO. | UNF PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| #6 | GH3 | 2" | .413" | .141" | 32 | 3621-001 | $6.87 | – | – | – |
| #8 | GH3 | 2-1/8 | .453 | .168 | 32 | 3621-013 | 6.87 | – | – | – |
| #10 | GH3 | 2-3/8 | .531 | .194 | 24 | 3621-025 | 6.87 | 32 | 3621-031 | $6.87 |
| 1/4" | GH3 | 2-1/2 | .591 | .255 | 20 | 3621-037 | 7.94 | 28 | 3621-043 | 7.94 |
| 5/16 | GH3 | 2-23/32 | .669 | .318 | 18 | 3621-049 | 9.91 | 24 | 3621-055 | 9.91 |
| 3/8 | GH3 | 2-15/16 | .748 | .381 | 16 | 3621-061 | 10.17 | 24 | 3621-067 | 10.17 |
| 7/16 | GH3 | 3-5/32 | .866 | .323 | 14 | 3621-073 | 16.23 | 20 | 3621-079 | 16.23 |
| 1/2 | GH3 | 3-3/8 | .984 | .367 | 13 | 3621-085 | 18.28 | 20 | 3621-091 | 18.28 |
| 5/8 | GH3 | 3-13/16 | 1.083 | .480 | 11 | 3621-109 | 18.83 | 18 | 3621-115 | 18.83 |
| 3/4 | GH3 | 4-1/4 | 1.201 | .590 | 10 | 3621-121 | 26.56 | 16 | 3621-127 | 26.56 |

**Applications:**
- For tough material. Up to HRc25.
- Steel, Al, Copper Brass, Stainless Steel.

**Material:** HSS-V3 HSS with V 3%
**Coating:** Steam homo
**Geometry:** USCTI 302A (Thread L: 12p) Plug, middle rake, High chamfer angle. Spiral Point Length: 5P~8P
**Features:**
- High wear resistance, good chip removal

## Blue Band Spiral Pointed Taps - Metric - For Tough Materials

Blue TC-SS

| SIZE | LIMIT | PITCH | OAL | THD. LG'TH. | SHANK DIA. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3mm | D3 | .50mm | 1-15/16" | .374" | .141" | 3623-007 | $10.95 |
| 4 | D4 | .70 | 2-1/8 | .453 | .168 | 3623-019 | 7.94 |
| 5 | D4 | .80 | 2-3/8 | .531 | .194 | 3623-031 | 9.21 |
| 6 | D5 | 1.00 | 2-1/2 | .591 | .255 | 3623-043 | 9.21 |
| 8 | D5 | 1.25 | 2-23/32 | .669 | .318 | 3623-067 | 11.69 |
| 10 | D5 | 1.50 | 2-15/16 | .748 | .381 | 3623-079 | 18.63 |
| 12 | D6 | 1.75 | 3-3/8 | .984 | .367 | 3623-091 | 21.11 |

**Applications:**
- For tough material. Up to HRc25. Steel, Al, Copper Brass, Stainless Steel.

**Material:** HSS-V3 HSS with V 3%
**Coating:** Steam homo
**Geometry: Spiral Point:** USCTI 302A (Thread L: 12p) Plug, middle rake, High chamfer angle. Spiral Point Length: 5P~8P
**Features:** High wear resistance, good chip removal

## Blue Band Spiral Flute Taps - For Tough Materials

Blue Band TC-SS

| SIZE | LIMIT | OAL | SHANK DIA. | UNC - COARSE PITCH THD. PER INCH | UNC THD. LG'TH. | UNC ORDER NO. | UNC PRICE EACH | UNF - FINE PITCH THD. PER INCH | UNF THD. LG'TH. | UNF ORDER NO. | UNF PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| #6 | GH3 | 2" | .141" | 32 | .276" | 3622-001 | $9.64 | – | – | – | – |
| #8 | GH3 | 2-1/8 | .168 | 32 | .276 | 3622-013 | 11.92 | – | – | – | – |
| #10 | GH3 | 2-3/8 | .194 | 24 | .354 | 3622-025 | 11.77 | 32 | .276 | 3622-031 | $11.77 |
| 1/4" | GH3 | 2-1/2 | .255 | 20 | .453 | 3622-037 | 11.92 | 28 | .354 | 3622-043 | 11.92 |
| 5/16 | GH3 | 2-23/32 | .318 | 18 | .472 | 3622-049 | 15.22 | 24 | .394 | 3622-055 | 15.22 |
| 3/8 | GH3 | 2-15/16 | .381 | 16 | .551 | 3622-061 | 18.28 | 24 | .394 | 3622-067 | 18.28 |
| 7/16 | GH3 | 3-5/32 | .323 | 14 | .591 | 3622-073 | 27.41 | – | – | – | – |
| 1/2 | GH3 | 3-3/8 | .367 | 13 | .630 | 3622-085 | 30.01 | 20 | .472 | 3622-091 | 30.01 |
| 5/8 | GH3 | 3-13/16 | .480 | 11 | .748 | 3622-109 | 32.82 | 18 | .512 | 3622-115 | 32.82 |
| 3/4 | GH3 | 4-1/4 | .590 | 10 | .827 | 3622-121 | 51.36 | 16 | .591 | 3622-127 | 51.36 |

**Applications:**
- For tough material. Up to HRc25.
- Steel, Al, Copper Brass, Stainless Steel.

**Material:** HSS-V3 HSS with V 3%
**Coating:** Steam homo
**Geometry: Spiral Flute:** USCTI 302A (Except with shorter thread L; 12p->8.5p) Semi-bottoming, high rake, 45° spiral flute, low chamfer relief.
**Features:**
- High wear resistance, good chip removal

## Blue Band Spiral Fluted Taps - Metric - For Tough Materials

Blue TC-SS

| SIZE | LIMIT | PITCH | OAL | THD. LG'TH. | SHANK DIA. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3mm | D3 | .50mm | 1-15/16" | .197" | .141" | 3624-007 | $13.68 |
| 4 | D3 | .70 | 2-1/8 | .276 | .168 | 3624-019 | 13.68 |
| 5 | D4 | .80 | 2-3/8 | .276 | .194 | 3624-031 | 13.68 |
| 6 | D4 | 1.00 | 2-1/2 | .433 | .255 | 3624-043 | 13.68 |
| 8 | D5 | 1.25 | 2-23/32 | .472 | .318 | 3624-067 | 21.15 |
| 10 | D5 | 1.50 | 2-15/16 | .512 | .381 | 3624-079 | 31.53 |
| 12 | D6 | 1.75 | 3-3/8 | .591 | .367 | 3624-091 | 34.48 |

**Applications:**
- For tough material. Up to HRc25. Steel, Al, Copper Brass, Stainless Steel.

**Material:** HSS-V3 HSS with V 3%
**Coating:** Steam homo
**Geometry: Spiral Flute:** USCTI 302A (Except with shorter thread L; 12p->8.5p) Semi-bottoming, high rake, 45° spiral flute, low chamfer relief.
**Features:**
- High wear resistance, good chip removal

# Triple Crown Series - High Performance Taps



## Red Band Spiral Flute Taps - For High Tensile Materials

| | | | | UNC - COARSE PITCH | | | | UNF - FINE PITCH | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | LIMIT | OAL | SHANK DIA. | THD. PER INCH | THD. LG'TH. | ORDER NO. | PRICE EACH | THD. PER INCH | THD. LG'TH. | ORDER NO. | PRICE EACH |
| #6 | GH3 | 2" | .141" | 32 | .276 | 3622-201 | $19.82 | – | – | – | – |
| #8 | GH3 | 2-1/8 | .168 | 32 | .276 | 3622-213 | 19.49 | – | – | – | – |
| #10 | GH3 | 2-3/8 | .194 | 24 | .354 | 3622-225 | 19.49 | 32 | .276 | 3622-231 | $19.49 |
| 1/4" | GH3 | 2-1/2 | .255 | 20 | .433 | 3622-237 | 21.76 | 28 | .354 | 3622-243 | 21.76 |
| 5/16 | GH3 | 2-23/32 | .318 | 18 | .472 | 3622-249 | 23.88 | 24 | .394 | 3622-255 | 23.88 |
| 3/8 | GH3 | 2-15/16 | .381 | 16 | .551 | 3622-261 | 27.51 | 24 | .394 | 3622-267 | 27.51 |
| 7/16 | GH3 | 3-5/32 | .323 | 14 | .591 | 3622-273 | 38.56 | 20 | .472 | 3622-279 | 38.56 |
| 1/2 | GH3 | 3-3/8 | .367 | 13 | .630 | 3622-285 | 42.54 | 20 | .472 | 3622-291 | 42.54 |
| 5/8 | GH3 | 3-13/16 | .480 | 11 | .748 | 3622-309 | 96.25 | 18 | .512 | 3622-315 | 96.25 |
| 3/4 | GH3 | 4-1/4 | .590 | 10 | .827 | 3622-321 | 123.43 | 16 | .591 | 3622-327 | 123.43 |

**Red Band - TC-HT**

**Applications:**
- For tapping high tensile materials up to HRc44.
- Alloyed & tool steel, Ni alloy, Ti alloy.

**Material:** HSS-PM Powder Metal Steel
**Coating:** Steam homo
**Geometry: Spiral Flute:** USCTI 302A (Except with shorter thread L; 12p->8.5p) Semi-bottoming, low rake, 15° spiral flute, high chamfer relief.
**Features:**
- Long tool life, good chip removal

## Red Band Spiral Point Taps - For High Tensile Materials

| | | | | | UNC - COARSE PITCH | | | UNF - FINE PITCH | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | LIMIT | OAL | THD. LG'TH. | SHANK DIA. | THD. PER INCH | ORDER NO. | PRICE EACH | THD. PER INCH | ORDER NO. | PRICE EACH |
| #6 | GH3 | 2" | .413" | .141" | 32 | 3621-201 | $14.01 | – | – | – |
| #8 | GH3 | 2-1/8 | .453 | .168 | 32 | 3621-213 | 14.01 | – | – | – |
| #10 | GH3 | 2-3/8 | .531 | .194 | 24 | 3621-225 | 14.01 | 32 | 3621-231 | $14.01 |
| 1/4" | GH3 | 2-1/2 | .591 | .255 | 20 | 3621-237 | 16.62 | 28 | 3621-243 | 16.62 |
| 5/16 | GH3 | 2-23/32 | .669 | .318 | 18 | 3621-249 | 18.44 | 24 | 3621-255 | 18.44 |
| 3/8 | GH3 | 2-15/16 | .748 | .381 | 16 | 3621-261 | 21.15 | 24 | 3621-267 | 21.15 |
| 7/16 | GH3 | 3-5/32 | .866 | .323 | 14 | 3621-273 | 30.07 | 20 | 3621-279 | 30.07 |
| 1/2 | GH3 | 3-3/8 | .984 | .367 | 13 | 3621-285 | 33.09 | 20 | 3621-291 | 33.09 |
| 5/8 | GH3 | 3-13/16 | 1.083 | .480 | 11 | 3621-309 | 76.14 | 18 | 3621-315 | 76.14 |
| 3/4 | GH3 | 4-1/4 | 1.201 | .590 | 10 | 3621-321 | 98.46 | 16 | 3621-327 | 98.46 |

**Red TC-HT**

**Applications:**
- For tapping high tensile materials up to HRc44.
- Alloyed & tool steel, Ni alloy, Ti alloy.

**Material:** HSS-PM Powder Metal Steel
**Coating:** Steam homo
**Geometry: Spiral Point:** USCTI 302A (Thread L: 12p) Plug, low rake; High chamfer angle. Spiral Point Length: 5P~8P
**Features:**
- Long tool life, good chip removal

## Yellow Band Spiral Flute Taps - For General Ductile Materials

| | | | | | UNC - COARSE PITCH | | | UNF - FINE PITCH | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | LIMIT | OAL | THD. LGTH. | SHANK DIA. | THD. PER INCH | ORDER NO. | PRICE EACH | THD. PER INCH | ORDER NO. | PRICE EACH |
| #6 | 2B | 2" | 3/8" | .141" | 32 | 3622-401 | $8.96 | – | – | – |
| #8 | 2B | 2-1/8 | 3/8 | .168 | 32 | 3622-413 | 11.22 | – | – | – |
| #10 | 2B | 2-3/8 | 1/2 | .194 | 24 | 3622-425 | 10.95 | 32 | 3622-431 | $10.95 |
| 1/4" | 2B | 2-1/2 | 5/8 | .255 | 20 | 3622-437 | 11.22 | 28 | 3622-443 | 11.22 |
| 5/16 | 2B | 2-23/32 | 11/16 | .318 | 18 | 3622-449 | 15.22 | 24 | 3622-455 | 15.22 |
| 3/8 | 2B | 2-15/16 | 3/4 | .381 | 16 | 3622-461 | 18.32 | 24 | 3622-467 | 18.32 |
| 7/16 | 2B | 3-5/32 | 7/8 | .323 | 14 | 3622-473 | 27.41 | – | – | – |
| 1/2 | 2B | 3-3/8 | 15/16 | .367 | 13 | 3622-485 | 30.01 | 20 | 3622-491 | 30.01 |
| 5/8 | 2B | 3-13/16 | 1-3/32 | .480 | 11 | 3622-509 | 30.81 | 18 | 3622-515 | 30.81 |
| 3/4 | 2B | 4-1/4 | 1-7/32 | .590 | 10 | 3622-521 | 43.61 | 16 | 3622-527 | 43.61 |

**Yellow Band TC-LT**

**Applications:**
- For general purpose.
- Steel, Al alloy, Stainless Steel, Cast Iron.

**Material:** HSS-V M7
**Coating:** Steam homo
**Geometry: Spiral Point:** USCTI 302A (Thread L; 12p) Bottoming, middle rake, 50° spiral flute, low chamfer relief.
**Features:**
- Suitable for general-purpose operation.

# High Performance Taps

## High Speed Steel - EV High Vanadium - Ground Thread, RH

**Features:** • Made of 4% Vanadium CPM - M4 Steel • Special Penta thread relief provide freer cutting • Designed for tougher, more abrasive materials up to 35 Rc

## Spiral Flute

**Applications:**
Soft Stainless Steel • Aluminum • Alloy Steel • Bronze
• Annealed Tool Steel • Carbon Steels

**Features:**
• Designed for tough jobs in through hole tapping
• Blue Diamond surface treatment eliminates surface welding
• 30° spiral flute design provides excellent chip evacuation
• Better tool life • Bottom 1 to 2 thread chamfer

| SIZE | NC NF | PITCH DIA. | NO. OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 6-32 | NC | H3 | 3 | 3872-060 | $20.25 |
| 8-32 | NC | H3 | 3 | 3872-080 | 20.25 |
| 10-24 | NC | H3 | 3 | 3872-100 | 20.30 |
| 10-32 | NF | H3 | 3 | 3872-102 | 20.30 |
| 1/4-20 | NC | H3 | 3 | 3872-160 | 22.30 |
| 1/4-28 | NF | H3 | 3 | 3872-162 | 22.30 |
| 5/16-18 | NC | H3 | 3 | 3872-200 | 24.55 |
| 5/16-24 | NF | H3 | 3 | 3872-202 | 24.55 |
| 3/8-16 | NC | H3 | 3 | 3872-240 | 28.70 |
| 3/8-24 | NF | H3 | 3 | 3872-242 | 28.70 |
| 7/16-14 | NC | H3 | 3 | 3872-280 | 45.45 |
| 7/16-20 | NF | H3 | 3 | 3872-282 | 45.45 |
| 1/2-13 | NC | H3 | 3 | 3872-320 | 54.20 |
| 1/2-20 | NF | H3 | 3 | 3872-322 | 54.20 |
| 9/16-12 | NC | H3 | 3 | 3872-360 | 61.35 |
| 9/16-18 | NF | H3 | 3 | 3872-362 | 61.35 |
| 5/8-11 | NC | H3 | 3 | 3872-400 | 77.55 |
| 5/8-18 | NF | H3 | 3 | 3872-402 | 77.55 |
| 3/4-10 | NC | H3 | 3 | 3872-480 | 109.10 |
| 3/4-16 | NF | H3 | 3 | 3872-482 | 109.10 |
| METRIC SIZES | | | | | |
| M3X0.5 | | D3 | 2 | 3872-530 | 30.75 |
| M3.5X0.6 | | D4 | 3 | 3872-535 | 24.50 |
| M4X0.7 | | D4 | 3 | 3872-540 | 24.50 |
| M5X0.8 | | D4 | 3 | 3872-550 | 24.55 |
| M6X1.0 | | D5 | 3 | 3872-560 | 26.95 |
| M8X1.25 | | D5 | 3 | 3872-580 | 29.70 |
| M10X1.5 | | D6 | 3 | 3872-600 | 54.45 |
| M12X1.75 | | D6 | 3 | 3872-620 | 65.60 |
| M14X2 | | D7 | 3 | 3872-640 | 74.25 |
| M16X2 | | D7 | 3 | 3872-660 | 93.85 |

## Spiral Point

**Applications:**
• Stainless steel up to 35 Rc • Alloy Steel • Annealed Tool Steel
• Aluminum • Brass • Carbon Steels

**Features:**
• Blue Diamond surface treatment eliminates surface welding
• Spiral point taps shoot chips ahead of the cutting action, thus reducing loading and clogging in the flutes
• Used for production tapping in through hole applications

| SIZE | NC NF | PITCH DIA. | NO. OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 4-40 | NC | H2 | 2 | 3873-040 | $16.15 |
| 5-40 | NC | H2 | 2 | 3873-050 | 16.15 |
| 6-32 | NC | H3 | 3 | 3873-060 | 13.20 |
| 8-32 | NC | H3 | 3 | 3873-080 | 13.65 |
| 10-24 | NC | H3 | 3 | 3873-100 | 14.05 |
| 10-32 | NF | H3 | 3 | 3873-102 | 14.05 |
| 1/4-20 | NC | H3 | 3 | 3873-160 | 14.40 |
| 1/4-28 | NF | H3 | 3 | 3873-162 | 14.40 |
| 5/16-18 | NC | H3 | 3 | 3873-200 | 17.25 |
| 5/16-24 | NF | H3 | 3 | 3873-202 | 17.25 |
| 3/8-16 | NC | H3 | 3 | 3873-240 | 19.05 |
| 3/8-24 | NF | H3 | 3 | 3873-242 | 19.05 |
| 7/16-14 | NC | H3 | 3 | 3873-280 | 20.60 |
| 7/16-20 | NF | H3 | 3 | 3873-282 | 20.60 |
| 1/2-13 | NC | H3 | 3 | 3873-320 | 35.80 |
| 1/2-20 | NF | H3 | 3 | 3873-322 | 35.80 |
| 9/16-12 | NC | H3 | 3 | 3873-360 | 48.45 |
| 9/16-18 | NF | H3 | 3 | 3873-362 | 48.45 |
| 5/8-11 | NC | H3 | 3 | 3873-400 | 60.55 |
| 5/8-18 | NF | H3 | 3 | 3873-402 | 60.55 |
| 3/4-10 | NC | H3 | 3 | 3873-480 | 83.85 |
| 3/4-16 | NF | H3 | 3 | 3873-482 | 83.85 |
| METRIC SIZES | | | | | |
| M3X0.5 | | D3 | 2 | 3873-530 | 19.45 |
| M3.5X0.6 | | D4 | 3 | 3873-535 | 15.90 |
| M4X0.7 | | D4 | 3 | 3873-540 | 16.40 |
| M5X0.8 | | D4 | 3 | 3873-550 | 16.90 |
| M6X1.0 | | D5 | 3 | 3873-560 | 17.30 |
| M8X1.25 | | D5 | 3 | 3873-580 | 20.80 |
| M10X1.5 | | D6 | 3 | 3873-600 | 37.05 |
| M12X1.75 | | D6 | 3 | 3873-620 | 43.15 |
| M14X2 | | D7 | 3 | 3873-640 | 58.45 |
| M16X2 | | D7 | 3 | 3873-660 | 73.10 |

# Hand Taps – Machine Screw Sizes

## High Speed Steel & TiN Coated

MADE IN USA

Bottom

Plug

Taper

| NOMINAL SIZE | H LIMITS | # OF FLT. | THR. LGTH. | OVERALL LGTH. | HSS AMERICAN MADE TAPER ORDER NO. | HSS AMERICAN MADE PLUG ORDER NO. | HSS AMERICAN MADE BOTTOM ORDER NO. | HSS AMERICAN MADE PRICE EACH | HSS AMERICAN MADE SET ORDER NO. | HSS AMERICAN MADE PRICE EACH | BRUBAKER TOOL CORPORATION TiN COATED PLUG ORDER NO. | BRUBAKER TOOL CORPORATION TiN COATED BOTTOM ORDER NO. | BRUBAKER TOOL CORPORATION TiN COATED PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0-80 UNF | 1 | 2 | 5/16 | 1-5/8 | 3740-113 | 3740-112 | 3740-111 | $8.00 | 3700-011 | $24.00 | 4160-112 | 4160-111 | $10.16 |
| 0-80 UNF | 2 | 2 | 5/16 | 1-5/8 | – | 3740-122 | 3740-121 | 8.00 | – | – | – | – | – |
| 1-64 UNC | 1 | 2 | 3/8 | 1-11/16 | 3740-313 | 3740-312 | 3740-311 | 7.50 | 3700-031 | 22.50 | 4160-312 | 4160-311 | 9.60 |
| 1-64 UNC | 2 | 2 | 3/8 | 1-11/16 | – | 3740-322 | – | 7.50 | – | – | – | – | – |
| 1-72 UNF | 1 | 2 | 3/8 | 1-11/16 | 3740-513 | 3740-512 | 3740-511 | 7.50 | 3700-051 | 22.50 | 4160-512 | 4160-511 | 9.60 |
| 1-72 UNF | 2 | 2 | 3/8 | 1-11/16 | – | 3740-522 | 3740-521 | 7.50 | – | – | – | – | – |
| 2-56 UNC | 1 | 3 | 7/16 | 1-3/4 | 3740-713 | 3740-712 | 3740-711 | 6.93 | – | – | – | – | – |
| 2-56 UNC | 2 | 2 | 7/16 | 1-3/4 | – | 3750-722 | 3750-721 | 7.24 | – | – | – | – | – |
| 2-56 UNC | 2 | 3 | 7/16 | 1-3/4 | 3740-723 | 3740-722 | 3740-721 | 6.41 | 3700-072 | 19.23 | 4160-722 | 4160-721 | 9.04 |
| 2-64 UNF | 2 | 3 | 7/16 | 1-3/4 | 3740-923 | 3740-922 | 3740-921 | 6.93 | 3700-092 | 20.79 | 4160-922 | 4160-921 | 9.04 |
| 3-48 UNC | 1 | 3 | 1/2 | 1-13/16 | – | 3741-112 | – | 5.51 | – | – | – | – | – |
| 3-48 UNC | 2 | 2 | 1/2 | 1-13/16 | – | 3751-122 | 3751-121 | 5.81 | – | – | – | – | – |
| 3-48 UNC | 2 | 3 | 1/2 | 1-13/16 | 3741-123 | 3741-122 | 3741-121 | 4.93 | 3700-112 | 14.79 | 4161-122 | 4161-121 | 6.99 |
| 3-56 UNF | 2 | 3 | 1/2 | 1-13/16 | 3741-323 | 3741-322 | 3741-321 | 5.77 | 3700-132 | 17.31 | 4161-322 | 4161-321 | 7.57 |
| 4-40 UNC | 1 | 2 | 9/16 | 1-7/8 | – | 3751-712 | – | 4.76 | – | – | – | – | – |
| 4-40 UNC | 2 | 2 | 9/16 | 1-7/8 | 3751-723 | 3751-722 | 3751-721 | 4.56 | – | – | – | – | – |
| 4-40 UNC | 2 | 3 | 9/16 | 1-7/8 | 3741-723 | 3741-722 | 3741-721 | 3.79 | 3700-172 | 11.37 | 4161-722 | 4161-721 | 6.05 |
| 4-48 UNC | 2 | 3 | 9/16 | 1-7/8 | 3741-923 | 3741-922 | 3741-921 | 4.36 | 3700-192 | 13.08 | 4161-922 | 4161-921 | 6.36 |
| 4-36 NS | 2 | 3 | 9/16 | 1-7/8 | 3741-523 | 3741-522 | 3741-521 | 4.36 | – | – | – | – | – |
| 5-40 UNC | 1 | 3 | 5/8 | 1-15/16 | – | 3742-112 | – | 4.36 | – | – | – | – | – |
| 5-40 UNC | 2 | 2 | 5/8 | 1-15/16 | – | 3752-122 | 3752-121 | 4.56 | – | – | – | – | – |
| 5-40 UNC | 2 | 3 | 5/8 | 1-15/16 | 3742-123 | 3742-122 | 3742-121 | 3.89 | 3700-212 | 11.67 | 4162-122 | 4162-121 | 6.05 |
| 5-44 UNF | 2 | 3 | 5/8 | 1-15/16 | 3742-323 | 3742-322 | 3742-321 | 4.36 | 3700-232 | 13.08 | 4162-322 | 4162-321 | 6.36 |
| 6-32 UNC | 1 | 2 | 11/16 | 2 | – | 3752-512 | – | 3.98 | – | – | – | – | – |
| 6-32 UNC | 1 | 3 | 11/16 | 2 | 3742-513 | 3742-512 | 3742-511 | 3.81 | – | – | – | – | – |
| 6-32 UNC | 2 | 2 | 11/16 | 2 | – | 3752-522 | 3752-521 | 3.98 | – | – | – | – | – |
| 6-32 UNC | 2 | 3 | 11/16 | 2 | 3742-523 | 3742-522 | 3742-521 | 3.32 | – | – | – | – | – |
| 6-32 UNC | 3 | 2 | 11/16 | 2 | – | 3752-532 | 3752-531 | 3.44 | – | – | – | – | – |
| 6-32 UNC | 3 | 3 | 11/16 | 2 | 3742-533 | 3742-532 | 3742-531 | 3.31 | 3700-253 | 9.93 | 4162-532 | 4162-531 | 5.06 |
| 6-40 UNF | 1 | 3 | 11/16 | 2 | – | 3742-712 | – | 3.81 | – | – | – | – | – |
| 6-40 UNF | 2 | 2 | 11/16 | 2 | – | 3752-722 | – | 3.98 | – | – | – | – | – |
| 6-40 UNF | 2 | 3 | 11/16 | 2 | 3742-723 | 3742-722 | 3742-721 | 3.32 | 3700-272 | 9.96 | 4162-722 | 4162-721 | 5.28 |
| 8-32 UNC | 1 | 2 | 3/4 | 2-1/8 | – | 3752-912 | – | 3.98 | – | – | – | – | – |
| 8-32 UNC | 1 | 4 | 3/4 | 2-1/8 | 3742-913 | 3742-912 | 3742-911 | 3.81 | – | – | – | – | – |
| 8-32 UNC | 2 | 2 | 3/4 | 2-1/8 | – | 3752-922 | 3752-921 | 3.98 | – | – | – | – | – |
| 8-32 UNC | 2 | 3 | 3/4 | 2-1/8 | – | 3712-922 | 3712-921 | 3.98 | – | – | – | – | – |
| 8-32 UNC | 2 | 4 | 3/4 | 2-1/8 | 3742-923 | 3742-922 | 3742-921 | 3.32 | – | – | – | – | – |
| 8-32 UNC | 3 | 2 | 3/4 | 2-1/8 | – | 3752-932 | 3752-931 | 3.44 | – | – | – | – | – |
| 8-32 UNC | 3 | 3 | 3/4 | 2-1/8 | – | 3712-932 | 3712-931 | 3.44 | – | – | – | – | – |
| 8-32 UNC | 3 | 4 | 3/4 | 2-1/8 | 3742-933 | 3742-932 | 3742-931 | 3.12 | 3700-293 | 9.36 | 4162-932 | 4162-931 | 5.48 |
| 8-36 UNF | 2 | 4 | 3/4 | 2-1/8 | 3743-123 | 3743-122 | 3743-121 | 3.32 | 3700-312 | 9.96 | 4163-122 | 4163-121 | 5.60 |
| 10-24 UNC | 1 | 4 | 7/8 | 2-3/8 | 3743-313 | 3743-312 | 3743-311 | 3.39 | – | – | – | – | – |
| 10-24 UNC | 2 | 2 | 7/8 | 2-3/8 | – | 3753-322 | 3753-321 | 3.98 | – | – | – | – | – |
| 10-24 UNC | 2 | 3 | 7/8 | 2-3/8 | – | 3713-322 | – | 3.98 | – | – | – | – | – |
| 10-24 UNC | 2 | 4 | 7/8 | 2-3/8 | 3743-323 | 3743-322 | 3743-321 | 3.39 | – | – | – | – | – |
| 10-24 UNC | 3 | 2 | 7/8 | 2-3/8 | – | 3753-332 | 3753-331 | 3.54 | – | – | – | – | – |
| 10-24 UNC | 3 | 3 | 7/8 | 2-3/8 | – | 3713-332 | 3713-331 | 3.54 | – | – | – | – | – |
| 10-24 UNC | 3 | 4 | 7/8 | 2-3/8 | 3743-333 | 3743-332 | 3743-331 | 3.07 | 3700-333 | 9.21 | 4163-332 | 4163-331 | 5.60 |
| 10-32 UNF | 1 | 2 | 7/8 | 2-3/8 | – | 3753-512 | – | 3.98 | – | – | – | – | – |
| 10-32 UNF | 1 | 4 | 7/8 | 2-3/8 | 3743-513 | 3743-512 | 3743-511 | 3.39 | – | – | – | – | – |
| 10-32 UNF | 2 | 2 | 7/8 | 2-3/8 | – | 3753-522 | 3753-521 | 3.98 | – | – | – | – | – |
| 10-32 UNF | 2 | 3 | 7/8 | 2-3/8 | – | 3713-522 | 3713-521 | 3.98 | – | – | – | – | – |
| 10-32 UNF | 2 | 4 | 7/8 | 2-3/8 | 3743-523 | 3743-522 | 3743-521 | 3.39 | – | – | – | – | – |
| 10-32 UNF | 3 | 2 | 7/8 | 2-3/8 | – | 3753-532 | 3753-531 | 3.54 | – | – | – | – | – |
| 10-32 UNF | 3 | 3 | 7/8 | 2-3/8 | – | 3713-532 | 3713-531 | 3.54 | – | – | – | – | – |
| 10-32 UNF | 3 | 4 | 7/8 | 2-3/8 | 3743-533 | 3743-532 | 3743-531 | 3.07 | 3700-353 | 9.21 | 4163-532 | 4163-531 | 5.60 |
| 12-24 UNC | 3 | 4 | 15/16 | 2-3/8 | 3743-733 | 3743-732 | 3743-731 | 3.33 | 3700-373 | 9.99 | 4163-732 | 4163-731 | 5.78 |
| 12-28 UNF | 3 | 4 | 15/16 | 2-3/8 | 3743-933 | 3743-932 | 3743-931 | 3.69 | 3700-393 | 11.07 | 4163-932 | 4163-931 | 6.13 |

# Hand Taps – Fractional Sizes

## High Speed Steel & TiN Coated

MADE IN USA

Bottoming

Plug

Taper

| NOMINAL SIZE | H LIMIT | # OF FLT. | THR. LGTH. | OVERALL LGTH. | ALLEGIANCE AMERICAN MADE HSS TAPER ORDER NO. | HSS PLUG ORDER NO. | HSS BOTTOM ORDER NO. | HSS PRICE EACH | HSS SET ORDER NO. | HSS PRICE EACH | BRUBAKER TOOL CORPORATION TiN COATED PLUG ORDER NO. | TiN COATED BOTTOM ORDER NO. | TiN COATED PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/4-20 UNC | 1 | 3 | 1 | 2-1/2 | – | 3714-112 | – | $4.62 | – | – | – | – | – |
| 1/4-20 UNC | 1 | 4 | 1 | 2-1/2 | 3744-113 | 3744-112 | 3744-111 | 4.42 | – | – | – | – | – |
| 1/4-20 UNC | 2 | 3 | 1 | 2-1/2 | – | 3714-122 | – | 4.62 | – | – | – | – | – |
| 1/4-20 UNC | 2 | 4 | 1 | 2-1/2 | 3744-123 | 3744-122 | 3744-121 | 4.23 | – | – | – | – | – |
| 1/4-20 UNC | 3 | 2 | 1 | 2-1/2 | – | 3754-132 | 3754-131 | 4.62 | – | – | – | – | – |
| 1/4-20 UNC | 3 | 3 | 1 | 2-1/2 | – | 3714-132 | 3714-131 | 4.62 | – | – | – | – | – |
| 1/4-20 UNC | 3 | 4 | 1 | 2-1/2 | 3744-133 | 3744-132 | 3744-131 | 3.29 | 3700-413 | $9.87 | 4164-132 | 4164-131 | $5.86 |
| 1/4-20 UNC | 5 | 3 | 1 | 2-1/2 | – | 3714-152 | – | 4.62 | – | – | – | – | – |
| 1/4-20 UNC | 5 | 4 | 1 | 2-1/2 | – | 3744-152 | 3744-151 | 4.23 | – | – | – | – | – |
| 1/4-20 UNC | 11 | 4 | 1 | 2-1/2 | – | 3744-192 | – | 4.76 | – | – | – | – | – |
| 1/4-28 UNF | 1 | 4 | 1 | 2-1/2 | – | 3744-312 | 3744-311 | 4.23 | – | – | – | – | – |
| 1/4-28 UNF | 2 | 4 | 1 | 2-1/2 | – | 3744-322 | 3744-321 | 4.42 | – | – | – | – | – |
| 1/4-28 UNF | 3 | 2 | 1 | 2-1/2 | – | 3754-332 | 3754-331 | 4.62 | – | – | – | – | – |
| 1/4-28 UNF | 3 | 3 | 1 | 2-1/2 | – | 3714-332 | 3714-331 | 4.62 | – | – | – | – | – |
| 1/4-28 UNF | 3 | 4 | 1 | 2-1/2 | 3744-333 | 3744-332 | 3744-331 | 3.29 | 3700-433 | $9.87 | 4164-332 | 4164-331 | 5.86 |
| 1/4-28 UNF | 4 | 4 | 1 | 2-1/2 | – | 3744-342 | 3744-341 | 4.42 | – | – | – | – | – |
| 5/16-18 UNC | 1 | 4 | 1-1/8 | 2-23/32 | – | 3744-512 | 3744-511 | 4.93 | – | – | – | – | – |
| 5/16-18 UNC | 2 | 4 | 1-1/8 | 2-23/32 | – | 3744-522 | 3744-521 | 4.93 | – | – | – | – | – |
| 5/16-18 UNC | 3 | 2 | 1-1/8 | 2-23/32 | – | 3754-632 | 3754-631 | 5.81 | – | – | – | – | – |
| 5/16-18 UNC | 3 | 3 | 1-1/8 | 2-23/32 | – | 3714-532 | 3714-531 | 5.15 | – | – | – | – | – |
| 5/16-18 UNC | 3 | 4 | 1-1/8 | 2-23/32 | 3744-533 | 3744-532 | 3744-531 | 4.08 | 3700-453 | 12.24 | 4164-532 | 4164-531 | 6.98 |
| 5/16-18 UNC | 5 | 4 | 1-1/8 | 2-23/32 | – | 3744-552 | 3744-551 | 4.93 | – | – | – | – | – |
| 5/16-18 UNC | 11 | 4 | 1-1/8 | 2-23/32 | – | 3744-592 | – | 5.99 | – | – | – | – | – |
| 5/16-24 UNF | 1 | 4 | 1-1/8 | 2-23/32 | – | 3744-712 | 3744-711 | 4.93 | – | – | – | – | – |
| 5/16-24 UNF | 2 | 4 | 1-1/8 | 2-23/32 | – | 3744-722 | – | 4.93 | – | – | – | – | – |
| 5/16-24 UNF | 3 | 3 | 1-1/8 | 2-23/32 | – | 3714-732 | 3714-731 | 5.15 | – | – | – | – | – |
| 5/16-24 UNF | 3 | 4 | 1-1/8 | 2-23/32 | 3744-733 | 3744-732 | 3744-731 | 4.08 | 3700-473 | 12.24 | 4164-732 | 4164-731 | 7.04 |
| 5/16-24 UNF | 4 | 4 | 1-1/8 | 2-23/32 | – | 3744-742 | 3744-741 | 4.93 | – | – | – | – | – |
| 3/8-16 UNC | 1 | 4 | 1-1/4 | 2-15/16 | – | 3744-912 | 3744-911 | 6.36 | – | – | – | – | – |
| 3/8-16 UNC | 2 | 4 | 1-1/4 | 2-15/16 | – | 3744-922 | 3744-921 | 5.57 | – | – | – | – | – |
| 3/8-16 UNC | 3 | 3 | 1-1/4 | 2-15/16 | – | 3714-932 | 3714-931 | 5.81 | – | – | – | – | – |
| 3/8-16 UNC | 3 | 4 | 1-1/4 | 2-15/16 | 3744-933 | 3744-932 | 3744-931 | 4.60 | 3700-493 | 13.80 | 4164-932 | 4164-931 | 7.93 |
| 3/8-16 UNC | 5 | 4 | 1-1/4 | 2-15/16 | – | 3744-952 | 3744-951 | 5.57 | – | – | – | – | – |
| 3/8-16 UNC | 11 | 4 | 1-1/4 | 2-15/16 | – | 3744-992 | – | 6.85 | – | – | – | – | – |
| 3/8-24 UNF | 1 | 4 | 1-1/4 | 2-15/16 | – | 3745-112 | 3745-111 | 6.36 | – | – | – | – | – |
| 3/8-24 UNF | 2 | 4 | 1-1/4 | 2-15/16 | – | 3745-122 | 3745-121 | 5.57 | – | – | – | – | – |
| 3/8-24 UNF | 3 | 3 | 1-1/4 | 2-15/16 | – | 3715-132 | 3715-131 | 6.65 | – | – | – | – | – |
| 3/8-24 UNF | 3 | 4 | 1-1/4 | 2-15/16 | 3745-133 | 3745-132 | 3745-131 | 4.60 | 3700-513 | 13.80 | 4165-132 | 4165-131 | 7.93 |
| 3/8-24 UNF | 4 | 4 | 1-1/4 | 2-15/16 | – | 3745-142 | 3745-141 | 5.57 | – | – | – | – | – |
| 7/16-14 UNC | 3 | 3 | 1-7/16 | 3-5/32 | – | 3715-332 | – | 9.67 | – | – | – | – | – |
| 7/16-14 UNC | 3 | 4 | 1-7/16 | 3-5/32 | 3745-333 | 3745-332 | 3745-331 | 7.94 | 3700-533 | 23.82 | 4165-332 | 4165-331 | 13.17 |
| 7/16-14 UNC | 5 | 4 | 1-7/16 | 3-5/32 | – | 3745-352 | 3745-351 | 9.26 | – | – | – | – | – |
| 7/16-14 UNC | 11 | 4 | 1-7/16 | 3-5/32 | – | 3745-392 | – | 9.97 | – | – | – | – | – |
| 7/16-20 UNF | 3 | 3 | 1-7/16 | 3-5/32 | – | 3715-532 | – | 9.67 | – | – | – | – | – |
| 7/16-20 UNF | 3 | 4 | 1-7/16 | 3-5/32 | 3745-533 | 3745-532 | 3745-531 | 7.94 | 3700-553 | 23.82 | 4165-532 | 4165-531 | 13.17 |
| 7/16-20 UNF | 5 | 4 | 1-7/16 | 3-5/32 | – | 3745-552 | 3745-551 | 9.26 | – | – | – | – | – |
| 1/2-13 UNC | 1 | 4 | 1-21/32 | 3-3/8 | – | 3745-712 | – | 10.89 | – | – | – | – | – |
| 1/2-13 UNC | 3 | 3 | 1-21/32 | 3-3/8 | – | 3715-732 | 3715-731 | 11.48 | – | – | – | – | – |
| 1/2-13 UNC | 3 | 4 | 1-21/32 | 3-3/8 | 3745-733 | 3745-732 | 3745-731 | 8.25 | 3700-573 | 24.75 | 4165-732 | 4165-731 | 13.58 |
| 1/2-13 UNC | 5 | 4 | 1-21/32 | 3-3/8 | – | 3745-752 | 3745-751 | 10.89 | – | – | – | – | – |
| 1/2-13 UNC | 11 | 4 | 1-21/32 | 3-3/8 | – | 3745-792 | – | 11.73 | – | – | – | – | – |
| 1/2-20 UNF | 1 | 4 | 1-21/32 | 3-3/8 | – | 3745-912 | 3745-911 | 10.89 | – | – | – | – | – |
| 1/2-20 UNF | 3 | 3 | 1-21/32 | 3-3/8 | – | 3715-932 | – | 11.48 | – | – | – | – | – |
| 1/2-20 UNF | 3 | 4 | 1-21/32 | 3-3/8 | 3745-933 | 3745-932 | 3745-931 | 9.33 | 3700-593 | 27.99 | 4165-932 | 4165-931 | 14.74 |
| 1/2-20 UNF | 5 | 4 | 1-21/32 | 3-3/8 | – | 3745-952 | – | 10.89 | – | – | – | – | – |
| 9/16-12 UNC | 3 | 4 | 1-21/32 | 3-19/32 | 3746-133 | 3746-132 | 3746-131 | 13.82 | 3700-613 | 41.46 | 4166-132 | 4166-131 | 26.82 |
| 9/16-12 UNC | 5 | 4 | 1-21/32 | 3-19/32 | – | 3746-152 | – | 16.11 | – | – | – | – | – |
| 9/16-18 UNF | 2 | 4 | 1-21/32 | 3-19/32 | – | 3746-322 | – | 16.11 | – | – | – | – | – |
| 9/16-18 UNF | 3 | 4 | 1-21/32 | 3-19/32 | 3746-333 | 3746-332 | 3746-331 | 13.82 | 3700-633 | 41.46 | 4166-332 | 4166-331 | 26.82 |
| 9/16-18 UNF | 5 | 4 | 1-21/32 | 3-19/32 | – | 3746-352 | – | 16.11 | – | – | – | – | – |

Sizes in **Bold** will be furnished unless otherwise specified.

(Continued)

# Hand Taps – Fractional Sizes (Continued)

## High Speed Steel & TiN Coated

MADE IN USA 2

Bottoming

Plug

Taper

| | | | | | ALLEGIANCE AMERICAN MADE | | | | | | BRUBAKER TOOL CORPORATION | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | HIGH SPEED STEEL | | | | | | TiN COATED | | |
| NOMINAL SIZE | H LIMIT | # OF FLT. | THR. LGTH. | OVERALL LGTH. | TAPER ORDER NO. | PLUG ORDER NO. | BOTTOM ORDER NO. | PRICE EACH | SET ORDER NO. | PRICE EACH | PLUG ORDER NO. | BOTTOM ORDER NO. | PRICE EACH |
| 5/8-11 UNC | 2 | 4 | 1-13/16 | 3-13/16 | – | 3746-522 | – | $20.47 | – | – | – | – | – |
| 5/8-11 UNC | 3 | 4 | 1-13/16 | 3-13/16 | 3746-533 | 3746-532 | 3746-531 | 16.62 | 3700-653 | $49.86 | 4166-532 | 4166-531 | $29.94 |
| 5/8-11 UNC | 5 | 4 | 1-13/16 | 3-13/16 | – | 3746-552 | 3746-551 | 20.47 | – | – | – | – | – |
| 5/8-11 UNC | 11 | 4 | 1-13/16 | 3-13/16 | – | 3746-592 | – | 22.06 | – | – | – | – | – |
| 5/8-18 UNF | 2 | 4 | 1-13/16 | 3-13/16 | – | 3746-722 | – | 20.47 | – | – | – | – | – |
| 5/8-18 UNF | 3 | 4 | 1-13/16 | 3-13/16 | 3746-733 | 3746-732 | 3746-731 | 16.62 | 3700-673 | 49.86 | 4166-732 | 4166-731 | 29.94 |
| 5/8-18 UNF | 5 | 4 | 1-13/16 | 3-13/16 | – | 3746-752 | 3746-751 | 20.47 | – | – | – | – | – |
| 11/16-11 UNC | 3 | 4 | 1-13/16 | 4-1/32 | 3746-933 | 3746-932 | 3746-931 | 20.62 | 3700-693 | 61.86 | – | – | – |
| 11/16-16 UNF | 3 | 4 | 1-13/16 | 4-1/32 | 3747-133 | 3747-132 | 3747-131 | 20.62 | 3700-713 | 61.86 | – | – | – |
| 3/4-10 UNC | 2 | 4 | 2 | 4-1/4 | – | 3747-322 | – | 26.88 | – | – | – | – | – |
| 3/4-10 UNC | 3 | 4 | 2 | 4-1/4 | 3747-333 | 3747-332 | 3747-331 | 23.25 | 3700-733 | 69.75 | 4167-332 | 4167-331 | 38.63 |
| 3/4-10 UNC | 5 | 4 | 2 | 4-1/4 | – | 3747-352 | 3747-351 | 26.88 | – | – | – | – | – |
| 3/4-16 UNF | 1 | 4 | 2 | 4-1/4 | – | 3747-512 | – | 26.88 | – | – | – | – | – |
| 3/4-16 UNF | 2 | 4 | 2 | 4-1/4 | – | 3747-522 | – | 26.88 | – | – | – | – | – |
| 3/4-16 UNF | 3 | 4 | 2 | 4-1/4 | 3747-533 | 3747-532 | 3747-531 | 23.25 | 3700-753 | 69.75 | 4167-532 | 4167-531 | 38.63 |
| 3/4-16 UNF | 5 | 4 | 2 | 4-1/4 | – | 3747-552 | 3747-551 | 26.88 | – | – | – | – | – |
| 7/8-9 UNC | 4 | 4 | 2-7/32 | 4-11/16 | 3747-743 | 3747-742 | 3747-741 | 32.45 | 3700-744 | 97.35 | – | – | – |
| 7/8-9 UNC | 6 | 4 | 2-7/32 | 4-11/16 | – | 3747-762 | – | 36.49 | – | – | – | – | – |
| 7/8-14 UNF | 2 | 4 | 2-7/32 | 4-11/16 | – | 3747-922 | – | 36.49 | – | – | – | – | – |
| 7/8-14 UNF | 4 | 4 | 2-7/32 | 4-11/16 | 3747-943 | 3747-942 | 3747-941 | 32.45 | 3700-794 | 97.35 | – | – | – |
| 1"–8 UNC | 4 | 4 | 2-1/2 | 5-1/8 | 3748-143 | 3748-142 | 3748-141 | 43.13 | 3700-814 | 129.39 | – | – | – |
| 1"–8 UNC | 6 | 4 | 2-1/2 | 5-1/8 | – | 3748-162 | – | 47.70 | – | – | – | – | – |
| 1"–12 UNF | 4 | 4 | 2-1/2 | 5-1/8 | 3748-343 | 3748-342 | 3748-341 | 44.52 | 3700-834 | 133.56 | – | – | – |
| 1"–14 UNF | 4 | 4 | 2-1/2 | 5-1/8 | 3748-543 | 3748-542 | 3748-541 | 44.52 | 3700-854 | 133.56 | – | – | – |
| 1-1/8–7 UNC | 4 | 4 | 2-9/16 | 5-7/16 | 3748-743 | 3748-742 | 3748-741 | 69.85 | 3700-874 | 209.55 | – | – | – |
| 1-1/8–12 UNF | 4 | 4 | 2-9/16 | 5-7/16 | 3748-943 | 3748-942 | 3748-941 | 79.24 | 3700-894 | 237.72 | – | – | – |
| 1-1/4–7 UNC | 4 | 4 | 2-9/16 | 5-3/4 | 3749-143 | 3749-142 | 3749-141 | 91.80 | 3700-914 | 275.40 | – | – | – |
| 1-1/4–12 UNF | 4 | 6 | 2-9/16 | 5-3/4 | 3749-343 | 3749-342 | 3749-341 | 99.96 | 3700-934 | 299.88 | – | – | – |
| 1-3/8–6 UNC | 4 | 4 | 3 | 6-1/6 | 3749-543 | 3749-542 | 3749-541 | 115.50 | 3700-954 | 346.50 | – | – | – |
| 1-3/8–12 UNF | 4 | 6 | 3 | 6-1/6 | 3749-743 | 3749-742 | 3749-741 | 124.53 | 3700-974 | 373.59 | – | – | – |
| 1-1/2–6 UNC | 4 | 4 | 3 | 6-3/8 | 3749-843 | 3749-842 | 3749-841 | 130.47 | 3700-984 | 391.41 | – | – | – |
| 1-1/2–12 UNF | 4 | 6 | 3 | 6-3/8 | 3749-943 | 3749-942 | 3749-941 | 140.74 | 3700-994 | 422.22 | – | – | – |

# Ground Thread Hand Taps -

## NC, NF & NS – RH – High Speed Steel

Bottoming

Plug

Taper

| | | | | Pittsburg® ALLEGHANY | | | | | | BRUBAKER TOOL CORPORATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SETS | | | | | |
| SIZE | NC NF NS | DIAM. LIMIT | NO. OF FLTS. | BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH | ORDER NO. | SET PRICE | BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH |
| 0-80 | NF | H1 | 2 | 3510-111 | 3510-112 | 3510-113 | $5.25 | 2300-011 | $15.75 | 3570-111 | 3570-112 | 3570-113 | $8.30 |
| 0-80 | NF | H2 | 2 | 3510-121 | 3510-122 | 3510-123 | 5.25 | – | – | – | – | – | – |
| 1-64 | NC | H1 | 2 | 3510-311 | 3510-312 | 3510-313 | 4.88 | 2300-031 | 14.64 | 3570-311 | 3570-312 | 3570-313 | 7.74 |
| 1-64 | NC | H2 | 2 | 3510-321 | 3510-322 | 3510-323 | 4.88 | – | – | – | – | – | – |
| 1-72 | NF | H1 | 2 | 3510-511 | 3510-512 | 3510-513 | 4.88 | 2300-051 | 14.64 | 3570-511 | 3570-512 | 3570-513 | 7.74 |
| 1-72 | NF | H2 | 2 | 3510-521 | 3510-522 | 3510-523 | 4.88 | – | – | – | – | – | – |
| 2-56 | NC | H1 | 3 | 3510-711 | 3510-712 | 3510-713 | 4.23 | 2300-071 | 12.69 | – | – | – | – |
| 2-56 | NC | H2 | 3 | 3510-721 | 3510-722 | 3510-723 | 4.23 | 2300-072 | 12.69 | 3570-721 | 3570-722 | 3570-723 | 6.67 |
| 2-64 | NF | H1 | 3 | 3510-911 | 3510-912 | 3510-913 | 4.23 | – | – | – | – | – | – |
| 2-64 | NF | H2 | 3 | 3510-921 | 3510-922 | 3510-923 | 4.23 | 2300-092 | 12.69 | 3570-921 | 3570-922 | 3570-923 | 7.18 |
| 3-48 | NC | H1 | 3 | 3511-111 | 3511-112 | 3511-113 | 3.27 | – | – | – | – | – | – |
| 3-48 | NC | H2 | 3 | 3511-121 | 3511-122 | 3511-123 | 3.27 | 2300-112 | 9.81 | 3571-121 | 3571-122 | 3571-123 | 5.13 |
| 3-56 | NF | H1 | 3 | 3511-311 | 3511-312 | 3511-313 | 3.27 | – | – | – | – | – | – |
| 3-56 | NF | H2 | 3 | 3511-321 | 3511-322 | 3511-323 | 3.27 | 2300-132 | 9.81 | 3571-321 | 3571-322 | 3571-323 | 5.73 |
| 4-40 | NC | H1 | 3 | 3511-711 | 3511-712 | 3511-713 | 2.68 | 2300-171 | 8.04 | 3571-711 | 3571-712 | 3571-713 | 4.54 |
| 4-40 | NC | H2 | 3 | 3511-721 | 3511-722 | 3511-723 | 2.68 | 2300-172 | 8.04 | 3571-721 | 3571-722 | 3571-723 | 4.23 |
| 4-48 | NF | H1 | 3 | 3511-911 | 3511-912 | 3511-913 | 2.68 | – | – | – | – | – | – |
| 4-48 | NF | H2 | 3 | 3511-921 | 3511-922 | 3511-923 | 2.68 | 2300-192 | 8.04 | 3571-921 | 3571-922 | 3571-923 | 4.54 |
| 4-36 | NS | H1 | 3 | 3511-511 | 3511-512 | 3511-513 | 2.68 | – | – | – | – | – | – |
| 4-36 | NS | H2 | 3 | 3511-521 | 3511-522 | 3511-523 | 2.68 | 2300-152 | 8.04 | 3571-521 | 3571-522 | 3571-523 | 4.54 |
| 5-40 | NC | H1 | 3 | 3512-111 | 3512-112 | 3512-113 | 2.68 | – | – | – | – | – | – |
| 5-40 | NC | H2 | 3 | 3512-121 | 3512-122 | 3512-123 | 2.68 | 2300-212 | 8.04 | 3572-121 | 3572-122 | 3572-123 | 4.23 |
| 5-44 | NF | H1 | 3 | 3512-311 | 3512-312 | 3512-313 | 2.68 | – | – | – | – | – | – |
| 5-44 | NF | H2 | 3 | 3512-321 | 3512-322 | 3512-323 | 2.68 | 2300-232 | 8.04 | 3572-321 | 3572-322 | 3572-323 | 4.54 |
| 6-32 | NC | H1 | 3 | 3512-511 | 3512-512 | 3512-513 | 2.09 | 2300-251 | 6.27 | – | – | – | – |
| 6-32 | NC | H2 | 3 | 3512-521 | 3512-522 | 3512-523 | 2.09 | 2300-252 | 6.27 | 3572-521 | 3572-522 | 3572-523 | 3.41 |
| 6-32 | NC | H3 | 3 | 3512-531 | 3512-532 | 3512-533 | 2.09 | 2300-253 | 6.27 | 3572-531 | 3572-532 | 3572-533 | 3.22 |
| 6-32 | NC | H7 | 3 | 3512-571 | 3512-572 | 3512-573 | 2.09 | – | – | – | – | – | – |
| 6-40 | NF | H1 | 3 | 3512-711 | 3512-712 | 3512-713 | 2.09 | 2300-271 | 6.27 | – | – | – | – |
| 6-40 | NF | H2 | 3 | 3512-721 | 3512-722 | 3512-723 | 2.09 | 2300-272 | 6.27 | 3572-721 | 3572-722 | 3572-723 | 3.41 |
| 8-32 | NC | H1 | 4 | 3512-911 | 3512-912 | 3512-913 | 2.14 | 2300-291 | 6.42 | – | – | – | – |
| 8-32 | NC | H2 | 4 | 3512-921 | 3512-922 | 3512-923 | 2.14 | 2300-292 | 6.42 | 3572-921 | 3572-922 | 3572-923 | 3.41 |
| 8-32 | NC | H3 | 4 | 3512-931 | 3512-932 | 3512-933 | 2.14 | 2300-293 | 6.42 | 3572-931 | 3572-932 | 3572-933 | 3.31 |
| 8-32 | NC | H7 | 4 | 3512-971 | 3512-972 | 3512-973 | 2.14 | – | – | – | – | – | – |
| 8-36 | NF | H1 | 4 | 3513-111 | 3513-112 | 3513-113 | 2.14 | – | – | – | – | – | – |
| 8-36 | NF | H2 | 4 | 3513-121 | 3513-122 | 3513-123 | 2.14 | 2300-312 | 6.42 | 3573-121 | 3573-122 | 3573-123 | 3.41 |
| 10-24 | NS | H1 | 4 | 3513-311 | 3513-312 | 3513-313 | 2.20 | 2300-331 | 6.60 | – | – | – | – |
| 10-24 | NS | H2 | 4 | 3513-321 | 3513-322 | 3513-323 | 2.20 | 2300-332 | 6.60 | – | – | – | – |
| 10-24 | NS | H3 | 4 | 3513-331 | 3513-332 | 3513-333 | 2.20 | 2300-333 | 6.60 | 3573-331 | 3573-332 | 3573-333 | 3.41 |
| 10-24 | NS | H7 | 4 | 3513-371 | 3513-372 | 3513-373 | 2.20 | – | – | – | – | – | – |
| 10-32 | NF | H1 | 4 | 3513-511 | 3513-512 | 3513-513 | 2.20 | 2300-351 | 6.60 | – | – | – | – |
| 10-32 | NF | H2 | 4 | 3513-521 | 3513-522 | 3513-523 | 2.20 | 2300-352 | 6.60 | – | – | – | – |
| 10-32 | NF | H3 | 4 | 3513-531 | 3513-532 | 3513-533 | 2.20 | 2300-353 | 6.60 | 3573-531 | 3573-532 | 3573-533 | 3.41 |
| 10-32 | NF | H7 | 4 | 3513-571 | 3513-572 | 3513-573 | 2.20 | – | – | – | – | – | – |
| 12-24 | NC | H2 | 4 | 3513-721 | 3513-722 | 3513-723 | 2.30 | – | – | – | – | – | – |
| 12-24 | NC | H3 | 4 | 3513-731 | 3513-732 | 3513-733 | 2.30 | 2300-373 | 6.90 | 3573-731 | 3573-732 | 3573-733 | 3.62 |
| 12-28 | NF | H1 | 4 | 3513-911 | 3513-912 | 3513-913 | 2.30 | 2300-391 | 6.90 | – | – | – | – |
| 12-28 | NF | H2 | 4 | 3513-921 | 3513-922 | 3513-923 | 2.30 | – | – | – | – | – | – |
| 12-28 | NF | H3 | 4 | 3513-931 | 3513-932 | 3513-933 | 2.30 | 2300-393 | 6.90 | 3573-931 | 3573-932 | 3573-933 | 3.96 |
| 14-20 | NS | H3 | 4 | 3514-031 | 3514-032 | 3514-033 | 2.79 | – | – | – | – | – | – |

Alternate Flute Taps available upon request.

# Ground Thread Hand Taps -

## NC, NF & NS – RH – High Speed Steel

Bottoming

Plug [3]

Taper [2]

| | | | | Pittsburg® ALLEGHANY | | | | | | BRUBAKER TOOL CORPORATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SETS | | | | | |
| SIZE | NC NF NS | DIAM. LIMIT | NO. OF FLTS. | BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH | ORDER NO. | SET PRICE | BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH |
| 1/4-20 | NC | H1 | 4 | 3514-111 | 3514-112 | 3514-113 | $ 2.21 | 2300-411 | $ 6.63 | – | – | – | – |
| 1/4-20 | NC | H2 | 4 | 3514-121 | 3514-122 | 3514-123 | 2.21 | 2300-412 | 6.63 | – | – | – | – |
| 1/4-20 | NC | H3 | 4 | 3514-131 | 3514-132 | 3514-133 | 2.21 | 2300-413 | 6.63 | 3574-131 | 3574-132 | 3574-133 | $3.69 |
| 1/4-20 | NC | H5 | 4 | 3514-151 | 3514-152 | 3514-153 | 2.21 | 2300-415 | 6.63 | – | – | – | – |
| 1/4-28 | NF | H1 | 4 | 3514-311 | 3514-312 | 3514-313 | 2.21 | 2300-431 | 6.63 | – | – | – | – |
| 1/4-28 | NF | H2 | 4 | 3514-321 | 3514-322 | 3514-323 | 2.21 | 2300-432 | 6.63 | – | – | – | – |
| 1/4-28 | NF | H3 | 4 | 3514-331 | 3514-332 | 3514-333 | 2.21 | 2300-433 | 6.63 | 3574-331 | 3574-332 | 3574-333 | 3.69 |
| 1/4-28 | NF | H4 | 4 | 3514-341 | 3514-342 | 3514-343 | 2.21 | 2300-434 | 6.63 | – | – | – | – |
| 5/16-18 | NC | H1 | 4 | 3514-511 | 3514-512 | 3514-513 | 2.65 | 2300-451 | 7.95 | – | – | – | – |
| 5/16-18 | NC | H2 | 4 | 3514-521 | 3514-522 | 3514-523 | 2.65 | 2300-452 | 7.95 | – | – | – | – |
| 5/16-18 | NC | H3 | 4 | 3514-531 | 3514-532 | 3514-533 | 2.65 | 2300-453 | 7.95 | 3574-531 | 3574-532 | 3574-533 | 4.54 |
| 5/16-18 | NC | H5 | 4 | 3514-551 | 3514-552 | 3514-553 | 2.65 | 2300-455 | 7.95 | – | – | – | – |
| 5/16-24 | NF | H1 | 4 | 3514-711 | 3514-712 | 3514-713 | 2.65 | 2300-471 | 7.95 | – | – | – | – |
| 5/16-24 | NF | H2 | 4 | 3514-721 | 3514-722 | 3514-723 | 2.65 | 2300-472 | 7.95 | – | – | – | – |
| 5/16-24 | NF | H3 | 4 | 3514-731 | 3514-732 | 3514-733 | 2.65 | 2300-473 | 7.95 | 3574-731 | 3574-732 | 3574-733 | 4.61 |
| 5/16-24 | NF | H4 | 4 | 3514-741 | 3514-742 | 3514-743 | 2.65 | 2300-474 | 7.95 | – | – | – | – |
| 3/8-16 | NC | H1 | 4 | 3514-911 | 3514-912 | 3514-913 | 2.99 | 2300-491 | 8.97 | – | – | – | – |
| 3/8-16 | NC | H2 | 4 | 3514-921 | 3514-922 | 3514-923 | 2.99 | 2300-492 | 8.97 | – | – | – | – |
| 3/8-16 | NC | H3 | 4 | 3514-931 | 3514-932 | 3514-933 | 2.99 | 2300-493 | 8.97 | 3574-931 | 3574-932 | 3574-933 | 5.12 |
| 3/8-16 | NC | H5 | 4 | 3514-951 | 3514-952 | 3514-953 | 2.99 | 2300-495 | 8.97 | – | – | – | – |
| 3/8-24 | NF | H1 | 4 | 3515-111 | 3515-112 | 3515-113 | 2.99 | 2300-511 | 8.97 | – | – | – | – |
| 3/8-24 | NF | H2 | 4 | 3515-121 | 3515-122 | 3515-123 | 2.99 | 2300-512 | 8.97 | – | – | – | – |
| 3/8-24 | NF | H3 | 4 | 3515-131 | 3515-132 | 3515-133 | 2.99 | 2300-513 | 8.97 | 3575-131 | 3575-132 | 3575-133 | 5.12 |
| 3/8-24 | NF | H4 | 4 | 3515-141 | 3515-142 | 3515-143 | 2.99 | 2300-514 | 8.97 | – | – | – | – |
| 7/16-14 | NC | H1 | 4 | 3515-311 | 3515-312 | 3515-313 | 5.04 | – | – | – | – | – | – |
| 7/16-14 | NC | H2 | 4 | 3515-321 | 3515-322 | 3515-323 | 5.04 | – | – | – | – | – | – |
| 7/16-14 | NC | H3 | 4 | 3515-331 | 3515-332 | 3515-333 | 5.04 | 2300-533 | 15.12 | 3575-331 | 3575-332 | 3575-333 | 8.81 |
| 7/16-14 | NC | H5 | 4 | 3515-351 | 3515-352 | 3515-353 | 5.04 | 2300-535 | 15.12 | – | – | – | – |
| 7/16-20 | NF | H1 | 4 | 3515-521 | 3515-522 | 3515-523 | 5.04 | – | – | – | – | – | – |
| 7/16-20 | NF | H2 | 4 | 3515-524 | 3515-525 | 3515-526 | 5.04 | – | – | – | – | – | – |
| 7/16-20 | NF | H3 | 4 | 3515-531 | 3515-532 | 3515-533 | 5.04 | 2300-553 | 15.12 | 3575-531 | 3575-532 | 3575-533 | 8.81 |
| 7/16-20 | NF | H5 | 4 | 3515-551 | 3515-552 | 3515-553 | 5.04 | 2300-555 | 15.12 | – | – | – | – |
| 1/2-13 | NC | H1 | 4 | 3515-711 | 3515-712 | 3515-713 | 5.49 | 2300-571 | 16.47 | – | – | – | – |
| 1/2-13 | NC | H2 | 4 | 3515-721 | 3515-722 | 3515-723 | 5.49 | – | – | – | – | – | – |
| 1/2-13 | NC | H3 | 4 | 3515-731 | 3515-732 | 3515-733 | 5.49 | 2300-573 | 16.47 | 3575-731 | 3575-732 | 3575-733 | 9.18 |
| 1/2-13 | NC | H5 | 4 | 3515-751 | 3515-752 | 3515-753 | 5.49 | 2300-575 | 16.47 | – | – | – | – |
| 1/2-20 | NF | H1 | 4 | 3515-911 | 3515-912 | 3515-913 | 5.49 | 2300-591 | 16.47 | – | – | – | – |
| 1/2-20 | NF | H2 | 4 | 3515-921 | 3515-922 | 3515-923 | 5.49 | – | – | – | – | – | – |
| 1/2-20 | NF | H3 | 4 | 3515-931 | 3515-932 | 3515-933 | 5.49 | 2300-593 | 16.47 | 3575-931 | 3575-932 | 3575-933 | 10.38 |
| 1/2-20 | NF | H5 | 4 | 3515-951 | 3515-952 | 3515-953 | 5.49 | 2300-595 | 16.47 | – | – | – | – |
| 9/16-12 | NC | H1 | 4 | 3516-111 | 3516-112 | 3516-113 | 8.79 | – | – | – | – | – | – |
| 9/16-12 | NC | H2 | 4 | 3516-121 | 3516-122 | 3516-123 | 8.79 | – | – | – | – | – | – |
| 9/16-12 | NC | H3 | 4 | 3516-131 | 3516-132 | 3516-133 | 8.79 | 2300-613 | 26.37 | 3576-131 | 3576-132 | 3576-133 | 15.40 |
| 9/16-12 | NC | H5 | 4 | 3516-151 | 3516-152 | 3516-153 | 8.79 | 2300-615 | 26.37 | – | – | – | – |
| 9/16-18 | NF | H1 | 4 | 3516-311 | 3516-312 | 3516-313 | 8.79 | – | – | – | – | – | – |
| 9/16-18 | NF | H2 | 4 | 3516-321 | 3516-322 | 3516-323 | 8.79 | – | – | – | – | – | – |
| 9/16-18 | NF | H3 | 4 | 3516-331 | 3516-332 | 3516-333 | 8.79 | 2300-633 | 26.37 | 3576-331 | 3576-332 | 3576-333 | 15.40 |
| 9/16-18 | NF | H5 | 4 | 3516-351 | 3516-352 | 3516-353 | 8.79 | – | – | – | – | – | – |
| 5/8-11 | NC | H1 | 4 | 3516-511 | 3516-512 | 3516-513 | 10.18 | – | – | – | – | – | – |
| 5/8-11 | NC | H2 | 4 | 3516-521 | 3516-522 | 3516-523 | 10.18 | 2300-652 | 30.54 | – | – | – | – |
| 5/8-11 | NC | H3 | 4 | 3516-531 | 3516-532 | 3516-533 | 10.18 | 2300-653 | 30.54 | 3576-531 | 3576-532 | 3576-533 | 18.46 |
| 5/8-11 | NC | H5 | 4 | 3516-551 | 3516-552 | 3516-553 | 10.18 | 2300-655 | 30.54 | – | – | – | – |
| 5/8-18 | NF | H1 | 4 | 3516-711 | 3516-712 | 3516-713 | 10.18 | – | – | – | – | – | – |
| 5/8-18 | NF | H2 | 4 | 3516-721 | 3516-722 | 3516-723 | 10.18 | 2300-672 | 30.54 | – | – | – | – |
| 5/8-18 | NF | H3 | 4 | 3516-731 | 3516-732 | 3516-733 | 10.18 | 2300-673 | 30.54 | 3576-731 | 3576-732 | 3576-733 | 18.46 |
| 5/8-18 | NF | H5 | 4 | 3516-751 | 3516-752 | 3516-753 | 10.18 | 2300-675 | 30.54 | – | – | – | – |
| 11/16-11 | NC | H3 | 4 | 3516-931 | 3516-932 | 3516-933 | 13.23 | 2300-693 | 39.69 | 3576-931 | 3576-932 | 3576-933 | 22.96 |
| 11/16-16 | NF | H3 | 4 | 3517-131 | 3517-132 | 3517-133 | 13.23 | 2300-713 | 39.69 | 3577-131 | 3577-132 | 3577-133 | 22.96 |

Alternate Flute Taps available upon request.

(Continued)

# Ground Thread Hand Taps - NC, NF & NS

Bottoming

Plug

Taper

[3] [2]

| SIZE | NC NF NS | DIAM. LIMIT | NO. OF FLTS. | Pittsburg® ALLEGHANY BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH | SETS ORDER NO. | SETS SET PRICE | BRUBAKER TOOL CORPORATION BRUBAKER U.S.A. BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/4-10 | NC | H1 | 4 | 3517-311 | 3517-312 | 3517-313 | $15.59 | – | – | – | – | – | – |
| 3/4-10 | NC | H2 | 4 | 3517-321 | 3517-322 | 3517-323 | 15.59 | 2300-732 | $46.77 | – | – | – | – |
| 3/4-10 | NC | H3 | 4 | 3517-331 | 3517-332 | 3517-333 | 15.59 | 2300-733 | 46.77 | 3577-331 | 3577-332 | 3577-333 | $25.86 |
| 3/4-10 | NC | H5 | 4 | 3517-351 | 3517-352 | 3517-353 | 15.59 | 2300-735 | 46.77 | – | – | – | – |
| 3/4-16 | NF | H1 | 4 | 3517-511 | 3517-512 | 3517-513 | 15.59 | 2300-751 | 46.77 | – | – | – | – |
| 3/4-16 | NF | H2 | 4 | 3517-521 | 3517-522 | 3517-523 | 15.59 | 2300-752 | 46.77 | – | – | – | – |
| 3/4-16 | NF | H3 | 4 | 3517-531 | 3517-532 | 3517-533 | 15.59 | 2300-753 | 46.77 | 3577-531 | 3577-532 | 3577-533 | 25.86 |
| 3/4-16 | NF | H5 | 4 | 3517-551 | 3517-552 | 3517-553 | 15.59 | 2300-755 | 46.77 | – | – | – | – |
| 7/8-9 | NC | H1 | 4 | 3517-711 | 3517-712 | 3517-713 | 19.55 | – | – | – | – | – | – |
| 7/8-9 | NC | H2 | 4 | 3517-721 | 3517-722 | 3517-723 | 19.55 | – | – | – | – | – | – |
| 7/8-9 | NC | H3 | 4 | 3517-731 | 3517-732 | 3517-733 | 19.55 | – | – | – | – | – | – |
| 7/8-9 | NC | H4 | 4 | 3517-741 | 3517-742 | 3517-743 | 19.55 | 2300-774 | 58.65 | 3577-741 | 3577-742 | 3577-743 | 36.04 |
| 7/8-9 | NC | H6 | 4 | 3517-761 | 3517-762 | 3517-763 | 19.55 | 2300-776 | 58.65 | – | – | – | – |
| 7/8-14 | NF | H1 | 4 | 3517-911 | 3517-912 | 3517-913 | 19.55 | – | – | – | – | – | – |
| 7/8-14 | NF | H2 | 4 | 3517-921 | 3517-922 | 3517-923 | 19.55 | 2300-792 | 58.65 | – | – | – | – |
| 7/8-14 | NF | H3 | 4 | 3517-931 | 3517-932 | 3517-933 | 19.55 | – | – | 3577-941 | 3577-942 | 3577-943 | 36.04 |
| 7/8-14 | NF | H4 | 4 | 3517-941 | 3517-942 | 3517-943 | 19.55 | 2300-794 | 58.65 | – | – | – | – |
| 7/8-14 | NF | H6 | 4 | 3517-961 | 3517-962 | 3517-963 | 19.55 | 2300-796 | 58.65 | | | | |
| 1-8 | NC | H1 | 4 | 3518-111 | 3518-112 | 3518-113 | 28.82 | – | – | – | – | – | – |
| 1-8 | NC | H2 | 4 | 3518-121 | 3518-122 | 3518-123 | 28.82 | – | – | – | – | – | – |
| 1-8 | NC | H3 | 4 | 3518-131 | 3518-132 | 3518-133 | 28.82 | – | – | – | – | – | – |
| 1-8 | NC | H4 | 4 | 3518-141 | 3518-142 | 3518-143 | 28.82 | 2300-814 | 86.46 | 3578-141 | 3578-142 | 3578-143 | 47.92 |
| 1-8 | NC | H6 | 4 | 3518-161 | 3518-162 | 3518-163 | 28.82 | 2300-816 | 86.46 | – | – | – | – |
| 1-12 | NF | H1 | 4 | 3518-311 | 3518-312 | 3518-313 | 28.82 | – | – | – | – | – | – |
| 1-12 | NF | H2 | 4 | 3518-321 | 3518-322 | 3518-323 | 28.82 | – | – | – | – | – | – |
| 1-12 | NF | H4 | 4 | 3518-341 | 3518-342 | 3518-343 | 28.82 | 2300-834 | 86.46 | 3578-341 | 3578-342 | 3578-343 | 49.45 |
| 1-14 | NS | H1 | 4 | 3518-511 | 3518-512 | 3518-513 | 28.82 | – | – | – | – | – | – |
| 1-14 | NS | H2 | 4 | – | – | – | – | – | – | – | – | – | – |
| 1-14 | NS | H4 | 4 | 3518-541 | 3518-542 | 3518-543 | 28.82 | 2300-854 | 86.46 | 3578-541 | 3578-542 | 3578-543 | 47.92 |
| 1-14 | NS | H6 | 4 | – | – | – | – | – | – | – | – | – | – |
| 1-1/8-7 | NC | H4 | 4 | 3518-741 | 3518-742 | 3518-743 | 30.95 | 2300-874 | 92.85 | 3578-741 | 3578-742 | 3578-743 | 77.56 |
| 1-1/8-12 | NF | H4 | 4 | 3518-941 | 3518-942 | 3518-943 | 30.95 | 2300-894 | 92.85 | 3578-941 | 3578-942 | 3578-943 | 82.14 |
| 1-1/4-7 | NC | H4 | 4 | 3519-141 | 3519-142 | 3519-143 | 41.20 | 2300-914 | 123.60 | 3579-141 | 3579-142 | 3579-143 | 101.79 |
| 1-1/4-12 | NF | H4 | 6 | 3519-341 | 3519-342 | 3519-343 | 41.20 | 2300-934 | 123.60 | 3579-341 | 3579-342 | 3579-343 | 103.57 |
| 1-3/8-6 | NC | H4 | 4 | 3519-541 | 3519-542 | 3519-543 | 57.10 | 2300-954 | 171.30 | 3579-541 | 3579-542 | 3579-543 | 127.89 |
| 1-3/8-12 | NF | H4 | 6 | 3519-741 | 3519-742 | 3519-743 | 57.10 | 2300-974 | 171.30 | 3579-741 | 3579-742 | 3579-743 | 128.79 |
| 1-1/2-6 | NC | H4 | 4 | 3519-841 | 3519-842 | 3519-843 | 64.25 | 2300-984 | 192.75 | 3579-841 | 3579-842 | 3579-843 | 147.69 |
| 1-1/2-12 | NF | H4 | 6 | 3519-941 | 3519-942 | 3519-943 | 64.25 | 2300-994 | 192.75 | 3579-941 | 3579-942 | 3579-943 | 150.41 |

Alternate Flute Taps available upon request.

# Combined Tap & Drill

## High Speed Steel

[2]

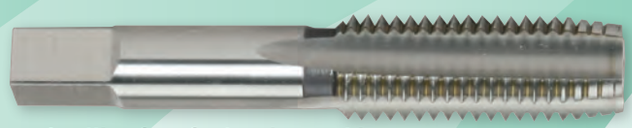
| SIZE | OAL | DRILL LENGTH | THREAD LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 4-40 NC | 1-7/8 | 1/4 | 3/8 | 2333-001 | $12.70 |
| 4-48 NF | 1-7/8 | 1/4 | 3/8 | 2333-008 | 12.70 |
| 5-40 NC | 1-15/16 | 9/32 | 13/32 | 2333-015 | 12.70 |
| 5-44 NF | 1-15/16 | 9/32 | 13/32 | 2333-022 | 12.70 |
| 6-32 NC | 2 | 5/16 | 7/16 | 2333-030 | 11.76 |
| 6-40 NF | 2 | 5/16 | 7/16 | 2333-036 | 11.76 |
| 8-32 NC | 2-1/8 | 3/8 | 1/2 | 2333-044 | 11.76 |
| 8-36 NC | 2-1/8 | 3/8 | 1/2 | 2333-051 | 11.76 |
| 10-24 NC | 2-3/8 | 13/32 | 5/8 | 2333-058 | 12.16 |
| 10-32 NF | 2-3/8 | 13/32 | 5/8 | 2333-065 | 12.16 |

| SIZE | OAL | DRILL LENGTH | THREAD LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 12-24 NC | 2-3/8 | 15/32 | 21/32 | 2333-072 | $13.44 |
| 12-28 NF | 2-3/8 | 15/32 | 21/32 | 2333-079 | 13.44 |
| 1/4-20 NC | 2-1/2 | 17/32 | 25/32 | 2333-086 | 13.58 |
| 1/4-28 NF | 2-1/2 | 17/32 | 25/32 | 2333-093 | 13.58 |
| 5/16-18 NC | 2-27/32 | 11/16 | 15/16 | 2333-100 | 17.76 |
| 5/16-24 NF | 2-27/32 | 11/16 | 15/16 | 2333-107 | 17.76 |
| 3/8-16 NC | 3-3/8 | 13/16 | 1-1/16 | 2333-114 | 21.59 |
| 3/8-24 NF | 3-3/8 | 13/16 | 1-1/16 | 2333-121 | 21.59 |
| 7/16-14 NC | 3-3/4 | 1 | 1-1/4 | 2333-128 | 27.28 |
| 7/16-20 NF | 3-3/4 | 1 | 1-1/4 | 2333-135 | 27.28 |
| 1/2-13 NC | 4-1/16 | 1-1/8 | 1-3/8 | 2333-142 | 32.84 |
| 1/2-20 NF | 4-1/16 | 1-1/8 | 1-3/8 | 2333-149 | 32.84 |

# Ground Thread Taps
## For Cast Iron – High Speed Steel

2

MADE IN USA



- Designed with flutes and cutting face for tapping cast iron
- Right hand ground thread

| SIZE | | GH | FLUTES | ORDER NO. BOTTOM | ORDER NO. PLUG | PRICE EACH |
|---|---|---|---|---|---|---|
| 10-24 | NC | H3 | 4 | – | 4183-332 | $3.56 |
| 1/4-20 | NC | H3 | 4 | 4184-131 | 4184-132 | 3.69 |
| 1/4-20 | NC | H5 | 4 | 4184-151 | 4184-152 | 4.47 |
| 1/4-28 | NF | H3 | 4 | 4184-331 | 4184-332 | 3.75 |
| 5/16-18 | NC | H3 | 4 | 4184-531 | 4184-532 | 4.54 |
| 5/16-18 | NC | H5 | 4 | 4184-551 | 4184-552 | 5.12 |
| 5/16-24 | NF | H3 | 4 | 4184-731 | 4184-732 | 4.62 |
| 3/8-16 | NC | H3 | 4 | 4184-931 | 4184-932 | 5.12 |
| 3/8-16 | NC | H5 | 4 | 4184-951 | 4184-952 | 5.78 |
| 3/8-24 | NF | H3 | 4 | 4185-131 | 4185-132 | 5.21 |
| 7/16-14 | NC | H3 | 4 | 4185-331 | 4185-332 | 8.97 |
| 7/16-14 | NC | H5 | 4 | 4185-351 | 4185-352 | 9.84 |
| 7/16-20 | NF | H3 | 4 | 4185-531 | 4185-532 | 8.97 |
| 7/16-20 | NF | H5 | 4 | 4185-551 | – | 8.97 |
| 1/2-13 | NC | H3 | 4 | 4185-731 | 4185-732 | 9.35 |

Alternate Flute Taps available upon request.

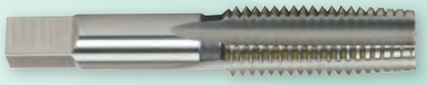
| SIZE | | GH | FLUTES | ORDER NO. BOTTOM | ORDER NO. PLUG | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/2-13 | NC | H5 | 4 | 4185-751 | 4185-752 | $11.48 |
| 1/2-20 | NF | H3 | 4 | 4185-931 | 4185-932 | 10.59 |
| 9/16-12 | NC | H3 | 4 | 4186-131 | 4186-132 | 15.70 |
| 9/16-18 | NF | H3 | 4 | 4186-331 | 4186-332 | 15.70 |
| 5/8-11 | NC | H3 | 4 | 4186-531 | 4186-532 | 18.50 |
| 5/8-11 | NC | H5 | 4 | 4186-551 | 4186-552 | 21.67 |
| 5/8-18 | NF | H3 | 4 | 4186-731 | 4186-732 | 18.50 |
| 3/4-10 | NC | H3 | 4 | 4187-331 | 4187-332 | 26.35 |
| 3/4-10 | NC | H5 | 4 | 4187-351 | 4187-352 | 28.37 |
| 3/4-16 | NF | H3 | 4 | 4187-531 | 4187-532 | 26.35 |

### Metric Sizes

| SIZE | GH | FLUTES | ORDER NUMBER BOTTOM | ORDER NUMBER PLUG | PRICE EACH |
|---|---|---|---|---|---|
| 6 x 1 | D5 | 3 | 4187-945 | 4187-946 | $ 3.69 |
| 8 x 1.25 | D5 | 4 | 4187-956 | 4187-957 | 4.22 |
| 10 x 1.5 | D6 | 4 | 4187-969 | 4187-970 | 4.77 |
| 12 x 1.75 | D6 | 4 | – | 4187-981 | 9.47 |

# Carbon Steel Hand Taps
## Right Hand - For Hand Tapping Application

3



Taper

Plug

Bottom

| SIZE | NO. OF FLUTES | TAPER ORDER NO. | PLUG ORDER NO. | BOTTOMING ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 4 – 40 NC | 3 | 2320-058 | 2320-057 | 2320-056 | $0.93 |
| 4 – 48 NF | 3 | 2320-064 | 2320-063 | 2320-062 | 0.93 |
| 5 – 40 NC | 3 | 2320-076 | 2320-075 | 2320-074 | 0.93 |
| 5 – 44 NF | 3 | 2320-082 | 2320-081 | 2320-080 | 0.93 |
| 6 – 32 NC | 3 | 2320-088 | 2320-087 | 2320-086 | 0.93 |
| 6 – 36 NS | 4 | 2320-100 | 2320-099 | 2320-098 | 2.36 |
| 6 – 40 NF | 3 | 2320-094 | 2320-093 | 2320-092 | 0.93 |
| 8 – 32 NC | 4 | 2320-106 | 2320-105 | 2320-104 | 0.93 |
| 8 – 36 NF | 4 | – | 2320-111 | – | 0.93 |
| 8 – 40 NS | 4 | 2320-118 | 2320-117 | 2320-116 | 2.56 |
| 10 – 24 NC | 4 | 2320-124 | 2320-123 | 2320-122 | 0.93 |
| 10 – 32 NF | 4 | 2320-135 | 2320-134 | 2320-133 | 0.93 |
| 12 – 24 NC | 4 | 2320-141 | 2320-140 | 2320-139 | 0.93 |
| 12 – 28 NF | 4 | 2320-147 | 2320-146 | 2320-145 | 0.93 |
| 12 – 32 NEF | 4 | 2320-150 | 2320-149 | 2320-148 | 2.56 |
| 14 – 20 NF | 4 | 2320-153 | 2320-152 | 2320-151 | 2.85 |
| 14 – 24 NC | 4 | 2320-159 | 2320-158 | 2320-157 | 2.85 |
| 1/4 – 20 NC | 4 | 2320-219 | 2320-218 | 2320-217 | 1.07 |
| 1/4 – 24 NS | 4 | 2320-222 | 2320-221 | 2320-220 | 2.56 |
| 1/4 – 28 NF | 4 | 2320-225 | 2320-224 | 2320-223 | 1.07 |
| 1/4 – 32 NEF | 4 | 2320-231 | 2320-230 | 2320-229 | 2.56 |
| 5/16 – 18 NC | 4 | 2320-237 | 2320-236 | 2320-235 | 1.17 |
| 5/16 – 24 NF | 4 | 2320-243 | 2320-242 | 2320-241 | 1.17 |
| 5/16 – 32 NEF | 4 | 2320-246 | 2320-245 | 2320-244 | 3.22 |

| SIZE | NO. OF FLUTES | TAPER ORDER NO. | PLUG ORDER NO. | BOTTOMING ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 3/8 – 16 NC | 4 | 2320-249 | 2320-248 | 2320-247 | $1.30 |
| 3/8 – 24 NF | 4 | 2320-255 | 2320-254 | 2320-253 | 1.30 |
| 7/16– 14 NC | 4 | 2320-261 | 2320-260 | 2320-259 | 1.62 |
| 7/16– 20 NF | 4 | 2320-267 | 2320-266 | 2320-265 | 1.62 |
| 1/2 – 13 NC | 4 | 2320-273 | 2320-272 | 2320-271 | 1.62 |
| 1/2 – 20 NF | 4 | 2320-279 | 2320-278 | 2320-277 | 1.62 |
| 9/16– 12 NC | 4 | 2320-285 | 2320-284 | 2320-283 | 1.90 |
| 9/16– 18 NF | 4 | 2320-291 | 2320-290 | 2320-289 | 1.90 |
| 5/8 – 11 NC | 4 | 2320-297 | 2320-296 | 2320-295 | 2.22 |
| 5/8 – 18 NF | 4 | 2320-303 | 2320-302 | 2320-301 | 2.22 |
| 3/4 – 10 NC | 4 | 2320-321 | 2320-320 | 2320-319 | 3.81 |
| 3/4 – 16 NF | 4 | 2320-327 | 2320-326 | 2320-325 | 3.81 |
| 7/8 – 9 NC | 4 | 2320-333 | 2320-332 | 2320-331 | 4.60 |
| 7/8 – 14 NF | 4 | 2320-339 | 2320-338 | 2320-337 | 4.60 |
| 1 – 8 NC | 4 | 2320-345 | 2320-344 | 2320-343 | 5.57 |
| 1 – 12 NF | 4 | 2320-351 | 2320-350 | 2320-349 | 5.57 |
| 1 – 14 NS | 4 | 2320-357 | 2320-356 | 2320-355 | 5.57 |
| 1-1/8 – 7 NC | 4 | 2320-363 | 2320-362 | 2320-361 | 12.43 |
| 1-1/8 – 12 NF | 4 | 2320-366 | 2320-365 | 2320-364 | 12.43 |
| 1-1/4 – 7 NC | 4 | 2320-372 | 2320-371 | 2320-370 | 15.70 |
| 1-1/4 – 12 NF | 6 | 2320-378 | 2320-377 | 2320-376 | 15.70 |
| 1-3/8 – 6 NC | 4 | 2320-384 | 2320-383 | 2320-382 | 21.59 |
| 1-3/8 – 12 NF | 6 | 2320-390 | 2320-389 | 2320-388 | 21.59 |
| 1-1/2 – 6 NC | 4 | 2320-396 | 2320-395 | 2320-394 | 25.49 |
| 1-1/2 – 12 NF | 6 | 2320-402 | 2320-401 | 2320-400 | 25.49 |

# Metric Taps

## Ground Thread Taps

Look for ALLEGIANCE® AMERICANMADE

MADE IN USA

Taper

Plug

Bottom

## Hand Taps

2

| NOMINAL SIZE | D LMT. | # OF FLT. | THR. LGTH. | OAL | ORDER NO. TAPER | PLUG | BOTTOM | PRICE EACH | SET ORDER NO. | SET PRICE T/P/B |
|---|---|---|---|---|---|---|---|---|---|---|
| M1.6 x .35 | 3 | 2 | 5/16 | 1-5/8 | 3777-085 | 3777-084 | 3777-083 | $ 9.94 | – | – |
| M1.8 x .35 | 3 | 2 | 3/8 | 1-11/16 | 3777-102 | 3777-101 | 3777-100 | 9.26 | – | – |
| M2 x .4 | 3 | 3 | 7/16 | 1-3/4 | 3777-120 | 3777-119 | 3777-118 | 9.26 | 3780-015 | $27.78 |
| M2.2 x .45 | 3 | 3 | 7/16 | 1-3/4 | 3777-147 | 3777-146 | 3777-145 | 7.98 | – | – |
| M2.5 x .45 | 3 | 3 | 1/2 | 1-13/16 | 3777-174 | 3777-173 | 3777-172 | 6.84 | – | – |
| M3 x .5 | 3 | 3 | 5/8 | 1-15/16 | 3777-228 | 3777-227 | 3777-226 | 5.45 | 3780-030 | 16.35 |
| M3.5 x .6 | 4 | 3 | 11/16 | 2 | 3777-282 | 3777-281 | 3777-280 | 4.10 | – | – |
| M4 x .7 | 4 | 4 | 3/4 | 2-1/8 | 3777-327 | 3777-326 | 3777-325 | 4.10 | 3780-040 | 12.30 |
| M4.5 x .75 | 4 | 4 | 7/8 | 2-3/8 | 3777-354 | 3777-353 | 3777-352 | 4.10 | – | – |
| M5 x .8 | 4 | 4 | 7/8 | 2-3/8 | 3777-390 | 3777-389 | 3777-388 | 4.10 | 3780-050 | 12.30 |
| M6 x 1 | 5 | 4 | 1 | 2-1/2 | 3777-466 | 3777-465 | 3777-464 | 4.39 | 3780-055 | 13.17 |
| M7 x 1 | 5 | 4 | 1-1/8 | 2-23/32 | 3777-525 | 3777-524 | 3777-523 | 5.45 | 3780-065 | 16.35 |
| M8 x 1.25 | 5 | 4 | 1-1/8 | 2-23/32 | 3777-579 | 3777-578 | 3777-577 | 5.45 | 3780-070 | 16.35 |
| M8 x 1 | 5 | 4 | 1-1/8 | 2-23/32 | 3777-570 | 3777-569 | 3777-568 | 5.45 | – | – |
| M10 x1.5 | 6 | 4 | 1-1/4 | 2-15/16 | 3777-696 | 3777-695 | 3777-694 | 10.45 | 3780-080 | 31.35 |
| M10 x 1.25 | 5 | 4 | 1-1/4 | 2-15/16 | 3777-687 | 3777-686 | 3777-685 | 10.45 | – | – |
| M12 x 1.75 | 6 | 4 | 1-21/32 | 3-3/8 | 3777-803 | 3777-802 | 3777-801 | 10.98 | 3780-090 | 32.94 |
| M12 x 1.25 | 5 | 4 | 1-21/32 | 3-3/8 | 3777-780 | 3777-779 | 3777-778 | 12.39 | – | – |
| M14 x 2 | 7 | 4 | 1-21/32 | 3-19/32 | 3777-965 | 3777-964 | 3777-963 | 18.40 | 3780-100 | 55.20 |
| M14 x 1.5 | 6 | 4 | 1-21/32 | 3-19/32 | 3777-947 | 3777-946 | 3777-945 | 18.40 | – | – |

| NOMINAL SIZE | D LMT. | # OF FLT. | THR. LGTH. | OAL | ORDER NO. TAPER | PLUG | BOTTOM | PRICE EACH | SET ORDER NO. | SET PRICE T/P/B |
|---|---|---|---|---|---|---|---|---|---|---|
| M16 x 2 | 7 | 4 | 1-13/16 | 3-13/16 | 3778-072 | 3778-071 | 3778-070 | $22.04 | 3780-110 | $66.12 |
| M16 x 1.5 | 6 | 4 | 1-13/16 | 3-13/16 | 3778-063 | 3778-062 | 3778-061 | 22.04 | – | – |
| M18 x 2.5 | 7 | 4 | 1-13/16 | 4-1/32 | 3778-153 | 3778-152 | 3778-151 | 30.19 | 3780-120 | 90.57 |
| M18 x 1.5 | 6 | 4 | 1-13/16 | 4-1/32 | 3778-135 | 3778-134 | 3778-133 | 30.19 | – | – |
| M20 x 2.5 | 7 | 4 | 2 | 4-15/32 | 3778-243 | 3778-242 | 3778-241 | 34.00 | 3780-130 | 102.00 |
| M20 x 1.5 | 6 | 4 | 2 | 4-15/32 | 3778-225 | 3778-224 | 3778-223 | 34.00 | – | – |
| M22 x 2.5 | 7 | 4 | 2-7/32 | 4-11/16 | 3778-306 | 3778-305 | 3778-304 | 41.71 | – | – |
| M22 x 1.5 | 6 | 4 | 2-7/32 | 4-11/16 | 3778-288 | 3778-287 | 3778-286 | 41.71 | – | – |
| M24 x 3 | 8 | 4 | 2-7/32 | 4-29/32 | 3778-342 | 3778-341 | 3778-340 | 44.77 | 3780-150 | 134.31 |
| M24 x 2 | 7 | 4 | 2-7/32 | 4-29/32 | 3778-324 | 3778-323 | 3778-322 | 44.77 | – | – |
| M27 x 3 | 8 | 4 | 2-1/2 | 5-1/8 | 3778-468 | 3778-467 | 3778-466 | 73.82 | – | – |
| M27 x 2 | 7 | 4 | 2-1/2 | 5-1/8 | 3778-459 | 3778-458 | 3778-457 | 73.82 | – | – |
| M30 x 3.5 | 9 | 4 | 2-9/16 | 5-7/16 | 3778-565 | 3778-564 | 3778-563 | 107.60 | 3780-170 | 322.80 |
| M30 x 2 | 7 | 4 | 2-9/16 | 5-7/16 | 3778-549 | 3778-548 | 3778-547 | 107.60 | – | – |
| M33 x 3.5 | 9 | 4 | 2-9/16 | 5-3/4 | 3778-630 | 3778-629 | 3778-628 | 112.13 | – | – |
| M33 x 2 | 7 | 4 | 2-9/16 | 5-3/4 | 3778-612 | 3778-611 | 3778-610 | 112.13 | – | – |
| M36 x 4 | 9 | 4 | 3 | 6-1/16 | 3778-693 | 3778-692 | 3778-691 | 148.51 | – | – |
| M36 x 3 | 8 | 4 | 3 | 6-1/16 | 3778-702 | 3778-701 | 3778-700 | 148.51 | – | – |
| M39 x 4 | 9 | 6 | 3-3/16 | 6-11/16 | 3778-747 | 3778-746 | 3778-745 | 172.77 | – | – |
| M39 x 3 | 8 | 6 | 3-3/16 | 6-11/16 | 3778-738 | 3778-737 | 3778-736 | 172.77 | – | – |

## Spiral Point– Plug Style

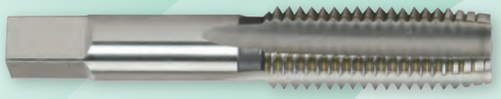
2

| NOMINAL SIZE | D LIMITS | NO. OF FLUTES | THREAD LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| M1.6 x .35 | 3 | 2 | 5/16 | 1-5/8 | 3779-133 | $10.82 |
| M1.8 x .35 | 3 | 2 | 3/8 | 1-11/16 | 3779-139 | 9.76 |
| M2 x .4 | 3 | 2 | 7/16 | 1-3/4 | 3779-148 | 9.69 |
| M2.2 x .45 | 3 | 2 | 7/16 | 1-3/4 | 3779-157 | 8.32 |
| M2.5 x .45 | 3 | 2 | 1/2 | 1-13/16 | 3779-166 | 8.32 |
| M3 x .5 | 3 | 2 | 5/8 | 1-15/16 | 3779-184 | 6.15 |
| M3.5 x .6 | 4 | 2 | 11/16 | 2 | 3779-202 | 5.08 |
| M4 x .7 | 4 | 2 | 3/4 | 2-1/8 | 3779-217 | 5.08 |
| M4.5 x .75 | 4 | 2 | 7/8 | 2-3/8 | 3779-226 | 4.47 |
| M5 x .8 | 4 | 2 | 7/8 | 2-3/8 | 3779-238 | 4.47 |
| M6 x 1 | 5 | 2 | 1 | 2-1/2 | 3779-263 | 4.78 |

| NOMINAL SIZE | D LIMITS | NO. OF FLUTES | THREAD LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| M7 x 1 | 5 | 2 | 1-1/8 | 2-23/32 | 3779-280 | $ 5.65 |
| M8 x 1.25 | 5 | 2 | 1-1/8 | 2-23/32 | 3779-298 | 5.65 |
| M8 x 1 | 5 | 2 | 1-1/8 | 2-23/32 | 3779-290 | 5.65 |
| M10 x 1.5 | 6 | 3 | 1-1/4 | 2-15/16 | 3779-337 | 10.85 |
| M10 x 1.25 | 5 | 3 | 1-1/4 | 2-15/16 | 3779-334 | 10.85 |
| M12 x 1.75 | 6 | 3 | 1-21/32 | 3-3/8 | 3779-373 | 11.59 |
| M12 x 1.25 | 5 | 3 | 1-21/32 | 3-3/8 | 3779-365 | 12.90 |
| M14 x 2 | 7 | 3 | 1-21/32 | 3-19/32 | 3779-427 | 19.49 |
| M14 x 1.5 | 6 | 3 | 1-21/32 | 3-19/32 | 3779-421 | 19.49 |
| M16 x 2 | 7 | 3 | 1-13/16 | 3-13/16 | 3779-463 | 23.01 |
| M16 x 1.5 | 6 | 3 | 1-13/16 | 3-13/16 | 3779-460 | 23.01 |
| M18 x 2.5 | 7 | 4 | 1-13/16 | 4-1/32 | 3779-490 | 32.47 |
| M20 x 2.5 | 7 | 3 | 2 | 4-15/32 | 3779-516 | 36.61 |

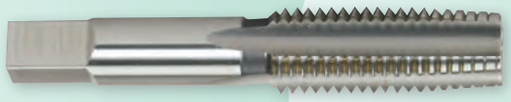
# Metric Hand Taps

## Ground Thread – High Speed Steel



Plug

Bottom



Taper

Spiral Point

| SIZE | PLUG ORDER NO. | BOTTOM ORDER NO. | TAPER ORDER NO. | PRICE EACH | SPIRAL POINT ORDER NO. | SPIRAL POINT PRICE EACH |
|---|---|---|---|---|---|---|
| 1.6 x 0.35 | 2327-084 | 2327-083 | – | $6.42 | 2329-133 | $7.86 |
| 1.8 x 0.35 | 2327-100 | 2327-101 | – | 6.42 | 2329-139 | 7.86 |
| 2.0 x 0.40 | 2327-118 | 2327-119 | 2327-120 | 6.50 | 2329-148 | 7.86 |
| 2.2 x 0.45 | 2327-145 | 2327-146 | 2327-147 | 5.53 | 2329-157 | 5.14 |
| 2.3 x 0.40 | 2327-163 | 2327-164 | 2327-165 | 4.64 | – | – |
| 2.5 x 0.45 | 2327-172 | 2327-173 | 2327-174 | 4.25 | 2329-166 | 5.14 |
| 2.6 x 0.45 | 2327-199 | 2327-200 | 2327-201 | 4.34 | – | – |
| 3.0 x 0.35 | 2327-208 | 2327-209 | 2327-210 | 3.57 | – | – |
| 3.0 x 0.50 | 2327-226 | 2327-227 | 2327-228 | 3.57 | 2329-184 | 4.29 |
| 3.5 x 0.60 | 2327-280 | 2327-281 | 2327-282 | 2.89 | 2329-202 | 4.04 |
| 4.0 x 0.50 | 2327-316 | 2327-317 | 2327-318 | 2.85 | – | – |
| 4.0 x 0.70 | 2327-325 | 2327-326 | 2327-327 | 2.89 | 2329-217 | 4.04 |
| 4.5 x 0.75 | 2327-352 | 2327-353 | 2327-354 | 2.89 | 2329-226 | 4.04 |
| 5.0 x 0.50 | 2327-363 | 2327-362 | 2327-364 | 2.85 | 2329-229 | 3.74 |
| 5.0 x 0.80 | 2327-388 | 2327-389 | 2327-390 | 2.89 | 2329-238 | 3.74 |
| 5.0 x 0.90 | 2327-397 | 2327-398 | 2327-399 | 2.85 | – | – |
| 5.5 x 0.90 | 2327-433 | 2327-434 | 2327-435 | 3.06 | – | – |
| 6.0 x 0.50 | 2327-442 | 2327-443 | 2327-444 | 3.32 | – | – |
| 6.0 x 0.75 | 2327-460 | 2327-461 | 2327-462 | 3.32 | 2329-267 | 4.30 |
| 6.0 x 1.00 | 2327-464 | 2327-465 | 2327-466 | 3.10 | 2329-263 | 3.74 |
| 6.3 x 1.00 | 2327-487 | 2327-488 | 2327-489 | 3.71 | 2329-271 | 4.30 |
| 7.0 x 1.00 | 2327-523 | 2327-524 | 2327-525 | 3.36 | 2329-280 | 4.21 |
| 8.0 x 0.75 | 2327-559 | 2327-560 | 2327-561 | 4.59 | – | – |
| 8.0 x 1.00 | 2327-568 | 2327-569 | 2327-570 | 3.36 | 2329-290 | 4.21 |
| 8.0 x 1.25 | 2327-577 | 2327-578 | 2327-579 | 3.36 | 2329-298 | 4.21 |
| 9.0 x 1.00 | 2327-622 | 2327-623 | 2327-624 | 6.21 | – | – |
| 9.0 x 1.25 | 2327-631 | 2327-632 | 2327-633 | 6.21 | – | – |
| 10.0 x 0.75 | 2327-658 | 2327-659 | 2327-660 | 6.21 | – | – |
| 10.0 x 1.00 | 2327-676 | 2327-677 | 2327-678 | 6.25 | 2329-331 | 7.61 |
| 10.0 x 1.25 | 2327-685 | 2327-686 | 2327-687 | 6.25 | 2329-334 | 7.61 |
| 10.0 x 1.50 | 2327-694 | 2327-695 | 2327-696 | 6.25 | 2329-337 | 7.61 |
| 11.0 x 1.00 | 2327-712 | 2327-713 | 2327-714 | 7.23 | – | – |
| 11.0 x 1.50 | 2327-739 | 2327-740 | 2327-741 | 7.23 | – | – |
| 12.0 x 1.00 | 2327-775 | 2327-776 | 2327-777 | 7.23 | – | – |
| 12.0 x 1.25 | 2327-778 | 2327-779 | 2327-780 | 7.31 | 2329-365 | 8.93 |
| 12.0 x 1.50 | 2327-785 | 2327-784 | 2327-786 | 7.23 | 2329-367 | 8.93 |
| 12.0 x 1.75 | 2327-801 | 2327-802 | 2327-803 | 7.31 | 2329-373 | 8.93 |
| 14.0 x 1.00 | 2327-920 | 2327-919 | 2327-921 | 10.88 | – | – |
| 14.0 x 1.25 | 2327-927 | 2327-928 | 2327-929 | 11.01 | – | – |
| 14.0 x 1.50 | 2327-945 | 2327-946 | 2327-947 | 11.01 | 2329-421 | 13.39 |

| SIZE | PLUG ORDER NO. | BOTTOM ORDER NO. | TAPER ORDER NO. | PRICE EACH | SPIRAL POINT ORDER NO. | SPIRAL POINT PRICE EACH |
|---|---|---|---|---|---|---|
| 14.0 x 2.00 | 2327-963 | 2327-964 | 2327-965 | $11.01 | 2329-427 | $13.39 |
| 16.0 x 1.00 | 2328-043 | 2328-044 | 2328-045 | 13.30 | – | – |
| 16.0 x 1.50 | 2328-061 | 2328-062 | 2328-063 | 13.43 | 2329-460 | 16.36 |
| 16.0 x 2.00 | 2328-070 | 2328-071 | 2328-072 | 13.43 | 2329-463 | 16.36 |
| 18.0 x 1.00 | 2328-124 | 2328-123 | 2328-126 | 17.26 | – | – |
| 18.0 x 1.50 | 2328-133 | 2328-134 | 2328-135 | 17.43 | – | – |
| 18.0 x 2.00 | 2328-142 | 2328-143 | 2328-144 | 17.26 | – | – |
| 18.0 x 2.50 | 2328-151 | 2328-152 | 2328-153 | 17.43 | 2329-490 | 22.40 |
| 20.0 x 1.00 | 2328-205 | 2328-206 | 2328-207 | 24.27 | – | – |
| 20.0 x 1.50 | 2328-223 | 2328-224 | 2328-225 | 24.48 | – | – |
| 20.0 x 2.00 | 2328-232 | 2328-233 | 2328-234 | 24.27 | – | – |
| 20.0 x 2.50 | 2328-241 | 2328-242 | 2328-243 | 24.48 | 2329-517 | 30.26 |
| 22.0 x 1.00 | 2328-268 | 2328-269 | 2328-270 | 25.59 | – | – |
| 22.0 x 1.50 | 2328-286 | 2328-287 | 2328-288 | 25.59 | – | – |
| 22.0 x 2.00 | 2328-295 | 2328-296 | 2328-297 | 25.42 | – | – |
| 22.0 x 2.50 | 2328-304 | 2328-305 | 2328-306 | 25.59 | – | – |
| 24.0 x 1.50 | 2328-315 | 2328-314 | 2328-316 | 30.18 | – | – |
| 24.0 x 2.00 | 2328-322 | 2328-323 | 2328-324 | 30.18 | – | – |
| 24.0 x 3.00 | 2328-340 | 2328-341 | 2328-342 | 30.18 | – | – |
| 27.0 x 2.00 | 2328-457 | 2328-458 | 2328-459 | 44.80 | – | – |
| 27.0 x 3.00 | 2328-466 | 2328-467 | 2328-468 | 44.80 | – | – |
| 30.0 x 1.50 | 2328-538 | 2328-539 | 2328-540 | 56.91 | – | – |
| 30.0 x 2.00 | 2328-547 | 2328-548 | 2328-549 | 56.91 | – | – |
| 30.0 x 3.50 | 2328-565 | 2328-563 | 2328-567 | 56.91 | – | – |
| 33.0 x 2.00 | 2328-610 | 2328-611 | 2328-612 | 62.22 | – | – |
| 33.0 x 3.50 | 2328-628 | 2328-629 | 2328-630 | 62.22 | – | – |
| 36.0 x 4.00 | 2328-691 | 2328-692 | 2328-693 | 83.68 | – | – |
| 36.0 x 3.00 | 2328-700 | 2328-701 | 2328-702 | 83.68 | – | – |
| 39.0 x 3.00 | 2328-736 | 2328-737 | 2328-738 | 91.84 | – | – |
| 39.0 x 4.00 | 2328-745 | 2328-746 | 2328-747 | 91.84 | – | – |
| 42.0 x 4.50 | 2328-837 | 2328-836 | 2328-838 | 112.92 | – | – |
| 45.0 x 4.50 | 2328-891 | 2328-890 | 2328-892 | 114.07 | – | – |
| 48.0 x 5.00 | 2328-925 | 2328-926 | 2328-927 | 117.51 | – | – |

Any Size Not Shown, Available On Request

# Spiral Point Taps - Ground Thread High Speed Steel

Look for ALLEGIANCE AMERICANMADE MADE IN USA

## Machine Screw Sizes

| NOMINAL SIZE | H LIMITS | # OF FLUTES | OVERALL LENGTH | LENGTH | PLUG ORDER NO. | PRICE EACH | BOTTOM ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 0-80 UNF | 1 | 2 | 5/16 | 1-5/8 | 3720-112 | $9.91 | 3720-111 | $12.74 |
| 0-80 UNF | 2 | 2 | 5/16 | 1-5/8 | 3720-122 | 9.91 | 3720-121 | 12.74 |
| 1-64 UNC | 1 | 2 | 3/8 | 1-11/16 | 3720-312 | 8.92 | – | – |
| 1-64 UNC | 2 | 2 | 3/8 | 1-11/16 | 3720-322 | 8.92 | – | – |
| 1-72 UNF | 1 | 2 | 3/8 | 1-11/16 | 3720-512 | 8.92 | – | – |
| 1-72 UNF | 2 | 2 | 3/8 | 1-11/16 | 3720-522 | 8.92 | – | – |
| 2-56 UNC | 1 | 2 | 7/16 | 1-3/4 | 3720-712 | 8.61 | 3720-711 | 10.91 |
| 2-56 UNC | 2 | 2 | 7/16 | 1-3/4 | 3720-722 | 7.07 | 3720-721 | 10.03 |
| 2-64 UNF | 2 | 2 | 7/16 | 1-3/4 | 3720-922 | 8.61 | – | – |
| 3-48 UNC | 2 | 2 | 1/2 | 1-13/16 | 3721-122 | 5.78 | 3721-121 | 9.11 |
| 3-56 UNF | 1 | 2 | 1/2 | 1-13/16 | 3721-312 | 7.43 | – | – |
| 3-56 UNF | 2 | 2 | 1/2 | 1-13/16 | 3721-322 | 6.43 | – | – |
| 4-40 UNC | 1 | 2 | 9/16 | 1-7/8 | 3721-712 | 5.68 | – | – |
| 4-40 UNC | 2 | 2 | 9/16 | 1-7/8 | 3721-722 | 4.73 | 3721-721 | 6.71 |
| 4-48 UNF | 1 | 2 | 9/16 | 1-7/8 | 3721-912 | 5.68 | – | – |
| 4-48 UNF | 2 | 2 | 9/16 | 1-7/8 | 3721-922 | 5.37 | 3721-921 | 6.91 |
| 4-36 UNF | 2 | 2 | 9/16 | 1-7/8 | 3721-522 | 5.68 | – | – |

| NOMINAL SIZE | H LIMITS | # OF FLUTES | OVERALL LENGTH | LENGTH | PLUG ORDER NO. | PRICE EACH | BOTTOM ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 5-40 UNC | 1 | 2 | 5/8 | 1-15/16 | 3722-112 | $5.68 | – | – |
| 5-40 UNC | 2 | 2 | 5/8 | 1-15/16 | 3722-122 | 4.71 | 3722-121 | $6.91 |
| 5-44 UNF | 2 | 2 | 5/8 | 1-15/16 | 3722-322 | 5.42 | – | – |
| 6-32 UNC | 1 | 2 | 11/16 | 2 | 3722-512 | 4.65 | – | – |
| 6-32 UNC | 2 | 2 | 11/16 | 2 | 3722-522 | 4.04 | 3722-521 | 5.54 |
| 6-32 UNC | 3 | 2 | 11/16 | 2 | 3722-532 | 3.84 | 3722-531 | 5.54 |
| 6-40 UNF | 2 | 2 | 11/16 | 2 | 3722-722 | 4.46 | 3722-721 | 6.32 |
| 8-32 UNC | 1 | 2 | 3/4 | 2-1/8 | 3722-912 | 4.65 | – | – |
| 8-32 UNC | 2 | 2 | 3/4 | 2-1/8 | 3722-922 | 4.08 | 3722-921 | 5.89 |
| 8-32 UNC | 3 | 2 | 3/4 | 2-1/8 | 3722-932 | 3.81 | 3722-931 | 5.56 |
| 8-36 UNF | 2 | 2 | 3/4 | 2-1/8 | 3723-122 | 4.46 | – | – |
| 10-24 UNC | 1 | 2 | 7/8 | 2-3/8 | 3723-312 | 5.11 | – | – |
| 10-24 UNC | 2 | 2 | 7/8 | 2-3/8 | 3723-322 | 4.65 | 3723-321 | 6.32 |
| 10-24 UNC | 3 | 2 | 7/8 | 2-3/8 | 3723-332 | 3.81 | 3723-331 | 5.38 |
| 10-32 UNC | 1 | 2 | 7/8 | 2-3/8 | 3723-512 | 4.65 | 3723-511 | 6.32 |
| 10-32 UNF | 2 | 2 | 7/8 | 2-3/8 | 3723-522 | 4.08 | 3723-521 | 6.32 |
| 10-32 UNF | 3 | 2 | 7/8 | 2-3/8 | 3723-532 | 3.81 | 3723-531 | 5.38 |
| 12-24 UNC | 3 | 2 | 1 | 2-1/2 | 3723-732 | 4.46 | 3723-731 | 6.32 |
| 12-28 UNF | 3 | 2 | 1 | 2-1/2 | 3723-932 | 4.46 | – | – |

## Fractional Sizes

| NOMINAL SIZE | H LIMITS | # OF FLUTES | OVERALL LENGTH | LENGTH | PLUG ORDER NO. | PRICE EACH | BOTTOM ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4-20 UNC | 1 | 2 | 1 | 2-1/2 | 3724-112 | $4.65 | – | – |
| 1/4-20 UNC | 2 | 2 | 1 | 2-1/2 | 3724-122 | 4.65 | – | – |
| 1/4-20 UNC | 3 | 2 | 1 | 2-1/2 | 3724-132 | 3.81 | 3724-131 | $5.56 |
| 1/4-20 UNC | 5 | 2 | 1 | 2-1/2 | 3724-149 | 4.65 | – | – |
| 1/4-20 UNC | 11 | 2 | 1 | 2-1/2 | 3724-192 | 5.50 | – | – |
| 1/4-20 UNC | 3 | 3 | 1 | 2-1/2 | 3724-135 | 5.11 | – | – |
| 1/4-20 UNC | 5 | 3 | 1 | 2-1/2 | 3724-152 | 5.11 | – | – |
| 1/4-28 UNF | 1 | 2 | 1 | 2-1/2 | 3724-312 | 5.11 | – | – |
| 1/4-28 UNF | 2 | 2 | 1 | 2-1/2 | 3724-322 | 4.65 | – | – |
| 1/4-28 UNF | 3 | 2 | 1 | 2-1/2 | 3724-332 | 3.81 | 3724-331 | 6.32 |
| 1/4-28 UNF | 4 | 2 | 1 | 2-1/2 | 3724-339 | 5.11 | – | – |
| 1/4-28 UNF | 2 | 3 | 1 | 2-1/2 | 3724-325 | 5.11 | – | – |
| 1/4-28 UNF | 4 | 3 | 1 | 2-1/2 | 3724-342 | 5.11 | – | – |
| 5/16-18 UNC | 1 | 2 | 1-1/8 | 2-23/32 | 3724-512 | 5.83 | – | – |
| 5/16-18 UNC | 2 | 2 | 1-1/8 | 2-23/32 | 3724-522 | 5.11 | – | – |
| 5/16-18 UNC | 3 | 2 | 1-1/8 | 2-23/32 | 3724-532 | 4.16 | 3724-531 | 6.71 |
| 5/16-18 UNC | 5 | 2 | 1-1/8 | 2-23/32 | 3724-549 | 5.11 | – | – |
| 5/16-18 UNC | 11 | 2 | 1-1/8 | 2-23/32 | 3724-592 | 6.28 | – | – |
| 5/16-18 UNC | 3 | 3 | 1-1/8 | 2-23/32 | 3724-535 | 5.83 | – | – |
| 5/16-18 UNC | 5 | 3 | 1-1/8 | 2-23/32 | 3724-552 | 5.83 | – | – |
| 5/16-24 UNF | 1 | 2 | 1-1/8 | 2-23/32 | 3724-712 | 5.83 | – | – |
| 5/16-24 UNF | 2 | 2 | 1-1/8 | 2-23/32 | 3724-722 | 5.83 | – | – |
| 5/16-24 UNF | 3 | 2 | 1-1/8 | 2-23/32 | 3724-732 | 4.16 | 3724-731 | 6.71 |
| 5/16-24 UNF | 4 | 2 | 1-1/8 | 2-23/32 | 3724-742 | 5.83 | – | – |
| 5/16-24 UNF | 2 | 3 | 1-1/8 | 2-23/32 | 3724-725 | 5.83 | – | – |
| 5/16-24 UNF | 4 | 3 | 1-1/8 | 2-23/32 | 3724-745 | 5.83 | – | – |
| 3/8-16 UNC | 1 | 3 | 1-1/4 | 2-15/16 | 3724-912 | 6.64 | – | – |
| 3/8-16 UNC | 2 | 3 | 1-1/4 | 2-15/16 | 3724-922 | 6.08 | – | – |
| 3/8-16 UNC | 3 | 3 | 1-1/4 | 2-15/16 | 3724-932 | 4.91 | – | – |
| 3/8-16 UNC | 5 | 3 | 1-1/4 | 2-15/16 | 3724-952 | 6.64 | – | – |

| NOMINAL SIZE | H LIMITS | # OF FLUTES | OVERALL LENGTH | LENGTH | PLUG ORDER NO. | PRICE EACH | BOTTOM ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/8-16 UNC | 11 | 3 | 1-1/4 | 2-15/16 | 3724-992 | $ 7.16 | – | – |
| 3/8-24 UNF | 1 | 3 | 1-1/4 | 2-15/16 | 3725-112 | 6.64 | – | – |
| 3/8-24 UNF | 2 | 3 | 1-1/4 | 2-15/16 | 3725-122 | 6.64 | – | – |
| 3/8-24 UNF | 3 | 3 | 1-1/4 | 2-15/16 | 3725-132 | 5.30 | – | – |
| 3/8-24 UNF | 4 | 3 | 1-1/4 | 2-15/16 | 3725-142 | 6.64 | – | – |
| 7/16-14 UNC | 2 | 3 | 1-7/16 | 3-5/32 | 3725-322 | 9.83 | – | – |
| 7/16-14 UNC | 3 | 3 | 1-7/16 | 3-5/32 | 3725-332 | 8.90 | – | – |
| 7/16-14 UNC | 5 | 3 | 1-7/16 | 3-5/32 | 3725-352 | 9.83 | – | – |
| 7/16-14 UNC | 11 | 3 | 1-7/16 | 3-5/32 | 3725-392 | 10.58 | – | – |
| 7/16-20 UNF | 3 | 3 | 1-7/16 | 3-5/32 | 3725-532 | 8.90 | – | – |
| 7/16-20 UNF | 5 | 3 | 1-7/16 | 3-5/32 | 3725-552 | 9.83 | – | – |
| 1/2-13 UNC | 1 | 3 | 1-21/32 | 3-3/8 | 3725-712 | 11.88 | – | – |
| 1/2-13 UNC | 2 | 3 | 1-21/32 | 3-3/8 | 3725-722 | 11.88 | – | – |
| 1/2-13 UNC | 3 | 3 | 1-21/32 | 3-3/8 | 3725-732 | 9.32 | – | – |
| 1/2-13 UNC | 5 | 3 | 1-21/32 | 3-3/8 | 3725-752 | 10.61 | – | – |
| 1/2-13 UNC | 11 | 3 | 1-21/32 | 3-3/8 | 3725-792 | 12.80 | – | – |
| 1/2-20 UNF | 1 | 3 | 1-21/32 | 3-3/8 | 3725-912 | 11.88 | – | – |
| 1/2-20 UNF | 2 | 3 | 1-21/32 | 3-3/8 | 3725-922 | 11.88 | – | – |
| 1/2-20 UNF | 3 | 3 | 1-21/32 | 3-3/8 | 3725-932 | 9.32 | – | – |
| 1/2-20 UNF | 5 | 3 | 1-21/32 | 3-3/8 | 3725-952 | 11.88 | – | – |
| 9/16-12 UNC | 3 | 3 | 1-21/32 | 3-19/32 | 3726-132 | 17.60 | – | – |
| 9/16-12 UNC | 5 | 3 | 1-21/32 | 3-19/32 | 3726-152 | 18.86 | – | – |
| 5/8-11 UNC | 3 | 3 | 1-13/16 | 3-3/16 | 3726-532 | 19.39 | – | – |
| 5/8-11 UNC | 5 | 3 | 1-13/16 | 3-3/16 | 3726-552 | 20.32 | – | – |
| 5/8-11 UNC | 11 | 3 | 1-13/16 | 3-3/16 | 3726-592 | 21.89 | – | – |
| 5/8-18 UNF | 3 | 3 | 1-13/16 | 3-3/16 | 3726-732 | 19.39 | – | – |
| 3/4-10 UNC | 3 | 3 | 2 | 4-1/4 | 3727-332 | 27.39 | – | – |
| 3/4-10 UNC | 5 | 3 | 2 | 4-1/4 | 3727-352 | 28.70 | – | – |

# Spiral Point Taps

## Ground Thread – High Speed Steel, TiN Coated

[3] [2]

| | | | Pittsburg® ALLEGHANY | | BRUBAKER TOOL CORPORATION | | | |
|---|---|---|---|---|---|---|---|---|
| SIZE | GH | FLUTES | PLUG ORDER NO. | PRICE EACH | PLUG ORDER NO. | PRICE EACH | PLUG - TiN COATED ORDER NO. | PRICE EACH |
| 0-80 NF | 1 | 2 | 3550-112 | $6.01 | 3610-112 | $10.27 | – | – |
| 0-80 NF | 2 | 2 | 3550-122 | 6.01 | – | – | – | – |
| 1-64 NC | 1 | 2 | 3550-312 | 5.82 | 3610-312 | 9.28 | – | – |
| 1-64 NC | 2 | 2 | 3550-322 | 5.82 | – | – | – | – |
| 1-72 NF | 1 | 2 | 3550-512 | 5.82 | 3610-512 | 9.28 | – | – |
| 1-72 NF | 2 | 2 | 3550-522 | 5.82 | – | – | – | – |
| 2-56 NC | 1 | 2 | 3550-712 | 4.31 | – | – | – | – |
| 2-56 NC | 2 | 2 | 3550-722 | 4.31 | 3610-722 | 7.88 | – | – |
| 2-64 NF | 1 | 2 | 3550-912 | 4.31 | 3610-912 | 8.88 | – | – |
| 2-64 NF | 2 | 2 | 3550-922 | 4.31 | 3610-922 | 8.88 | – | – |
| 3-48 NC | 1 | 2 | 3551-112 | 3.34 | – | – | – | – |
| 3-48 NC | 2 | 2 | 3551-122 | 3.34 | 3611-122 | 6.32 | – | – |
| 3-56 NF | 1 | 2 | 3551-312 | 3.34 | – | – | – | – |
| 3-56 NF | 2 | 2 | 3551-322 | 3.34 | 3611-322 | 7.04 | – | – |
| 4-40 NC | 1 | 2 | 3551-712 | 2.73 | – | – | – | – |
| 4-40 NC | 2 | 2 | 3551-722 | 2.73 | 3611-722 | 5.06 | 4171-722 | $6.88 |
| 4-36 NS | 2 | 2 | 3551-522 | 3.15 | – | – | – | – |
| 4-48 NF | 1 | 2 | 3551-912 | 2.73 | – | – | – | – |
| 4-48 NF | 2 | 2 | 3551-922 | 2.73 | 3611-922 | 5.86 | 4171-922 | 7.71 |
| 5-40 NC | 1 | 2 | 3552-112 | 2.73 | – | – | – | – |
| 5-40 NC | 2 | 2 | 3552-122 | 2.73 | 3612-122 | 5.06 | 4172-122 | 6.88 |
| 5-44 NF | 1 | 2 | 3552-312 | 2.73 | – | – | – | – |
| 5-44 NF | 2 | 2 | 3552-322 | 2.73 | 3612-322 | 5.86 | 4172-322 | 7.71 |
| 6-32 NC | 1 | 2 | 3552-512 | 2.28 | – | – | – | – |
| 6-32 NC | 2 | 2 | 3552-522 | 2.28 | – | – | – | – |
| 6-32 NC | 3 | 2 | 3552-532 | 2.28 | 3612-532 | 4.26 | 4172-532 | 6.10 |
| 6-32 NC | 7 | 2 | 3552-572 | 2.76 | – | – | – | – |
| 6-40 NF | 1 | 2 | 3552-712 | 2.76 | – | – | – | – |
| 6-40 NF | 2 | 2 | 3552-722 | 2.76 | 3612-722 | 4.85 | 4172-722 | 6.69 |
| 8-32 NC | 1 | 2 | 3552-912 | 2.33 | – | – | – | – |
| 8-32 NC | 2 | 2 | 3552-922 | 2.33 | – | – | – | – |
| 8-32 NC | 3 | 2 | 3552-932 | 2.33 | 3612-932 | 4.26 | 4172-932 | 6.44 |
| 8-32 NC | 7 | 2 | 3552-972 | 2.76 | – | – | – | – |
| 8-36 NF | 1 | 2 | 3553-112 | 2.76 | – | – | – | – |
| 8-36 NF | 2 | 2 | 3553-122 | 2.76 | 3613-122 | 4.85 | 4173-122 | 7.02 |
| 10-24 NC | 1 | 2 | 3553-312 | 2.33 | – | – | – | – |
| 10-24 NC | 2 | 2 | 3553-322 | 2.33 | – | – | – | – |
| 10-24 NC | 3 | 2 | 3553-332 | 2.33 | 3613-332 | 4.26 | 4173-332 | 6.44 |
| 10-24 NC | 7 | 2 | 3553-372 | 2.76 | – | – | – | – |
| 10-32 NF | 1 | 2 | 3553-512 | 2.33 | – | – | – | – |
| 10-32 NF | 2 | 2 | 3553-522 | 2.33 | – | – | – | – |
| 10-32 NF | 3 | 2 | 3553-532 | 2.33 | 3613-532 | 4.26 | 4173-532 | 6.44 |
| 10-32 NF | 7 | 2 | 3553-572 | 2.76 | – | – | – | – |
| 12-24 NC | 1 | 2 | 3553-712 | 2.53 | – | – | – | – |
| 12-24 NC | 3 | 2 | 3553-732 | 2.53 | 3613-732 | 4.85 | 4173-732 | 7.02 |
| 12-28 NF | 3 | 2 | 3553-932 | 2.53 | 3613-932 | 4.85 | 4173-932 | 7.02 |
| 1/4-20 NC | 1 | 2 | 3554-112 | 2.28 | – | – | – | – |
| 1/4-20 NC | 2 | 2 | 3554-122 | 2.28 | – | – | – | – |
| 1/4-20 NC | 3 | 2 | 3554-132 | 2.28 | 3614-132 | 4.26 | 4174-132 | 6.44 |
| 1/4-20 NC | 3 | 3 | 3554-135 | 2.52 | – | – | – | – |
| 1/4-20 NC | 5 | 2 | 3554-149 | 2.28 | – | – | – | – |
| 1/4-20 NC | 5 | 3 | 3554-152 | 2.52 | – | – | – | – |
| 1/4-28 NF | 1 | 2 | 3554-312 | 2.28 | – | – | – | – |
| 1/4-28 NF | 2 | 2 | 3554-322 | 2.28 | – | – | – | – |
| 1/4-28 NF | 2 | 3 | 3554-325 | 2.52 | – | – | – | – |
| 1/4-28 NF | 3 | 2 | 3554-332 | 2.28 | 3614-332 | 4.26 | 4174-332 | 6.44 |

(continued)

# Spiral Point Taps - (Continued)

## Ground Thread – High Speed Steel, TiN Coated

[3] [2]

| SIZE | GH | FLUTES | Pittsburg® ALLEGHANY PLUG ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | BRUBAKER TOOL CORPORATION PLUG ORDER NO. | BRUBAKER TOOL CORPORATION PRICE EACH | BRUBAKER TOOL CORPORATION PLUG - TiN COATED ORDER NO. | BRUBAKER TOOL CORPORATION PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4-28 NF | 4 | 2 | 3554-339 | $2.28 | – | – | – | – |
| 1/4-28 NF | 4 | 3 | 3554-342 | 2.52 | – | – | – | – |
| 5/16-18 NC | 1 | 2 | 3554-512 | 2.70 | – | – | – | – |
| 5/16-18 NC | 2 | 2 | 3554-522 | 2.70 | – | – | – | – |
| 5/16-18 NF | 3 | 2 | 3554-532 | 2.70 | 3614-532 | $4.61 | 4174-532 | $7.04 |
| 5/16-18 NC | 3 | 3 | 3554-535 | 2.92 | – | – | – | – |
| 5/16-18 NC | 5 | 2 | 3554-549 | 2.70 | – | – | – | – |
| 5/16-18 NC | 5 | 3 | 3554-552 | 2.92 | – | – | – | – |
| 5/16-24 NF | 1 | 2 | 3554-712 | 2.70 | – | – | – | – |
| 5/16-24 NF | 2 | 2 | 3554-722 | 2.70 | – | – | – | – |
| 5/16-24 NF | 2 | 3 | 3554-725 | 2.92 | – | – | – | – |
| 5/16-24 NF | 3 | 2 | 3554-732 | 2.70 | 3614-732 | 4.61 | 4174-732 | 7.04 |
| 5/16-24 NF | 4 | 2 | 3554-742 | 2.70 | – | – | – | – |
| 5/16-24 NF | 4 | 3 | 3554-745 | 2.92 | – | – | – | – |
| 3/8-16 NC | 1 | 3 | 3554-912 | 3.06 | – | – | – | – |
| 3/8-16 NC | 2 | 3 | 3554-922 | 3.06 | – | – | – | – |
| 3/8-16 NC | 3 | 3 | 3554-932 | 3.06 | 3614-932 | 5.46 | 4174-932 | 8.26 |
| 3/8-16 NC | 5 | 3 | 3554-952 | 3.06 | – | – | – | – |
| 3/8-24 NF | 1 | 3 | 3555-112 | 3.06 | – | – | – | – |
| 3/8-24 NF | 2 | 3 | 3555-122 | 3.06 | – | – | – | – |
| 3/8-24 NF | 3 | 3 | 3555-132 | 3.06 | 3615-132 | 5.86 | 4175-132 | 8.69 |
| 3/8-24 NF | 4 | 3 | 3555-142 | 3.06 | – | – | – | – |
| 7/16-14 NC | 2 | 3 | 3555-322 | 5.14 | – | – | – | – |
| 7/16-14 NC | 3 | 3 | 3555-332 | 5.14 | 3615-332 | 9.28 | 4175-332 | 13.66 |
| 7/16-14 NC | 5 | 3 | 3555-352 | 5.14 | – | – | – | – |
| 7/16-20 NF | 2 | 3 | 3555-522 | 5.14 | – | – | – | – |
| 7/16-20 NF | 3 | 3 | 3555-532 | 5.14 | 3615-532 | 9.28 | 4175-532 | 13.66 |
| 7/16-20 NF | 5 | 3 | 3555-552 | 5.14 | – | – | – | – |
| 1/2-13 NC | 1 | 3 | 3555-712 | 5.60 | – | – | – | – |
| 1/2-13 NC | 2 | 3 | 3555-722 | 5.60 | – | – | – | – |
| 1/2-13 NC | 3 | 3 | 3555-732 | 5.60 | 3615-732 | 9.46 | 4175-732 | 13.84 |
| 1/2-13 NC | 5 | 3 | 3555-752 | 5.60 | – | – | – | – |
| 1/2-20 NF | 1 | 3 | 3555-912 | 5.60 | – | – | – | – |
| 1/2-20 NF | 2 | 3 | 3555-922 | 5.60 | – | – | – | – |
| 1/2-20 NF | 3 | 3 | 3555-932 | 5.60 | 3615-932 | 11.10 | 4175-932 | 15.46 |
| 1/2-20 NF | 5 | 3 | 3555-952 | 5.60 | – | – | – | – |
| 9/16-12 NC | 3 | 3 | 3556-132 | 8.97 | 3616-132 | 15.44 | – | – |
| 9/16-18 NF | 3 | 3 | 3556-332 | 8.97 | – | – | – | – |
| 5/8-11 NC | 3 | 3 | 3556-532 | 12.76 | 3616-532 | 21.10 | 4176-532 | 32.00 |
| 5/8-11 NC | 5 | 3 | 3556-552 | 12.76 | – | – | – | – |
| 5/8-18 NF | 3 | 3 | 3556-732 | 12.76 | 3616-732 | 21.10 | 4176-732 | 32.00 |
| 5/8-18 NF | 5 | 3 | 3556-752 | 12.76 | – | – | – | – |
| 3/4-10 NC | 3 | 3 | 3557-332 | 18.53 | 3617-332 | 29.73 | 4177-332 | 41.78 |
| 3/4-10 NC | 5 | 3 | 3557-352 | 18.53 | – | – | – | – |
| 3/4-16 | 3 | 3 | 3557-532 | 18.53 | 3617-532 | 29.73 | 4177-532 | 41.78 |
| 7/8-9 NC | 4 | 3 | 3557-742 | 24.44 | – | – | – | – |
| 7/8-14 NF | 4 | 3 | 3557-942 | 24.44 | – | – | – | – |
| 1-8 NC | 4 | 3 | 3558-142 | 32.50 | – | – | – | – |
| 1-8 NC | 6 | 3 | 3558-162 | 32.50 | – | – | – | – |
| 1-12 NF | 4 | 3 | 3558-342 | 32.50 | – | – | – | – |
| 1-14 NS | 4 | 3 | 3558-542 | 32.50 | – | – | – | – |

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom

Plug

Taper

Spiral Point– Plug

| | | [3] Pittsburg® ALLEGHANY | | | | [2] ALLEGIANCE® AMERICAN MADE | | | | [1] Pittsburg® ALLEGHANY | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
| 1-56 | 1 | – | – | – | – | 3290-335 | 3290-336 | 3290-337 | $22.40 | – | – |
| 1-56 | 2 | 2340-335 | 2340-336 | 2340-337 | $10.35 | – | – | – | – | 2360-186 | $22.20 |
| 1-80 | 2 | 2340-350 | 2340-351 | 2340-352 | 10.35 | 3290-350† | 3290-351† | 3290-352† | 24.50 | 2360-200 | 88.10 |
| 2-72 | 2 | 2340-454 | 2340-455 | 2340-456 | 10.35 | 3290-454† | 3290-455† | 3290-456† | 23.80 | 2360-250 | 88.10 |
| 2-80 | 2 | 2340-470 | 2340-471 | 2340-472 | 10.35 | 3290-470† | 3290-471† | 3290-472† | 23.80 | 2360-260 | 88.10 |
| 3-64 | 2 | 2340-535 | 2340-536 | 2340-537 | 10.35 | 3290-535† | 3290-536† | 3290-537† | 20.40 | 2360-295 | 81.50 |
| 3-72 | 2 | 2340-550 | 2340-551 | 2340-552 | 10.35 | 3290-550† | 3290-551† | 3290-552† | 20.40 | 2360-305 | 81.50 |
| 3-80 | 2 | 2340-570 | 2340-571 | 2340-572 | 10.35 | 3290-570† | 3290-571† | 3290-572† | 20.40 | 2360-310 | 81.50 |
| 4-32 | 2 | 2340-615 | 2340-616 | 2340-617 | 9.35 | 3290-615 | 3290-616 | 3290-617 | 16.50 | 2360-336 | 78.10 |
| 4-56 | 2 | 2340-635 | 2340-636 | 2340-637 | 9.35 | 3290-635† | 3290-636† | 3290-637† | 18.60 | 2360-350 | 78.10 |
| 4-64 | 2 | 2340-650 | 2340-651 | 2340-652 | 9.35 | 3290-650† | 3290-651† | 3290-652† | 18.60 | 2360-355 | 78.10 |
| 4-80 | 2 | 2340-665 | 2340-666 | 2340-667 | 9.35 | 3290-665† | 3290-666† | 3290-667† | 18.60 | 2360-365 | 78.10 |
| 5-32 | 2 | 2340-740 | 2340-741 | 2340-742 | 9.35 | 3290-740† | 3290-741† | 3290-742† | 18.60 | 2360-400 | 78.10 |
| 5-36 | 2 | 2340-760 | 2340-761 | 2340-762 | 9.35 | 3290-760† | 3290-761† | 3290-762† | 18.60 | 2360-405 | 78.10 |
| 5-48 | 2 | 2340-775 | 2340-776 | 2340-777 | 9.35 | 3290-775† | 3290-776† | 3290-777† | 18.60 | 2360-415 | 78.10 |
| 5-80 | 2 | 2340-825 | 2340-826 | 2340-827 | 9.35 | 3290-825† | 3290-826† | 3290-827† | 18.60 | 2360-440 | 78.10 |
| 6-36 | 2 | 2340-925 | 2340-926 | 2340-927 | 3.15 | 3290-925† | 3290-926† | – | 16.80 | 2360-482 | 75.40 |
| 6-48 | 2 | 2340-940 | 2340-941 | 2340-942 | 3.15 | 3290-940 | 3290-941 | 3290-942 | 16.40 | 2360-494 | 33.80 |
| 6-56 | 2 | 2340-955 | 2340-956 | 2340-957 | 11.40 | 3290-955† | 3290-956† | – | 16.80 | 2360-500 | 75.40 |
| 6-60 | 2 | 2340-970 | 2340-971 | 2340-972 | 11.40 | 3290-970† | 3290-971† | – | 16.80 | 2360-505 | 75.40 |
| 6-64 | 2 | 2340-985 | 2340-986 | 2340-987 | 11.40 | 3290-985† | – | – | 16.80 | 2360-511 | 75.40 |
| 6-72 | 2 | 2340-996 | 2340-997 | 2340-998 | 11.40 | 3290-996† | 3290-997† | – | 16.80 | 2360-515 | 75.40 |
| 6-80 | 2 | 2341-006 | 2341-007 | 2341-008 | 11.40 | 3291-006† | 3291-007† | 3291-008† | 16.80 | 2360-520 | 75.40 |
| 8-24 | 3 | 2341-148 | 2341-149 | 2341-150 | 3.15 | 3291-148 | 3291-149 | 3291-150 | 17.30 | 2360-605 | 75.40 |
| 8-30 | 2 | 2341-160 | 2341-161 | 2341-162 | 9.00 | 3291-160† | 3291-161† | – | 16.80 | – | – |
| 8-40 | 2 | 2341-175 | 2341-176 | 2341-177 | 3.15 | 3291-175 | 3291-176 | 3291-177 | 19.10 | 2360-621 | 35.50 |
| 8-48 | 2 | 2341-190 | 2341-191 | 2341-192 | 3.15 | 3291-190† | 3291-191† | – | 16.80 | 2360-628 | 75.40 |
| 8-56 | 2 | 2341-193 | 2341-194 | 2341-195 | 11.40 | 3291-193† | 3291-194† | – | 16.80 | 2360-636 | 75.40 |
| 8-60 | 2 | 2341-205 | 2341-206 | 2341-207 | 11.40 | 3291-205† | 3291-206† | – | 16.80 | 2360-640 | 75.40 |
| 8-64 | 2 | 2341-225 | 2341-226 | 2341-227 | 11.40 | 3291-225† | 3291-226† | – | 16.80 | 2360-644 | 75.40 |
| 8-80 | 2 | 2341-255 | 2341-256 | 2341-257 | 11.40 | 3291-255† | 3291-256† | – | 16.80 | 2360-660 | 75.40 |
| 10-28 | 3 | 2341-435 | 2341-436 | 2341-437 | 3.15 | 3291-435 | 3291-436 | 3291-437 | 16.20 | 2360-747 | 75.40 |
| 10-30 | 3 | 2341-450 | 2341-451 | 2341-452 | 10.85 | 3291-450 | 3291-451 | 3291-452 | 16.20 | 2360-749 | 75.40 |
| 10-36 | 2 | 2341-465 | 2341-466 | 2341-467 | 3.15 | 3291-465 | 3291-466 | 3291-467 | 17.30 | 2360-755 | 75.40 |
| 10-40 | 2 | 2341-480 | 2341-481 | 2341-482 | 3.15 | 3291-480 | 3291-481 | 3291-482 | 17.30 | 2360-759 | 36.00 |
| 10-44 | 2 | 2341-487 | 2341-488 | 2341-489 | 10.85 | 3291-487† | 3291-488† | – | 16.80 | – | – |
| 10-46 | 2 | 2341-493 | 2341-494 | 2341-495 | 10.85 | 3291-493† | 3291-494† | – | 16.80 | – | – |
| 10-48 | 2 | 2341-498 | 2341-496 | 2341-497 | 3.15 | 3291-496 | 3291-497 | 3291-498 | 17.30 | 2360-767 | 75.40 |
| 10-56 | 2 | 2341-505 | 2341-506 | 2341-507 | 10.85 | 3291-505 | 3291-506 | 3291-507 | 17.30 | 2360-775 | 75.40 |
| 10-60 | 2 | 2341-520 | 2341-521 | 2341-522 | 10.85 | 3291-520† | 3291-521† | – | 16.80 | 2360-779 | 75.40 |
| 10-64 | 2 | 2341-535 | 2341-536 | 2341-537 | 10.85 | 3291-535 | 3291-536 | 3291-537 | 17.30 | 2360-783 | 75.40 |
| 10-72 | 2 | 2341-550 | 2341-551 | 2341-552 | 10.85 | 3291-550† | 3291-551† | – | 16.80 | 2360-791 | 75.40 |
| 10-80 | 2 | 2341-565 | 2341-566 | 2341-567 | 10.85 | 3291-565† | 3291-566† | – | 16.80 | 2360-799 | 75.40 |
| 12-32 NEF | 3 | 2341-710 | 2341-711 | 2341-712 | 3.15 | 3291-710 | 3291-711 | 3291-712 | 6.40 | 2360-896 | 16.20 |
| 12-32 NEF | 5 | 2341-713 | 2341-714 | 2341-715 | 3.15 | – | – | – | – | – | – |
| 12-36 | 2 | 2341-724 | 2341-725 | 2341-723 | 3.15 | 3291-723 | 3291-724 | 3291-725 | 12.80 | 2360-900 | 77.90 |
| 12-40 | 2 | 2341-743 | 2341-741 | 2341-742 | 3.15 | – | 3291-742† | – | 17.50 | 2360-904 | 77.90 |
| 12-48 | 2 | 2341-755 | 2341-756 | 2341-757 | 3.15 | 3291-755† | 3291-756† | – | 17.50 | 2360-909 | 77.90 |
| 5/32-32 | 2 | 2343-825 | 2343-826 | 2343-827 | 7.70 | 3293-825 | 3293-826 | 3293-827 | 18.40 | 2362-060 | 75.40 |
| 3/16-24 | 3 | 2344-006 | 2344-007 | 2344-008 | 7.70 | 3294-006 | 3294-007 | 3294-008 | 18.40 | 2362-161 | 75.40 |
| 7/32-32 | 3 | 2344-240 | 2344-241 | 2344-242 | 7.70 | 3294-240 | 3294-241 | 3294-242 | 18.40 | 2362-280 | 77.90 |
| 7/32-40 | 2 | 2344-260 | 2344-261 | 2344-262 | 7.70 | 3294-260† | 3294-261† | – | 18.70 | 2362-285 | 77.90 |
| 1/4-24 | 3 | 2344-475 | 2344-476 | 2344-477 | 3.15 | 3294-475 | 3294-476 | 3294-477 | 13.70 | 2362-398 | 26.70 |
| 1/4-27 | 3 | 2344-485 | 2344-486 | 2344-487 | 3.15 | 3294-485 | 3294-486 | 3294-487 | 13.70 | 2362-402 | 79.20 |
| 1/4-32 NEF | 3 | 2344-493 | 2344-491 | 2344-492 | 3.15 | 3294-490 | 3294-491 | 3294-492 | 6.60 | 2362-408 | 19.10 |
| 1/4-32 NEF | 5 | 2344-494 | 2344-495 | 2344-505 | 3.15 | – | – | – | – | 2362-407 | 79.20 |
| 1/4-36 | 2 | 2344-506 | 2344-507 | 2344-508 | 3.15 | 3294-506 | 3294-507 | 3294-508 | 13.70 | 2362-411 | 18.80 |
| 1/4-40 | 2 | 2344-520 | 2344-521 | 2344-522 | 3.15 | 3294-520 | 3294-521 | 3294-522 | 17.80 | 2362-415 | 26.70 |
| 1/4-48 | 2 | 2344-535 | 2344-536 | 2344-537 | 3.15 | 3294-535 | 3294-536 | 3294-537 | 17.80 | 2362-423 | 79.20 |
| 1/4-56 | 2 | 2344-550 | 2344-551 | 2344-552 | 9.75 | 3294-550 | 3294-551 | 3294-552 | 17.80 | 2362-431 | 79.20 |
| 1/4-64 | 2 | 2344-580 | 2344-581 | 2344-582 | 9.75 | 3294-580† | 3294-581† | – | 12.40 | 2362-439 | 79.20 |
| 1/4-80 | 2 | 2344-620 | 2344-621 | 2344-622 | 9.75 | 3294-620 | 3294-621 | 3294-622 | 19.40 | 2362-455 | 79.20 |

† Limited Quantities

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom

Plug

Taper

Spiral Point– Plug

| | | Pittsburg® ALLEGHANY [3] | | | | ALLEGIANCE® AMERICAN MADE [2] | | | | Pittsburg® ALLEGHANY [1] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
| 9/32-32 | 3 | 2344-880 | 2344-881 | 2344-882 | $7.70 | 3294-880 | 3294-881 | 3294-882 | $19.10 | – | – |
| 9/32-40 | 2 | 2344-900 | 2344-901 | 2344-902 | 7.70 | 3294-900† | 3294-901† | – | 19.10 | 2362-589 | $80.40 |
| 5/16-20 | 3 | 2345-070 | 2345-071 | 2345-072 | 4.55 | 3295-071 | 3295-072 | 3295-073 | 14.20 | 2362-700 | 80.40 |
| 5/16-27 | 3 | 2345-090 | 2345-091 | 2345-092 | 9.95 | 3295-090 | 3295-091 | 3295-092 | 14.20 | 2362-707 | 80.40 |
| 5/16-28 | 3 | 2345-111 | 2345-110 | 2345-109 | 9.95 | 3295-109 | 3295-110 | 3295-111 | 14.20 | 2362-709 | 80.40 |
| 5/16-32 NEF | 3 | 2345-120 | 2345-121 | 2345-122 | 4.55 | 3295-120 | 3295-121 | 3295-122 | 7.50 | 2362-714 | 21.60 |
| 5/16-32 NEF | 5 | 2345-126 | 2345-127 | 2345-128 | 4.55 | – | – | – | – | 2362-713 | 80.40 |
| 5/16-36 | 2 | 2345-135 | 2345-136 | 2345-137 | 4.55 | 3295-135† | – | – | 19.10 | – | – |
| 5/16-40 | 2 | 2345-153 | 2345-151 | 2345-152 | 8.50 | 3295-150 | 3295-151 | 3295-152 | 14.20 | 2362-721 | 80.40 |
| 5/16-48 | 2 | 2345-165 | 2345-166 | 2345-167 | 9.95 | – | 3295-166† | – | – | 2362-729 | 80.40 |
| 5/16-56 | 2 | 2345-186 | 2345-187 | 2345-188 | 9.95 | 3295-186† | 3295-187† | – | 19.10 | 2362-737 | 80.40 |
| 5/16-64 | 2 | 2345-200 | 2345-201 | 2345-202 | 9.95 | 3295-200† | 3295-201† | – | 19.10 | 2362-745 | 80.40 |
| 5/16-80 | 2 | 2345-230 | 2345-231 | 2345-232 | 9.95 | 3295-230† | 3295-231† | – | 19.10 | 2362-761 | 80.40 |
| 11/32-32 | 3 | 2345-470 | 2345-471 | 2345-472 | 7.70 | 3295-470 | 3295-471 | 3295-472 | 20.40 | 2362-884 | 83.30 |
| 3/8-14 | 3 | 2345-722 | 2345-723 | 2345-724 | 5.00 | 3295-722† | 3295-723† | – | 20.90 | – | – |
| 3/8-18 | 3 | 2345-725 | 2345-726 | 2345-727 | 5.00 | 3295-725 | 3295-726 | 3295-727 | 16.10 | 2363-013 | 83.30 |
| 3/8-20 | 3 | 2345-740 | 2345-741 | 2345-742 | 5.00 | 3295-741 | 3295-742 | 3295-743 | 15.70 | 2363-017 | 83.30 |
| 3/8-27 | 3 | 2345-760 | 2345-761 | 2345-762 | 5.00 | 3295-760 | 3295-761 | 3295-762 | 15.90 | 2363-025 | 83.30 |
| 3/8-28 | 3 | 2345-769 | 2345-770 | 2345-771 | 5.00 | 3295-769 | 3295-770 | 3295-771 | 15.90 | 2363-028 | 83.30 |
| 3/8-32 NEF | 3 | 2345-781 | 2345-782 | 2345-783 | 5.00 | 3295-777 | 3295-778 | 3295-779 | 8.30 | 2363-031 | 24.40 |
| 3/8-32 NEF | 5 | 2345-787 | 2345-788 | 2345-789 | 5.00 | – | – | – | – | 2363-035 | 83.30 |
| 3/8-36 | 2 | 2345-804 | 2345-805 | 2345-806 | 10.85 | 3295-804† | 3295-805† | – | 20.90 | 2363-040 | 83.30 |
| 3/8-40 | 2 | 2345-828 | 2345-829 | 2345-830 | 10.85 | 3295-828 | 3295-829 | 3295-830 | 15.90 | 2363-045 | 83.30 |
| 3/8-48 | 2 | 2345-852 | 2345-853 | 2345-854 | 10.85 | 3295-852 | 3295-853 | 3295-854 | 19.00 | 2363-055 | 83.30 |
| 3/8-56 | 2 | 2345-876 | 2345-877 | 2345-878 | 10.85 | 3295-876† | 3295-877† | – | 20.90 | 2363-065 | 83.30 |
| 3/8-64 | 2 | 2345-902 | 2345-903 | 2345-904 | 10.85 | 3295-902† | 3295-903† | – | 20.90 | 2363-075 | 83.30 |
| 3/8-72 | 2 | 2345-914 | 2345-915 | 2345-916 | 10.85 | 3295-914† | 3295-915† | – | 20.90 | 2363-085 | 83.30 |
| 3/8-80 | 2 | 2345-938 | 2345-939 | 2345-940 | 10.85 | 3295-938† | 3295-939† | – | 20.90 | 2363-095 | 83.30 |
| 13/32-20 | 3 | 2346-087 | 2346-088 | 2346-089 | 11.70 | 3296-087† | 3296-088† | – | 24.00 | 2363-190 | 86.60 |
| 13/32-32 | 3 | 2346-116 | 2346-117 | 2346-118 | 11.70 | 3296-116 | 3296-117 | 3296-118 | 22.60 | 2363-201 | 86.60 |
| 7/16-16 | 3 | 2346-300 | 2346-301 | 2346-302 | 11.70 | 3296-300 | 3296-301 | 3296-302 | 17.80 | 2363-303 | 86.60 |
| 7/16-18 | 3 | 2346-312 | 2346-313 | 2346-314 | 11.70 | 3296-312 | 3296-313 | 3296-314 | 17.80 | 2363-306 | 86.60 |
| 7/16-24 | 3 | 2346-324 | 2346-325 | 2346-326 | 7.10 | 3296-324 | 3296-325 | 3296-326 | 17.80 | 2363-314 | 86.60 |
| 7/16-27 | 3 | 2346-336 | 2346-337 | 2346-338 | 7.10 | 3296-336 | 3296-337 | 3296-338 | 17.80 | 2363-318 | 86.60 |
| 7/16-28 NEF | 3 | 2346-351 | 2346-349 | 2346-350 | 7.10 | 3296-348 | 3296-349 | 3296-350 | 10.30 | 2363-321 | 86.60 |
| 7/16-28 NEF | 5 | 2346-354 | 2346-355 | 2346-356 | 7.10 | – | – | – | – | 2363-324 | 86.60 |
| 7/16-32 | 3 | 2346-366 | 2346-367 | 2346-368 | 7.10 | 3296-366 | 3296-367 | 3296-368 | 17.80 | 2363-329 | 86.60 |
| 7/16-36 | 2 | 2346-400 | 2346-401 | 2346-402 | 7.10 | 3296-400† | 3296-401† | – | 24.00 | 2363-334 | 86.60 |
| 7/16-40 | 2 | 2346-415 | 2346-416 | 2346-417 | 7.10 | 3296-415 | 3296-416 | 3296-417 | 17.80 | 2363-339 | 86.60 |
| 7/16-48 | 2 | 2346-430 | 2346-431 | 2346-432 | 11.70 | 3296-430† | 3296-431† | – | 24.00 | 2363-349 | 86.60 |
| 7/16-56 | 2 | 2346-436 | 2346-437 | 2346-438 | 11.70 | 3296-436† | 3296-437† | – | 24.00 | – | – |
| 7/16-64 | 2 | 2346-450 | 2346-451 | 2346-452 | 7.10 | 3296-450† | 3296-451† | – | 24.00 | 2363-369 | 86.60 |
| 15/32-32 | 3 | 2346-660 | 2346-661 | 2346-662 | 9.70 | 3296-660 | 3296-661 | 3296-662 | 25.40 | 2363-468 | 46.70 |
| 1/2-12 | 3 | 2346-815 | 2346-816 | 2346-817 | 9.70 | 3296-815 | 3296-816 | 3296-817 | 20.80 | 2363-560 | 90.40 |
| 1/2-14 | 3 | 2346-820 | 2346-821 | 2346-822 | 9.70 | 3296-820 | 3296-821 | 3296-822 | 20.80 | – | – |
| 1/2-16 | 3 | 2346-832 | 2346-831 | 2346-830 | 9.70 | 3296-830 | 3296-831 | 3296-832 | 20.80 | 2363-565 | 90.40 |
| 1/2-18 | 3 | 2346-850 | 2346-851 | 2346-852 | 9.70 | 3296-850 | 3296-851 | 3296-852 | 20.80 | 2363-568 | 90.40 |
| 1/2-24 | 3 | 2346-865 | 2346-866 | 2346-867 | 9.70 | 3296-865 | 3296-866 | 3296-867 | 20.80 | 2363-577 | 90.40 |
| 1/2-27 | 3 | 2346-880 | 2346-881 | 2346-882 | 9.70 | 3296-880 | 3296-881 | 3296-882 | 20.80 | 2363-582 | 90.40 |
| 1/2-28 NEF | 3 | 2346-895 | 2346-896 | 2346-897 | 9.70 | 3296-895 | 3296-896 | 3296-897 | 12.20 | 2363-585 | 29.80 |
| 1/2-28 NEF | 5 | 2346-901 | 2346-902 | 2346-903 | 9.70 | – | – | – | – | 2363-588 | 90.40 |
| 1/2-32 | 3 | 2346-925 | 2346-926 | 2346-927 | 9.70 | 3296-925 | 3296-926 | 3296-927 | 20.80 | 2363-598 | 90.40 |
| 1/2-36 | 2 | 2346-940 | 2346-941 | 2346-942 | 12.70 | – | – | – | – | 2363-604 | 90.40 |
| 1/2-40 | 2 | 2346-965 | 2346-966 | 2346-964 | 12.70 | 3296-940 | 3296-941 | 3296-942 | 20.80 | 2363-610 | 90.40 |
| 1/2-48 | 2 | 2346-980 | 2346-981 | 2346-982 | 12.70 | 3296-980† | 3296-981† | – | 26.60 | 2363-620 | 90.40 |
| 1/2-56 | 2 | 2346-995 | 2346-996 | 2346-997 | 12.70 | 3296-995† | 3296-996† | – | 26.60 | 2363-630 | 90.40 |
| 1/2-60 | 2 | 2347-010 | 2347-011 | 2347-012 | 12.70 | 3297-010† | 3297-011† | – | 26.60 | 2363-635 | 90.40 |
| 1/2-64 | 2 | 2347-025 | 2347-026 | 2347-027 | 12.70 | 3297-025† | 3297-026† | – | 26.60 | 2363-640 | 90.40 |
| 9/16-16 | 3 | 2347-391 | 2347-392 | 2347-393 | 11.60 | 3297-391 | 3297-392 | 3297-393 | 22.90 | 2363-850 | 92.60 |
| 9/16-20 | 3 | 2347-406 | 2347-407 | 2347-408 | 11.60 | 3297-403 | 3297-404 | 3297-405 | 22.90 | 2363-855 | 42.40 |
| 9/16-24 NEF | 3 | 2347-421 | 2347-422 | 2347-423 | 11.60 | 3297-421 | 3297-422 | 3297-423 | 15.20 | 2363-857 | 92.60 |
| 9/16-24 NEF | 5 | 2347-427 | 2347-428 | 2347-429 | 11.60 | – | – | – | – | – | – |
| 9/16-27 | 3 | 2347-442 | 2347-443 | 2347-444 | 11.60 | 3297-442 | 3297-443 | 3297-444 | 22.90 | 2363-861 | 92.60 |
| 9/16-28 | 3 | 2347-457 | 2347-458 | 2347-459 | 11.60 | 3297-457† | 3297-458† | – | 29.00 | 2363-864 | 92.60 |
| 9/16-32 | 3 | 2347-472 | 2347-473 | 2347-474 | 11.60 | 3297-472 | 3297-473 | 3297-474 | 22.90 | 2363-870 | 92.60 |
| 9/16-40 | 2 | 2347-502 | 2347-503 | 2347-504 | 11.60 | 3297-502† | – | – | 29.00 | 2363-880 | 92.60 |

SIZES NOT SHOWN ARE P.O.A.



† Limited Quantities

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom

Plug

Taper

Spiral Point– Plug

| | | Pittsburg® ALLEGHANY [3] | | | | ALLEGIANCE® AMERICAN MADE [2] | | | | Pittsburg® ALLEGHANY [1] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
| 5/8-10 | 3 | 2347-899 | 2347-900 | 2347-901 | $13.55 | 3297-901 | 3297-902 | 3297-903 | $32.40 | 2364-107 | 97.70 |
| 5/8-12 | 3 | 2347-915 | 2347-916 | 2347-917 | 13.55 | 3297-915 | 3297-916 | 3297-917 | 28.50 | 2364-109 | 97.70 |
| 5/8-14 | 3 | 2347-930 | 2347-931 | 2347-932 | 13.55 | 3297-930† | 3297-931† | – | 33.70 | 2364-111 | 97.70 |
| 5/8-16 | 3 | 2347-945 | 2347-946 | 2347-947 | 13.55 | 3297-945 | 3297-946 | 3297-947 | 28.50 | 2364-113 | 97.70 |
| 5/8-20 | 3 | 2347-957 | 2347-958 | 2347-959 | 13.55 | 3297-957 | 3297-958 | 3297-959 | 28.50 | 2364-117 | 97.70 |
| 5/8-24 NEF | 3 | 2347-969 | 2347-970 | 2347-971 | 13.55 | 3297-969 | 3297-970 | 3297-971 | 17.50 | 2364-121 | 97.70 |
| 5/8-24 NEF | 5 | 2347-975 | 2347-976 | 2347-977 | 13.55 | – | – | – | – | 2364-123 | 97.70 |
| 5/8-27 | 3 | 2347-987 | 2347-988 | 2347-989 | 13.55 | 3297-987 | 3297-988 | 3297-989 | 28.50 | 2364-127 | 97.70 |
| 5/8-28 | 3 | 2347-999 | 2348-000 | 2348-001 | 13.55 | 3298-000 | 3298-001 | 3298-002 | 28.50 | 2364-131 | 97.70 |
| 5/8-32 | 3 | 2348-011 | 2348-012 | 2348-013 | 13.55 | 3298-011 | 3298-012 | 3298-013 | 28.50 | 2364-136 | 97.70 |
| 5/8-36 | 2 | 2348-023 | 2348-024 | 2348-025 | 13.55 | 3298-024† | – | – | 33.70 | 2364-140 | 97.70 |
| 5/8-40 | 2 | 2348-035 | 2348-036 | 2348-037 | 13.55 | – | – | – | – | 2364-145 | 97.70 |
| 11/16-12 | 3 | 2348-406 | 2348-407 | 2348-408 | 17.75 | 3298-406† | – | – | 37.00 | 2364-367 | 103.90 |
| 11/16-14 | 3 | 2348-418 | 2348-419 | 2348-420 | 17.75 | – | – | – | – | 2364-369 | 103.90 |
| 11/16-18 | 3 | 2348-430 | 2348-431 | 2348-432 | 17.75 | 3298-430 | 3298-431 | 3298-432 | 32.30 | 2364-373 | 103.90 |
| 11/16-20 | 3 | 2348-442 | 2348-443 | 2348-444 | 17.75 | 3298-442 | 3298-443 | 3298-444 | 32.30 | 2364-375 | 103.90 |
| 11/16-24 NEF | 3 | 2348-455 | 2348-456 | 2348-457 | 17.75 | 3298-455 | 3298-456 | 3298-457 | 19.80 | 2364-383 | 103.90 |
| 11/16-24 NEF | 5 | 2348-461 | 2348-462 | 2348-463 | 17.75 | – | – | – | – | 2364-385 | 103.90 |
| 11/16-27 | 3 | 2348-473 | 2348-474 | 2348-475 | 17.75 | 3298-473† | – | – | 37.00 | 2364-387 | 103.90 |
| 11/16-28 | 3 | 2348-485 | 2348-486 | 2348-487 | 17.75 | 3298-482 | 3298-483 | 3298-484 | 32.30 | 2364-390 | 103.90 |
| 11/16-32 | 3 | 2348-497 | 2348-498 | 2348-499 | 17.75 | 3298-497 | 3298-498 | 3298-499 | 32.30 | 2364-395 | 103.90 |
| 11/16-36 | 2 | 2348-509 | 2348-510 | 2348-511 | 17.75 | – | – | – | – | 2364-400 | 103.90 |
| 3/4-12 | 3 | 2348-898 | 2348-899 | 2348-900 | 19.15 | – | – | – | – | 2364-618 | 109.70 |
| 3/4-12 | 4 | – | – | – | – | 3298-898 | 3298-899 | 3298-900 | 35.80 | – | – |
| 3/4-14 | 3 | 2348-921 | 2348-922 | 2348-923 | 19.15 | – | – | – | – | – | – |
| 3/4-18 | 3 | 2348-915 | 2348-916 | 2348-917 | 19.15 | 3298-915 | 3298-916 | 3298-917 | 35.80 | 2364-626 | 109.70 |
| 3/4-20 NEF | 3 | 2348-930 | 2348-931 | 2348-932 | 19.15 | 3298-930 | 3298-931 | 3298-932 | 23.20 | 2364-630 | 109.70 |
| 3/4-20 NEF | 5 | 2348-936 | 2348-937 | 2348-938 | 19.15 | – | – | – | – | 2364-633 | 109.70 |
| 3/4-24 | 3 | 2348-951 | 2348-952 | 2348-953 | 19.15 | 3298-945 | 3298-946 | 3298-947 | 35.80 | 2364-640 | 109.70 |
| 3/4-27 | 3 | 2348-966 | 2348-967 | 2348-968 | 19.15 | 3298-966 | 3298-967 | 3298-968 | 35.80 | 2364-645 | 109.70 |
| 3/4-28 | 3 | 2348-981 | 2348-982 | 2348-983 | 19.15 | – | – | – | – | 2364-648 | 109.70 |
| 3/4-32 | 3 | 2348-996 | 2348-997 | 2348-998 | 19.15 | 3298-996 | 3298-997 | 3298-998 | 35.80 | 2364-654 | 109.70 |
| 3/4-40 | 2 | 2349-026 | 2349-027 | 2349-028 | 19.15 | 3299-026 | 3299-027 | 3299-028 | 39.80 | 2364-665 | 109.70 |
| 13/16-10 | 4 | 2349-500 | 2349-501 | 2349-502 | 21.40 | 3299-500 | 3299-501 | 3299-502 | 39.40 | 2364-912 | 115.80 |
| 13/16-12 | 4 | 2349-512 | 2349-513 | 2349-514 | 21.40 | 3299-512 | 3299-513 | 3299-514 | 39.40 | 2364-916 | 115.80 |
| 13/16-16 | 3 | 2349-525 | 2349-526 | 2349-527 | 21.40 | 3299-525 | 3299-526 | 3299-527 | 39.40 | 2364-921 | 115.80 |
| 13/16-18 | 3 | 2349-540 | 2349-541 | 2349-542 | 21.40 | 3299-540 | 3299-541 | 3299-542 | 39.40 | 2364-925 | 115.80 |
| 13/16-20 NEF | 3 | 2349-555 | 2349-556 | 2349-557 | 21.40 | 3299-555 | 3299-556 | 3299-557 | 35.20 | 2364-929 | 115.80 |
| 13/16-20 NEF | 5 | 2349-561 | 2349-562 | 2349-563 | 21.40 | – | – | – | – | 2364-932 | 115.80 |
| 13/16-24 | 3 | 2349-576 | 2349-577 | 2349-578 | 21.40 | 3299-576 | 3299-577 | 3299-578 | 39.40 | 2364-937 | 115.80 |
| 13/16-27 | 3 | 2349-591 | 2349-592 | 2349-593 | 21.40 | – | – | – | – | 2364-941 | 115.80 |
| 13/16-28 | 3 | 2349-606 | 2349-607 | 2349-608 | 21.40 | – | – | – | – | 2364-944 | 115.80 |
| 13/16-32 | 3 | 2349-621 | 2349-622 | 2349-623 | 21.40 | – | – | – | – | 2364-950 | 115.80 |
| 7/8-12 | 4 | 2350-029 | 2350-030 | 2350-031 | 22.55 | 3300-030 | 3300-031 | 3300-032 | 45.70 | 2365-180 | 116.40 |
| 7/8-16 | 3 | 2350-043 | 2350-044 | 2350-045 | 23.30 | 3300-043 | 3300-044 | 3300-045 | 45.70 | 2365-185 | 116.40 |
| 7/8-18 | 3 | 2350-055 | 2350-056 | 2350-057 | 24.60 | 3300-055 | 3300-056 | 3300-057 | 45.70 | 2365-189 | 116.40 |
| 7/8-20 NEF | 3 | 2350-070 | 2350-071 | 2350-072 | 24.60 | 3300-070 | 3300-071 | 3300-072 | 31.20 | 2365-194 | 116.40 |
| 7/8-20 NEF | 5 | 2350-076 | 2350-077 | 2350-078 | 24.60 | – | – | – | – | 2365-197 | 116.40 |
| 7/8-24 | 3 | 2350-091 | 2350-092 | 2350-093 | 24.60 | 3300-091 | 3300-092 | 3300-093 | 46.00 | 2365-203 | 116.40 |
| 7/8-27 | 3 | 2350-106 | 2350-107 | 2350-108 | 24.60 | 3300-106 | 3300-107 | 3300-108 | 46.00 | 2365-208 | 116.40 |
| 7/8-28 | 3 | 2350-121 | 2350-122 | 2350-123 | 24.60 | 3300-121† | – | – | 51.60 | 2365-211 | 116.40 |
| 7/8-32 | 3 | 2350-136 | 2350-137 | 2350-138 | 24.60 | 3300-136 | 3300-137 | 3300-138 | 46.00 | 2365-216 | 116.40 |
| 7/8-36 | 3 | 2350-151 | 2350-152 | 2350-153 | 24.60 | – | – | – | – | 2365-221 | 116.40 |
| 7/8-40 | 3 | 2350-166 | 2350-167 | 2350-168 | 24.60 | – | – | – | – | 2365-226 | 116.40 |
| 15/16-12 | 4 | 2350-536 | 2350-537 | 2350-538 | 31.40 | 3300-536 | 3300-537 | 3300-538 | 47.60 | 2365-436 | 127.00 |
| 15/16-14 | 4 | 2350-551 | 2350-552 | 2350-553 | 25.70 | 3300-551 | 3300-552 | 3300-553 | 47.80 | 2365-438 | 127.00 |
| 15/16-16 | 3 | 2350-566 | 2350-567 | 2350-568 | 25.70 | 3300-566 | 3300-567 | 3300-568 | 47.90 | 2365-440 | 127.00 |
| 15/16-18 | 3 | 2350-581 | 2350-582 | 2350-583 | 25.70 | 3300-581 | 3300-582 | 3300-583 | 47.90 | 2365-442 | 127.00 |

† Limited Quantities

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom

Plug

Taper

Spiral Point– Plug

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING [3] | PLUG [3] | TAPER [3] | PRICE EACH | AMERICAN MADE BOTTOMING [2] | PLUG [2] | TAPER [2] | PRICE EACH | Pittsburg® ALLEGHANY SPIRAL POINT [1] | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15/16-20NEF | 3 | 2350-596 | 2350-597 | 2350-598 | $25.70 | 3300-596 | 3300-597 | 3300-598 | $35.20 | 2365-444 | $ 127.00 |
| 15/16-20NEF | 5 | 2350-602 | 2350-603 | 2350-604 | 25.70 | – | – | – | – | 2365-447 | 127.00 |
| 15/16-24 | 3 | 2350-617 | 2350-618 | 2350-619 | 25.70 | – | – | – | – | 2365-452 | 127.00 |
| 15/16-27 | 3 | 2350-632 | 2350-633 | 2350-634 | 25.70 | 3300-632† | – | – | 55.00 | 2365-457 | 127.00 |
| 15/16-28 | 3 | 2350-647 | 2350-648 | 2350-649 | 25.70 | – | – | – | – | 2365-460 | 127.00 |
| 15/16-32 | 3 | 2350-662 | 2350-663 | 2350-664 | 31.40 | 3300-662 | 3300-663 | 3300-664 | 48.40 | 2365-465 | 127.00 |
| 1-10 | 4 | 2351-034 | 2351-035 | 2351-036 | 32.50 | 3301-034 | 3301-035 | 3301-036 | 51.80 | 2365-694 | 140.70 |
| 1-16 | 3 | 2351-047 | 2351-048 | 2351-049 | 32.50 | – | – | – | – | 2365-702 | 140.70 |
| 1-16 | 4 | – | – | – | – | 3301-047 | 3301-048 | 3301-049 | 51.80 | – | – |
| 1-18 | 3 | 2351-060 | 2351-061 | 2351-062 | 32.50 | 3301-060 | 3301-061 | 3301-062 | 51.80 | 2365-705 | 140.70 |
| 1-20 NEF | 3 | 2351-072 | 2351-073 | 2351-074 | 32.50 | 3301-072 | 3301-073 | 3301-074 | 44.70 | 2365-708 | 140.70 |
| 1-20 NEF | 5 | 2351-078 | 2351-079 | 2351-080 | 32.50 | – | – | – | – | 2365-711 | 140.70 |
| 1-24 | 3 | 2351-090 | 2351-091 | 2351-092 | 32.50 | 3301-090 | 3301-091 | 3301-092 | 51.80 | 2365-716 | 140.70 |
| 1-27 | 3 | 2351-102 | 2351-103 | 2351-104 | 32.50 | 3301-102 | 3301-103 | 3301-104 | 51.80 | 2365-721 | 140.70 |
| 1-32 | 3 | 2351-114 | 2351-115 | 2351-116 | 32.50 | 3301-114 | 3301-115 | 3301-116 | 51.80 | 2365-727 | 140.70 |
| 1-36 | 3 | 2351-126 | 2351-127 | 2351-128 | 32.50 | – | – | – | – | 2365-733 | 140.70 |
| 1-40 | 3 | 2351-138 | 2351-139 | 2351-140 | 32.50 | 3301-138† | – | – | 47.00 | 2365-739 | 140.70 |
| 1 1/16-8 ** | 5 | 2351-448 | 2351-449 | 2351-450 | 36.30 | 3301-448† | – | – | POA | – | – |
| 1 1/16-12 ** | 4 | 2351-462 | 2351-463 | 2351-464 | 36.30 | – | – | – | – | – | – |
| 1 1/16-12 ** | 5 | – | – | – | – | 3301-462 | 3301-463 | 3301-464 | 61.90 | – | – |
| 1 1/16-14 | 4 | 2351-474 | 2351-475 | 2351-476 | 41.75 | – | – | – | – | – | – |
| 1 1/16-14 | 5 | – | – | – | – | 3301-474 | 3301-475 | 3301-476 | 68.20 | – | – |
| 1 1/16-16 | 4 | 2351-486 | 2351-487 | 2351-488 | 41.75 | 3301-486 | 3301-487 | 3301-488 | 68.20 | – | – |
| 1 1/16-18NEF | 4 | 2351-498 | 2351-499 | 2351-500 | 41.75 | 3301-498 | 3301-499 | 3301-500 | 55.30 | – | – |
| 1 1/16-18NEF | 6 | 2351-504 | 2351-505 | 2351-506 | 41.75 | – | – | – | – | – | – |
| 1 1/16-20 | 4 | 2351-516 | 2351-517 | 2351-518 | 41.75 | 3301-516 | 3301-517 | 3301-518 | 71.80 | – | – |
| 1 1/16-24 | 4 | 2351-528 | 2351-529 | 2351-530 | 41.75 | 3301-528 | 3301-529 | 3301-530 | 71.80 | – | – |
| 1 1/16-32 | 4 | 2351-543 | 2351-544 | 2351-545 | 41.75 | – | – | – | – | – | – |
| 1 1/8-8 ** | 4 | 2351-738 | 2351-739 | 2351-740 | 36.30 | – | – | – | – | – | – |
| 1 1/8-8 ** | 5 | – | – | – | – | 3301-744 | 3301-745 | 3301-746 | 51.60 | – | – |
| 1 1/8-8 ** | 6 | 2351-741 | 2351-742 | 2351-743 | 36.30 | – | – | – | – | – | – |
| 1 1/8-10 ** | 4 | 2351-750 | 2351-751 | 2351-752 | 41.60 | – | – | – | – | – | – |
| 1 1/8-10 ** | 5 | – | – | – | – | 3301-750 | 3301-751 | 3301-752 | 61.70 | – | – |
| 1 1/8-14 | 4 | 2351-772 | 2351-773 | 2351-774 | 41.60 | – | – | – | – | – | – |
| 1 1/8-14 | 5 | – | – | – | – | 3301-772 | 3301-773 | 3301-774 | 75.80 | – | – |
| 1 1/8-16 | 4 | 2351-787 | 2351-788 | 2351-789 | 41.75 | 3301-787 | 3301-788 | 3301-789 | 54.90 | – | – |
| 1 1/8-18NEF | 4 | 2351-799 | 2351-800 | 2351-801 | 41.75 | 3301-799 | 3301-800 | 3301-801 | 56.50 | – | – |
| 1 1/8-18NEF | 6 | 2351-805 | 2351-806 | 2351-807 | 41.75 | – | – | – | – | – | – |
| 1 1/8-20 | 4 | 2351-817 | 2351-818 | 2351-819 | 41.75 | 3301-817 | 3301-818 | 3301-819 | 73.90 | – | – |
| 1 1/8-24 | 4 | 2351-829 | 2351-830 | 2351-831 | 41.75 | 3301-829 | 3301-830 | 3301-831 | 75.60 | – | – |
| 1 1/8-27 | 4 | 2351-842 | 2351-843 | 2351-844 | 41.75 | – | – | – | – | – | – |
| 1 1/8-32 | 4 | 2351-866 | 2351-867 | 2351-868 | 41.75 | 3301-866 | 3301-867 | 3301-868 | 75.60 | – | – |
| 1 3/16-8 ** | 4 | 2352-045 | 2352-046 | 2352-047 | 46.20 | – | – | – | – | – | – |
| 1 3/16-8 ** | 5 | – | – | – | – | 3302-045† | – | – | 67.50 | – | – |
| 1 3/16-12 ** | 4 | 2352-060 | 2352-061 | 2352-062 | 46.20 | – | – | – | – | – | – |
| 1 3/16-12 ** | 5 | – | – | – | – | 3302-060 | 3302-061 | 3302-062 | 72.40 | – | – |
| 1 3/16-12 ** | 6 | 2352-066 | 2352-067 | 2352-068 | 46.20 | – | – | – | – | – | – |
| 1 3/16-14 | 4 | 2352-072 | 2352-073 | 2352-074 | 53.10 | – | – | – | – | – | – |
| 1 3/16-14 | 5 | – | – | – | – | 3302-072 | 3302-073 | 3302-074 | 81.30 | – | – |
| 1 3/16-14 | 6 | 2352-075 | 2352-076 | 2352-077 | 53.10 | – | – | – | – | – | – |
| 1 3/16-16 | 4 | 2352-078 | 2352-079 | 2352-080 | 47.35 | 3302-078 | 3302-079 | 3302-080 | 3302-078 | – | – |
| 1 3/16-16 | 6 | 2352-081 | 2352-082 | 2352-083 | 47.35 | – | – | – | – | – | – |
| 1 3/16-18NEF | 4 | 2352-087 | 2352-088 | 2352-089 | 41.75 | 3302-087 | 3302-088 | 3302-089 | 3302-087 | – | – |
| 1 3/16-18NEF | 6 | 2352-093 | 2352-094 | 2352-095 | 41.75 | – | – | – | – | – | – |
| 1 3/16-20 | 4 | 2352-105 | 2352-106 | 2352-107 | 53.10 | 3302-105 | 3302-106 | 3302-107 | 3302-105 | – | – |
| 1 3/16-32 | 4 | 2352-135 | 2352-136 | 2352-137 | 53.10 | – | – | – | – | – | – |

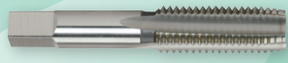
** LONG BLANK

† Limited Quantities

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom



Plug

Taper

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY [3] BOTTOMING | PLUG | TAPER | PRICE EACH | ALLEGIANCE® AMERICAN MADE [2] BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1 1/4-8 ** | 4 | 2352-300 | 2352-301 | 2352-302 | $46.20 | – | – | – | – |
| 1 1/4-8 ** | 5 | – | – | – | – | 3302-303 | 3302-304 | 3302-305 | $62.90 |
| 1 1/4-8 ** | 8 | 2352-306 | 2352-307 | 2352-308 | 46.20 | – | – | – | – |
| 1 1/4-10 ** | 4 | 2352-312 | 2352-313 | 2352-314 | 46.20 | – | – | – | – |
| 1 1/4-10 ** | 5 | – | – | – | – | 3302-312 | 3302-313 | 3302-314 | 75.80 |
| 1 1/4-14 | 4 | 2352-336 | 2352-337 | 2352-338 | 53.10 | – | – | – | – |
| 1 1/4-14 | 5 | – | – | – | – | 3302-336 | 3302-337 | 3302-338 | 83.10 |
| 1 1/4-16 | 4 | 2352-348 | 2352-349 | 2352-350 | 53.10 | 3302-348 | 3302-349 | 3302-350 | 83.10 |
| 1 1/4-18 NEF | 4 | 2352-360 | 2352-361 | 2352-362 | 53.10 | 3302-360 | 3302-361 | 3302-362 | 71.10 |
| 1 1/4-18 NEF | 6 | 2352-366 | 2352-367 | 2352-368 | 53.10 | – | – | – | – |
| 1 1/4-20 | 4 | 2352-378 | 2352-379 | 2352-380 | 53.10 | 3302-378 | 3302-379 | 3302-380 | 81.60 |
| 1 1/4-24 | 4 | 2352-390 | 2352-391 | 2352-392 | 53.10 | 3302-390 | 3302-391 | 3302-392 | 60.00 |
| 1 1/4-32 | 4 | 2352-417 | 2352-418 | 2352-419 | 53.10 | 3302-417 | 3302-418 | 3302-419 | 60.00 |
| 1 5/16-8 ** | 5 | 2352-546 | 2352-547 | 2352-548 | 58.10 | – | 3302-547† | – | 68.70 |
| 1 5/16-12 ** | 4 | 2352-560 | 2352-561 | 2352-562 | 58.10 | – | – | – | – |
| 1 5/16-12 ** | 5 | – | – | – | – | 3302-560 | 3302-561 | 3302-562 | 73.50 |
| 1 5/16-14 | 4 | 2352-578 | 2352-579 | 2352-580 | 57.80 | – | – | – | – |
| 1 5/16-14 | 5 | – | – | – | – | 3302-578 | 3302-579 | 3302-580 | 64.20 |
| 1 5/16-16 | 4 | 2352-584 | 2352-585 | 2352-586 | 66.70 | 3302-584 | 3302-585 | 3302-586 | 89.60 |
| 1 5/16-18NEF | 4 | 2352-593 | 2352-594 | 2352-595 | 66.70 | 3302-593 | 3302-594 | 3302-595 | 89.60 |
| 1 5/16-18NEF | 6 | 2352-599 | 2352-600 | 2352-598 | 66.70 | – | – | – | – |
| 1 5/16-20 | 4 | 2352-611 | 2352-612 | 2352-613 | 57.80 | 3302-611 | 3302-612 | 3302-613 | 64.20 |
| 1 3/8-8 ** | 4 | 2352-800 | 2352-801 | 2352-802 | 59.30 | – | – | – | – |
| 1 3/8-8 ** | 5 | – | – | – | – | 3302-803 | 3302-804 | 3302-805 | 80.65 |
| 1 3/8-8 ** | 8 | 2352-806 | 2352-807 | 2352-808 | 59.30 | – | – | – | – |
| 1 3/8-14 | 4 | 2352-830 | 2352-831 | 2352-832 | 66.70 | – | – | – | – |
| 1 3/8-16 | 4 | 2352-842 | 2352-843 | 2352-844 | 66.70 | 3302-842 | 3302-843 | 3302-844 | 91.40 |
| 1 3/8-18 NEF | 4 | 2352-854 | 2352-855 | 2352-856 | 66.70 | 3302-854 | 3302-855 | 3302-856 | 87.00 |
| 1 3/8-18 NEF | 6 | 2352-860 | 2352-861 | 2352-862 | 66.70 | – | – | – | – |
| 1 3/8-20 | 4 | 2352-872 | 2352-873 | 2352-874 | 63.20 | 3302-872 | 3302-873 | 3302-874 | 70.20 |
| 1 3/8-24 | 4 | 2352-887 | 2352-888 | 2352-889 | 66.70 | 3302-887† | – | – | 76.50 |
| 1 7/16-8 ** | 5 | 2353-045 | 2353-046 | 2353-047 | 81.25 | 3303-045† | – | – | 117.10 |
| 1 7/16-12 ** | 4 | 2353-063 | 2353-064 | 2353-065 | 81.25 | – | – | – | – |
| 1 7/16-12 ** | 5 | – | – | – | – | 3303-063† | – | – | 117.10 |
| 1 7/16-16 | 4 | 2353-087 | 2353-088 | 2353-089 | 81.25 | – | – | – | – |
| 1 7/16-18 | 4 | 2353-099 | 2353-100 | 2353-101 | 71.20 | 3303-099 | 3303-100 | 3303-101 | 79.10 |
| 1 7/16-18 | 6 | 2353-105 | 2353-106 | 2353-107 | POA | – | – | – | – |
| 1 1/2-8 ** | 5 | 2353-286 | 2353-287 | 2353-288 | 75.20 | 3303-286 | 3303-287 | 3303-288 | 88.75 |
| 1 1/2-8 ** | 8 | 2353-290 | 2353-291 | 2353-292 | 75.20 | – | – | – | – |
| 1 1/2-10 ** | 4 | 2353-298 | 2353-299 | 2353-300 | 85.95 | – | – | – | – |
| 1 1/2-10 ** | 5 | – | – | – | – | 3303-298 | 3303-299 | 3303-300 | 129.00 |
| 1 1/2-14 | 4 | 2353-312 | 2353-313 | 2353-314 | 82.40 | – | – | – | – |
| 1 1/2-16 | 4 | 2353-325 | 2353-326 | 2353-327 | 66.80 | 3303-325 | 3303-326 | 3303-327 | 74.20 |
| 1 1/2-18 NEF | 4 | 2353-331 | 2353-332 | 2353-333 | 67.85 | 3303-331 | 3303-332 | 3303-333 | 75.40 |
| 1 1/2-20 | 4 | 2353-339 | 2353-340 | 2353-341 | 66.80 | 3303-339 | 3303-340 | 3303-341 | 74.20 |
| 1 1/2-24 | 4 | 2353-353 | 2353-354 | 2353-355 | 75.40 | 3303-353 | 3303-354 | 3303-355 | 83.80 |
| 1 9/16-12 | 4 | 2353-660 | 2353-661 | 2353-662 | 87.75 | – | – | – | – |
| 1 9/16-16 | 5 | 2353-675 | 2353-676 | 2353-677 | 87.75 | 3303-675 | 3303-676 | 3303-677 | 102.00 |
| 1 9/16-18 | 4 | 2353-695 | 2353-696 | 2353-697 | 87.75 | – | – | – | – |
| 1 9/16-18 | 5 | – | – | – | – | 3303-695 | 3303-696 | 3303-697 | 127.20 |
| 1 9/16-20 | 4 | 2353-710 | 2353-711 | 2353-712 | 87.75 | – | – | – | – |
| 1 5/8-5 1/2** | 6 | 2353-876 | 2353-877 | 2353-878 | 96.75 | – | – | – | – |
| 1 5/8-5 1/2** | 7 | – | – | – | – | 3303-876 | 3303-877 | 3303-878 | 107.50 |
| 1 5/8-8 ** | 6 | 2353-888 | 2353-889 | 2353-890 | 95.55 | 3303-888 | 3303-889 | 3303-890 | 121.00 |
| 1 5/8-10 ** | 4 | 2353-900 | 2353-901 | 2353-902 | 94.30 | – | – | – | – |
| 1 5/8-12 | 6 | 2353-912 | 2353-913 | 2353-914 | 75.50 | 3303-912 | 3303-913 | 3303-914 | 83.90 |
| 1 5/8-16 | 4 | 2353-939 | 2353-940 | 2353-941 | 77.85 | – | – | – | – |
| 1 5/8-16 | 5 | – | – | – | – | 3303-939 | 3303-940 | 3303-941 | 86.50 |
| 1 5/8-18 | 5 | – | – | – | – | 3303-954 | 3303-955 | 3303-956 | 86.50 |
| 1 5/8-18 | 6 | 2353-954 | 2353-955 | 2353-956 | 77.85 | – | – | – | – |
| 1 5/8-20 | 6 | 2353-966 | 2353-967 | 2353-968 | 92.35 | – | – | – | – |
| 1 5/8-24 | 6 | 2353-978 | 2353-979 | 2353-980 | 92.35 | – | – | – | – |

** LONG BLANK

† Limited Quantities

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom

Plug 3

Taper 2

| | | Pittsburg® ALLEGHANY | | | | Allegiance® AMERICAN MADE | | | |
|---|---|---|---|---|---|---|---|---|---|
| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | BOTTOMING | PLUG | TAPER | PRICE EACH |
| 1 11/16-12 | 4 | 2354-095 | 2354-096 | 2354-097 | $ 92.35 | – | – | – | – |
| 1 11/16-16 | 4 | 2354-122 | 2354-123 | 2354-124 | 92.35 | – | – | – | – |
| 1 11/16-18 | 5 | 2354-134 | 2354-135 | 2354-136 | 92.35 | – | – | – | – |
| 1 11/16-20 | 6 | 2354-146 | 2354-147 | 2354-148 | 92.35 | – | – | – | – |
| 1 3/4-5** | 7 | 2354-206 | 2354-207 | 2354-208 | 101.10 | 3304-206 | 3304-207 | 3304-208 | $164.30 |
| 1 3/4-6** | 6 | 2354-218 | 2354-219 | 2354-220 | 101.10 | – | – | – | – |
| 1 3/4-8** | 6 | 2354-230 | 2354-231 | 2354-232 | 101.10 | 3304-230 | 3304-231 | 3304-232 | 137.10 |
| 1 3/4-8** | 8 | 2354-233 | 2354-234 | 2354-235 | 101.10 | – | – | – | – |
| 1 3/4-10 | 6 | 2354-242 | 2354-243 | 2354-244 | 97.20 | 3304-242 | 3304-243 | 3304-244 | 108.00 |
| 1 3/4-12 | 6 | 2354-254 | 2354-255 | 2354-256 | 83.60 | 3304-254 | 3304-255 | 3304-256 | 92.90 |
| 1 3/4-14 | 6 | 2354-266 | 2354-267 | 2354-268 | 101.10 | 3304-266† | – | – | 124.90 |
| 1 3/4-16 | 5 | – | – | – | – | 3304-278 | 3304-279 | 3304-280 | 95.90 |
| 1 3/4-16 | 6 | 2354-278 | 2354-279 | 2354-280 | 86.30 | – | – | – | – |
| 1 3/4-18 | 5 | 2354-290 | 2354-291 | 2354-292 | 90.65 | 3304-290 | 3304-291 | 3304-292 | 100.70 |
| 1 3/4-20 | 5 | 2354-302 | 2354-303 | 2354-304 | 101.10 | – | – | – | – |
| 1 13/16-16 | 6 | 2354-428 | 2354-429 | 2354-430 | 111.25 | – | – | – | – |
| 1 13/16-18 | 6 | 2354-440 | 2354-441 | 2354-442 | 139.35 | 3304-440† | – | – | 157.50 |
| 1 13/16-20 | 6 | 2354-452 | 2354-453 | 2354-454 | 139.35 | – | – | – | – |
| 1 7/8-5** | 6 | 2354-515 | 2354-516 | 2354-517 | 110.50 | – | – | – | – |
| 1 7/8-5** | 7 | – | – | – | – | 3304-515 | 3304-516 | 3304-517 | 122.80 |
| 1 7/8-8** | 6 | 2354-530 | 2354-531 | 2354-532 | 115.65 | 3304-530 | 3304-531 | 3304-532 | 161.30 |
| 1 7/8-12 | 6 | 2354-545 | 2354-546 | 2354-547 | 115.30 | 3304-545 | 3304-546 | 3304-547 | 128.10 |
| 1 7/8-16 | 5 | – | – | – | – | 3304-572 | 3304-573 | 3304-574 | 132.50 |
| 1 7/8-16 | 6 | 2354-572 | 2354-573 | 2354-574 | 119.25 | – | – | – | – |
| 1 7/8-18 | 6 | 2354-584 | 2354-585 | 2354-586 | 120.95 | – | – | – | – |
| 1 7/8-20 | 4 | 2354-599 | 2354-600 | 2354-601 | 120.95 | – | – | – | – |
| 1 15/16-12 | 6 | 2354-773 | 2354-774 | 2354-775 | 125.10 | – | – | – | – |
| 1 15/16-16 | 6 | 2354-797 | 2354-798 | 2354-799 | 125.10 | – | – | – | – |
| 1 15/16-18 | 6 | 2354-809 | 2354-810 | 2354-811 | 125.10 | 3304-809† | – | 3304-811† | 164.90 |
| 2-4 1/2** | 6 | 2354-894 | 2354-895 | 2354-896 | 128.70 | – | – | – | – |
| 2-4 1/2** | 7 | – | – | – | – | 3304-894 | 3304-895 | 3304-896 | 181.10 |
| 2-6 ** | 7 | 2354-910 | 2354-911 | 2354-912 | 128.70 | – | – | – | – |
| 2-8 ** | 6 | 2354-925 | 2354-926 | 2354-927 | 128.70 | 3304-925 | 3304-926 | 3304-927 | 169.30 |
| 2-10 | 6 | 2354-937 | 2354-938 | 2354-939 | 128.70 | 3304-937† | – | – | 164.90 |
| 2-12 | 6 | 2354-949 | 2354-950 | 2354-951 | 126.80 | 3304-949 | 3304-950 | 3304-951 | 140.90 |
| 2-14 | 6 | 2354-961 | 2354-962 | 2354-963 | 128.70 | – | – | – | – |
| 2-16 | 5 | – | – | – | – | 3304-973 | 3304-974 | 3304-975 | 140.90 |
| 2-16 | 6 | 2354-973 | 2354-974 | 2354-975 | 126.80 | – | – | – | – |
| 2-18 | 6 | 2354-985 | 2354-986 | 2354-987 | 128.70 | 3304-985† | – | – | 164.90 |
| 2-20 | 5 | – | – | – | – | 3304-997 | 3304-998 | 3304-999 | 156.20 |
| 2-20 | 6 | 2354-997 | 2354-998 | 2354-999 | 128.70 | – | – | – | – |
| 2 1/16-12 | 6 | 2355-116 | 2355-117 | 2355-118 | 193.05 | – | – | – | – |
| 2 1/8-8** | 6 | 2355-210 | 2355-211 | 2355-212 | 152.05 | 3305-210 | 3305-211 | 3305-212 | 193.55 |
| 2 1/8-12 | 6 | 2355-234 | 2355-235 | 2355-236 | 152.05 | 3305-234 | 3305-235 | 3305-236 | 166.10 |
| 2 1/8-16 | 5 | 2355-250 | 2355-244 | 2355-245 | 152.05 | 3305-245 | 3305-246 | 3305-247 | 184.50 |
| 2 1/8-18 | 6 | 2355-262 | 2355-263 | 2355-264 | 152.05 | – | – | – | – |
| 2 1/8-20 | 6 | 2355-274 | 2355-275 | 2355-276 | 152.05 | – | – | – | – |
| 2 1/4-4-1/2** | 7 | 2355-442 | 2355-443 | 2355-444 | 186.10 | 3305-442 | 3305-443 | 3305-444 | 279.90 |
| 2 1/4-8** | 6 | 2355-464 | 2355-465 | 2355-466 | 186.10 | 3305-464 | 3305-465 | 3305-466 | 225.80 |
| 2 1/4-12 | 6 | 2355-486 | 2355-487 | 2355-488 | 173.00 | 3305-486 | 3305-487 | 3305-488 | 195.50 |
| 2 1/4-16 | 5 | 2355-516 | 2355-517 | 2355-518 | 173.00 | 3305-516 | 3305-517 | 3305-518 | 196.00 |
| 2 1/4-18 | 6 | 2355-531 | 2355-532 | 2355-533 | 173.00 | – | – | – | – |
| 2 1/4-20 | 6 | 2355-543 | 2355-544 | 2355-545 | 216.25 | – | – | – | – |
| 2 3/8-8** | 6 | 2355-695 | 2355-696 | 2355-697 | 219.30 | 3305-695 | 3305-696 | 3305-697 | 266.10 |
| 2 3/8-12 | 6 | 2355-720 | 2355-721 | 2355-722 | 194.95 | 3305-720 | 3305-721 | 3305-722 | 213.00 |
| 2 3/8-16 | 5 | 2355-735 | 2355-736 | 2355-737 | 194.95 | 3305-735 | 3305-736 | 3305-737 | 214.40 |
| 2 3/8-18 | 6 | 2355-750 | 2355-751 | 2355-752 | 223.35 | – | – | – | – |
| 2 1/2-4** | 7 | 2355-894 | 2355-895 | 2355-896 | 252.60 | 3305-894 | 3305-895 | 3305-896 | 306.50 |
| 2 1/2-8** | 6 | 2355-916 | 2355-917 | 2355-918 | 252.60 | 3305-916 | 3305-917 | 3305-918 | 306.50 |
| 2 1/2-12 | 6 | 2355-931 | 2355-932 | 2355-933 | 215.30 | 3305-931 | 3305-932 | 3305-933 | 239.10 |
| 2 1/2-16 | 5 | 2355-958 | 2355-959 | 2355-960 | 215.30 | 3305-958 | 3305-959 | 3305-960 | 248.50 |
| 2 1/2-18 | 6 | 2355-973 | 2355-974 | 2355-975 | 286.05 | – | – | – | – |
| 2 1/2-20 | 6 | 2355-988 | 2355-989 | 2355-990 | 286.05 | – | – | – | – |

** LONG BLANK

† Limited Quantities

# Popular Special Thread Taps

## Right Hand, High Speed Steel

Bottom

Plug

Taper

| | | Pittsburg® ALLEGHANY | | | | ALLEGIANCE® AMERICAN MADE | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 3 | | 2 |
| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | BOTTOMING | PLUG | TAPER | PRICE EACH |
| 2 5/8-8** | 8 | 2356-156 | 2356-157 | 2356-158 | $272.55 | 3306-156 | 3306-157 | 3306-158 | $330.70 |
| 2 5/8-12 | 7 | 2356-174 | 2356-175 | 2356-176 | 243.30 | 3306-174† | 3306-175† | – | 213.50 |
| 2 5/8-16 | 6 | 2356-198 | 2356-199 | 2356-200 | 243.30 | – | – | – | – |
| 2 5/8-18 | 5 | 2356-210 | 2356-211 | 2356-212 | 323.70 | – | – | – | – |
| 2 3/4-4** | 7 | 2356-308 | 2356-309 | 2356-310 | 292.45 | 3306-308† | 3306-309† | 3306-310† | POA |
| 2 3/4-8** | 8 | 2356-326 | 2356-327 | 2356-328 | 292.45 | 3306-320 | 3306-321 | 3306-322 | 354.85 |
| 2 3/4-12 | 5 | 2356-334 | 2356-335 | 2356-336 | 257.60 | 3306-334 | 3306-335 | 3306-336 | 268.80 |
| 2 3/4-16 | 6 | 2356-348 | 2356-349 | 2356-350 | 257.60 | – | – | – | – |
| 2 3/4-18 | 6 | 2356-360 | 2356-361 | 2356-362 | 348.00 | – | – | – | – |
| 2 7/8-8** | 8 | 2356-458 | 2356-459 | 2356-460 | 319.05 | 3306-458 | 3306-459 | 3306-460 | 387.10 |
| 2 7/8-12 | 6 | 2356-472 | 2356-473 | 2356-474 | 291.75 | – | – | – | – |
| 3-4 ** | 9 | 2356-631 | 2356-632 | 2356-633 | 352.30 | 3306-631 | 3306-632 | 3306-633 | 495.30 |
| 3-8 ** | 8 | 2356-649 | 2356-650 | 2356-651 | 352.30 | 3306-649 | 3306-650 | 3306-651 | 427.45 |
| 3-12 | 7 | 2356-661 | 2356-662 | 2356-663 | 353.90 | 3306-661 | 3306-662 | 3306-663 | 390.95 |
| 3-16 | 7 | 2356-664 | 2356-665 | 2356-666 | 353.90 | 3306-664 | 3306-665 | 3306-666 | 393.10 |
| 3 1/8-12 | 7 | 2356-760 | 2356-761 | 2356-762 | 474.30 | 3306-760 | 3306-761 | 3306-762† | 488.95 |
| 3 1/4-4** | 9 | 2356-818 | 2356-819 | 2356-820 | 550.30 | 3306-818† | 3306-819† | 3306-820† | 583.90 |
| 3 1/4-8** | 8 | 2356-833 | 2356-834 | 2356-835 | 550.30 | 3306-833 | 3306-834 | 3306-835 | 567.30 |
| 3 1/4-12 | 7 | 2356-848 | 2356-849 | 2356-850 | 504.95 | 3306-848 | 3306-849 | – | 520.55 |
| 3 1/2-4** | 9 | 2357-059 | 2357-060 | 2357-061 | 613.35 | 3307-059 | 3307-060 | 3307-061† | 632.30 |
| 3 1/2-8** | 8 | 2357-074 | 2357-075 | 2357-076 | 611.45 | 3307-074 | 3307-075 | 3307-076 | 630.35 |
| 3 1/2-12 | 7 | 2357-089 | 2357-090 | 2357-091 | 511.10 | 3307-089 | 3307-090 | – | 526.90 |
| 3 3/4-4** | 9 | 2357-252 | 2357-253 | 2357-254 | 744.90 | 3307-252 | 3307-253 | – | 782.80 |
| 3 3/4-8** | 8 | 2357-267 | 2357-268 | 2357-269 | 744.90 | 3307-267 | 3307-268 | 3307-269 | 767.95 |
| 3 3/4-12 | 7 | 2357-282 | 2357-283 | 2357-284 | 588.00 | 3307-282 | 3307-283 | – | 606.20 |
| 4-4 ** | 9 | 2357-412 | 2357-413 | 2357-414 | 833.80 | 3307-412 | 3307-413 | 3307-414† | 847.25 |
| 4-8 ** | 8 | 2357-428 | 2357-429 | 2357-430 | 833.80 | 3307-428 | 3307-429 | 3307-430 | 859.60 |
| 4-12 | 7 | 2357-456 | 2357-457 | 2357-458 | 651.35 | 3307-456 | 3307-457 | 3307-458† | 671.50 |

** LONG BLANK

† Limited Quantities

# Locknut Thread Taps & Dies

## Right Hand

1

1

2

Pittsburg® ALLEGHANY

2

| | | CARBON STEEL BOTTOM TAPS | | HIGH SPEED PLUG TAPS | | CARBON STEEL HEX DIES | | HIGH SPEED HEX DIES | |
|---|---|---|---|---|---|---|---|---|---|
| LOCKNUT NO. | SIZE | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| N-00 | 0.391-32 | – | – | 2332-001 | $ 68.50 | 2487-001 | $ 43.20 | 2487-051 | $ 64.80 |
| N-01 | 0.496-32 | – | – | 2332-002 | 71.80 | 2487-002 | 44.40 | 2487-052 | 68.40 |
| N-02 | 0.586-32 | – | – | 2332-003 | 76.80 | 2487-003 | 45.60 | 2487-053 | 72.00 |
| N-03 | 0.664-32 | – | – | 2332-004 | 79.40 | 2487-004 | 48.00 | 2487-054 | 73.20 |
| N-04 | 0.781-32 | – | – | 2332-005 | 89.20 | 2487-005 | 50.40 | 2487-055 | 76.80 |
| N-05 | 0.969-32 | – | – | 2332-006 | 105.60 | 2487-006 | 54.00 | 2487-056 | 80.40 |
| N-06 | 1.173-18 | – | – | 2332-007 | 117.20 | 2487-007 | 64.80 | 2487-057 | 102.00 |
| N-07 | 1.376-18 | – | – | 2332-008 | 136.90 | 2487-008 | 68.40 | 2487-058 | 105.60 |
| N-08 | 1.563-18 | – | – | 2332-009 | 189.60 | 2487-009 | 163.20 | 2487-059 | 216.00 |
| N-09 | 1.767-18 | – | – | 2332-010 | 214.40 | 2487-010 | 200.40 | 2487-060 | 232.80 |
| N-10 | 1.967-18 | – | – | 2332-011 | 222.50 | 2487-011 | 241.20 | 2487-061 | 274.80 |
| N-11 | 2.157-18 | – | – | 2332-012 | 296.80 | 2487-012 | 255.60 | 2487-062 | 289.20 |
| N-12 | 2.360-18 | – | – | 2332-013 | 313.30 | 2487-013 | 288.00 | 2487-063 | 326.40 |
| N-13 | 2.548-18 | – | – | 2332-014 | 387.40 | 2487-014 | 308.40 | 2487-064 | 343.20 |
| N-14 | 2.751-18 | – | – | 2332-015 | 428.80 | 2487-015 | 309.60 | 2487-065 | 351.60 |
| N-15 | 2.933-12 | – | – | 2332-016 | 453.50 | 2487-016 | 458.40 | 2487-066 | 499.20 |
| N-16 | 3.137-12 | – | – | 2332-017 | 544.30 | 2487-017 | 460.80 | 2487-067 | 511.20 |
| N-17 | 3.340-12 | 2332-118† | $ 342.39 | 2332-018 | 568.80 | 2487-018 | 470.40 | 2487-068 | 538.80 |
| N-18 | 3.527-12 | 2332-119† | 374.54 | 2332-019 | 634.80 | 2487-019 | 608.40 | 2487-069 | 722.40 |
| N-19 | 3.730-12 | 2332-120† | 391.98 | 2332-020 | 676.10 | 2487-020 | 615.60 | 2487-070 | 745.20 |
| N-20 | 3.918-12 | 2332-121† | 430.01 | 2332-021 | 742.00 | 2487-021 | 634.80 | 2487-071 | 776.40 |
| N-21 | 4.122-12 | 2332-122† | 468.75 | 2332-022 | POA | 2487-022 | POA | 2487-072 | POA |
| N-22 | 4.325-12 | 2332-123† | 519.50 | 2332-023 | POA | 2487-023 | POA | 2487-073 | POA |
| N-24 | 4.716-12 | 2332-124† | 576.65 | 2332-024 | POA | 2487-024 | POA | 2487-074 | POA |
| N-26 | 5.106-12 | 2332-125† | 630.00 | 2332-025 | POA | 2487-025 | POA | 2487-075 | POA |
| N-28 | 5.497-12 | 2332-126† | 699.50 | 2332-026 | POA | 2487-026 | POA | 2487-076 | POA |
| N-30 | 5.888-12 | 2332-127† | 768.75 | 2332-027 | POA | 2487-027 | POA | 2487-077 | POA |
| N-32 | 6.284-8 | 2332-128† | 1330.90 | 2332-028 | POA | 2487-028 | POA | 2487-078 | POA |
| N-34 | 6.659-8 | 2332-129† | 1818.75 | 2332-029 | POA | 2487-029 | POA | 2487-079 | POA |

† Limited Quantities

# Full Special Hand Taps

## Right Hand, High Speed Steel

POPULAR SPECIAL TAPS SEE PAGES 111-117

FOR 2 OR MORE PIECES, CALL FOR PRICE [1]

Bottom

Plug

Taper

Spiral Point

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 9/64-40 | GH2 | 2343-756 | 2343-757 | 2343-758 | $74.40 | 2362-020 | $75.40 |
| 5/32-24 | GH3 | 2343-822 | 2343-823 | 2343-824 | 74.40 | - | - |
| 5/32-32 | GH4 | - | - | - | - | 2362-062 | 75.40 |
| 5/32-38 | GH3 | 2343-840 | 2343-841 | 2343-842 | 74.40 | - | - |
| 5/32-48 | GH2 | 2343-850 | 2343-851 | 2343-852 | 74.40 | 2362-070 | 75.40 |
| 5/32-50 | GH2 | 2343-855 | 2343-856 | 2343-857 | 74.40 | - | - |
| 5/32-64 | GH2 | 2343-862 | 2343-863 | - | 74.40 | 2362-078 | 75.40 |
| 5/32-80 | GH2 | 2343-865 | 2343-866 | 2343-867 | 74.40 | - | - |
| 11/64-24 | GH3 | 2343-920 | 2343-921 | 2343-922 | 74.40 | - | - |
| 11/64-32 | GH3 | 2343-930 | 2343-931 | 2343-932 | 74.40 | - | - |
| 11/64-38 | GH3 | 2343-935 | 2343-936 | 2343-937 | 74.40 | - | - |
| 11/64-40 | GH2 | 2343-940 | 2343-941 | 2343-942 | 74.40 | - | - |
| 11/64-80 | GH2 | 2343-970 | 2343-971 | 2343-972 | 74.40 | - | - |
| 3/16-14 | GH3 | 2343-976 | 2343-977 | 2343-978 | 74.40 | - | - |
| 3/16-16 | GH3 | 2343-979 | 2343-980 | 2343-981 | 74.40 | - | - |
| 3/16-18 | GH3 | 2343-985 | 2343-986 | 2343-987 | 74.40 | - | - |
| 3/16-18 | GH5 | 2343-982 | 2343-983 | 2343-984 | 74.40 | - | - |
| 3/16-20 | GH3 | 2343-988 | 2343-989 | 2343-990 | 74.40 | - | - |
| 3/16-26 | GH3 | 2343-994 | 2343-995 | 2343-996 | 74.40 | - | - |
| 3/16-27 | GH3 | 2344-010 | 2344-011 | 2344-012 | 74.40 | 2362-156 | 75.40 |
| 3/16-48 | GH2 | 2344-035 | 2344-036 | 2344-037 | 74.40 | 2362-175 | 75.40 |
| 3/16-50 | GH2 | 2344-050 | 2344-051 | 2344-052 | 74.40 | 2362-180 | 75.40 |
| 13/64-24 | GH3 | 2344-136 | 2344-137 | 2344-138 | 76.80 | - | - |
| 13/64-56 | GH2 | 2344-150 | 2344-151 | 2344-152 | 76.80 | - | - |
| 7/32-26 | GH3 | 2344-225 | 2344-226 | 2344-227 | 77.90 | - | - |
| 7/32-38 | GH3 | 2344-250 | 2344-251 | 2344-252 | 77.90 | - | - |
| 7/32-48 | GH2 | 2344-234 | 2344-235 | 2344-236 | 77.90 | - | - |
| 7/32-60 | GH2 | 2344-270 | 2344-271 | 2344-272 | 77.90 | - | - |
| 7/32-72 | GH3 | 2344-276 | 2344-277 | 2344-278 | 77.90 | - | - |
| 7/32-80 | GH2 | 2344-280 | 2344-281 | 2344-282 | 77.90 | - | - |
| 15/64-20 | GH3 | 2344-344 | 2344-345 | 2344-346 | 77.90 | - | - |
| 15/64-22 | GH3 | 2344-347 | 2344-348 | 2344-350 | 77.90 | - | - |
| 15/64-24 | GH3 | - | 2344-351 | 2344-352 | 77.90 | - | - |
| 15/64-28 | GH3 | 2344-355 | 2344-356 | 2344-357 | 77.90 | - | - |
| 15/64-32 | GH3 | 2344-360 | 2344-361 | 2344-362 | 77.90 | - | - |
| 15/64-36 | GH3 | 2344-365 | 2344-366 | 2344-367 | 77.90 | - | - |
| 15/64-40 | GH2 | 2344-370 | 2344-371 | 2344-372 | 77.90 | - | - |
| 15/64-64 | GH2 | 2344-375 | 2344-376 | 2344-377 | 77.90 | - | - |
| 15/64-80 | GH2 | 2344-380 | 2344-381 | 2344-382 | 77.90 | - | - |
| 1/4-10 | GH3 | 2344-439 | 2344-440 | 2344-441 | 77.90 | - | - |
| 1/4-12 | GH3 | 2344-445 | 2344-446 | 2344-447 | 77.90 | - | - |
| 1/4-14 | GH3 | 2344-451 | 2344-452 | 2344-453 | 77.90 | - | - |
| 1/4-16 | GH3 | 2344-457 | 2344-458 | 2344-459 | 77.90 | 2362-388 | 79.20 |
| 1/4-18 | GH3 | 2344-450 | 2344-448 | 2344-449 | 77.90 | 2362-393 | 79.20 |
| 1/4-22 | GH3 | 2344-463 | 2344-464 | 2344-465 | 77.90 | - | - |
| 1/4-23 | GH3 | 2344-469 | 2344-470 | 2344-471 | 77.90 | - | - |
| 1/4-24 | GH5 | 2344-478 | 2344-479 | 2344-480 | 77.90 | - | - |
| 1/4-25 | GH3 | 2344-488 | 2344-489 | 2344-490 | 77.90 | - | - |
| 1/4-26 | GH3 | 2344-481 | 2344-482 | 2344-483 | 77.90 | - | - |
| 1/4-34 | GH2 | 2344-496 | 2344-497 | 2344-498 | 77.90 | - | - |
| 1/4-36 | GH7 | 2344-699 | 2344-700 | 2344-701 | 77.90 | - | - |
| 1/4-38 | GH2 | 2344-509 | 2344-510 | - | 77.90 | - | - |
| 1/4-42 | GH3 | 2344-511 | 2344-512 | 2344-513 | 77.90 | 2362-420 | 79.20 |
| 1/4-44 | GH3 | 2344-514 | 2344-515 | 2344-516 | 77.90 | - | - |
| 1/4-46 | GH3 | 2344-517 | 2344-518 | 2344-519 | 77.90 | - | - |
| 1/4-50 | GH2 | 2344-523 | 2344-524 | 2344-525 | 77.90 | 2362-427 | 79.20 |
| 1/4-52 | GH2 | 2344-529 | 2344-530 | 2344-531 | 77.90 | - | - |
| 1/4-60 | GH2 | 2344-565 | 2344-566 | 2344-567 | 77.90 | 2362-435 | 79.20 |
| 1/4-72 | GH2 | 2344-600 | 2344-601 | 2344-602 | 77.90 | 2362-447 | 79.20 |
| 1/4-96 | GH | 2344-626 | 2344-627 | 2344-628 | POA | - | - |
| 1/4-120 | GH2 | 2344-541 | 2344-542 | 2344-543 | POA | - | - |
| 17/64-18 | GH3 | 2344-716 | 2344-717 | 2344-718 | 79.20 | - | - |
| 17/64-20 | GH3 | 2344-720 | 2344-721 | 2344-722 | 79.20 | - | - |
| 17/64-24 | GH3 | 2344-724 | 2344-725 | 2344-726 | 79.20 | - | - |
| 17/64-28 | GH3 | 2344-712 | 2344-713 | 2344-714 | 79.20 | - | - |
| 17/64-32 | GH3 | 2344-730 | 2344-731 | 2344-732 | 79.20 | - | - |
| 17/64-36 | GH3 | 2344-735 | 2344-736 | 2344-737 | 79.20 | - | - |
| 17/64-40 | GH2 | 2344-740 | 2344-741 | 2344-742 | 79.20 | - | - |
| 9/32-16 | GH3 | 2344-814 | 2344-815 | 2344-816 | 79.20 | - | - |
| 9/32-18 | GH3 | 2344-818 | 2344-819 | 2344-820 | 79.20 | - | - |
| 9/32-20 | GH3 | 2344-825 | 2344-826 | 2344-827 | 79.20 | 2362-569 | 80.40 |

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 9/32-24 | GH3 | 2344-840 | 2344-841 | 2344-842 | $79.20 | 2362-573 | $80.40 |
| 9/32-26 | GH3 | 2344-845 | 2344-846 | 2344-847 | 79.20 | - | - |
| 9/32-27 | GH3 | 2344-860 | 2344-861 | 2344-862 | 79.20 | 2362-576 | 80.40 |
| 9/32-28 | GH3 | 2344-865 | 2344-866 | 2344-867 | 79.20 | 2362-578 | 80.40 |
| 9/32-32 | GH5 | 2344-877 | 2344-878 | 2344-879 | 79.20 | - | - |
| 9/32-36 | GH3 | 2344-885 | 2344-886 | 2344-887 | 79.20 | - | - |
| 9/32-48 | GH2 | 2344-915 | 2344-916 | 2344-917 | 79.20 | 2362-598 | 80.40 |
| 9/32-56 | GH2 | 2344-895 | 2344-896 | 2344-897 | 79.20 | 2362-508 | 80.40 |
| 9/32-64 | GH2 | 2344-905 | 2344-906 | 2344-907 | 79.20 | - | - |
| 9/32-80 | GH2 | 2344-912 | 2344-913 | 2344-914 | 79.20 | - | - |
| 19/64-16 | GH2 | 2344-972 | 2344-973 | 2344-974 | 79.20 | - | - |
| 19/64-16 | GH3 | 2344-918 | 2344-919 | 2344-920 | 79.20 | - | - |
| 19/64-18 | GH3 | 2344-976 | 2344-977 | 2344-978 | 79.20 | - | - |
| 19/64-20 | GH3 | 2344-980 | 2344-981 | 2344-982 | 79.20 | - | - |
| 19/64-24 | GH3 | - | 2344-985 | 2344-986 | 79.20 | - | - |
| 19/64-28 | GH3 | 2344-990 | 2344-991 | 2344-992 | 79.20 | - | - |
| 19/64-32 | GH3 | 2344-996 | 2344-997 | 2344-998 | 79.20 | - | - |
| 19/64-34 | GH2 | 2344-999 | 2345-000 | 2345-001 | 79.20 | - | - |
| 19/64-40 | GH2 | 2345-002 | 2345-003 | 2345-004 | 79.20 | - | - |
| 5/16-10 | GH3 | 2345-060 | 2345-061 | 2345-062 | 79.20 | - | - |
| 5/16-12 | GH3 | 2345-066 | 2345-067 | 2345-068 | 79.20 | - | - |
| 5/16-14 | GH3 | 2345-073 | 2345-074 | 2345-075 | 79.20 | 2362-690 | 80.40 |
| 5/16-16 | GH3 | 2345-077 | 2345-078 | 2345-079 | 79.20 | 2362-695 | 80.40 |
| 5/16-22 | GH3 | 2345-083 | 2345-084 | 2345-085 | 79.20 | - | - |
| 5/16-26 | GH3 | 2345-089 | 2345-088 | 2345-087 | 79.20 | 2362-704 | 80.40 |
| 5/16-30 | GH3 | 2345-095 | 2345-096 | 2345-097 | 79.20 | 2362-584 | 80.40 |
| 5/16-34 | GH3 | 2345-100 | 2345-101 | 2345-102 | 79.20 | - | - |
| 5/16-42 | GH1 | 2345-112 | 2345-113 | 2345-114 | 79.20 | - | - |
| 5/16-42 | GH2 | 2345-106 | 2345-107 | 2345-108 | 79.20 | - | - |
| 5/16-44 | GH2 | 2345-117 | 2345-118 | 2345-119 | 79.20 | - | - |
| 5/16-50 | GH2 | 2345-123 | 2345-124 | 2345-125 | 79.20 | - | - |
| 5/16-52 | GH2 | 2345-130 | 2345-131 | 2345-132 | 79.20 | - | - |
| 5/16-60 | GH2 | 2345-142 | 2345-143 | 2345-144 | 79.20 | - | - |
| 5/16-72 | GH2 | 2345-215 | 2345-216 | 2345-217 | 79.20 | 2362-753 | 80.40 |
| 5/16-100 | GH1 | 2345-148 | 2345-149 | 2345-150 | POA | - | - |
| 21/64-16 | GH3 | 2345-340 | 2345-341 | 2345-342 | 81.90 | 2362-820 | 83.30 |
| 21/64-18 | GH3 | 2345-347 | 2345-348 | 2345-349 | 81.90 | 2362-825 | 83.30 |
| 21/64-24 | GH3 | 2345-355 | 2345-356 | 2345-357 | 81.90 | 2362-831 | 83.30 |
| 21/64-28 | GH3 | 2345-362 | 2345-363 | 2345-364 | 81.90 | 2362-836 | 83.30 |
| 21/64-32 | GH2 | 2345-365 | 2345-366 | 2345-367 | 81.90 | - | - |
| 21/64-32 | GH3 | - | 2345-345 | 2345-346 | 81.90 | - | - |
| 21/64-36 | GH3 | 2345-372 | 2345-373 | 2345-374 | 81.90 | 2362-841 | 83.30 |
| 21/64-40 | GH2 | 2345-378 | 2345-379 | 2345-380 | 81.90 | - | - |
| 21/64-40 | GH3 | 2345-350 | 2345-351 | 2345-352 | 81.90 | - | - |
| 21/64-48 | GH2 | 2345-384 | 2345-385 | 2345-386 | 81.90 | 2362-845 | 83.30 |
| 21/64-64 | GH2 | 2345-402 | 2345-403 | 2345-404 | 81.90 | 2362-848 | 83.30 |
| 11/32-16 | GH3 | 2345-432 | 2345-433 | 2345-434 | 81.90 | 2362-870 | 83.30 |
| 11/32-18 | GH3 | 2345-436 | 2345-437 | 2345-438 | 81.90 | 2362-871 | 83.30 |
| 11/32-20 | GH3 | 2345-440 | 2345-441 | 2345-442 | 81.90 | 2362-872 | 83.30 |
| 11/32-22 | GH3 | 2345-444 | 2345-445 | 2345-446 | 81.90 | 2362-873 | 83.30 |
| 11/32-24 | GH3 | 2345-448 | 2345-449 | 2345-450 | 81.90 | 2362-874 | 83.30 |
| 11/32-26 | GH3 | 2345-455 | 2345-456 | 2345-457 | 81.90 | 2362-875 | 83.30 |
| 11/32-27 | GH3 | 2345-462 | 2345-463 | 2345-464 | 81.90 | 2362-876 | 83.30 |
| 11/32-28 | GH3 | 2345-469 | - | - | 81.90 | 2362-877 | 83.30 |
| 11/32-30 | GH3 | 2345-474 | 2345-475 | 2345-476 | 81.90 | 2362-880 | 83.30 |
| 11/32-36 | GH3 | 2345-477 | 2345-478 | 2345-479 | 81.90 | 2362-897 | 83.30 |
| 11/32-40 | GH2 | 2345-484 | 2345-485 | 2345-486 | 81.90 | 2362-901 | 83.30 |
| 11/32-48 | GH2 | 2345-491 | 2345-492 | 2345-493 | 81.90 | 2362-909 | 83.30 |
| 11/32-56 | GH2 | 2345-498 | 2345-499 | 2345-500 | 81.90 | 2362-917 | 83.30 |
| 11/32-60 | GH2 | 2345-505 | 2345-506 | 2345-507 | 81.90 | 2362-921 | 83.30 |
| 11/32-64 | GH2 | 2345-512 | 2345-513 | 2345-514 | 81.90 | 2362-926 | 83.30 |
| 11/32-72 | GH2 | 2345-522 | 2345-523 | 2345-524 | 81.90 | 2362-934 | 83.30 |
| 11/32-96 | GH1 | 2345-540 | 2345-541 | 2345-542 | POA | - | - |
| 23/64-16 | GH3 | 2345-620 | 2345-621 | 2345-622 | 81.90 | 2362-960 | 83.30 |
| 23/64-24 | GH3 | 2345-630 | 2345-631 | 2345-632 | 81.90 | 2362-970 | 83.30 |
| 23/64-40 | GH2 | 2345-648 | 2345-649 | 2345-650 | 81.90 | 2362-980 | 83.30 |
| 3/8-10 | GH3 | 2345-704 | 2345-705 | 2345-706 | 81.90 | - | - |
| 3/8-12 | GH3 | 2345-710 | 2345-711 | 2345-712 | 81.90 | - | - |
| 3/8-13 | GH3 | 2345-716 | 2345-717 | 2345-718 | 81.90 | - | - |
| 3/8-18 | GH1 | 2345-728 | 2345-729 | 2345-730 | 81.90 | - | - |
| 3/8-18 | GH5 | 2345-731 | 2345-732 | 2345-733 | 81.90 | - | - |

(continued)

# Full Special Hand Taps

## Right Hand, High Speed Steel

POPULAR SPECIAL TAPS SEE PAGES 111-117

FOR 2 OR MORE PIECES, CALL FOR PRICE [1]

Bottom

Plug

Taper

Spiral Point

Pittsburg® ALLEGHANY

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3/8-22 | GH3 | 2345-734 | 2345-735 | 2345-736 | $81.90 | - | - |
| 3/8-25 | GH3 | 2345-743 | 2345-744 | 2345-745 | 81.90 | - | - |
| 3/8-26 | GH3 | 2345-746 | 2345-747 | 2345-748 | 81.90 | 2363-019 | $83.30 |
| 3/8-27 | GH5 | 2345-763 | 2345-764 | 2345-765 | 81.90 | - | - |
| 3/8-30 | GH3 | 2345-773 | 2345-774 | 2345-775 | 81.90 | - | - |
| 3/8-32 | GH2 | 2345-777 | 2345-778 | 2345-779 | 81.90 | - | - |
| 3/8-38 | GH3 | 2345-752 | 2345-753 | 2345-754 | 81.90 | - | - |
| 3/8-40 | GH7 | 2345-831 | 2345-832 | 2345-833 | 81.90 | - | - |
| 3/8-42 | GH2 | 2345-834 | 2345-835 | 2345-836 | 81.90 | - | - |
| 3/8-44 | GH2 | 2345-840 | 2345-841 | 2345-842 | 81.90 | - | - |
| 3/8-46 | GH2 | 2345-846 | 2345-847 | 2345-848 | 81.90 | - | - |
| 3/8-60 | GH2 | 2345-890 | 2345-891 | 2345-892 | 81.90 | 2363-070 | 83.30 |
| 25/64-16 | GH3 | 2345-984 | 2345-985 | 2345-986 | 85.20 | 2363-135 | 86.60 |
| 25/64-20 | GH3 | 2345-990 | 2345-991 | 2345-992 | 85.20 | 2363-139 | 86.60 |
| 25/64-24 | GH3 | 2345-997 | 2345-998 | 2345-999 | 85.20 | 2363-143 | 86.60 |
| 25/64-27 | GH3 | 2346-004 | 2346-005 | 2346-006 | 85.20 | 2363-147 | 86.60 |
| 25/64-32 | GH3 | 2346-011 | 2346-012 | 2346-013 | 85.20 | 2363-150 | 86.60 |
| 25/64-40 | GH2 | 2346-020 | 2346-021 | 2346-022 | 85.20 | - | - |
| 25/64-48 | GH2 | 2346-023 | 2346-024 | 2346-025 | 85.20 | 2363-155 | 86.60 |
| 25/64-64 | GH2 | 2346-041 | 2346-042 | 2346-043 | 85.20 | 2363-160 | 86.60 |
| 13/32-16 | GH3 | 2346-076 | 2346-077 | 2346-078 | 85.20 | 2363-185 | 86.60 |
| 13/32-18 | GH3 | 2346-081 | 2346-082 | 2346-083 | 85.20 | 2363-187 | 86.60 |
| 13/32-22 | GH3 | 2346-093 | 2346-094 | 2346-095 | 85.20 | - | - |
| 13/32-24 | GH3 | 2346-090 | 2346-091 | 2346-092 | 85.20 | 2363-195 | 86.60 |
| 13/32-26 | GH3 | 2346-097 | 2346-098 | 2346-099 | 85.20 | 2363-197 | 86.60 |
| 13/32-27 | GH3 | 2346-104 | 2346-105 | 2346-106 | 85.20 | 2363-198 | 86.60 |
| 13/32-28 | GH3 | 2346-111 | 2346-112 | 2346-113 | 85.20 | 2363-199 | 86.60 |
| 13/32-28 | GH4 | 2346-108 | 2346-109 | 2346-110 | 85.20 | - | - |
| 13/32-36 | GH3 | 2346-123 | 2346-124 | 2346-125 | 85.20 | 2363-205 | 86.60 |
| 13/32-40 | GH2 | 2346-130 | 2346-131 | 2346-132 | 85.20 | 2363-209 | 86.60 |
| 13/32-48 | GH2 | 2346-142 | 2346-143 | 2346-144 | 85.20 | 2363-217 | 86.60 |
| 13/32-64 | GH2 | 2346-152 | 2346-153 | 2346-154 | 85.20 | 2363-220 | 86.60 |
| 27/64-14 | GH3 | 2346-192 | 2346-193 | 2346-194 | 85.20 | 2363-245 | 86.60 |
| 27/64-18 | GH3 | 2346-198 | 2346-199 | 2346-200 | 85.20 | - | - |
| 27/64-20 | GH3 | 2346-204 | 2346-205 | 2346-206 | 85.20 | 2363-250 | 86.60 |
| 27/64-24 | GH3 | 2346-211 | 2346-212 | 2346-213 | 85.20 | 2363-255 | 86.60 |
| 27/64-28 | GH3 | 2346-218 | 2346-219 | 2346-220 | 85.20 | 2363-260 | 86.60 |
| 27/64-32 | GH3 | 2346-225 | 2346-226 | 2346-227 | 85.20 | 2363-263 | 86.60 |
| 27/64-36 | GH3 | 2346-232 | 2346-233 | 2346-234 | 85.20 | 2363-269 | 86.60 |
| 27/64-48 | GH2 | 2346-244 | 2346-245 | 2346-246 | 85.20 | 2363-271 | 86.60 |
| 7/16-10 | GH3 | 2346-288 | 2346-289 | 2346-290 | 85.20 | - | - |
| 7/16-12 | GH3 | 2346-294 | 2346-295 | 2346-296 | 85.20 | - | - |
| 7/16-13 | GH3 | 2346-297 | 2346-298 | 2346-299 | 85.20 | 2363-300 | 86.60 |
| 7/16-16 | GH5 | 2346-306 | 2346-307 | 2346-308 | 85.20 | - | - |
| 7/16-18 | GH5 | 2346-315 | 2346-316 | 2346-317 | 85.20 | 2363-309 | 86.60 |
| 7/16-22 | GH3 | 2346-318 | 2346-319 | 2346-320 | 85.20 | - | - |
| 7/16-24 | GH4 | 2346-328 | 2346-329 | 2346-330 | 85.20 | - | - |
| 7/16-24 | GH5 | 2346-237 | 2346-238 | 2346-239 | 38.00 | - | - |
| 7/16-24 | GH7 | 2346-339 | 2346-340 | 2346-341 | 85.20 | - | - |
| 7/16-24 | GH8 | 2346-379 | 2346-380 | 2346-381 | 85.20 | - | - |
| 7/16-24 | GH9 | 2346-382 | 2346-383 | 2346-384 | 85.20 | - | - |
| 7/16-26 | GH3 | 2346-332 | 2346-333 | 2346-334 | 85.20 | - | - |
| 7/16-27 | GH5 | 2346-342 | 2346-343 | 2346-344 | 85.20 | - | - |
| 7/16-27 | GH9 | 2346-345 | 2346-348 | 2346-347 | 85.20 | - | - |
| 7/16-30 | GH3 | 2346-360 | 2346-361 | 2346-362 | 85.20 | - | - |
| 7/16-32 | GH5 | 2346-372 | 2346-373 | 2346-374 | 85.20 | - | - |
| 7/16-40 | GH5 | 2346-418 | 2346-419 | 2346-420 | 85.20 | - | - |
| 7/16-44 | GH2 | 2346-421 | 2346-422 | 2346-423 | 85.20 | - | - |
| 7/16-60 | GH2 | 2346-442 | 2346-443 | 2346-444 | 85.20 | - | - |
| 7/16-80 | GH2 | 2346-456 | 2346-457 | 2346-458 | 85.20 | - | - |
| 29/64-14 | GH3 | 2346-520 | 2346-521 | 2346-522 | 88.70 | 2363-405 | 90.40 |
| 29/64-20 | GH3 | 2346-527 | 2346-528 | 2346-529 | 88.70 | 2363-410 | 90.40 |
| 29/64-24 | GH3 | 2346-535 | 2346-536 | 2346-537 | 88.70 | 2363-413 | 90.40 |
| 29/64-36 | GH3 | 2346-547 | 2346-548 | 2346-549 | 88.70 | 2363-418 | 90.40 |
| 29/64-40 | GH2 | 2346-554 | 2346-555 | 2346-556 | 88.70 | 2363-420 | 90.40 |
| 29/64-64 | GH2 | 2346-572 | 2346-573 | 2346-574 | 88.70 | 2363-425 | 90.40 |

Pittsburg® ALLEGHANY

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 15/32-12 | GH3 | 2346-600 | 2346-601 | 2346-602 | 88.70 | 2363-445 | $90.40 |
| 15/32-13 | GH3 | 2346-607 | 2346-608 | 2346-609 | 88.70 | 2363-448 | 90.40 |
| 15/32-14 | GH3 | 2346-613 | 2346-614 | 2346-615 | 88.70 | 2363-450 | 90.40 |
| 15/32-16 | GH3 | 2346-620 | 2346-621 | 2346-622 | 88.70 | 2363-453 | 90.40 |
| 15/32-18 | GH3 | 2346-627 | 2346-628 | 2346-629 | 88.70 | 2363-458 | 90.40 |
| 15/32-20 | GH3 | 2346-634 | 2346-635 | 2346-636 | 88.70 | 2363-460 | 90.40 |
| 15/32-24 | GH3 | 2346-641 | 2346-642 | 2346-643 | 88.70 | 2363-462 | 90.40 |
| 15/32-27 | GH3 | 2346-655 | 2346-656 | 2346-657 | 88.70 | 2363-464 | 90.40 |
| 15/32-28 | GH3 | 2346-648 | 2346-649 | 2346-650 | 88.70 | 2363-466 | 90.40 |
| 15/32-36 | GH3 | 2346-667 | 2346-668 | 2346-669 | 88.70 | 2363-470 | 90.40 |
| 15/32-40 | GH2 | 2346-673 | 2346-674 | 2346-675 | 88.70 | 2363-475 | 90.40 |
| 31/64-12 | GH3 | 2346-720 | 2346-721 | 2346-722 | 88.70 | - | - |
| 31/64-13 | GH3 | 2346-728 | 2346-729 | 2346-730 | 88.70 | 2363-515 | 90.40 |
| 31/64-14 | GH3 | 2346-735 | 2346-736 | 2346-737 | 88.70 | 2363-518 | 90.40 |
| 31/64-20 | GH3 | 2346-742 | 2346-743 | 2346-744 | 88.70 | 2363-520 | 90.40 |
| 31/64-26 | GH3 | 2346-749 | 2346-750 | 2346-751 | 88.70 | - | - |
| 31/64-32 | GH3 | 2346-761 | 2346-762 | 2346-763 | 88.70 | 2363-530 | 90.40 |
| 1/2-8 | GH3 | 2346-800 | 2346-801 | 2346-802 | 88.70 | - | - |
| 1/2-10 | GH3 | 2346-808 | 2346-809 | 2346-810 | 88.70 | 2363-555 | 90.40 |
| 1/2-11 | GH3 | 2346-812 | 2346-813 | 2346-814 | 88.70 | - | - |
| 1/2-12 | GH5 | 2346-840 | 2346-841 | 2346-842 | 88.70 | - | - |
| 1/2-14 | GH5 | 2346-823 | 2346-824 | 2346-825 | 88.70 | - | - |
| 1/2-16 | GH5 | - | 2346-835 | 2346-836 | 88.70 | - | - |
| 1/2-18 | GH7 | 2346-862 | 2346-863 | 2346-864 | 88.70 | - | - |
| 1/2-22 | GH3 | 2346-826 | 2346-827 | 2346-828 | 88.70 | - | - |
| 1/2-24 | GH5 | 2346-876 | 2346-877 | 2346-878 | 88.70 | - | - |
| 1/2-24 | GH8 | 2346-870 | 2346-871 | 2346-872 | 88.70 | - | - |
| 1/2-25 | GH3 | 2346-873 | 2346-874 | 2346-875 | 88.70 | - | - |
| 1/2-26 | GH3 | 2346-837 | 2346-838 | 2346-839 | 88.70 | - | - |
| 1/2-30 | GH3 | 2346-916 | 2346-917 | 2346-918 | 88.70 | 2363-593 | 90.40 |
| 1/2-34 | GH3 | 2346-943 | 2346-944 | 2346-945 | 88.70 | - | - |
| 1/2-38 | GH3 | 2346-949 | 2346-950 | 2346-951 | 88.70 | - | - |
| 1/2-44 | GH3 | 2346-955 | 2346-956 | 2346-957 | 88.70 | - | - |
| 1/2-50 | GH2 | 2346-961 | 2346-962 | 2346-963 | 88.70 | - | - |
| 1/2-54 | GH2 | 2346-967 | 2346-968 | 2346-969 | 88.70 | - | - |
| 1/2-68 | GH2 | 2347-031 | - | 2347-033 | 88.70 | - | - |
| 1/2-72 | GH2 | 2347-049 | 2347-050 | 2347-051 | 88.70 | 2363-650 | 90.40 |
| 1/2-80 | GH2 | 2347-064 | 2347-065 | 2347-066 | 88.70 | 2363-660 | 90.40 |
| 33/64-12 | GH3 | 2347-080 | 2347-081 | 2347-082 | 90.20 | 2363-685 | 92.60 |
| 33/64-13 | GH3 | 2347-095 | 2347-096 | 2347-097 | 46.60 | 2363-686 | 92.60 |
| 33/64-18 | GH3 | 2347-102 | 2347-103 | 2347-104 | 90.20 | 2363-691 | 92.60 |
| 33/64-20 | GH3 | 2347-109 | 2347-110 | 2347-111 | 90.20 | 2363-695 | 92.60 |
| 33/64-32 | GH3 | 2347-127 | 2347-128 | 2347-129 | 90.20 | - | - |
| 33/64-60 | GH2 | 2347-151 | 2347-152 | 2347-153 | 90.20 | 2363-700 | 92.60 |
| 33/64-80 | GH2 | 2347-145 | 2347-146 | 2347-147 | 90.20 | - | - |
| 17/32-12 | GH3 | 2347-172 | 2347-173 | 2347-174 | 90.20 | 2363-735 | 92.60 |
| 17/32-13 | GH3 | 2347-179 | 2347-180 | 2347-181 | 90.20 | 2363-736 | 92.60 |
| 17/32-16 | GH3 | 2347-186 | 2347-187 | 2347-188 | 90.20 | 2363-739 | 92.60 |
| 17/32-18 | GH3 | 2347-193 | 2347-194 | 2347-195 | 90.20 | 2363-741 | 92.60 |
| 17/32-20 | GH3 | 2347-200 | 2347-201 | 2347-202 | 90.20 | 2363-743 | 92.60 |
| 17/32-24 | GH3 | 2347-207 | 2347-208 | 2347-209 | 90.20 | 2363-744 | 92.60 |
| 17/32-27 | GH3 | 2347-214 | 2347-215 | 2347-216 | 90.20 | 2363-747 | 92.60 |
| 17/32-28 | GH3 | 2347-221 | 2347-222 | 2347-223 | 90.20 | 2363-748 | 92.60 |
| 17/32-32 | GH3 | 2347-228 | 2347-229 | 2347-230 | 90.20 | 2363-752 | 92.60 |
| 17/32-36 | GH3 | - | 2347-232 | - | 90.20 | - | - |
| 17/32-40 | GH2 | 2347-235 | 2347-236 | 2347-237 | 90.20 | 2363-760 | 92.60 |
| 17/32-48 | GH2 | 2347-242 | 2347-243 | 2347-244 | 90.20 | 2363-768 | 92.60 |
| 17/32-64 | GH2 | 2347-254 | 2347-255 | 2347-256 | 90.20 | 2363-772 | 92.60 |
| 35/64-12 | GH3 | 2347-304 | 2347-305 | 2347-306 | 90.20 | - | - |
| 35/64-18 | GH3 | 2347-310 | 2347-311 | 2347-312 | 90.20 | - | - |
| 35/64-28 | GH3 | 2347-316 | 2347-317 | 2347-318 | 90.20 | - | - |
| 9/16-10 | GH3 | 2347-384 | 2347-385 | - | 90.20 | - | - |
| 9/16-16 | GH1 | 2347-386 | 2347-387 | 2347-388 | 90.20 | - | - |
| 9/16-16 | GH5 | 2347-397 | 2347-398 | 2347-399 | 90.20 | - | - |
| 9/16-20 | GH5 | 2347-403 | 2347-404 | 2347-405 | 90.20 | - | - |

(continued)

# Full Special Hand Taps

## Right Hand, High Speed Steel

POPULAR SPECIAL TAPS SEE PAGES 111-117

FOR 2 OR MORE PIECES, CALL FOR PRICE

[1]

Bottom

Plug

Taper

Spiral Point

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 9/16-20 | GH12 | 2347-409 | 2347-410 | 2347-411 | $90.20 | - | - |
| 9/16-20 | GH20 | - | 2347-415 | - | 90.20 | - | - |
| 9/16-22 | GH3 | 2347-412 | 2347-413 | 2347-414 | 90.20 | - | - |
| 9/16-26 | GH3 | 2347-418 | 2347-419 | 2347-420 | 90.20 | - | - |
| 9/16-27 | GH5 | 2347-448 | 2347-449 | 2347-450 | 90.20 | - | - |
| 9/16-30 | GH3 | 2347-463 | 2347-464 | 2347-465 | 90.20 | - | - |
| 9/16-32 | GH5 | 2347-478 | 2347-479 | 2347-480 | 90.20 | - | - |
| 9/16-32 | GH7 | 2347-481 | 2347-482 | 2347-483 | 90.20 | - | - |
| 9/16-32 | GH9 | 2347-484 | 2347-485 | 2347-486 | 90.20 | - | - |
| 9/16-36 | GH2 | 2347-487 | 2347-488 | 2347-489 | 90.20 | 2363-875 | $92.60 |
| 9/16-40 | GH6 | 2347-514 | 2347-515 | 2347-516 | 90.20 | - | - |
| 9/16-48 | GH2 | 2347-517 | 2347-518 | 2347-519 | 90.20 | 2363-890 | 92.60 |
| 9/16-56 | GH2 | 2347-523 | 2347-524 | 2347-525 | 90.20 | - | - |
| 9/16-24 | GH2 | 2347-529 | 2347-530 | 2347-531 | 90.20 | - | - |
| 9/16-80 | GH2 | 2347-542 | 2347-543 | 2347-544 | POA | - | - |
| 37/64-10 | GH3 | 2347-592 | 2347-593 | 2347-594 | 95.20 | 2363-945 | 97.70 |
| 37/64-12 | GH3 | 2347-599 | 2347-600 | 2347-601 | 95.20 | 2363-947 | 97.70 |
| 37/64-18 | GH3 | 2347-606 | 2347-607 | 2347-608 | 95.20 | 2363-953 | 97.70 |
| 37/64-40 | GH2 | 2347-630 | 2347-631 | 2347-632 | 95.20 | 2363-960 | 97.70 |
| 37/64-56 | GH2 | 2347-648 | 2347-649 | 2347-650 | 95.20 | 2363-968 | 97.70 |
| 19/32-11 | GH3 | 2347-684 | 2347-685 | 2347-686 | 95.20 | 2363-995 | 97.70 |
| 19/32-12 | GH3 | 2347-691 | 2347-692 | 2347-693 | 95.20 | 2363-997 | 97.70 |
| 19/32-16 | GH3 | 2347-698 | 2347-699 | 2347-700 | 95.20 | 2364-000 | 97.70 |
| 19/32-18 | GH3 | 2347-705 | 2347-706 | 2347-707 | 95.20 | 2364-002 | 97.70 |
| 19/32-20 | GH3 | 2347-712 | 2347-713 | 2347-714 | 95.20 | 2364-004 | 97.70 |
| 19/32-24 | GH3 | 2347-719 | 2347-720 | 2347-721 | 95.20 | 2364-008 | 97.70 |
| 19/32-27 | GH3 | 2347-726 | 2347-727 | 2347-728 | 95.20 | 2364-011 | 97.70 |
| 19/32-28 | GH3 | 2347-733 | 2347-734 | 2347-735 | 95.20 | 2364-012 | 97.70 |
| 19/32-32 | GH3 | 2347-740 | 2347-741 | 2347-742 | 95.20 | 2364-016 | 97.70 |
| 19/32-36 | GH3 | 2347-747 | 2347-748 | 2347-749 | 95.20 | 2364-020 | 97.70 |
| 19/32-40 | GH2 | 2347-754 | 2347-755 | 2347-756 | 95.20 | 2364-024 | 97.70 |
| 19/32-48 | GH2 | 2347-761 | 2347-762 | 2347-763 | 95.20 | 2364-032 | 97.70 |
| 19/32-64 | GH2 | 2347-773 | 2347-774 | 2347-775 | 95.20 | 2364-036 | 97.70 |
| 19/32-80 | GH1 | 2347-790 | 2347-791 | 2347-792 | 95.20 | 2364-040 | POA |
| 39/64-11 | GH3 | 2347-812 | 2347-813 | 2347-814 | 95.20 | 2364-060 | 97.70 |
| 39/64-18 | GH3 | 2347-819 | 2347-820 | 2347-821 | 95.20 | 2364-067 | 97.70 |
| 5/8-8 | GH3 | 2347-896 | 2347-897 | 2347-898 | 95.20 | - | - |
| 5/8-9 | GH3 | 2347-912 | 2347-913 | 2347-914 | 95.20 | - | - |
| 5/8-11 1/2 | GH4 | 2347-905 | 2347-906 | 2347-907 | 95.20 | - | - |
| 5/8-13 | GH3 | 2347-921 | 2347-922 | 2347-923 | 95.20 | - | - |
| 5/8-25 | GH3 | 2347-981 | 2347-982 | 2347-983 | 95.20 | - | - |
| 5/8-26 | GH3 | 2347-984 | 2347-985 | 2347-986 | 95.20 | - | - |
| 5/8-28 | GH5 | 2348-002 | 2348-003 | 2348-004 | 95.20 | - | - |
| 5/8-30 | GH3 | 2348-005 | 2348-006 | 2348-007 | 95.20 | - | - |
| 5/8-38 | GH2 | 2348-029 | 2348-030 | 2348-031 | 95.20 | - | - |
| 5/8-44 | GH2 | 2348-041 | 2348-042 | 2348-043 | 95.20 | - | - |
| 5/8-48 | GH2 | 2348-047 | 2348-048 | 2348-049 | 95.20 | 2364-155 | 97.70 |
| 5/8-56 | GH2 | 2348-059 | 2348-060 | 2348-061 | 95.20 | 2364-165 | 97.70 |
| 5/8-64 | GH2 | 2348-071 | 2348-072 | 2348-073 | 95.20 | 2364-175 | 97.70 |
| 5/8-80 | GH2 | 2348-077 | 2348-078 | 2348-079 | POA | - | - |
| 41/64-11 | GH4 | 2348-135 | 2348-136 | 2348-137 | 59.30 | 2364-216 | 103.90 |
| 41/64-18 | GH3 | 2348-142 | 2348-143 | 2348-144 | 100.50 | 2364-222 | 103.90 |
| 41/64-24 | GH3 | 2348-154 | 2348-155 | 2348-156 | 100.50 | 2364-228 | 103.90 |
| 41/64-32 | GH3 | 2348-166 | 2348-167 | 2348-168 | 100.50 | 2364-236 | 103.90 |
| 21/32-11 | GH3 | 2348-208 | 2348-209 | 2348-210 | 100.50 | 2364-260 | 103.90 |
| 21/32-12 | GH3 | 2348-213 | 2348-214 | 2348-215 | 100.50 | 2364-261 | 103.90 |
| 21/32-16 | GH3 | 2348-219 | 2348-220 | 2348-221 | 100.50 | 2364-265 | 103.90 |
| 21/32-18 | GH3 | 2348-224 | 2348-225 | 2348-226 | 100.50 | 2364-266 | 103.90 |
| 21/32-19 | GH3 | 2348-227 | 2348-229 | 2348-228 | 100.50 | - | - |
| 21/32-20 | GH3 | - | 2348-230 | 2348-231 | 100.50 | 2364-268 | 103.90 |
| 21/32-24 | GH3 | 2348-236 | 2348-237 | 2348-238 | 100.50 | 2364-272 | 103.90 |
| 21/32-27 | GH3 | 2348-241 | 2348-242 | 2348-243 | 100.50 | 2364-275 | 103.90 |
| 21/32-28 | GH3 | 2348-246 | 2348-247 | 2348-248 | 100.50 | 2364-276 | 103.90 |
| 21/32-30 | GH3 | 2348-251 | 2348-252 | 2348-253 | 100.50 | 2364-278 | 103.90 |
| 21/32-32 | GH3 | 2348-256 | 2348-257 | 2348-258 | 100.50 | 2364-280 | 103.90 |
| 21/32-40 | GH2 | 2348-268 | 2348-269 | 2348-270 | 100.50 | 2364-288 | 103.90 |
| 21/32-48 | GH2 | 2348-280 | 2348-281 | 2348-282 | 100.50 | 2364-296 | 103.90 |
| 43/64-11 | GH3 | 2348-324 | 2348-325 | 2348-326 | 100.50 | 2364-320 | 103.90 |

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 43/64-16 | GH3 | 2348-329 | - | - | $100.50 | - | - |
| 11/16-10 | GH3 | 2348-400 | 2348-401 | 2348-402 | 100.50 | - | - |
| 11/16-10 | GH4 | 2348-403 | 2348-404 | 2348-405 | 100.50 | - | - |
| 11/16-13 | GH3 | 2348-412 | 2348-413 | 2348-414 | 100.50 | - | - |
| 11/16-20 | GH5 | 2348-448 | 2348-449 | 2348-450 | 100.50 | - | - |
| 11/16-22 | GH3 | 2348-451 | 2348-452 | 2348-453 | 100.50 | - | - |
| 11/16-26 | GH3 | 2348-470 | 2348-471 | 2348-472 | 100.50 | - | - |
| 11/16-28 | GH5 | 2348-482 | 2348-483 | 2348-484 | 100.50 | - | - |
| 11/16-32 | GH5 | 2348-500 | 2348-501 | 2348-502 | 100.50 | - | - |
| 11/16-40 | GH2 | 2348-521 | 2348-522 | 2348-523 | 100.50 | 2364-405 | $103.90 |
| 11/16-40 | GH3 | 2348-527 | 2348-528 | 2348-529 | 100.50 | - | - |
| 11/16-40 | GH4 | 2348-330 | 2348-331 | 2348-332 | 100.50 | - | - |
| 11/16-48 | GH2 | 2348-538 | 2348-539 | 2348-540 | 100.50 | 2364-415 | 103.90 |
| 11/16-80 | GH2 | 2348-544 | 2348-545 | 2348-546 | POA | - | - |
| 45/64-11 | GH3 | 2348-592 | 2348-593 | 2348-594 | 105.70 | 2364-455 | 109.70 |
| 45/64-12 | GH3 | 2348-599 | 2348-600 | 2348-601 | 105.70 | 2364-456 | 109.70 |
| 45/64-16 | GH3 | 2348-606 | 2348-607 | 2348-608 | 105.70 | 2364-460 | 109.70 |
| 23/32-10 | GH3 | 2348-672 | 2348-673 | 2348-674 | 105.70 | 2364-500 | 109.70 |
| 23/32-11 | GH3 | 2348-679 | 2348-680 | 2348-681 | 105.70 | 2364-501 | 109.70 |
| 23/32-12 | GH3 | 2348-686 | 2348-687 | 2348-688 | 105.70 | 2364-502 | 109.70 |
| 23/32-14 | GH3 | 2348-693 | 2348-694 | 2348-695 | 105.70 | 2364-504 | 109.70 |
| 23/32-16 | GH3 | 2348-700 | 2348-701 | 2348-702 | 105.70 | 2364-508 | 109.70 |
| 23/32-18 | GH3 | 2348-707 | 2348-708 | 2348-709 | 105.70 | 2364-510 | 109.70 |
| 23/32-20 | GH3 | 2348-712 | 2348-713 | 2348-714 | 105.70 | 2364-512 | 109.70 |
| 23/32-24 | GH3 | 2348-719 | 2348-720 | 2348-721 | 105.70 | 2364-516 | 109.70 |
| 23/32-28 | GH3 | 2348-726 | 2348-727 | 2348-728 | 105.70 | 2364-520 | 109.70 |
| 23/32-30 | GH3 | 2348-731 | 2348-732 | 2348-733 | 105.70 | 2364-522 | 109.70 |
| 23/32-32 | GH3 | 2348-736 | 2348-737 | 2348-738 | 105.70 | 2364-524 | 109.70 |
| 23/32-40 | GH2 | 2348-748 | 2348-749 | 2348-750 | 105.70 | 2364-532 | 109.70 |
| 23/32-48 | GH2 | 2348-760 | 2348-761 | 2348-762 | 105.70 | 2364-540 | 109.70 |
| 47/64-10 | GH3 | 2348-800 | 2348-801 | 2348-802 | 105.70 | 2364-565 | 109.70 |
| 47/64-13 | GH3 | 2348-805 | 2348-806 | 2348-807 | 105.70 | 2364-568 | 109.70 |
| 47/64-16 | GH3 | 2348-811 | 2348-812 | 2348-813 | 105.70 | 2364-571 | 109.70 |
| 47/64-18 | GH3 | 2348-817 | 2348-818 | 2348-819 | 105.70 | 2364-573 | 109.70 |
| 47/64-40 | GH2 | 2348-841 | 2348-842 | 2348-843 | 105.70 | 2364-580 | 109.70 |
| 3/4-6 | GH4 | 2348-882 | 2348-880 | 2348-881 | 105.70 | - | - |
| 3/4-8 | GH3 | 2348-885 | 2348-886 | 2348-887 | 105.70 | 2364-612 | 109.70 |
| 3/4-11 | GH3 | 2348-894 | 2348-895 | 2348-896 | 105.70 | - | - |
| 3/4-11 1/2 | GH4 | 2348-891 | 2348-892 | 2348-893 | 105.70 | - | - |
| 3/4-13 | GH3 | 2348-905 | 2348-906 | 2348-907 | 105.70 | - | - |
| 3/4-15 | GH1 | 2348-909 | 2348-910 | 2348-911 | 105.70 | - | - |
| 3/4-15 | GH3 | 2348-912 | 2348-913 | 2348-914 | 105.70 | - | - |
| 3/4-22 | GH3 | 2348-942 | 2348-943 | 2348-944 | 105.70 | - | - |
| 3/4-24 | GH5 | 2348-945 | 2348-946 | 2348-947 | 105.70 | - | - |
| 3/4-26 | GH3 | 2348-957 | 2348-958 | 2348-959 | 105.70 | - | - |
| 3/4-27 | GH5 | 2348-969 | 2348-970 | 2348-971 | 105.70 | - | - |
| 3/4-30 | GH3 | 2348-987 | 2348-988 | 2348-989 | 105.70 | - | - |
| 3/4-32 | GH5 | 2348-100 | 2348-101 | 2348-102 | 105.70 | 2364-657 | 109.70 |
| 3/4-36 | GH2 | 2349-011 | 2349-012 | 2349-013 | 105.70 | 2364-660 | 109.70 |
| 3/4-36 | GH5 | 2349-014 | 2349-015 | 2349-016 | 105.70 | - | - |
| 3/4-48 | GH2 | 2349-041 | 2349-042 | 2349-043 | 105.70 | 2364-675 | 109.70 |
| 3/4-56 | GH2 | 2349-056 | 2349-057 | 2349-058 | 105.70 | 2364-685 | 109.70 |
| 3/4-60 | GH2 | 2349-062 | 2349-063 | 2349-064 | 105.70 | - | - |
| 3/4-64 | GH2 | 2349-071 | 2349-072 | 2349-073 | 105.70 | 2364-695 | 109.70 |
| 3/4-72 | GH2 | 2349-074 | 2349-075 | 2349-076 | POA | - | - |
| 3/4-80 | GH2 | 2349-077 | 2349-078 | 2349-079 | POA | - | - |
| 49/64-10 | GH4 | 2349-178 | 2349-179 | 2349-180 | 83.00 | 2364-745 | 115.80 |
| 49/64-16 | GH3 | 2349-185 | 2349-186 | 2349-187 | 110.80 | 2364-749 | 115.80 |
| 49/64-18 | GH3 | 2349-190 | 2349-191 | 2349-192 | 110.80 | 2364-751 | 115.80 |
| 49/64-20 | GH3 | 2349-196 | 2349-197 | 2349-198 | 110.80 | 2364-753 | 115.80 |
| 49/64-24 | GH3 | 2349-203 | 2349-204 | 2349-205 | 110.80 | 2364-757 | 115.80 |
| 49/64-32 | GH3 | 2349-209 | 2349-210 | 2349-211 | 110.80 | - | - |
| 25/32-10 | GH4 | 2349-268 | 2349-269 | 2349-270 | 83.00 | 2364-795 | 115.80 |
| 25/32-12 | GH3 | 2349-274 | 2349-275 | 2349-276 | 110.80 | 2364-797 | 115.80 |
| 25/32-14 | GH3 | 2349-280 | 2349-281 | 2349-282 | 110.80 | 2364-799 | 115.80 |
| 25/32-16 | GH3 | 2349-288 | 2349-289 | 2349-290 | 110.80 | 2364-801 | 115.80 |
| 25/32-18 | GH3 | 2349-294 | 2349-295 | 2349-296 | 110.80 | 2364-803 | 115.80 |
| 25/32-20 | GH3 | 2349-300 | 2349-301 | 2349-302 | 110.80 | 2364-805 | 115.80 |
| 25/32-24 | GH3 | 2349-308 | 2349-309 | 2349-310 | 110.80 | 2364-809 | 115.80 |
| 25/32-27 | GH3 | 2349-314 | 2349-315 | 2349-316 | 110.80 | 2364-812 | 115.80 |
| 25/32-28 | GH3 | 2349-320 | 2349-321 | 2349-322 | 110.80 | 2364-813 | 115.80 |

(continued)

# Full Special Hand Taps

## Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES, CALL FOR PRICE [1]

Bottom

Plug

Taper

Spiral Point

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 25/32-40 | GH2 | 2349-334 | 2349-335 | 2349-336 | $110.80 | 2364-817 | $115.80 |
| 25/32-48 | GH2 | 2349-346 | 2349-347 | 2349-348 | 110.80 | 2364-825 | 115.80 |
| 51/64-17 | GH3 | 2349-417 | 2349-418 | 2349-419 | 110.80 | - | - |
| 51/64-20 | GH3 | 2349-423 | 2349-424 | 2349-425 | 110.80 | 2364-875 | 115.80 |
| 13/16-8 | GH3 | 2349-491 | 2349-492 | 2349-493 | 110.80 | - | - |
| 13/16-9 | GH4 | 2349-497 | 2349-498 | 2349-499 | 110.80 | - | - |
| 13/16-11 | GH3 | 2349-507 | 2349-508 | 2349-506 | 110.80 | - | - |
| 13/16-13 | GH3 | 2349-518 | 2349-519 | 2349-520 | 110.80 | - | - |
| 13/16-14 | GH3 | 2349-521 | 2349-522 | 2349-523 | 110.80 | - | - |
| 13/16-16 | GH5 | 2349-528 | 2349-529 | 2349-530 | 110.80 | - | - |
| 13/16-18 | GH6 | 2349-543 | 2349-544 | 2349-545 | 110.80 | - | - |
| 13/16-25 | GH3 | 2344-013 | 2344-014 | 2344-015 | 110.80 | - | - |
| 13/16-26 | GH3 | 2344-024 | 2344-025 | 2344-026 | 110.80 | - | - |
| 13/16-27 | GH5 | 2349-597 | 2349-598 | 2349-599 | 110.80 | - | - |
| 13/16-28 | GH5 | 2349-612 | 2349-613 | 2349-614 | 110.80 | - | - |
| 13/16-30 | GH3 | 2344-030 | 2344-031 | 2344-032 | 110.80 | - | - |
| 13/16-32 | GH6 | 2349-624 | 2349-625 | 2349-626 | 110.80 | - | - |
| 13/16-40 | GH3 | 2344-040 | 2344-041 | 2344-042 | 110.80 | - | - |
| 13/16-48 | GH2 | 2344-046 | 2344-047 | 2344-048 | 110.80 | - | - |
| 27/32-9 | GH3 | 2349-804 | 2349-805 | 2349-806 | 111.10 | 2365-065 | 116.40 |
| 27/32-12 | GH3 | 2349-810 | 2349-811 | 2349-812 | 111.10 | 2365-068 | 116.40 |
| 27/32-14 | GH3 | 2349-816 | 2349-817 | 2349-818 | 111.10 | 2365-070 | 116.40 |
| 27/32-16 | GH3 | 2349-822 | 2349-823 | 2349-824 | 111.10 | 2365-072 | 116.40 |
| 27/32-18 | GH3 | 2349-828 | 2349-829 | 2349-830 | 111.10 | 2365-074 | 116.40 |
| 27/32-20 | GH3 | 2349-834 | 2349-835 | 2349-836 | 111.10 | 2365-076 | 116.40 |
| 27/32-24 | GH3 | 2349-841 | 2349-842 | 2349-843 | 111.10 | 2365-080 | 116.40 |
| 27/32-27 | GH3 | 2349-848 | 2349-849 | 2349-850 | 111.10 | 2365-083 | 116.40 |
| 27/32-28 | GH3 | 2349-854 | 2349-855 | 2349-856 | 111.10 | 2365-084 | 116.40 |
| 27/32-32 | GH3 | 2349-861 | 2349-862 | 2349-863 | 111.10 | 2365-088 | 116.40 |
| 27/32-40 | GH2 | 2349-873 | 2349-874 | 2349-875 | 111.10 | 2365-092 | 116.40 |
| 27/32-48 | GH2 | 2349-882 | 2349-883 | 2349-884 | 111.10 | 2365-097 | 116.40 |
| 55/64-6 | GH4 | 2349-920 | 2349-921 | 2349-922 | 111.10 | 2365-125 | 116.40 |
| 55/64-9 | GH4 | 2349-926 | 2349-927 | 2349-928 | 111.10 | 2365-128 | 116.40 |
| 55/64-12 | GH4 | 2349-932 | 2349-933 | 2349-934 | 111.10 | 2365-131 | 116.40 |
| 55/64-14 | GH4 | 2349-938 | 2349-939 | 2349-940 | 111.10 | 2365-133 | 116.40 |
| 55/64-18 | GH4 | 2349-945 | 2349-946 | 2349-947 | 111.10 | 2365-137 | 116.40 |
| 55/64-20 | GH3 | 2349-951 | 2349-952 | 2349-953 | 111.10 | 2365-139 | 116.40 |
| 55/64-27 | GH3 | 2349-959 | 2349-960 | 2349-961 | 111.10 | 2365-142 | 116.40 |
| 55/64-32 | GH3 | 2349-966 | 2349-967 | 2349-968 | 111.10 | 2365-147 | 116.40 |
| 7/8-8 | GH4 | 2350-010 | 2350-011 | 2350-012 | 111.10 | - | - |
| 7/8-10 | GH4 | 2350-020 | 2350-021 | 2350-022 | 80.40 | 2365-177 | 116.40 |
| 7/8-10 | GH5 | 2350-026 | 2350-027 | 2350-028 | 111.10 | - | - |
| 7/8-11 | GH4 | 2350-023 | 2350-024 | 2350-025 | 111.10 | - | - |
| 7/8-15 | GH3 | 2350-035 | 2350-036 | 2350-037 | 111.10 | - | - |
| 7/8-18 | GH5 | 2350-061 | 2350-062 | 2350-063 | 111.10 | 2365-192 | 116.40 |
| 7/8-26 | GH3 | 2350-097 | 2350-098 | 2350-099 | 111.10 | - | - |
| 7/8-30 | GH3 | 2350-127 | 2350-128 | 2350-129 | 111.10 | - | - |
| 7/8-30 | GH4 | 2350-130 | 2350-131 | 2350-132 | 111.10 | - | - |
| 7/8-40 | GH5 | 2350-169 | 2350-170 | 2350-171 | 111.10 | - | - |
| 7/8-48 | GH2 | 2350-176 | 2350-177 | 2350-178 | 111.10 | - | - |
| 7/8-50 | GH2 | 2350-182 | 2350-183 | 2350-184 | 111.10 | - | - |
| 7/8-50 | GH6 | 2350-185 | 2350-186 | 2350-187 | 111.10 | - | - |
| 57/64-9 | GH4 | 2350-236 | 2350-237 | 2350-238 | 121.30 | 2365-280 | 127.00 |
| 57/64-14 | GH4 | 2350-233 | 2350-234 | 2350-235 | 121.30 | 2365-286 | 127.00 |
| 57/64-18 | GH3 | 2350-240 | 2350-241 | 2350-242 | 121.30 | 2365-290 | 127.00 |
| 29/32-9 | GH4 | 2350-316 | 2350-317 | 2350-318 | 121.30 | 2365-325 | 127.00 |
| 29/32-11 | GH4 | 2350-322 | 2350-324 | 2350-325 | 121.30 | 2365-327 | 127.00 |
| 29/32-12 | GH4 | 2350-328 | 2350-329 | 2350-330 | 121.30 | 2365-328 | 127.00 |
| 29/32-14 | GH4 | 2350-334 | 2350-335 | 2350-336 | 121.30 | 2365-330 | 127.00 |
| 29/32-16 | GH4 | 2350-340 | 2350-341 | 2350-342 | 121.30 | 2365-332 | 127.00 |
| 29/32-18 | GH4 | 2350-346 | 2350-347 | 2350-348 | 121.30 | 2365-334 | 127.00 |
| 29/32-20 | GH4 | 2350-352 | 2350-353 | 2350-354 | 121.30 | 2365-336 | 127.00 |
| 29/32-27 | GH4 | 2350-360 | 2350-361 | 2350-362 | 121.30 | 2365-343 | 127.00 |
| 29/32-28 | GH4 | 2350-366 | 2350-367 | 2350-368 | 121.30 | 2365-344 | 127.00 |
| 29/32-32 | GH4 | 2350-374 | 2350-375 | 2350-376 | 121.30 | 2365-348 | 127.00 |
| 29/32-40 | GH4 | 2350-386 | 2350-387 | 2350-388 | 121.30 | 2365-355 | 127.00 |
| 59/64-16 | GH4 | 2350-436 | 2350-437 | 2350-438 | 121.30 | - | - |
| 59/64-18 | GH4 | 2350-442 | 2350-443 | 2350-444 | 121.30 | 2365-395 | 127.00 |
| 15/16-6 | GH4 | 2350-500 | 2350-501 | 2350-502 | 121.30 | - | - |

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 15/16-9 | GH4 | 2350-521 | 2350-522 | 2350-523 | $121.30 | 2365-433 | $127.00 |
| 15/16-9 | GH6 | 2350-524 | 2350-525 | 2350-526 | 121.30 | - | - |
| 15/16-18 | GH5 | 2350-587 | 2350-588 | 2350-589 | 121.30 | - | - |
| 15/16-26 | GH3 | 2350-625 | 2350-626 | 2350-627 | 121.30 | - | - |
| 15/16-27 | GH5 | 2350-628 | 2350-629 | 2350-630 | 121.30 | - | - |
| 15/16-40 | GH3 | 2350-669 | 2350-670 | 2350-671 | 121.30 | - | - |
| 15/16-48 | GH3 | 2350-676 | 2350-677 | 2350-678 | 121.30 | - | - |
| 31/32-8 | GH4 | 2350-804 | 2350-805 | 2350-806 | 133.70 | 2365-575 | 140.70 |
| 31/32-12 | GH4 | 2350-811 | 2350-812 | 2350-813 | 133.70 | 2365-579 | 140.70 |
| 31/32-14 | GH4 | 2350-817 | 2350-818 | 2350-819 | 133.70 | 2365-581 | 140.70 |
| 31/32-16 | GH4 | 2350-822 | 2350-823 | 2350-824 | 133.70 | 2365-583 | 140.70 |
| 31/32-18 | GH4 | 2350-828 | 2350-829 | 2350-830 | 133.70 | 2365-585 | 140.70 |
| 31/32-20 | GH4 | 2350-834 | 2350-835 | 2350-836 | 133.70 | 2365-587 | 140.70 |
| 31/32-24 | GH4 | 2350-831 | 2350-832 | 2350-833 | 133.70 | 2365-591 | 140.70 |
| 31/32-28 | GH4 | 2350-838 | 2350-839 | 2350-840 | 133.70 | 2365-595 | 140.70 |
| 31/32-32 | GH4 | 2350-845 | 2350-846 | 2350-847 | 133.70 | 2365-599 | 140.70 |
| 31/32-40 | GH4 | 2350-857 | 2350-858 | 2350-859 | 133.70 | 2365-607 | 140.70 |
| 31/32-56 | GH4 | 2350-875 | 2350-876 | 2350-877 | 133.70 | 2365-620 | 140.70 |
| 63/64-14 | CG | 2350-881 | 2350-882 | 2350-883 | 133.70 | - | - |
| 1”-6 | GH4 | 2351-000 | 2351-001 | 2351-002 | 133.70 | - | - |
| 1”-7 | GH4 | 2351-007 | 2351-008 | 2351-009 | 133.70 | - | - |
| 1”-9 | GH4 | 2351-025 | 2351-026 | 2351-027 | 133.70 | - | - |
| 1”-11 | GH4 | 2351-040 | 2351-041 | 2351-042 | 133.70 | - | - |
| 1”-18 | GH6 | 2351-066 | 2351-067 | 2351-068 | 133.70 | - | - |
| 1”-22 | GH4 | 2351-085 | 2351-086 | 2351-087 | 133.70 | - | - |
| 1”-26 | GH3 | 2351-098 | 2351-099 | 2351-100 | 133.70 | - | - |
| 1”-28 | GH1 | 2351-105 | 2351-106 | 2351-107 | 133.70 | - | - |
| 1”-28 | GH3 | 2351-110 | 2351-111 | 2351-112 | 133.70 | - | - |
| 1”-48 | GH3 | 2351-150 | 2351-151 | 2351-152 | 133.70 | 2365-750 | 140.70 |
| 1”-56 | GH3 | 2351-162 | 2351-163 | 2351-164 | 133.70 | 2365-760 | 140.70 |
| 1”-64 | GH3 | 2351-175 | 2351-176 | 2351-177 | 133.70 | 2365-770 | 140.70 |
| 1 1/64-8 | GH4 | 2351-224 | 2351-225 | 2351-226 | 168.70 | - | - |
| 1 1/64-12 | GH4 | 2351-231 | 2351-232 | 2351-233 | 168.70 | - | - |
| 1 1/64-14 | GH4 | 2351-236 | 2351-237 | 2351-238 | 152.30 | - | - |
| 1 1/32-8 | GH4 | 2351-304 | 2351-305 | 2351-306 | 168.70 | - | - |
| 1 1/32-12 | GH4 | 2351-311 | 2351-312 | 2351-313 | 168.70 | - | - |
| 1 1/32-14 | GH4 | 2351-317 | 2351-318 | 2351-319 | 152.30 | - | - |
| 1 1/32-16 | GH4 | 2351-322 | 2351-323 | 2351-324 | 152.30 | - | - |
| 1 1/32-20 | GH4 | 2351-330 | 2351-331 | 2351-332 | 152.30 | - | - |
| 1 1/32-24 | GH4 | 2351-337 | 2351-338 | 2351-339 | 152.30 | - | - |
| 1 1/32-32 | GH4 | 2351-350 | 2351-351 | 2351-352 | 152.30 | - | - |
| 1 3/64-7 | GH4 | 2351-430 | 2351-431 | 2351-432 | 168.70 | - | - |
| 1 1/16-7 | GH1 | 2351-442 | 2351-443 | 2351-444 | 168.70 | - | - |
| 1 1/16-10 | GH5 | 2351-451 | 2351-452 | 2351-453 | 168.70 | - | - |
| 1 1/16-11 | GH3 | 2351-454 | 2351-455 | 2351-456 | 168.70 | - | - |
| 1 1/16-12 | GH1 | 2351-465 | 2351-466 | 2351-467 | 168.70 | - | - |
| 1 1/16-13 | GH3 | 2351-468 | 2351-469 | 2351-470 | 168.70 | - | - |
| 1 1/16-16 | GH6 | 2351-492 | 2351-493 | 2351-494 | 90.00 | - | - |
| 1 1/16-26 | GH4 | 2351-531 | 2351-532 | 2351-533 | 152.30 | - | - |
| 1 1/16-27 | GH4 | 2351-534 | 2351-535 | 2351-536 | 152.30 | - | - |
| 1 1/16-28 | GH4 | 2351-537 | 2351-538 | 2351-539 | 152.30 | - | - |
| 1 1/16-40 | GH3 | 2351-549 | 2351-550 | 2351-551 | 152.30 | - | - |
| 1 1/16-40 | GH5 | 2351-555 | 2351-556 | 2351-557 | 152.30 | - | - |
| 1 1/16-48 | GH3 | 2351-561 | 2351-562 | 2351-563 | 152.30 | - | - |
| 1 5/64-20 | GH5 | 2351-643 | 2351-644 | 2351-645 | 152.30 | - | - |
| 1 3/32-8 | GH4 | 2351-656 | 2351-657 | 2351-658 | 168.70 | - | - |
| 1 3/32-9 | GH4 | 2351-662 | 2351-663 | 2351-664 | 168.70 | - | - |
| 1 3/32-12 | GH4 | 2351-668 | 2351-669 | 2351-670 | 168.70 | - | - |
| 1 3/32-14 | GH4 | 2351-674 | 2351-675 | 2351-676 | 152.30 | - | - |
| 1 3/32-16 | GH4 | 2351-680 | 2351-681 | 2351-682 | 152.30 | - | - |
| 1 3/32-18 | GH4 | 2351-686 | 2351-687 | 2351-688 | 152.30 | - | - |
| 1 3/32-20 | GH4 | 2351-692 | 2351-693 | 2351-694 | 152.30 | - | - |
| 1 3/32-24 | GH4 | 2351-700 | 2351-701 | 2351-702 | 152.30 | - | - |
| 1 3/32-28 | CG | 2351-706 | 2351-707 | 2351-708 | 152.30 | - | - |
| 1 3/32-32 | GH4 | 2351-710 | 2351-711 | 2351-712 | 152.30 | - | - |
| 1 3/32-40 | GH4 | 2351-718 | 2351-719 | 2351-720 | 152.30 | - | - |
| 1 3/32-48 | GH4 | 2351-724 | 2351-725 | 2351-726 | 152.30 | - | - |

(continued)

# Full Special Hand Taps

## Right Hand, High Speed Steel

**POPULAR SPECIAL TAPS SEE PAGES 111-117**

**FOR 2 OR MORE PIECES, CALL FOR PRICE**

Bottom

Plug

Taper

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 1 1/8-11 | CG | 2351-756 | 2351-757 | 2351-758 | $168.70 |
| 1 1/8-15 | GH4 | 2351-778 | 2351-779 | 2351-780 | 152.30 |
| 1 1/8-16 | GH6 | 2351-790 | 2351-791 | 2351-792 | 152.30 |
| 1 1/8-24 | GH6 | 2351-835 | 2351-836 | 2351-837 | 152.30 |
| 1 1/8-28 | GH4 | 2351-854 | 2351-855 | 2351-856 | 101.80 |
| 1 1/8-36 | GH3 | 2351-872 | 2351-873 | 2351-874 | 152.30 |
| 1 1/8-40 | GH4 | 2351-880 | 2351-881 | 2351-882 | 152.30 |
| 1 1/8-48 | GH3 | 2351-886 | 2351-887 | 2351-888 | 152.30 |
| 1 9/64-7 | GH4 | 2351-901 | 2351-902 | 2351-903 | 187.50 |
| 1 9/64-12 | GH4 | 2351-907 | 2351-908 | 2351-909 | 187.50 |
| 1 5/32-7 | GH4 | 2351-924 | 2351-925 | 2351-926 | 187.50 |
| 1 5/32-10 | GH4 | 2351-931 | 2351-932 | 2351-933 | 187.50 |
| 1 5/32-12 | GH4 | 2351-937 | 2351-938 | 2351-939 | 187.50 |
| 1 5/32-14 | GH4 | 2351-940 | 2351-941 | 2351-942 | 167.50 |
| 1 5/32-18 | GH4 | 2351-945 | 2351-946 | 2351-947 | 167.50 |
| 1 5/32-20 | GH4 | 2351-951 | 2351-952 | 2351-953 | 167.50 |
| 1 5/32-24 | GH4 | 2351-959 | 2351-960 | 2351-961 | 167.50 |
| 1 5/32-28 | GH4 | 2351-966 | 2351-967 | 2351-968 | 167.50 |
| 1 5/32-30 | GH4 | 2351-972 | 2351-973 | 2351-974 | 167.50 |
| 1 5/32-32 | GH4 | 2351-978 | 2351-979 | 2351-980 | 167.50 |
| 1 3/16-10 | GH5 | 2352-051 | 2352-052 | 2352-053 | 187.50 |
| 1 3/16-24 | GH4 | 2352-120 | 2352-121 | 2352-122 | 167.50 |
| 1 3/16-27 | GH4 | 2352-126 | 2352-127 | 2352-128 | 167.50 |
| 1 3/16-28 | GH4 | 2352-129 | 2352-130 | 2352-131 | 167.50 |
| 1 3/16-30 | GH4 | 2352-141 | 2352-142 | 2352-143 | 167.50 |
| 1 3/16-40 | GH3 | 2352-144 | 2352-145 | 2352-146 | 167.50 |
| 1 7/32-7 | GH4 | 2352-216 | 2352-217 | 2352-218 | 187.50 |
| 1 7/32-12 | GH4 | 2352-224 | 2352-225 | 2352-226 | 187.50 |
| 1 7/32-14 | GH4 | 2352-230 | 2352-231 | 2352-232 | 167.50 |
| 1 7/32-18 | GH4 | 2352-236 | 2352-237 | 2352-238 | 167.50 |
| 1 7/32-20 | GH4 | 2352-242 | 2352-243 | 2352-244 | 167.50 |
| 1 1/4-26 | GH4 | 2352-396 | 2352-397 | 2352-398 | 167.50 |
| 1 1/4-27 | GH4 | 2352-393 | 2352-394 | 2352-395 | 167.50 |
| 1 1/4-28 | GH4 | 2352-408 | 2352-406 | 2352-407 | 167.50 |
| 1 1/4-30 | GH4 | 2352-411 | 2352-412 | 2352-413 | 167.50 |
| 1 1/4-40 | GH4 | 2352-429 | 2352-430 | 2352-431 | 167.50 |
| 1 1/4-48 | GH3 | 2352-437 | 2352-438 | 2352-439 | 167.50 |
| 1 17/64-12 | GH4 | 2352-403 | 2352-404 | 2352-405 | 207.70 |
| 1 9/32-7 | GH4 | 2352-460 | 2352-461 | 2352-462 | 207.70 |
| 1 9/32-12 | GH4 | 2352-468 | 2352-469 | 2352-470 | 207.70 |
| 1 9/32-18 | GH4 | 2352-476 | 2352-477 | 2352-478 | 179.70 |
| 1 9/32-24 | GH4 | 2352-484 | 2352-485 | 2352-486 | 179.70 |
| 1 19/64-12 | GH4 | 2352-502 | 2352-503 | 2352-504 | 207.70 |
| 1 5/16-7 | GH4 | 2352-543 | 2352-544 | 2352-545 | 207.70 |
| 1 5/16-9 | CG | 2352-552 | 2352-553 | 2352-554 | 207.70 |
| 1 5/16-10 | GH4 | 2352-555 | 2352-556 | 2352-557 | 207.70 |
| 1 5/16-12 | GH10 | 2352-572 | 2352-573 | 2352-574 | 207.70 |
| 1 5/16-20 | GH6 | 2352-617 | 2352-618 | 2352-619 | 179.70 |
| 1 5/16-24 | GH4 | 2352-626 | 2352-627 | 2352-628 | 179.70 |
| 1 5/16-28 | GH4 | 2352-629 | 2352-630 | 2352-631 | 179.70 |
| 1 5/16-32 | GH3 | 2352-632 | 2352-633 | 2352-634 | 179.70 |
| 1 5/16-40 | GH4 | 2352-635 | 2352-636 | 2352-637 | 179.70 |
| 1 5/16-48 | GH4 | 2352-638 | 2352-639 | 2352-640 | 179.70 |
| 1 21/64-12 | GH6 | 2352-601 | 2352-602 | 2352-603 | 207.70 |
| 1 11/32-7 | GH4 | 2352-716 | 2352-717 | 2352-718 | 207.70 |
| 1 11/32-12 | GH4 | 2352-724 | 2352-725 | 2352-726 | 207.70 |
| 1 11/32-14 | GH4 | 2352-731 | 2352-732 | 2352-733 | 179.70 |
| 1 11/32-18 | GH4 | 2352-739 | 2352-740 | 2352-741 | 179.70 |
| 1 11/32-19 | GH4 | 2352-744 | 2352-745 | 2352-746 | 179.70 |
| 1 11/32-32 | GH4 | 2352-759 | 2352-760 | 2352-761 | 179.70 |
| 1 3/8-10 | GH5 | 2352-812 | 2352-813 | 2352-814 | 137.70 |
| 1 3/8-16 | GH6 | 2352-845 | 2352-846 | 2352-847 | 179.70 |
| 1 3/8-16 | GH18 | 2352-848 | 2352-849 | 2352-850 | 179.70 |
| 1 3/8-27 | GH4 | 2352-893 | 2352-894 | 2352-895 | 179.70 |
| 1 3/8-32 | GH4 | 2352-905 | 2352-906 | 2352-907 | 179.70 |
| 1 3/8-40 | GH4 | 2352-911 | 2352-912 | 2352-913 | 179.70 |
| 1 25/64-6 | GH4 | 2352-945 | 2352-946 | 2352-947 | 237.40 |
| 1 25/64-12 | GH4 | 2352-948 | 2352-949 | 2352-950 | 237.40 |

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 1 13/32-6 | GH4 | 2352-960 | 2352-961 | 2352-962 | $237.40 |
| 1 13/32-7 | GH4 | 2352-966 | 2352-967 | 2352-968 | 237.40 |
| 1 13/32-8 | GH4 | 2352-972 | 2352-973 | 2352-974 | 237.40 |
| 1 13/32-12 | GH4 | 2352-979 | 2352-980 | 2352-981 | 237.40 |
| 1 13/32-18 | GH4 | 2352-987 | 2352-988 | 2352-989 | 184.80 |
| 1 13/32-20 | GH4 | 2352-993 | 2352-994 | 2352-995 | 184.80 |
| 1 7/16-6 | GH4 | 2353-039 | 2353-040 | 2353-041 | 237.40 |
| 1 7/16-10 | GH4 | 2353-051 | 2353-052 | 2353-053 | 237.40 |
| 1 7/16-14 | GH4 | 2353-075 | 2353-076 | 2353-077 | 184.80 |
| 1 7/16-16 | GH11 | 2353-094 | 2353-095 | 2353-096 | 184.80 |
| 1 7/16-20 | GH4 | 2353-108 | 2353-109 | 2353-110 | 184.80 |
| 1 7/16-24 | GH4 | 2353-111 | 2353-112 | 2353-113 | 184.80 |
| 1 7/16-28 | GH4 | 2353-114 | 2353-115 | 2353-116 | 184.80 |
| 1 7/16-32 | GH4 | 2353-117 | 2353-118 | 2353-119 | 184.80 |
| 1 7/16-40 | GH4 | 2353-120 | 2353-121 | 2353-122 | 184.80 |
| 1 15/32-12 | GH5 | 2353-199 | 2353-200 | 2353-201 | 237.40 |
| 1 1/2-7 | GH5 | 2353-280 | 2353-281 | 2353-282 | 237.40 |
| 1 1/2-9 | GH4 | 2353-295 | 2353-296 | 2353-297 | 237.40 |
| 1 1/2-13 | GH4 | 2353-304 | 2353-305 | 2353-306 | 237.40 |
| 1 1/2-27 | GH4 | 2353-359 | 2353-360 | 2353-361 | 184.80 |
| 1 1/2-28 | GH4 | 2353-369 | 2353-370 | 2353-371 | 184.80 |
| 1 1/2-32 | GH4 | 2353-385 | 2353-386 | 2353-387 | 184.80 |
| 1 1/2-40 | GH4 | 2353-411 | 2353-412 | 2353-413 | 184.80 |
| 1 33/64-6 | GH4 | 2353-460 | 2353-461 | 2353-462 | 249.00 |
| 1 33/64-12 | GH4 | 2353-469 | 2353-470 | 2353-471 | 220.50 |
| 1 17/32-6 | GH4 | 2353-540 | 2353-541 | 2353-542 | 249.00 |
| 1 17/32-7 | GH4 | 2353-546 | 2353-547 | 2353-548 | 249.00 |
| 1 17/32-8 | GH4 | 2353-552 | 2353-553 | 2353-554 | 249.00 |
| 1 17/32-12 | GH4 | 2353-560 | 2353-561 | 2353-562 | 220.50 |
| 1 17/32-16 | GH4 | 2353-568 | 2353-569 | 2353-570 | 220.50 |
| 1 17/32-18 | GH4 | 2353-576 | 2353-577 | 2353-578 | 220.50 |
| 1 17/32-20 | GH4 | 2353-584 | 2353-585 | 2353-586 | 220.50 |
| 1 9/16-6 | GH7 | 2353-600 | 2353-601 | 2353-602 | 249.00 |
| 1 9/16-8 | GH6 | 2353-606 | 2353-607 | 2353-608 | 249.00 |
| 1 9/16-10 | GH6 | 2353-612 | 2353-613 | 2353-614 | 220.50 |
| 1 9/16-14 | GH6 | 2353-666 | 2353-667 | 2353-668 | 220.50 |
| 1 9/16-16 | GH7 | 2353-681 | 2353-682 | 2353-683 | 220.50 |
| 1 9/16-24 | GH4 | 2353-725 | 2353-726 | 2353-727 | 220.50 |
| 1 9/16-32 | GH4 | 2353-731 | 2353-732 | 2353-733 | 220.50 |
| 1 39/64-8 | GH4 | 2353-796 | 2353-797 | 2353-798 | 249.00 |
| 1 5/8-7 | GH6 | 2353-882 | 2353-883 | 2353-884 | 249.00 |
| 1 5/8-8 | GH8 | 2353-891 | 2353-892 | 2353-893 | 249.00 |
| 1 5/8-10 | GH8 | 2353-906 | 2353-907 | 2353-908 | 220.50 |
| 1 5/8-11 1/2 | CG | 2353-909 | 2353-910 | 2353-911 | 220.50 |
| 1 5/8-12 | GH8 | 2353-918 | 2353-919 | 2353-920 | 220.50 |
| 1 5/8-14 | GH6 | 2353-924 | 2353-925 | 2353-926 | 220.50 |
| 1 5/8-28 | GH4 | 2353-984 | 2353-985 | 2353-986 | 220.50 |
| 1 5/8-32 | GH4 | 2353-990 | 2353-991 | 2353-992 | 220.50 |
| 1 5/8-40 | GH4 | 2353-996 | 2353-997 | 2353-998 | 220.50 |
| 1 21/32-5 1/2 | GH4 | 2354-055 | 2354-056 | 2354-057 | 278.30 |
| 1 21/32-48 | GH4 | 2354-060 | 2354-061 | 2354-062 | 229.60 |
| 1 43/64-5 | GH4 | 2354-063 | 2354-064 | 2354-065 | 278.30 |
| 1 11/16-8 | GH6 | 2354-069 | 2354-070 | 2354-071 | 278.30 |
| 1 11/16-10 | GH6 | 2354-075 | 2354-076 | 2354-077 | 229.60 |
| 1 11/16-14 | GH6 | 2354-107 | 2354-108 | 2354-109 | 229.60 |
| 1 11/16-24 | GH6 | 2354-161 | 2354-162 | 2354-163 | 229.60 |
| 1 47/64-7 | GH7 | 2354-187 | 2354-188 | 2354-189 | 278.30 |
| 1 47/64-10 | GH4 | 2354-190 | 2354-191 | 2354-192 | 229.60 |
| 1 3/4-7 | GH4 | 2354-224 | 2354-225 | 2354-226 | 278.30 |
| 1 3/4-12 | GH8 | 2354-257 | 2354-258 | 2354-259 | 178.70 |
| 1 3/4-24 | GH4 | 2354-308 | 2354-309 | 2354-310 | 229.60 |
| 1 3/4-40 | GH4 | 2354-323 | 2354-324 | 2354-325 | 229.60 |
| 1 25/32-5 | GH4 | 2354-370 | 2354-371 | 2354-372 | 297.60 |
| 1 13/16-11 | GH4 | 2354-401 | 2354-402 | 2354-403 | 241.10 |
| 1 13/16-12 | GH6 | 2354-404 | 2354-405 | 2354-406 | 241.10 |
| 1 13/16-14 | GH6 | 2354-416 | 2354-417 | 2354-418 | 241.10 |
| 1 13/16-24 | GH4 | 2354-458 | 2354-459 | 2354-460 | 241.10 |
| 1 13/16-32 | GH4 | 2354-464 | 2354-465 | 2354-466 | 241.10 |

# Full Special Hand Taps

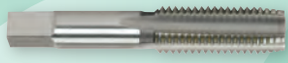
## Right Hand, High Speed Steel

POPULAR SPECIAL TAPS SEE PAGES 111-117

FOR 2 OR MORE PIECES, CALL FOR PRICE

[1]

Bottom



Plug

Taper

Pittsburg® ALLEGHANY

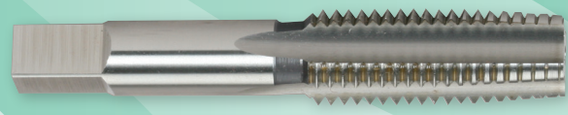
| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 1 53/64-11 | GH4 | 2354-490 | 2354-491 | 2354-492 | $241.10 |
| 1 27/32-32 | GH4 | 2354-496 | 2354-497 | 2354-498 | 241.10 |
| 1 7/8-6 | GH6 | 2354-521 | 2354-522 | 2354-523 | 297.60 |
| 1 7/8-9 | GH6 | 2354-542 | 2354-543 | 2354-544 | 297.60 |
| 1 7/8-10 | GH5 | 2354-536 | 2354-537 | 2354-538 | 241.10 |
| 1 7/8-10 | GH8 | 2354-539 | 2354-540 | 2354-541 | 241.10 |
| 1 7/8-12 | GH11 | 2354-551 | 2354-552 | 2354-553 | 241.10 |
| 1 7/8-14 | GH6 | 2354-561 | 2354-562 | 2354-560 | 241.10 |
| 1 7/8-24 | GH6 | 2354-617 | 2354-618 | 2354-619 | 241.10 |
| 1 7/8-32 | GH4 | 2354-623 | 2354-624 | 2354-625 | 241.10 |
| 1 7/8-40 | GH4 | 2354-629 | 2354-630 | 2354-631 | 241.10 |
| 1 29/32-18 | GH4 | 2354-672 | 2354-673 | 2354-674 | 250.90 |
| 1 29/32-32 | GH4 | 2354-730 | 2354-731 | 2354-732 | 250.90 |
| 1 15/16-4 1/2 | GH7 | 2354-700 | 2354-701 | 2354-702 | 309.70 |
| 1 15/16-8 | GH6 | 2354-706 | 2354-707 | 2354-708 | 309.70 |
| 1 15/16-10 | GH6 | 2354-712 | 2354-713 | 2354-714 | 250.90 |
| 1 15/16-14 | GH6 | 2354-785 | 2354-786 | 2354-787 | 250.90 |
| 1 15/16-20 | GH6 | 2354-821 | 2354-822 | 2354-823 | 250.90 |
| 1 15/16-32 | GH5 | 2354-827 | 2354-828 | 2354-829 | 250.90 |
| 1 15/16-40 | GH5 | 2354-833 | 2354-834 | 2354-835 | 250.90 |
| 2"-16 | GH9 | 2354-979 | 2354-980 | 2354-981 | 250.90 |
| 2"-24 | GH6 | 2355-015 | 2355-016 | 2355-017 | 250.90 |
| 2"-28 | GH5 | 2355-021 | 2355-022 | 2355-023 | 250.90 |
| 2"-32 | GH5 | 2355-036 | 2355-037 | 2355-038 | 250.90 |
| 2"-40 | GH4 | 2355-042 | 2355-043 | 2355-044 | 250.90 |
| 2 1/16-8 | GH6 | 2355-100 | 2355-101 | 2355-102 | 344.00 |
| 2 1/16-10 | GH6 | 2355-106 | 2355-107 | 2355-108 | 308.30 |
| 2 1/16-14 | GH6 | 2355-128 | 2355-129 | 2355-130 | 308.30 |
| 2 1/16-16 | GH6 | 2355-140 | 2355-141 | 2355-142 | 308.30 |
| 2 1/16-18 | GH6 | 2355-146 | 2355-147 | 2355-148 | 308.30 |
| 2 1/16-20 | GH5 | 2355-152 | 2355-153 | 2355-154 | 308.30 |
| 2 1/16-24 | GH5 | 2355-155 | 2355-156 | 2355-157 | 308.30 |
| 2 7/64-12 | CG | - | 2355-186 | - | 308.30 |
| 2 1/8-4 1/2 | GH6 | 2355-201 | 2355-202 | 2355-203 | 344.00 |
| 2 1/8-4 1/2 | GH9 | 2355-204 | 2355-205 | 2355-206 | 344.00 |
| 2 1/8-6 | GH6 | 2355-200 | - | - | 344.00 |
| 2 1/8-10 | GH6 | 2355-222 | 2355-223 | 2355-224 | 308.30 |
| 2 1/8-12 | GH8 | 2355-240 | 2355-241 | 2355-242 | 308.30 |
| 2 1/8-14 | GH6 | 2355-246 | 2355-247 | 2355-248 | 308.30 |
| 2 1/8-24 | GH6 | 2355-280 | 2355-281 | 2355-282 | 308.30 |
| 2 1/8-32 | GH5 | 2355-286 | 2355-287 | 2355-288 | 308.30 |
| 2 5/32-12 | CG | 2355-251 | 2355-252 | 2355-253 | 331.20 |
| 2 3/16-4 1/2 | GH7 | 2355-300 | 2355-301 | 2355-302 | 428.40 |
| 2 3/16-10 | GH | 2355-306 | 2355-307 | 2355-308 | 331.20 |
| 2 3/16-12 | GH6 | 2355-372 | 2355-373 | 2355-374 | 331.20 |
| 2 3/16-14 | GH6 | 2355-384 | 2355-385 | 2355-386 | 331.20 |
| 2 3/16-16 | GH6 | 2355-390 | 2355-391 | 2355-392 | 331.20 |
| 2 3/16-18 | GH6 | 2355-396 | 2355-397 | 2355-398 | 331.20 |
| 2 3/16-20 | GH6 | 2355-402 | 2355-403 | 2355-404 | 331.20 |
| 2 3/16-24 | GH6 | 2355-408 | 2355-409 | 2355-410 | 331.20 |
| 2 15/64-12 | GH4 | 2355-430 | 2355-431 | 2355-432 | 331.20 |
| 2 1/4-5 | GH5 | 2355-451 | 2355-452 | 2355-453 | 428.40 |
| 2 1/4-10 | CG | 2355-473 | 2355-474 | 2355-475 | 331.20 |
| 2 5/16-12 | GH6 | 2355-616 | 2355-617 | 2355-618 | 350.00 |
| 2 5/16-14 | GH6 | 2355-628 | 2355-629 | 2355-630 | 350.00 |
| 2 5/16-16 | GH6 | 2355-634 | 2355-635 | 2355-636 | 350.00 |
| 2 5/16-18 | GH6 | 2355-643 | 2355-644 | 2355-645 | 350.00 |
| 2 5/16-20 | GH6 | 2355-649 | 2355-650 | 2355-651 | 350.00 |
| 2 5/16-24 | GH6 | 2355-655 | 2355-656 | 2355-657 | 350.00 |
| 2 3/8-4 | GH6 | 2355-680 | 2355-681 | 2355-682 | 447.70 |
| 2 3/8-4 | GH8 | 2355-686 | 2355-687 | 2355-688 | 447.70 |
| 2 3/8-10 | GH6 | 2355-707 | 2355-708 | 2355-709 | 350.00 |
| 2 3/8-20 | GH6 | 2355-765 | 2355-766 | 2355-767 | 350.00 |
| 2 3/8-24 | GH6 | 2355-771 | 2355-772 | 2355-773 | 350.00 |
| 2 3/8-32 | GH5 | 2355-777 | 2355-778 | 2355-779 | 350.00 |
| 2 7/16-6 | GH8 | 2355-888 | 2355-889 | 2355-890 | 447.30 |
| 2 7/16-12 | GH4 | 2355-891 | 2355-892 | 2355-893 | 385.90 |
| 2 31/64-12 | GH4 | 2355-880 | 2355-881 | 2355-882 | 385.90 |
| 2 1/2-6 | GH7 | 2355-900 | 2355-901 | 2355-902 | 447.30 |
| 2 1/2-7 | GH7 | 2355-906 | 2355-907 | 2355-908 | 447.30 |
| 2 1/2-10 | GH4 | 2355-922 | 2355-923 | 2355-924 | 385.90 |
| 2 1/2-14 | GH6 | 2355-943 | 2355-944 | 2355-945 | 385.90 |
| 2 1/2-16 | GH7 | 2355-961 | 2355-962 | 2355-964 | 385.90 |
| 2 1/2-24 | GH6 | 2355-994 | 2355-995 | 2355-996 | 385.90 |

Pittsburg® ALLEGHANY

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 2 1/2-28 | GH7 | 2356-000 | 2356-001 | 2356-002 | $385.90 |
| 2 1/2-32 | GH6 | 2356-006 | 2356-007 | 2356-008 | 385.90 |
| 2 9/16-12 | GH6 | 2356-070 | 2356-071 | 2356-072 | 403.70 |
| 2 9/16-14 | GH6 | 2356-080 | 2356-081 | 2356-082 | 403.70 |
| 2 9/16-16 | GH6 | 2356-092 | 2356-093 | 2356-094 | 403.70 |
| 2 9/16-18 | GH6 | 2356-098 | 2356-099 | 2356-100 | 403.70 |
| 2 5/8-4 | GH9 | 2356-147 | 2356-148 | 2356-149 | 475.50 |
| 2 5/8-10 | GH6 | 2356-165 | 2356-166 | 2356-167 | 403.70 |
| 2 5/8-14 | GH6 | 2356-186 | 2356-187 | 2356-188 | 403.70 |
| 2 5/8-20 | GH6 | 2356-220 | 2356-221 | 2356-222 | 403.70 |
| 2 3/4-10 | CG | 2356-331 | 2356-332 | 2356-333 | 422.30 |
| 2 3/4-14 | GH6 | 2356-340 | 2356-341 | 2356-342 | 422.30 |
| 2 3/4-14 | CG | 2356-345 | 2356-346 | 2356-347 | 422.30 |
| 2 7/8-4 | GH9 | 2356-400 | 2356-401 | 2356-402 | 613.00 |
| 2 7/8-5 | GH8 | 2356-406 | 2356-407 | 2356-408 | 613.00 |
| 2 7/8-6 | GH8 | 2356-412 | 2356-413 | 2356-414 | 613.00 |
| 2 7/8-10 | GH7 | 2356-465 | 2356-466 | 2356-467 | 428.90 |
| 2 7/8-14 | GH6 | 2356-485 | 2356-486 | 2356-487 | 428.90 |
| 2 7/8-16 | GH6 | 2356-490 | 2356-491 | 2356-492 | 428.90 |
| 2 7/8-18 | GH5 | 2356-502 | 2356-503 | 2356-504 | 428.90 |
| 2 7/8-32 | GH7 | 2356-520 | 2356-521 | 2356-522 | 428.90 |
| 2 15/16-12 | GH6 | 2356-615 | 2356-616 | 2356-617 | 540.10 |
| 2 15/16-16 | GH7 | 2356-618 | 2356-619 | 2356-620 | 540.10 |
| 2 15/16-20 | GH5 | 2356-625 | 2356-626 | 2356-627 | 540.10 |
| 3"-3 1/2 | GH10 | 2356-628 | 2356-629 | 2356-630 | 753.30 |
| 3"-6 | GH6 | 2356-638 | 2356-639 | 2356-640 | 753.30 |
| 3"-8 | GH10 | 2356-655 | 2356-656 | 2356-657 | 753.30 |
| 3"-14 | GH7 | 2356-667 | 2356-668 | 2356-669 | 540.10 |
| 3"-18 | GH6 | 2356-691 | 2356-692 | - | 540.10 |
| 3 1/16-16 | GH7 | 2356-702 | 2356-703 | 2356-704 | 648.50 |
| 3 1/16-20 | GH7 | 2356-705 | 2356-706 | 2356-707 | 648.50 |
| 3 1/8-8 | GH6 | 2356-747 | 2356-748 | 2356-749 | 803.80 |
| 3 3/16-16 | GH7 | 2356-822 | 2356-823 | 2356-824 | 678.00 |
| 3 1/4-4 | GH16 | - | 2356-828 | - | 843.70 |
| 3 1/4-10 | GH7 | 2356-840 | 2356-841 | 2356-842 | 678.00 |
| 3 1/4-14 | GH6 | 2356-855 | 2356-856 | 2356-857 | 678.00 |
| 3 1/4-24 | GH7 | 2356-862 | 2356-863 | 2356-864 | 678.00 |
| 3 5/16-12 | GH8 | 2356-896 | 2356-897 | 2356-898 | 741.80 |
| 3 3/8-8 | GH8 | 2356-989 | 2356-990 | 2356-991 | 988.90 |
| 3 3/8-10 | GH8 | 2356-992 | 2356-993 | 2356-994 | 741.80 |
| 3 3/8-12 | GH7 | 2356-995 | 2356-996 | 2356-997 | 741.80 |
| 3 3/8-16 | GH7 | 2357-002 | 2357-003 | 2357-004 | 741.80 |
| 3 3/8-18 | GH7 | 2357-008 | 2357-009 | 2357-010 | 741.80 |
| 3 3/8-24 | GH7 | 2357-015 | 2357-016 | 2357-017 | 741.80 |
| 3 1/2-16 | GH7 | 2357-099 | 2357-100 | 2357-101 | 741.80 |
| 3 9/16-12 | CG | 2357-222 | 2357-223 | 2357-224 | 812.00 |
| 3 5/8-8 | GH8 | 2357-184 | 2357-185 | 2357-186 | 1116.30 |
| 3 5/8-12 | GH5 | 2357-195 | 2357-196 | 2357-197 | 775.80 |
| 3 5/8-16 | GH7 | 2357-204 | 2357-205 | 2357-206 | 775.80 |
| 3 3/4-16 | GH7 | 2357-295 | 2357-296 | 2357-297 | 812.00 |
| 3 7/8-6 | GH9 | 2357-345 | 2357-346 | 2357-347 | 1227.30 |
| 3 7/8-8 | GH8 | 2357-350 | 2357-351 | 2357-352 | 1227.30 |
| 3 7/8-12 | GH7 | 2357-360 | 2357-361 | 2357-362 | 850.70 |
| 3 7/8-16 | GH8 | 2357-369 | 2357-370 | 2357-371 | 850.70 |
| 4"-16 | GH7 | 2357-472 | 2357-473 | 2357-474 | 891.00 |
| 4 1/4-8 | GH8 | - | 2357-526 | - | 1370.60 |
| 4 1/4-12 | GH7 | - | 2357-529 | - | 958.80 |
| 4 7/16-4 | GH13 | - | 2357-535 | - | 1439.80 |
| 4 1/2-8 | GH8 | - | 2357-581 | - | 1439.80 |
| 4 1/2-12 | GH7 | - | 2357-584 | - | 1007.60 |
| 4 3/4-8 | GH8 | - | 2357-587 | - | 1512.10 |
| 4 3/4-12 | GH7 | - | 2357-588 | - | 1059.20 |
| 5"-8 | GH8 | - | 2357-589 | - | 1587.30 |
| 5"-12 | GH7 | - | 2357-594 | - | 1112.20 |
| 5 1/4-8 | GH8 | - | 2357-626 | - | 1666.90 |
| 5 1/4-12 | GH7 | - | 2357-629 | - | 1165.40 |
| 5 1/2-8 | GH8 | - | 2357-651 | - | 1755.40 |
| 5 1/2-12 | GH7 | - | 2357-657 | - | 1231.80 |
| 5 3/4-8 | GH8 | - | 2357-664 | - | 1843.90 |
| 5 3/4-12 | GH7 | - | 2357-669 | - | 1290.90 |
| 6"-8 | GH8 | - | 2357-676 | - | 1932.50 |
| 6"-12 | GH7 | - | 2357-681 | - | 1357.20 |

# Optional Flute Taps - Ground Thread Taps

## High Speed Steel



| SIZE | | GH | FLTS. | Pittsburg® ALLEGHANY [3] ORDER NO. BOTTOM | PLUG | PRICE EACH | ALLEGIANCE® AMERICAN MADE [2] ORDER NO. BOTTOM | PLUG | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2-56 | NC | 1 | 2 | – | 3530-712† | $3.31 | – | – | – |
| 2-56 | NC | 2 | 2 | – | 3530-722† | 3.31 | 3750-721 | 3750-722 | $7.24 |
| 3-48 | NC | 2 | 2 | 3531-121† | 3531-122† | 2.54 | 3751-121 | 3751-122 | 5.81 |
| 4-40 | NC | 1 | 2 | 3531-711† | 3531-712† | 1.93 | – | 3751-712 | 4.76 |
| 4-40 | NC | 2 | 2 | 3531-721† | – | 1.93 | 3751-721 | 3751-722 | 4.56 |
| 5-40 | NC | 2 | 2 | 3532-121† | 3532-122† | 2.01 | 3752-121 | 3752-122 | 4.56 |
| 5-44 | NF | 2 | 2 | 3532-321† | 3532-322† | 2.01 | – | – | – |
| 6-32 | NC | 1 | 2 | 3532-511† | 3532-512† | 1.63 | – | 3752-512 | 3.98 |
| 6-32 | NC | 2 | 2 | – | – | – | 3752-521 | 3752-522 | 3.98 |
| 6-32 | NC | 3 | 2 | – | – | – | 3752-531 | 3752-532 | 3.44 |
| 6-40 | NF | 2 | 2 | 3532-721† | 3532-722† | 1.63 | – | 3752-722 | 3.98 |
| 8-32 | NC | 1 | 2 | 3532-911† | 3532-912† | 1.63 | – | 3752-912 | 3.98 |
| 8-32 | NC | 2 | 2 | – | – | – | 3752-921 | 3752-922 | 3.98 |
| 8-32 | NC | 3 | 2 | – | – | – | 3752-831 | 3752-932 | 3.44 |
| 8-32 | NC | 1 | 3 | 3542-911† | 3542-912† | 1.63 | – | – | – |
| 8-32 | NC | 2 | 3 | 3542-921† | – | 1.63 | 3712-921 | 3712-922 | 3.98 |
| 8-32 | NC | 3 | 3 | 3542-931† | – | 1.63 | 3712-931 | 3712-932 | 3.44 |
| 10-24 | NC | 1 | 2 | 3533-311† | 3533-312† | 1.68 | – | – | – |
| 10-24 | NC | 2 | 2 | – | 3533-322† | 1.68 | 3753-321 | 3753-322 | 3.98 |
| 10-24 | NC | 3 | 2 | – | – | – | 3753-331 | 3753-332 | 3.54 |
| 10-24 | NC | 2 | 3 | 3543-321† | – | 1.68 | – | 3713-322 | 3.98 |
| 10-24 | NC | 3 | 3 | 3543-331† | 3543-332† | 1.68 | 3713-331 | 3713-332 | 3.54 |
| 10-32 | NF | 1 | 2 | 3533-511† | 3533-512† | 1.68 | 3593-511 | 3753-512 | 3.98 |
| 10-32 | NF | 2 | 2 | – | – | – | 3753-521 | 3753-522 | 3.98 |
| 10-32 | NF | 3 | 2 | – | – | – | 3753-531 | 3753-532 | 3.54 |

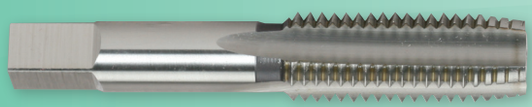
| SIZE | | GH | FLTS. | Pittsburg® ALLEGHANY [3] ORDER NO. BOTTOM | PLUG | PRICE EACH | ALLEGIANCE® AMERICAN MADE [2] ORDER NO. BOTTOM | PLUG | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 10-32 | NF | 2 | 3 | 3543-521† | 3543-522† | $1.68 | 3713-521 | 3713-522 | $3.98 |
| 10-32 | NF | 3 | 3 | 3543-531† | 3543-532† | 1.68 | 3713-531 | 3713-532 | 3.54 |
| 10-32 | NF | 7 | 3 | – | 3543-572† | 1.68 | – | – | – |
| 1/4-20 | NC | 3 | 2 | – | – | – | 3754-131 | 3754-132 | 4.62 |
| 1/4-20 | NC | 1 | 3 | 3544-111† | 3544-112† | 1.62 | – | 3714-112 | 4.62 |
| 1/4-20 | NC | 2 | 3 | 3544-121† | 3544-122† | 1.62 | – | 3714-122 | 4.62 |
| 1/4-20 | NC | 3 | 3 | 3544-131† | – | 1.62 | 3714-131 | 3714-132 | 4.62 |
| 1/4-20 | NC | 5 | 3 | 3544-151† | – | 1.62 | – | 3714-152 | 4.62 |
| 1/4-28 | NF | 3 | 2 | 3534-331† | – | 1.62 | 3754-331 | 3754-332 | 4.62 |
| 1/4-28 | NF | 3 | 3 | 3544-331† | 3544-332† | 1.62 | 3714-331 | 3714-332 | 4.62 |
| 5/16-18 | NC | 3 | 2 | – | – | – | 3754-631 | 3754-632 | 5.81 |
| 5/16-18 | NC | 3 | 3 | 3544-531† | 3544-532† | 1.96 | 3714-531 | 3714-532 | 5.15 |
| 5/16-24 | NC | 3 | 3 | 3544-731† | 3544-732† | 1.96 | 3714-731 | 3714-732 | 5.15 |
| 3/8-16 | NC | 1 | 3 | 3544-911† | 3544-912† | 2.19 | – | 3604-912 | 6.63 |
| 3/8-16 | NC | 3 | 3 | – | – | – | 3714-931 | 3714-932 | 5.81 |
| 3/8-16 | NC | 5 | 3 | – | – | – | – | 3604-952 | 6.63 |
| 3/8-24 | NF | 3 | 3 | – | 3545-132† | 2.19 | 3715-131 | 3715-132 | 6.65 |
| 7/16-14 | NC | 3 | 3 | 3545-331† | 3545-332† | 3.77 | – | 3715-332 | 9.67 |
| 7/16-20 | NF | 3 | 3 | 3545-531† | – | 3.77 | – | 3715-532 | 9.67 |
| 1/2-13 | NC | 3 | 3 | 3545-731† | – | 3.97 | 3715-731 | 3715-732 | 11.48 |
| 1/2-20 | NF | 3 | 3 | 3545-931† | 3545-932† | 3.97 | – | 3715-932 | 11.48 |

† Limited Quantities

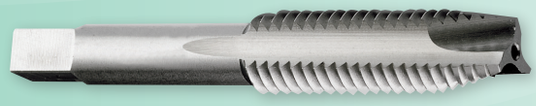
# +.005 Oversize Taps

## Ground Thread – High Speed Steel

Pittsburg® ALLEGHANY



Plug



Spiral Point

**Bottom & Taper Chamfer Available on Request**

| SIZE | | PLUG STYLE ORDER NO. | PRICE EACH | SPIRAL POINT STYLE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 5-40 | NC | 2308-101 | $3.37 | 2309-101 | $3.47 |
| 5-44 | NF | 2308-110 | 3.37 | 2309-107 | 3.47 |
| 6-32 | NC | 2308-119 | 3.04 | 2309-114 | 3.47 |
| 6-40 | NF | 2308-128 | 3.04 | 2309-121 | 3.47 |
| 8-32 | NC | 2308-137 | 3.04 | 2309-128 | 3.47 |
| 8-36 | NF | 2308-146 | 3.04 | 2309-135 | 3.47 |
| 10-24 | NC | 2308-155 | 3.04 | 2309-142 | 3.47 |
| 10-32 | NC | 2308-164 | 3.04 | 2309-149 | 3.47 |
| 1/4-20 | NC | 2308-191 | 3.23 | 2309-170 | 3.66 |
| 1/4-28 | NF | 2308-200 | 3.23 | 2309-177 | 3.66 |
| 5/16-18 | NC | 2308-209 | 3.85 | 2309-184 | 4.13 |
| 5/16-24 | NF | 2308-218 | 3.85 | 2309-191 | 4.13 |
| 3/8-16 | NC | 2308-227 | 4.32 | 2309-198 | 4.66 |
| 3/8-24 | NF | 2308-236 | 4.32 | 2309-205 | 4.66 |

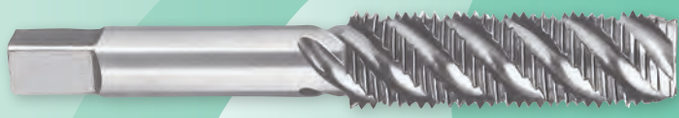
[3]

| SIZE | | PLUG STYLE ORDER NO. | PRICE EACH | SPIRAL POINT STYLE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 7/16-14 | NC | 2308-245 | $7.84 | 2309-212 | $ 7.84 |
| 7/16-20 | NF | 2308-254 | 7.84 | 2309-219 | 7.84 |
| 1/2-13 | NC | 2308-263 | 7.70 | 2309-226 | 8.22 |
| 1/2-20 | NF | 2308-272 | 7.70 | 2309-233 | 8.22 |
| 9/16-12 | NC | 2308-281 | 15.25 | 2309-240 | 16.15 |
| 9/16-18 | NF | 2308-290 | 15.25 | 2309-247 | 16.15 |
| 5/8-11 | NC | 2308-299 | 14.63 | 2309-254 | 21.80 |
| 5/8-18 | NF | 2308-308 | 14.63 | 2309-261 | 21.76 |
| 3/4-10 | NC | 2308-335 | 22.33 | 2309-282 | 28.69 |
| 3/4-16 | NF | 2308-344 | 22.33 | 2309-289 | 28.69 |
| 7/8-9 | NC | 2308-353 | 26.13 | 2309-296 | 33.35 |
| 7/8-14 | NF | 2308-362 | 26.13 | 2309-303 | 33.35 |
| 1-8 | NC | 2308-371 | 36.15 | 2309-310 | 44.46 |
| 1-12 | NF | 2308-380 | 36.15 | 2309-317 | 44.46 |
| 1-14 | NS | 2308-389 | 36.15 | 2309-324 | 44.46 |

# Spiral Fluted Taps

## High Speed Steel

Slow Spiral - 30°



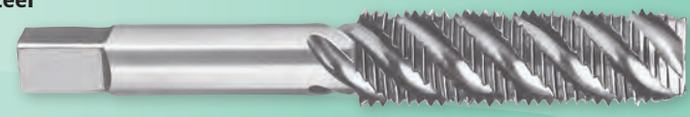
Fast Spiral - 48° - 52°

[3] [3] [2]

| | | | 30 DEGREE - SLOW SPIRAL | | | 48–52 DEGREE - FAST SPIRAL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pittsburg® ALLEGHANY | | | Pittsburg® ALLEGHANY | | | BRUBAKER TOOL CORPORATION | | |
| | | | ORDER NO. | | PRICE | | ORDER NO. | | PRICE | ORDER NO. | | PRICE |
| SIZE | GH | FLUTES | PLUG | BOTTOM | EACH | FLUTES | PLUG | BOTTOM | EACH | PLUG | BOTTOM | EACH |
| 3-48 | 2 | 2 | – | – | – | 2 | – | – | – | 2307-502 | 2307-501 | $11.74 |
| 4-40 | 2 | 2 | 2306-122 | 2306-123 | $5.14 | 2 | 2307-122 | 2307-123 | $5.63 | 2307-523 | 2307-522 | 9.66 |
| 5-40 | 2 | 2 | 2306-136 | 2306-137 | 5.14 | 2 | 2307-136 | 2307-137 | 5.63 | 2307-537 | 2307-536 | 9.66 |
| 5-44 | 2 | 2 | – | – | – | 2 | 2307-143 | 2307-144 | 5.63 | – | – | – |
| 6-32 | 2 | 2 | 2306-150 | 2306-151 | 3.98 | 2 | 2307-150 | 2307-151 | 4.51 | – | – | – |
| 6-32 | 3 | 2 | – | – | – | 2 | – | – | – | 2307-554 | 2307-553 | 7.84 |
| 6-40 | 3 | 2 | 2306-157 | 2306-158 | 3.98 | 2 | – | – | – | – | – | – |
| 8-32 | 3 | 2 | 2306-164 | 2306-165 | 3.98 | 3 | 2307-164 | 2307-165 | 4.51 | 2307-569 | 2307-568 | 7.84 |
| 8-36 | 3 | 2 | 2306-171 | 2306-172 | 3.98 | 3 | – | – | – | – | – | – |
| 10-24 | 3 | 2 | 2306-178 | 2306-179 | 3.98 | 3 | 2307-178 | 2307-179 | 4.51 | 2307-579 | 2307-578 | 7.84 |
| 10-32 | 3 | 2 | 2306-186 | 2306-187 | 3.98 | 3 | 2307-186 | 2307-187 | 4.51 | 2307-587 | 2307-586 | 7.84 |
| 12-24 | 3 | 2 | 2306-193 | 2306-194 | 4.27 | 3 | 2307-193 | 2307-194 | 4.85 | 2307-594 | 2307-593 | 8.50 |
| 1/4-20 | 3 | 3 | 2306-200 | 2306-201 | 4.27 | 3 | 2307-207 | 2307-208 | 4.85 | 2307-608 | 2307-607 | 8.50 |
| 1/4-28 | 3 | 3 | 2306-214 | 2306-215 | 4.27 | 3 | 2307-214 | 2307-215 | 4.85 | 2307-615 | 2307-614 | 8.50 |
| 5/16-18 | 3 | 3 | 2306-221 | 2306-222 | 5.43 | 3 | 2307-221 | 2307-222 | 6.16 | 2307-622 | 2307-621 | 10.49 |
| 5/16-24 | 3 | 3 | 2306-228 | 2306-229 | 5.43 | 3 | 2307-228 | 2307-229 | 6.16 | 2307-629 | 2307-628 | 10.49 |
| 3/8-16 | 3 | 3 | 2306-235 | 2306-236 | 6.26 | 3 | 2307-235 | 2307-236 | 6.84 | 2307-636 | 2307-635 | 12.09 |
| 3/8-24 | 3 | 3 | 2306-242 | 2306-243 | 6.26 | 3 | 2307-242 | 2307-243 | 6.84 | 2307-643 | 2307-642 | 12.09 |
| 7/16-14 | 3 | 3 | 2306-254 | 2306-255 | 9.65 | 3 | 2307-254 | 2307-255 | 10.52 | 2307-655 | 2307-654 | 18.09 |
| 7/16-20 | 3 | 3 | 2306-261 | 2306-262 | 9.65 | 3 | 2307-261 | 2307-262 | 10.52 | 2307-662 | 2307-661 | 18.09 |
| 1/2-13 | 3 | 3 | 2306-268 | 2306-269 | 11.59 | 3 | 2307-268 | 2307-269 | 12.51 | 2307-669 | 2307-668 | 21.83 |
| 1/2-20 | 3 | 3 | 2306-275 | 2306-276 | 11.59 | 3 | 2307-275 | 2307-276 | 12.51 | 2307-676 | 2307-675 | 21.83 |
| 5/8-11 | 3 | 3 | – | – | – | 4 | 2307-282 | 2307-283 | 20.08 | – | – | – |
| 3/4-10 | 3 | 3 | – | – | – | 4 | 2307-289 | 2307-290 | 27.55 | – | – | – |

# Metric - Fast Spiral [2]

- Ground thread
- High Speed Steel



| | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | | |
|---|---|---|---|---|---|---|---|---|
| NOMINAL SIZE AND PITCH | D LIMIT | FLUTE NO. | PLUG ORDER NO. | PRICE EACH | BOTTOM ORDER NO. | PRICE EACH | PLUG ORDER NO. | PRICE EACH |
| 3 x 0.5 | D3 | 2 | 3782-227 | $5.09 | 3781-226 | $10.03 | 3781-227 | $10.03 |
| 3.5 x 0.6 | D4 | 3 | 3782-281 | 5.65 | 3781-280 | 8.18 | 3781-281 | 8.18 |
| 4 x 0.7 | D4 | 3 | 3782-326 | 4.32 | 3781-325 | 8.18 | 3781-326 | 8.18 |
| 4.5 x 0.75 | D4 | 3 | 3782-353 | 5.65 | 3781-352 | 8.18 | 3781-353 | 8.18 |
| 5 x 0.8 | D4 | 3 | 3782-389 | 4.32 | 3781-388 | 8.18 | 3781-389 | 8.18 |
| 6 x 1 | D5 | 3 | 3782-465 | 4.32 | 3781-464 | 8.90 | 3781-465 | 8.90 |
| 7 x 1 | D5 | 3 | 3782-524 | 4.76 | 3781-523 | 10.93 | 3781-524 | 10.93 |
| 8 x 1 | D5 | 3 | 3782-569 | 4.87 | 3781-568 | 10.93 | 3781-569 | 10.93 |
| 8 x 1.25 | D5 | 3 | 3782-578 | 5.31 | 3781-577 | 10.93 | 3781-578 | 10.93 |
| 10 x 1.25 | D5 | 3 | 3782-686 | 6.20 | 3781-685 | 18.91 | 3781-686 | 18.91 |
| 10 x 1.5 | D6 | 3 | 3782-695 | 6.75 | 3781-694 | 18.91 | 3781-695 | 18.91 |
| 12 x 1.25 | D5 | 3 | 3782-779 | 9.96 | 3781-778 | 23.50 | 3781-779 | 23.50 |
| 12 x 1.75 | D6 | 3 | 3782-802 | 11.07 | 3781-801 | 22.79 | 3781-802 | 22.79 |
| 14 x 1.5 | D6 | 3 | 3782-946 | 15.61 | – | – | – | – |
| 14 x 2 | D7 | 3 | 3782-964 | 15.61 | – | – | – | – |
| 16 x 1.5 | D6 | 4 | 3783-062 | 18.93 | – | – | – | – |
| 16 x 2 | D7 | 7 | 3783-071 | 18.93 | – | – | – | – |

# Left Hand Taps

## Ground Thread – High Speed Steel

Bottom

Plug

Taper

[3] [2]

| SIZE | | GH | FLUTES | Pittsburg® ALLEGHANY ORDER NUMBER BOTTOM | PLUG | TAPER | PRICE EACH | SET ORDER NO. | PRICE EACH | Allegiance® AMERICAN MADE ORDER NUMBER BOTTOM | PLUG | TAPER | PRICE EACH | SET ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6-32 | NC | 3 | 3 | 3522-531 | 3522-532 | 3522-533 | $3.59 | 2301-253 | $10.77 | 3792-531 | 3792-532 | 3792-533 | $ 3.89 | – | – |
| 6-40 | NF | 2 | 3 | 3522-721 | 3522-722 | 3522-723 | 3.59 | – | – | – | – | – | – | – | – |
| 8-32 | NC | 3 | 4 | 3522-931 | 3522-932 | 3522-933 | 3.64 | 2301-293 | 10.92 | 3792-931 | 3792-932 | 3792-933 | 4.18 | – | – |
| 8-36 | NF | 2 | 4 | 3523-121 | 3523-122 | 3523-123 | 3.64 | – | – | – | – | – | – | – | – |
| 10-24 | NC | 3 | 4 | 3523-331 | 3523-332 | 3523-333 | 3.69 | 2301-333 | 11.07 | 3793-331 | 3793-332 | 3793-333 | 4.18 | – | – |
| 10-32 | NC | 3 | 4 | 3523-531 | 3523-532 | 3523-533 | 3.69 | 2301-353 | 11.07 | 3793-531 | 3793-532 | 3793-533 | 4.18 | – | – |
| 1/4-20 | NC | 3 | 4 | 3524-131 | 3524-132 | 3524-133 | 3.73 | 2301-413 | 11.19 | 3794-131 | 3794-132 | 3794-133 | 5.04 | 3791-413 | $15.12 |
| 1/4-28 | NF | 3 | 4 | 3524-331 | 3524-332 | 3524-333 | 3.73 | 2301-433 | 11.19 | 3794-331 | 3794-332 | 3794-333 | 5.04 | – | – |
| 5/16-18 | NC | 3 | 4 | 3524-531 | 3524-532 | 3524-533 | 4.56 | 2301-453 | 13.68 | 3794-531 | 3794-532 | 3794-533 | 5.58 | 3791-453 | 16.74 |
| 5/16-24 | NF | 3 | 4 | 3524-731 | 3524-732 | 3524-733 | 4.56 | 2301-473 | 13.68 | 3794-731 | 3794-732 | 3794-733 | 5.58 | 3791-473 | 16.74 |
| 3/8-16 | NC | 3 | 4 | 3524-931 | 3524-932 | 3524-933 | 5.00 | 2301-493 | 15.00 | 3794-931 | 3794-932 | 3794-933 | 7.53 | 3791-493 | 22.59 |
| 3/8-24 | NF | 3 | 4 | 3525-131 | 3525-132 | 3525-133 | 5.00 | 2301-513 | 15.00 | 3795-131 | 3795-132 | 3795-133 | 7.53 | 3791-513 | 22.59 |
| 7/16-14 | NC | 3 | 4 | 3525-331 | 3525-332 | 3525-333 | 8.49 | 2301-533 | 25.47 | 3795-331 | 3795-332 | 3795-333 | 11.02 | 3791-533 | 33.06 |
| 7/16-20 | NF | 3 | 4 | 3525-531 | 3525-532 | 3525-533 | 8.49 | 2301-553 | 25.47 | 3795-531 | 3795-532 | 3795-533 | 11.02 | 3791-553 | 33.06 |
| 1/2-13 | NC | 3 | 4 | 3525-731 | 3525-732 | 3525-733 | 8.83 | 2301-573 | 26.49 | 3795-731 | 3795-732 | 3795-733 | 12.98 | 3791-573 | 38.94 |
| 1/2-20 | NF | 3 | 4 | 3525-931 | 3525-932 | 3525-933 | 8.83 | 2301-593 | 26.49 | 3795-931 | 3795-932 | 3795-933 | 12.98 | 3791-593 | 38.94 |
| 9/16-12 | NC | 3 | 4 | 3526-131 | 3526-132 | 3526-133 | 13.00 | 2301-613 | 39.00 | 3796-131 | 3796-132 | 3796-133 | 19.16 | 3791-613 | 57.48 |
| 9/16-18 | NF | 3 | 4 | 3526-331 | 3526-332 | 3526-333 | 13.00 | 2301-633 | 39.00 | 3796-331 | 3796-332 | 3796-333 | 19.16 | 3791-633 | 57.48 |
| 5/8-11 | NC | 3 | 4 | 3526-531 | 3526-532 | 3526-533 | 15.08 | 2301-653 | 45.24 | 3796-531 | 3796-532 | 3796-533 | 24.29 | 3791-653 | 72.87 |
| 5/8-18 | NF | 3 | 4 | 3526-731 | 3526-732 | 3526-733 | 15.08 | 2301-673 | 45.24 | 3796-731 | 3796-732 | 3796-733 | 24.29 | 3791-673 | 72.87 |
| 11/16-11 | NC | 3 | 4 | 3526-931 | 3526-932 | 3526-933 | 16.73 | – | – | 3796-931 | 3796-932 | 3796-933 | 28.09 | – | – |
| 11/16-16 | NF | 3 | 4 | 3527-131 | 3527-132 | 3527-133 | 16.73 | – | – | 3797-131 | 3797-132 | 3797-133 | 28.09 | – | – |
| 3/4-10 | NC | 3 | 4 | 3527-331 | 3527-332 | 3527-333 | 20.90 | 2301-733 | 62.70 | 3797-331 | 3797-332 | 3797-333 | 31.84 | 3791-733 | 95.52 |
| 3/4-16 | NF | 3 | 4 | 3527-531 | 3527-532 | 3527-533 | 20.90 | 2301-753 | 62.70 | 3797-531 | 3797-532 | 3797-533 | 31.84 | 3791-753 | 95.52 |
| 7/8-9 | NC | 4 | 4 | 3527-741 | 3527-742 | 3527-743 | 29.00 | 2301-774 | 87.00 | 3797-741 | 3797-742 | 3797-743 | 43.11 | 3791-774 | 129.33 |
| 7/8-14 | NF | 4 | 4 | 3527-941 | 3527-942 | 3527-943 | 29.00 | 2301-794 | 87.00 | 3797-941 | 3797-942 | 3797-943 | 43.11 | 3791-794 | 129.33 |
| 1-8 | NC | 4 | 4 | 3528-141 | 3528-142 | 3528-143 | 38.70 | 2301-814 | 116.10 | 3798-141 | 3798-142 | 3798-143 | 57.09 | 3791-814 | 171.27 |
| 1-12 | NF | 4 | 4 | 3528-341 | 3528-342 | 3528-343 | 38.70 | 2301-834 | 116.10 | 3798-341 | 3798-342 | 3798-343 | 57.09 | 3791-834 | 171.27 |
| 1-14 | NS | 4 | 4 | 3528-541 | 3528-542 | 3528-543 | 38.70 | 2301-854 | 116.10 | 3798-541 | 3798-542 | 3798-543 | 57.09 | 3791-854 | 171.27 |
| 1-1/8-7 | NC | 4 | 4 | 3528-741 | 3528-742 | 3528-743 | 59.85 | – | – | 3798-741 | 3798-742 | 3798-743 | 84.98 | – | – |
| 1-1/8-12 | NF | 4 | 4 | 3528-941 | 3528-942 | 3528-943 | 59.85 | – | – | 3798-941 | 3798-942 | 3798-943 | 84.98 | – | – |
| 1-1/4-7 | NC | 4 | 4 | 3529-041 | 3529-042 | 3529-043 | 78.72 | – | – | 3799-041 | 3799-042 | 3799-043 | 107.26 | – | – |
| 1-1/4-12 | NF | 4 | 6 | 3529-141 | 3529-142 | 3529-143 | 78.72 | – | – | 3799-141 | 3799-142 | 3799-143 | 107.26 | – | – |
| 1-3/8-6 | NC | 4 | 4 | 3529-541 | 3529-542 | 3529-543 | 98.60 | – | – | 3799-541 | 3799-542 | 3799-543 | 133.59 | – | – |
| 1-3/8-12 | NF | 4 | 6 | 3529-741 | 3529-742 | 3529-743 | 98.60 | – | – | 3799-741 | 3799-742 | 3799-743 | 133.59 | – | – |
| 1-1/2-6 | NC | 4 | 4 | 3529-841 | 3529-842 | 3529-843 | 113.93 | – | – | 3799-841 | 3799-842 | 3799-843 | 155.58 | – | – |
| 1-1/2-12 | NF | 4 | 6 | 3529-941 | 3529-942 | 3529-943 | 113.93 | – | – | 3799-941 | 3799-942 | 3799-943 | 155.58 | – | – |

## Left Hand Metric Taps [2]

| SIZE | PITCH DIA LIMIT | FLUTE NO. | Pittsburg® ALLEGHANY BOTT. ORDER NO. | PLUG ORDER NO. | PRICE EACH | Allegiance® AMERICAN MADE BOTT. ORDER NO. | PLUG ORDER NO. | TAPER ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| M3.5 x 0.60 | D4 | 3 | – | – | – | 3789-028 | 3789-029 | 3789-030 | $4.79 |
| M4.0 x 0.70 | D4 | 4 | – | 3787-326† | $4.05 | 3789-034 | 3789-035 | 3789-036 | 4.79 |
| M5.0 x 0.80 | D4 | 4 | 3787-388† | – | 4.05 | 3789-043 | 3789-044 | 3789-045 | 4.79 |
| M6.0 x 1.00 | D5 | 4 | 3787-464† | – | 4.34 | 3789-058 | 3789-059 | 3789-060 | 5.62 |
| M7.0 x 1.00 | D5 | 4 | 3787-523† | – | 5.04 | 3789-064 | 3789-065 | 3789-066 | 6.23 |
| M8.0 x 1.00 | D5 | 4 | – | – | – | 3789-070 | 3789-071 | 3789-072 | 6.23 |
| M8.0 x 1.25 | D5 | 4 | – | – | – | 3789-073 | 3789-074 | 3789-075 | 6.23 |
| M10.0 x 1.25 | D5 | 4 | – | – | – | 3789-088 | 3789-089 | 3789-090 | 11.75 |
| M10.0 x 1.50 | D6 | 4 | – | – | – | 3789-091 | 3789-092 | 3789-093 | 11.75 |
| M12.0 x 1.25 | D5 | 4 | – | – | – | 3789-103 | 3789-104 | 3789-105 | 13.84 |
| M12.0 x 1.75 | D6 | 4 | – | – | – | 3789-109 | 3789-110 | 3789-111 | 13.84 |
| M14.0 x 1.50 | D6 | 4 | – | – | – | 3789-118 | 3789-119 | 3789-120 | 20.49 |
| M14.0 x 2.00 | D7 | 4 | 3787-963† | – | 15.51 | 3789-121 | 3789-122 | 3789-123 | 20.49 |
| M16.0 x 1.50 | D6 | 4 | – | – | – | 3789-130 | 3789-131 | 3789-132 | 25.99 |
| M16.0 x 2.00 | D7 | 4 | – | – | – | 3789-133 | 3789-134 | 3789-135 | 25.99 |
| M18.0 x 1.50 | D6 | 4 | – | – | – | 3789-139 | 3789-140 | 3789-141 | 34.09 |
| M18.0 x 2.50 | D7 | 4 | – | – | – | 3789-145 | 3789-146 | 3789-147 | 34.09 |
| M20.0 x 1.50 | D6 | 4 | – | – | – | 3789-151 | 3789-152 | 3789-153 | 46.07 |
| M20.0 x 2.50 | D7 | 4 | 3788-241† | 3788-242† | 34.62 | 3789-157 | 3789-158 | 3789-159 | 46.07 |
| M22.0 x 1.50 | D6 | 4 | – | – | – | 3789-163 | 3789-164 | 3789-165 | 46.07 |
| M22.0 x 2.50 | D7 | 4 | – | – | – | 3789-169 | 3789-170 | 3789-171 | 46.07 |
| M24.0 x 2.00 | D7 | 4 | – | – | – | 3789-178 | 3789-179 | 3789-180 | 60.50 |
| M24.0 x 3.00 | D8 | 4 | – | – | – | 3789-181 | 3789-182 | 3789-183 | 60.50 |

† Limited Quantities

## Left Hand Spiral Point Taps [2]

| NOMINAL SIZE AND PITCH | D LIMIT | FLUTE NO. | Pittsburg® ALLEGHANY PLUG ORDER NO. | PRICE EACH | Allegiance® AMERICAN MADE PLUG ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 6-32 | 3 | 2 | – | – | 2396-039 | $14.30 |
| 8-32 | 3 | 2 | 2390-616† | $5.56 | 2396-051 | 14.30 |
| 10-24 | 3 | 2 | – | – | 2396-069 | 15.20 |
| 10-32 | 3 | 2 | – | – | 2396-079 | 15.20 |
| 1/4-20 | 3 | 2 | 2392-396† | 5.88 | 2396-108 | 15.50 |
| 1/4-28 | 3 | 2 | – | – | 2396-120 | 15.50 |
| 5/16-18 | 3 | 2 | – | – | 2396-146 | 16.60 |
| 5/16-24 | 3 | 2 | – | – | 2396-157 | 16.60 |
| 3/8-16 | 3 | 3 | – | – | 2396-174 | 17.30 |
| 3/8-24 | 3 | 3 | – | – | 2396-189 | 17.30 |
| 7/16-14 | 3 | 3 | – | – | 2396-203 | 20.90 |
| 1/2-13 | 3 | 3 | – | – | 2396-231 | 21.80 |
| 1/2-20 | 3 | 3 | – | – | 2396-244 | 21.80 |
| 5/8-11 | 3 | 3 | – | – | 2396-287 | 23.50 |

# Left Hand Special Hand Taps

## High Speed Steel

FOR 2 OR MORE PIECES, CALL FOR PRICE

[1]

Bottom

Plug

Taper

| SIZE | GH LIMIT | BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 00-90 | GH1 | 2370-165 | 2370-166 | 2370-167 | $251.60 | - | - |
| 00-96 | GH1 | - | 2370-182 | - | 251.60 | - | - |
| 0-80 | GH1 | 3520-111 | 3520-112 | - | 62.30 | 2390-142 | $66.50 |
| 1-56 | GH1 | 2370-335 | 2370-336 | 2370-337 | 117.30 | - | - |
| 1-64 | GH1 | 3520-311 | - | - | 117.30 | 2390-159 | 119.10 |
| 1-72 | GH1 | 3520-511 | - | - | 117.30 | 2390-161 | 119.10 |
| 2-44 | GH1 | 2370-427 | 2370-428 | 2370-429 | 117.30 | - | - |
| 2-56 | GH1 | 3520-711 | 3520-712 | 3520-713 | 117.30 | - | - |
| 2-56 | GH2 | 3520-721 | 3520-722 | 3520-723 | 58.20 | - | - |
| 2-64 | GH2 | 2370-448 | 2370-449 | 2370-450 | 117.30 | 2390-205 | 119.10 |
| 3-36 | GH2 | 2370-510 | 2370-511 | 2370-512 | 110.80 | - | - |
| 3-48 | GH1 | 2370-519 | 2370-520 | 2370-521 | 110.80 | - | - |
| 3-48 | GH2 | 3521-121 | 3521-122 | 3521-123 | 49.50 | 2390-291 | 52.10 |
| 3-56 | GH2 | 3521-321 | 3521-322 | - | 110.80 | 2390-293 | 112.00 |
| 4-32 | GH1 | 2370-615 | 2370-616 | 2370-617 | 106.30 | - | - |
| 4-32 | GH3 | - | - | - | - | 2390-336 | 107.60 |
| 4-36 | GH2 | 2370-621 | 2370-622 | 2370-623 | 106.30 | 2390-339 | 107.60 |
| 4-40 | GH2 | 3521-721 | 3521-722 | 3521-723 | 21.20 | 2390-341 | 22.40 |
| 4-48 | GH1 | - | 3521-912 | - | 106.30 | - | - |
| 4-48 | GH2 | 2370-627 | 2370-628 | 2370-629 | 41.70 | 2390-345 | 43.60 |
| 4-64 | GH1 | 2370-650 | 2370-651 | 2370-652 | 106.30 | - | - |
| 4-72 | GH1 | 2370-653 | 2370-654 | 2370-655 | 106.30 | - | - |
| 4-80 | GH1 | 2370-665 | 2370-666 | 2370-667 | 106.30 | - | - |
| 5-24 | GH3 | 2370-742 | 2370-743 | 2370-744 | 106.30 | 2390-395 | 107.60 |
| 5-36 | GH2 | 2370-760 | 2370-761 | 2370-762 | 106.30 | - | - |
| 5-40 | GH1 | 2370-770 | 2370-771 | 2370-772 | 106.30 | - | - |
| 5-40 | GH2 | 3522-121 | 3522-122 | 3522-123 | 41.70 | 2390-410 | 38.70 |
| 5-44 | GH2 | 3522-321 | 3522-322 | 3522-323 | 106.30 | - | - |
| 5-48 | GH2 | 2370-775 | 2370-776 | 2370-777 | 106.30 | - | - |
| 5-64 | GH2 | 2370-805 | 2370-806 | 2370-807 | 106.30 | - | - |
| 5-72 | GH2 | 2370-808 | 2370-809 | 2370-810 | 106.30 | - | - |
| 5-80 | GH2 | 2370-825 | 2370-826 | 2370-827 | 106.30 | - | - |
| 6-24 | GH3 | 2370-916 | 2370-917 | 2370-918 | 103.90 | - | - |
| 6-32 | GH1 | - | - | - | - | 2390-432 | 105.00 |
| 6-32 | GH7 | - | - | - | - | 2390-445 | 105.00 |
| 6-36 | GH1 | 2370-925 | 2370-926 | 2370-927 | 103.90 | - | - |
| 6-40 | GH1 | - | 3522-712 | 3522-713 | 103.90 | 2390-451 | 105.00 |
| 6-40 | GH2 | 2370-931 | 2370-932 | 2370-933 | 30.40 | - | - |
| 6-56 | GH2 | 2370-955 | 2370-956 | 2370-957 | 103.90 | - | - |
| 6-64 | GH2 | 2370-985 | 2370-986 | 2370-987 | 103.90 | - | - |
| 8-24 | GH3 | 2371-148 | 2371-149 | 2371-150 | 103.90 | - | - |
| 8-32 | CG | - | 2371-159 | - | 103.90 | - | - |
| 8-32 | GH1 | - | 3522-912 | - | 103.90 | - | - |
| 8-32 | GH2 | 2371-155 | 2371-156 | 2371-157 | 103.90 | - | - |
| 8-36 | GH1 | 2371-172 | 2371-173 | 2371-174 | 103.90 | 2390-621 | 37.10 |
| 8-40 | GH2 | 2371-175 | 2371-176 | 2371-177 | 103.90 | 2390-628 | 105.00 |
| 8-48 | GH2 | 2371-190 | 2371-191 | 2371-192 | 103.90 | - | - |
| 8-56 | GH2 | 2371-193 | 2371-194 | 2371-195 | 103.90 | - | - |
| 8-60 | GH2 | 2371-205 | 2371-206 | 2371-207 | 103.90 | - | - |
| 8-64 | GH2 | 2371-222 | 2371-223 | 2371-224 | 103.90 | - | - |
| 8-80 | GH2 | 2371-255 | 2371-256 | 2371-257 | 103.90 | - | - |
| 9-46 | GH2 | 2371-396 | 2371-397 | 2371-398 | 103.90 | - | - |
| 10-24 | GH1 | 3523-311 | 3523-312 | - | 103.90 | - | - |
| 10-24 | GH4 | 2371-426 | 2371-427 | 2371-428 | 103.90 | - | - |
| 10-28 | GH2 | 2371-435 | 2371-436 | 2371-437 | 103.90 | - | - |
| 10-32 | GH2 | 2371-454 | 2371-455 | 2371-456 | 103.90 | - | - |
| 10-32 | GH7 | - | - | - | - | 2390-762 | 105.00 |
| 10-34 | GH2 | 2371-459 | 2371-460 | 2371-461 | 103.90 | - | - |
| 10-36 | GH2 | 2371-465 | 2371-466 | 2371-467 | 103.90 | - | - |
| 10-38 | GH2 | 2371-438 | 2371-439 | 2371-440 | 103.90 | - | - |
| 10-40 | GH2 | 2371-480 | 2371-481 | 2371-482 | 103.90 | - | - |
| 10-44 | GH2 | 2371-487 | 2371-488 | 2371-489 | 103.90 | - | - |
| 10-46 | GH2 | 2371-493 | 2371-494 | 2371-495 | 103.90 | - | - |
| 10-48 | GH2 | 2371-498 | 2371-496 | 2371-497 | 103.90 | - | - |
| 10-56 | GH2 | 2371-505 | 2371-506 | 2371-507 | 103.90 | - | - |
| 10-80 | GH2 | 2371-565 | 2371-566 | 2371-567 | 103.90 | - | - |
| 10-96 | GH1 | 2371-510 | 2371-511 | 2371-512 | 103.90 | - | - |
| 12-24 | GH3 | 3523-731 | 3523-732 | 3523-733 | 35.70 | 2390-888 | 108.20 |
| 12-28 | GH3 | 3523-931 | 3523-932 | 3523-933 | 35.70 | 2390-892 | 108.20 |
| 12-32 | GH3 | 2371-710 | 2371-711 | 2371-712 | 107.00 | 2390-896 | 108.20 |
| 12-40 | GH2 | 2371-743 | 2371-741 | 2371-742 | 107.00 | 2390-904 | 108.20 |
| 12-46 | GH2 | 2371-745 | 2371-746 | 2371-747 | 107.00 | - | - |
| 14-24 | GH3 | 2371-951 | 2371-952 | 2371-953 | 107.70 | - | - |
| .100-100 | GH2 | 2373-001 | 2373-002 | 2373-003 | 110.80 | - | - |
| 5/32-32 | GH3 | 2373-825 | 2373-826 | 2373-827 | 103.90 | - | - |
| 5/32-36 | GH1 | 2373-836 | 2373-837 | 2373-838 | 103.90 | 2392-064 | 105.00 |
| 5/32-40 | GH2 | 2373-845 | 2373-846 | 2373-847 | 103.90 | - | - |
| 3/16-24 | GH2 | 2374-006 | 2374-007 | 2374-008 | 103.90 | - | - |
| 3/16-32 | GH2 | 2374-020 | 2374-021 | 2374-022 | 103.90 | 2392-171 | 105.00 |
| 3/16-40 | GH3 | 2373-424 | 2373-425 | 2373-426 | 103.90 | - | - |
| 3/16-48 | GH3 | 2374-035 | 2374-036 | 2374-037 | 103.90 | - | - |
| 7/32-20 | GH3 | 2374-214 | 2374-215 | 2374-216 | 107.00 | - | - |
| 7/32-24 | GH3 | 2374-220 | 2374-221 | 2374-222 | 107.00 | - | - |
| 7/32-28 | GH3 | 2374-230 | 2374-231 | 2374-232 | $107.00 | - | - |
| 7/32-32 | GH3 | 2374-240 | 2374-241 | 2374-242 | 107.00 | - | - |
| 7/32-36 | GH3 | 2374-245 | 2374-246 | 2374-247 | 107.00 | - | - |
| 7/32-40 | GH3 | 2374-260 | 2374-261 | 2374-262 | 107.00 | - | - |
| 7/32-64 | GH3 | 2374-273 | 2374-274 | 2374-275 | 107.00 | - | - |
| 1/4-12 | GH3 | 2374-445 | 2374-446 | 2374-447 | 107.70 | - | - |
| 1/4-14 | GH3 | 2374-451 | 2374-452 | 2374-453 | 107.70 | - | - |
| 1/4-16 | GH3 | 2374-457 | 2374-458 | 2374-459 | 107.70 | - | - |
| 1/4-18 | GH3 | 2374-450 | 2374-449 | 2374-448 | 107.70 | - | - |
| 1/4-20 | GH1 | 3524-111 | 3524-112 | 3524-113 | 107.70 | 2392-394 | $109.00 |
| 1/4-20 | GH2 | 3524-121 | 3524-122 | 3524-123 | 107.70 | - | - |
| 1/4-20 | GH5 | 3524-151 | 3524-152 | 3524-153 | 107.70 | - | - |
| 1/4-20 | GH7 | - | - | - | - | 2392-398 | 109.00 |
| 1/4-20 | GH9 | - | - | - | - | 2392-400 | 109.00 |
| 1/4-22 | GH3 | 2374-463 | 2374-464 | 2374-465 | 107.70 | - | - |
| 1/4-23 | GH3 | 2374-469 | 2374-470 | 2374-471 | 107.70 | - | - |
| 1/4-24 | GH3 | 2374-475 | 2374-476 | 2374-477 | 107.70 | 2392-403 | 109.00 |
| 1/4-25 | GH3 | 2374-488 | 2374-489 | 2374-490 | 107.70 | - | - |
| 1/4-26 | GH3 | 2374-481 | 2374-482 | 2374-483 | 107.70 | - | - |
| 1/4-27 | GH1 | 2374-485 | 2374-486 | 2374-487 | 107.70 | - | - |
| 1/4-28 | GH1 | 3524-311 | 3524-312 | 3524-313 | 107.70 | - | - |
| 1/4-28 | GH2 | 3524-321 | 3524-322 | 3524-323 | 107.70 | - | - |
| 1/4-30 | GH3 | 2374-491 | 2374-492 | 2374-493 | 107.70 | - | - |
| 1/4-32 | GH3 | 2374-505 | 2374-506 | - | 47.40 | 2392-413 | 109.00 |
| 1/4-36 | GH2 | 2374-510 | 2374-511 | 2374-512 | 107.70 | - | - |
| 1/4-40 | GH2 | 2374-520 | 2374-521 | 2374-522 | 107.70 | 2392-420 | 109.00 |
| 1/4-44 | GH3 | 2374-514 | 2374-515 | 2374-516 | 107.70 | - | - |
| 1/4-48 | GH2 | 2374-535 | 2374-536 | 2374-537 | 107.70 | - | - |
| 1/4-56 | GH3 | 2374-550 | 2374-551 | 2374-552 | 107.70 | 2392-431 | 109.00 |
| 1/4-60 | GH1 | 2374-565 | 2374-566 | 2374-567 | 107.70 | - | - |
| 1/4-64 | GH2 | 2374-580 | 2374-581 | 2374-582 | 107.70 | - | - |
| 1/4-80 | GH2 | 2374-620 | 2374-621 | 2374-622 | 107.70 | - | - |
| 9/32-32 | GH2 | 2374-880 | 2374-881 | 2374-882 | 109.00 | - | - |
| 9/32-40 | GH2 | 2374-900 | 2374-901 | 2374-902 | 109.00 | - | - |
| 5/16-12 | GH3 | 2375-066 | 2375-067 | 2375-068 | 109.00 | - | - |
| 5/16-14 | GH3 | 2375-073 | 2375-074 | 2375-075 | 109.00 | - | - |
| 5/16-16 | GH3 | 2375-077 | 2375-078 | 2375-079 | 109.00 | - | - |
| 5/16-18 | GH1 | 3524-511 | 3524-512 | 3524-513 | 109.00 | 2392-600 | 110.30 |
| 5/16-18 | GH2 | 3524-521 | 3524-522 | 3524-523 | 109.00 | - | - |
| 5/16-18 | GH5 | 3524-551 | 3524-552 | 3524-553 | 109.00 | 2392-608 | 110.30 |
| 5/16-20 | GH3 | 2375-070 | 2375-071 | 2375-072 | 109.00 | - | - |
| 5/16-24 | GH1 | 3524-711 | 3524-712 | 3524-713 | 109.00 | - | - |
| 5/16-24 | GH2 | 3524-721 | 3524-722 | 3524-723 | 109.00 | - | - |
| 5/16-24 | GH12 | - | - | - | - | 2392-705 | 110.30 |
| 5/16-27 | GH3 | 2375-090 | 2375-091 | 2375-092 | 109.00 | - | - |
| 5/16-28 | GH3 | 2375-111 | 2375-112 | 2375-113 | 109.00 | 2392-708 | 110.30 |
| 5/16-30 | GH1 | 2375-095 | 2375-096 | 2375-097 | 109.00 | - | - |
| 5/16-32 | GH3 | 2375-120 | 2375-121 | 2375-122 | 109.00 | 2392-713 | 110.30 |
| 5/16-36 | GH4 | 2375-135 | 2375-136 | 2375-137 | 109.00 | - | - |
| 5/16-40 | GH3 | 2375-153 | 2375-154 | 2375-155 | 109.00 | 2392-721 | 110.30 |
| 5/16-42 | GH2 | 2375-106 | 2375-107 | 2375-108 | 109.00 | - | - |
| 5/16-44 | GH2 | 2375-117 | 2375-118 | 2375-119 | 109.00 | - | - |
| 5/16-48 | GH2 | 2375-165 | 2375-166 | 2375-167 | 109.00 | - | - |
| 5/16-50 | GH2 | 2375-123 | 2375-124 | 2375-125 | 109.00 | - | - |
| 5/16-64 | GH2 | 2375-200 | 2375-201 | 2375-202 | 109.00 | - | - |
| 5/16-80 | GH3 | 2375-230 | 2375-231 | 2375-232 | 109.00 | - | - |
| 11/32-24 | GH3 | 2375-448 | 2375-449 | 2375-450 | 112.70 | - | - |
| 11/32-28 | GH3 | 2375-467 | 2375-468 | 2375-469 | 112.70 | - | - |
| 11/32-32 | GH3 | 2375-470 | 2375-471 | 2375-472 | 112.70 | - | - |
| 11/32-40 | GH2 | 2375-484 | 2375-485 | 2375-486 | 112.70 | - | - |
| 3/8-9 | GH3 | 2375-707 | 2375-708 | 2375-709 | 112.70 | - | - |
| 3/8-10 | GH3 | 2375-704 | 2375-705 | 2375-706 | 112.70 | - | - |
| 3/8-11 | GH3 | 2375-713 | 2375-714 | 2375-715 | 112.70 | - | - |
| 3/8-12 | GH3 | 2375-710 | 2375-711 | 2375-712 | 112.70 | - | - |
| 3/8-14 | GH3 | 2375-722 | 2375-723 | 2375-724 | 112.70 | - | - |
| 3/8-16 | GH1 | 3524-911 | 3524-912 | 3524-913 | 112.70 | - | - |
| 3/8-16 | GH5 | 3524-951 | 3524-952 | 3524-953 | 112.70 | 2393-017 | 114.00 |
| 3/8-16 | GH7 | - | - | - | - | 2393-016 | 114.00 |
| 3/8-18 | GH3 | 2375-728 | 2375-729 | 2375-730 | 112.70 | 2393-018 | 114.00 |
| 3/8-20 | GH2 | 2375-740 | 2375-741 | 2375-742 | 112.70 | 2393-022 | 114.00 |
| 3/8-24 | GH1 | 3525-111 | 3525-112 | 3525-113 | 112.70 | - | - |
| 3/8-24 | GH2 | 3525-121 | 3525-122 | 3525-123 | 112.70 | - | - |
| 3/8-24 | GH4 | 3525-141 | 3525-142 | 3525-143 | 112.70 | - | - |
| 3/8-25 | GH3 | 2375-743 | 2375-744 | 2375-745 | 112.70 | - | - |
| 3/8-26 | GH3 | 2375-746 | 2375-747 | 2375-748 | 112.70 | - | - |
| 3/8-27 | GH3 | 2375-760 | 2375-761 | 2375-762 | 112.70 | - | - |
| 3/8-28 | GH3 | 2375-769 | 2375-770 | 2375-771 | 112.70 | - | - |
| 3/8-32 | GH3 | 2375-777 | 2375-778 | 2375-779 | 112.70 | - | - |
| 3/8-36 | GH2 | 2375-804 | 2375-805 | 2375-806 | 112.70 | - | - |
| 3/8-40 | GH3 | 2375-828 | 2375-829 | 2375-830 | 112.70 | - | - |
| 25/64-16 | GH3 | 2375-984 | 2375-985 | 2375-986 | 115.60 | - | - |
| 13/32-16 | GH3 | 2376-076 | 2376-077 | 2376-078 | 115.60 | - | - |
| 13/32-18 | GH3 | 2376-081 | 2376-082 | 2376-083 | 115.60 | - | - |

(continued)

# Left Hand Special Hand Taps

## High Speed Steel

FOR 2 OR MORE PIECES, CALL FOR PRICE [1]

Bottom

Plug

Taper

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH | SPIRAL POINT | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 13/32-20 | GH2 | 2376-087 | 2376-088 | 2376-089 | $115.60 | - | - |
| 13/32-24 | GH3 | 2376-090 | 2376-091 | 2376-092 | 115.60 | - | - |
| 13/32-32 | GH3 | 2376-116 | 2376-117 | 2376-118 | 115.60 | - | - |
| 27/64-32 | GH3 | 2376-225 | 2376-226 | 2376-227 | 115.60 | - | - |
| 7/16-10 | GH3 | 2376-288 | 2376-289 | 2376-290 | 115.60 | - | - |
| 7/16-12 | GH3 | 2376-294 | 2376-295 | 2376-296 | 115.60 | - | - |
| 7/16-13 | GH3 | 2376-297 | 2376-298 | 2376-299 | 115.60 | - | - |
| 7/16-14 | GH4 | - | 3525-342 | - | 115.60 | - | - |
| 7/16-14 | GH5 | 3525-351 | 3525-352 | 3525-353 | 115.60 | 2393-279 | $116.90 |
| 7/16-14 | GH12 | 3525-421 | - | - | 115.60 | - | - |
| 7/16-16 | GH3 | 2376-300 | 2376-301 | 2376-302 | 115.60 | - | - |
| 7/16-18 | GH3 | 2376-312 | 2376-313 | 2376-314 | 115.60 | - | - |
| 7/16-20 | GH5 | 3525-551 | 3525-552 | 3525-553 | 115.60 | - | - |
| 7/16-20 | GH8 | 2376-315 | 2376-316 | 2376-317 | 115.60 | - | - |
| 7/16-20 | GH9 | 2376-318 | 2376-319 | 2376-320 | 115.60 | - | - |
| 7/16-20 | GH13 | 2376-321 | 2376-322 | 2376-323 | 115.60 | - | - |
| 7/16-24 | GH3 | 2376-324 | 2376-325 | 2376-326 | 115.60 | - | - |
| 7/16-27 | GH3 | 2376-336 | 2376-337 | 2376-338 | 115.60 | - | - |
| 7/16-28 | GH3 | 2376-349 | 2376-350 | 2376-351 | 115.60 | - | - |
| 7/16-32 | GH3 | 2376-366 | 2376-367 | 2376-368 | 115.60 | - | - |
| 7/16-36 | GH3 | 2376-400 | 2376-401 | 2376-402 | 115.60 | - | - |
| 7/16-40 | GH3 | 2376-415 | 2376-416 | 2376-417 | 115.60 | - | - |
| 15/32-18 | GH3 | 2376-627 | 2376-628 | 2376-629 | 119.40 | - | - |
| 15/32-20 | GH3 | 2376-634 | 2376-635 | 2376-636 | 119.40 | - | - |
| 15/32-24 | GH3 | 2376-641 | 2376-642 | 2376-643 | 119.40 | - | - |
| 15/32-32 | GH3 | 2376-660 | 2376-661 | 2376-662 | 119.40 | - | - |
| 15/32-36 | GH3 | 2376-667 | 2376-668 | 2376-669 | 119.40 | - | - |
| 15/32-40 | GH2 | 2376-673 | 2376-674 | 2376-675 | 119.40 | - | - |
| 1/2-10 | GH3 | 2376-808 | 2376-809 | 2376-810 | 119.40 | - | - |
| 1/2-11 | GH3 | 2376-812 | 2376-813 | 2376-814 | 119.40 | - | - |
| 1/2-12 | GH3 | 2376-815 | 2376-816 | 2376-817 | 119.40 | 2393-566 | 121.40 |
| 1/2-13 | GH1 | 3525-711 | 3525-712 | 3525-713 | 119.40 | - | - |
| 1/2-13 | GH5 | 3525-751 | 3525-752 | 3525-753 | 119.40 | 2393-567 | 121.40 |
| 1/2-14 | GH3 | 2376-820 | 2376-821 | 2376-822 | 119.40 | - | - |
| 1/2-16 | GH3 | 2376-830 | 2376-831 | 2376-832 | 119.40 | - | - |
| 1/2-18 | GH3 | 2376-850 | 2376-851 | 2376-852 | 119.40 | - | - |
| 1/2-20 | GH1 | - | - | - | - | 2393-573 | 121.40 |
| 1/2-20 | GH7 | - | - | - | - | 2393-579 | 121.40 |
| 1/2-22 | GH3 | 2376-826 | 2376-827 | 2376-828 | 119.40 | - | - |
| 1/2-24 | GH3 | 2376-865 | 2376-866 | 2376-867 | 119.40 | - | - |
| 1/2-26 | GH3 | 2376-837 | 2376-838 | 2376-839 | 119.40 | - | - |
| 1/2-27 | GH3 | 2376-880 | 2376-881 | 2376-882 | 119.40 | - | - |
| 1/2-28 | GH3 | 2376-895 | 2376-896 | 2376-897 | 119.40 | - | - |
| 1/2-32 | GH3 | 2376-925 | 2376-926 | 2376-927 | 119.40 | 2393-603 | 121.40 |
| 1/2-36 | GH3 | 2376-940 | 2376-941 | 2376-942 | 119.40 | - | - |
| 1/2-40 | GH3 | 2376-965 | 2376-966 | 2376-967 | 119.40 | - | - |
| 1/2-44 | GH3 | 2376-955 | 2376-956 | 2376-957 | 119.40 | - | - |
| 1/2-50 | GH3 | 2376-961 | 2376-962 | 2376-963 | 119.40 | - | - |
| 1/2-64 | GH1 | 2377-025 | 2377-026 | 2377-027 | 119.40 | - | - |
| 1/2-68 | GH3 | 2377-031 | 2377-032 | 2377-033 | 119.40 | - | - |
| 1/2-80 | GH2 | 2377-064 | 2377-065 | 2377-066 | 119.40 | - | - |
| 33/64-13 | GH3 | 2377-095 | 2377-096 | 2377-097 | 121.30 | - | - |
| 37/64-18 | GH3 | 2377-102 | 2377-103 | 2377-104 | 121.30 | - | - |
| 17/32-13 | GH3 | 2377-179 | 2377-180 | 2377-181 | 121.30 | - | - |
| 17/32-20 | GH3 | 2377-200 | 2377-201 | 2377-202 | 121.30 | - | - |
| 9/16-8 | GH4 | 2377-380 | 2377-381 | 2377-382 | 121.30 | - | - |
| 9/16-10 | GH5 | 2377-383 | 2377-384 | 2377-385 | 121.30 | - | - |
| 9/16-11 | GH3 | 2377-386 | 2377-387 | 2377-388 | 121.30 | - | - |
| 9/16-12 | GH3 | - | - | - | - | 2393-853 | 123.70 |
| 9/16-12 | GH5 | 2377-389 | 2377-390 | 2377-391 | 121.30 | 2393-855 | 123.70 |
| 9/16-14 | GH3 | 2377-392 | 2377-393 | 2377-394 | 121.30 | - | - |
| 9/16-16 | GH3 | 2377-399 | 2377-400 | 2377-401 | 121.30 | - | - |
| 9/16-18 | GH3 | - | - | - | - | 2393-860 | 123.70 |
| 9/16-20 | GH3 | 2377-409 | 2377-410 | 2377-411 | 121.30 | - | - |
| 9/16-20 | GH20 | - | 2377-415 | - | 121.30 | - | - |
| 9/16-24 | GH3 | 2377-421 | 2377-422 | 2377-423 | 121.30 | - | - |
| 9/16-27 | GH3 | 2377-442 | 2377-443 | 2377-444 | 121.30 | - | - |
| 9/16-28 | GH3 | 2377-457 | 2377-458 | 2377-459 | 121.30 | - | - |
| 9/16-32 | GH3 | 2377-472 | 2377-473 | 2377-474 | 121.30 | - | - |
| 9/16-40 | GH3 | 2377-502 | 2377-503 | 2377-504 | 121.30 | - | - |
| 19/32-32 | GH3 | 2377-740 | 2377-741 | 2377-742 | 125.40 | - | - |
| 5/8-9 | GH3 | 2377-899 | 2377-900 | 2377-901 | 125.40 | - | - |
| 5/8-10 | GH3 | 2377-902 | 2377-903 | 2377-904 | 125.40 | - | - |
| 5/8-11 | GH5 | 3526-551 | 3526-552 | 3526-553 | 125.40 | - | - |
| 5/8-11 1/2 | GH3 | 2377-905 | 2377-906 | 2377-907 | 125.40 | - | - |
| 5/8-12 | GH3 | 2377-915 | 2377-916 | 2377-917 | 125.40 | - | - |
| 5/8-14 | GH3 | 2377-930 | 2377-931 | 2377-932 | 125.40 | - | - |
| 5/8-16 | GH3 | 2377-945 | 2377-946 | 2377-947 | 125.40 | - | - |
| 5/8-18 | GH1 | 2377-948 | 2377-949 | 2377-950 | 125.40 | - | - |
| 5/8-18 | GH5 | 3526-751 | 3526-752 | 3526-753 | 125.40 | - | - |
| 5/8-20 | GH3 | 2377-957 | 2377-958 | 2377-959 | 125.40 | - | - |
| 5/8-24 | GH3 | 2377-969 | 2377-970 | 2377-971 | 125.40 | - | - |
| 5/8-27 | GH3 | 2377-987 | 2377-988 | 2377-989 | 125.40 | - | - |
| 5/8-28 | GH3 | 2377-999 | 2378-000 | 2378-001 | 125.40 | - | - |
| 5/8-32 | GH3 | 2378-011 | 2378-012 | 2378-013 | 125.40 | - | - |
| 5/8-40 | GH3 | 2378-035 | 2378-036 | 2378-037 | 125.40 | - | - |

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 41/64-11 | GH3 | 2378-135 | 2378-136 | 2378-137 | $131.20 |
| 41/64-18 | GH3 | 2378-142 | 2378-143 | 2378-144 | 131.20 |
| 11/16-10 | GH3 | 2378-400 | 2378-401 | 2378-402 | 131.20 |
| 11/16-11 | PG1 | 2378-403 | - | - | 131.20 |
| 11/16-12 | GH3 | 2378-406 | 2378-407 | 2378-408 | 131.20 |
| 11/16-14 | GH3 | 2378-418 | 2378-419 | 2378-420 | 131.20 |
| 11/16-18 | GH3 | 2378-430 | 2378-431 | - | 57.70 |
| 11/16-20 | GH3 | 2378-442 | 2378-443 | 2378-444 | 131.20 |
| 11/16-24 | GH3 | 2378-455 | 2378-456 | 2378-457 | 131.20 |
| 11/16-24 | GH5 | 2378-461 | 2378-462 | 2378-463 | 131.20 |
| 11/16-32 | GH3 | 2378-497 | 2378-498 | 2378-499 | 131.20 |
| 11/16-40 | GH2 | 2378-521 | 2378-522 | 2378-523 | 131.20 |
| 23/32-12 | GH3 | 2378-686 | 2378-687 | 2378-688 | 135.70 |
| 3/4-8 | GH4 | 2378-885 | 2378-886 | 2378-887 | 135.70 |
| 3/4-10 | GH1 | 2378-888 | 2378-889 | 2378-890 | 135.70 |
| 3/4-10 | GH5 | 2378-891 | 2378-892 | 2378-893 | 135.70 |
| 3/4-11 | GH3 | 2378-894 | 2378-895 | 2378-896 | 135.70 |
| 3/4-12 | GH3 | 2378-898 | 2378-899 | 2378-900 | 135.70 |
| 3/4-14 | GH3 | 2378-921 | 2378-922 | 2378-923 | 135.70 |
| 3/4-16 | GH12 | 2378-912 | 2378-913 | - | 135.70 |
| 3/4-18 | GH3 | 2378-915 | 2378-916 | 2378-917 | 135.70 |
| 3/4-20 | GH3 | 2378-930 | 2378-931 | - | 37.60 |
| 3/4-24 | GH3 | 2378-951 | 2378-952 | 2378-953 | 135.70 |
| 3/4-27 | GH3 | 2378-981 | 2378-982 | 2378-983 | 135.70 |
| 3/4-28 | GH3 | 2378-984 | 2378-985 | 2378-986 | 135.70 |
| 3/4-32 | GH3 | 2378-996 | 2378-997 | 2378-998 | 135.70 |
| 3/4-40 | GH3 | 2379-026 | 2379-027 | 2379-028 | 135.70 |
| 49/64-10 | GH3 | 2379-178 | 2379-179 | 2379-180 | 144.40 |
| 49/64-12 | GH3 | 2379-181 | 2379-182 | 2379-183 | 144.40 |
| 25/32-18 | GH5 | 2379-288 | 2379-289 | 2379-290 | 144.40 |
| 25/32-32 | GH3 | 2379-327 | 2379-328 | 2379-329 | 144.40 |
| 13/16-10 | GH4 | 2379-500 | 2379-501 | 2379-502 | 144.40 |
| 13/16-12 | GH3 | 2379-512 | 2379-513 | 2379-514 | 144.40 |
| 13/16-12 | GH5 | 2379-515 | 2379-516 | 2379-517 | 144.40 |
| 13/16-14 | GH3 | 2379-521 | 2379-522 | 2379-523 | 144.40 |
| 13/16-16 | GH4 | 2379-525 | 2379-526 | 2379-527 | 144.40 |
| 13/16-16 | GH5 | 2379-528 | 2379-529 | 2379-530 | 144.40 |
| 13/16-18 | GH3 | 2379-540 | 2379-541 | 2379-542 | 144.40 |
| 13/16-20 | GH2 | 2379-555 | 2379-556 | 2379-557 | 144.40 |
| 13/16-24 | GH3 | 2379-576 | 2379-577 | 2379-578 | 144.40 |
| 13/16-32 | GH2 | 2379-621 | 2379-622 | 2379-623 | 144.40 |
| 7/8-9 | GH3 | 2380-016 | 2380-017 | 2380-018 | 150.80 |
| 7/8-9 | GH6 | 2380-010 | 2380-011 | 2380-012 | 150.80 |
| 7/8-9 | GH12 | 2380-013 | 2380-014 | 2380-015 | 150.80 |
| 7/8-10 | GH3 | 2380-020 | 2380-021 | 2380-022 | 150.80 |
| 7/8-11 | GH3 | 2380-023 | 2380-024 | 2380-025 | 150.80 |
| 7/8-12 | GH5 | 2380-029 | 2380-030 | 2380-031 | 150.80 |
| 7/8-14 | GH6 | 2380-038 | 2380-039 | 2380-040 | 150.80 |
| 7/8-14 | GH7 | 2380-032 | 2380-033 | 2380-034 | 150.80 |
| 7/8-14 | GH12 | 2380-035 | 2380-036 | 2380-037 | 150.80 |
| 7/8-18 | GH4 | 2380-055 | 2380-056 | 2380-057 | 150.80 |
| 7/8-20 | GH3 | 2380-070 | 2380-071 | 2380-072 | 150.80 |
| 7/8-24 | GH3 | 2380-094 | 2380-095 | 2380-096 | 150.80 |
| 7/8-24 | GH4 | 2380-097 | 2380-098 | 2380-099 | 150.80 |
| 7/8-24 | GH7 | 2380-091 | 2380-092 | 2380-093 | 150.80 |
| 7/8-27 | GH3 | 2380-106 | 2380-107 | 2380-108 | 150.80 |
| 7/8-28 | GH3 | 2380-121 | 2380-122 | 2380-123 | 150.80 |
| 7/8-32 | GH3 | 2380-136 | 2380-137 | 2380-138 | 150.80 |
| 7/8-40 | GH3 | 2380-166 | 2380-167 | 2380-168 | 150.80 |
| 57/64-9 | GH4 | 2380-236 | 2380-237 | 2380-238 | 153.10 |
| 29/32-9 | GH4 | 2380-316 | 2380-317 | 2380-318 | 153.10 |
| 29/32-14 | GH4 | 2380-334 | 2380-335 | 2380-336 | 153.10 |
| 29/32-14 | GH5 | 2380-337 | 2380-338 | 2380-339 | 153.10 |
| 29/32-18 | GH3 | 2380-346 | 2380-347 | 2380-348 | 153.10 |
| 29/32-32 | GH3 | 2380-374 | 2380-375 | 2380-376 | 153.10 |
| 15/16-9 | GH3 | 2380-524 | 2380-525 | 2380-526 | 153.10 |
| 15/16-12 | GH4 | 2380-536 | 2380-537 | 2380-538 | 153.10 |
| 15/16-14 | GH4 | 2380-551 | 2380-552 | 2380-553 | 153.10 |
| 15/16-16 | GH4 | 2380-566 | 2380-567 | 2380-568 | 153.10 |
| 15/16-18 | GH4 | 2380-584 | 2380-585 | 2380-586 | 153.10 |
| 15/16-20 | GH4 | 2380-596 | 2380-597 | 2380-598 | 153.10 |
| 15/16-24 | GH4 | 2380-617 | 2380-618 | 2380-619 | 153.10 |
| 15/16-32 | GH3 | 2380-662 | 2380-663 | 2380-664 | 153.10 |
| 15/16-40 | GH3 | 2380-669 | 2380-670 | 2380-671 | 153.10 |
| 31/32-32 | GH3 | 2380-845 | 2380-846 | 2380-847 | 167.00 |
| 1”-8 | GH12 | 2381-013 | 2381-014 | 2381-015 | 167.00 |
| 1”-9 | GH4 | 2381-025 | 2381-026 | 2381-027 | 167.00 |
| 1”-10 | GH4 | 2381-041 | 2381-042 | 2381-043 | 167.00 |
| 1”-16 | GH3 | 2381-047 | 2381-048 | - | 114.90 |
| 1”-18 | GH4 | 2381-060 | 2381-061 | 2381-062 | 167.00 |
| 1”-20 | GH3 | 2381-072 | 2381-073 | - | 65.70 |
| 1”-24 | GH3 | 2381-090 | 2381-091 | 2381-092 | 167.00 |
| 1”-27 | GH3 | 2381-102 | 2381-103 | 2381-104 | 167.00 |
| 1”-28 | GH3 | 2381-110 | 2381-111 | 2381-112 | 167.00 |
| 1”-29 | GH3 | 2381-120 | 2381-121 | 2381-122 | 167.00 |
| 1”-32 | GH3 | 2381-114 | 2381-115 | 2381-116 | 167.00 |
| 1”-40 | GH3 | 2381-138 | 2381-139 | 2381-140 | 167.00 |

(continued)

# Left Hand Special Hand Taps

## High Speed Steel

FOR 2 OR MORE PIECES, CALL FOR PRICE [1]

Bottom

Plug

Taper

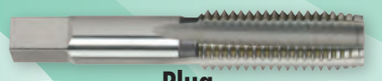
| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 1 1/64-8 | GH4 | 2381-224 | 2381-225 | 2381-226 | $191.60 |
| 1 1/64-14 | GH4 | 2381-236 | 2381-237 | 2381-238 | 173.20 |
| 1 1/32-8 | GH4 | 2381-304 | 2381-305 | 2381-306 | 191.60 |
| 1 1/32-14 | GH4 | 2381-317 | 2381-318 | 2381-319 | 173.20 |
| 1 1/16-12 | GH4 | 2381-462 | 2381-463 | 2381-464 | 191.60 |
| 1 1/16-14 | GH4 | 2381-474 | 2381-475 | 2381-476 | 173.20 |
| 1 1/16-16 | GH5 | 2381-486 | 2381-487 | 2381-488 | 173.20 |
| 1 1/16-18 | GH4 | 2381-498 | 2381-499 | 2381-500 | 173.20 |
| 1 1/16-20 | GH4 | 2381-516 | 2381-517 | 2381-518 | 173.20 |
| 1 1/16-24 | GH4 | 2381-528 | 2381-529 | 2381-530 | 173.20 |
| 1 1/8-6 | GH4 | 2381-731 | 2381-732 | 2381-733 | 191.60 |
| 1 1/8-7 | GH1 | 2381-734 | 2381-735 | 2381-736 | 191.60 |
| 1 1/8-8 | GH4 | 2381-738 | 2381-739 | 2381-740 | 191.60 |
| 1 1/8-10 | GH4 | 2381-750 | 2381-751 | 2381-752 | 191.60 |
| 1 1/8-12 | GH3 | 2381-763 | 2381-764 | 2381-765 | 191.60 |
| 1 1/8-14 | GH5 | 2381-772 | 2381-773 | 2381-774 | 173.20 |
| 1 1/8-16 | GH3 | 2381-787 | 2381-788 | 2381-789 | 173.20 |
| 1 1/8-18 | GH3 | 2381-799 | 2381-800 | 2381-801 | 173.20 |
| 1 1/8-20 | GH4 | 2381-817 | 2381-818 | 2381-819 | 173.20 |
| 1 1/8-24 | GH4 | 2381-829 | 2381-830 | 2381-831 | 173.20 |
| 1 1/8-28 | GH4 | 2381-854 | 2381-855 | 2381-856 | 173.20 |
| 1 1/8-32 | GH4 | 2381-866 | 2381-867 | 2381-868 | 173.20 |
| 1 1/8-40 | GH3 | 2381-880 | 2381-881 | 2381-882 | 173.20 |
| 1 11/64-18 | GH4 | 2381-886 | 2381-887 | 2381-888 | 190.50 |
| 1 3/16-8 | GH4 | 2382-045 | 2382-046 | 2382-047 | 213.10 |
| 1 3/16-10 | GH4 | 2382-051 | 2382-052 | 2382-053 | 213.10 |
| 1 3/16-12 | GH4 | 2382-060 | 2382-061 | 2382-062 | 213.10 |
| 1 3/16-14 | GH4 | 2382-072 | 2382-073 | 2382-074 | 190.50 |
| 1 3/16-16 | GH4 | 2382-078 | 2382-079 | 2382-080 | 190.50 |
| 1 3/16-18 | GH4 | 2382-087 | 2382-088 | 2382-089 | 190.50 |
| 1 3/16-20 | GH4 | 2382-105 | 2382-106 | 2382-107 | 190.50 |
| 1 3/16-24 | GH4 | 2382-120 | 2382-121 | 2382-122 | 190.50 |
| 1 1/4-6 | GH4 | 2382-290 | 2382-291 | 2382-292 | 213.10 |
| 1 1/4-8 | GH4 | 2382-300 | 2382-301 | 2382-302 | 213.10 |
| 1 1/4-10 | GH4 | 2382-312 | 2382-313 | 2382-314 | 213.10 |
| 1 1/4-14 | GH4 | 2382-336 | 2382-337 | 2382-338 | 190.50 |
| 1 1/4-16 | GH4 | 2382-348 | 2382-349 | 2382-350 | 190.50 |
| 1 1/4-18 | GH4 | 2382-360 | 2382-361 | 2382-362 | 190.50 |
| 1 1/4-20 | GH3 | 2382-378 | 2382-379 | 2382-380 | 190.50 |
| 1 1/4-24 | GH4 | 2382-390 | 2382-391 | 2382-392 | 190.50 |
| 1 1/4-32 | GH4 | 2382-417 | 2382-418 | 2382-419 | 190.50 |
| 1 1/4-40 | GH3 | 2382-429 | 2382-430 | 2382-431 | 190.50 |
| 1 9/32-20 | GH2 | 2382-479 | 2382-480 | 2382-481 | 204.20 |
| 1 5/16-7 | GH4 | 2382-540 | 2382-541 | 2382-542 | 236.00 |
| 1 5/16-8 | GH6 | 2382-546 | 2382-547 | 2382-548 | 236.00 |
| 1 5/16-12 | GH4 | 2382-572 | 2382-573 | 2382-574 | 236.00 |
| 1 5/16-14 | GH2 | 2382-578 | 2382-579 | 2382-580 | 204.20 |
| 1 5/16-16 | GH2 | 2382-584 | 2382-585 | 2382-586 | 204.20 |
| 1 5/16-18 | GH2 | 2382-593 | 2382-594 | 2382-595 | 204.20 |
| 1 5/16-20 | GH4 | 2382-611 | 2382-612 | 2382-613 | 204.20 |
| 1 5/16-24 | GH4 | 2382-626 | 2382-627 | 2382-628 | 204.20 |
| 1 3/8-5 | GH1 | 2382-790 | 2382-791 | 2382-792 | 236.00 |
| 1 3/8-8 | GH4 | 2382-800 | 2382-801 | 2382-802 | 236.00 |
| 1 3/8-10 | GH4 | 2382-812 | 2382-813 | 2382-814 | 236.00 |
| 1 3/8-14 | GH2 | 2382-830 | 2382-831 | 2382-832 | 204.20 |
| 1 3/8-14 | GH4 | 2382-833 | 2382-834 | 2382-835 | 204.20 |
| 1 3/8-16 | GH3 | 2382-842 | 2382-843 | 2382-844 | 204.20 |
| 1 3/8-16 | GH4 | 2382-845 | 2382-846 | 2382-847 | 204.20 |
| 1 3/8-18 | GH4 | 2382-854 | 2382-855 | 2382-856 | 204.20 |
| 1 3/8-20 | GH4 | 2382-872 | 2382-873 | 2382-874 | 204.20 |
| 1 3/8-24 | GH4 | 2382-887 | 2382-888 | 2382-889 | 204.20 |
| 1 3/8-32 | GH4 | 2382-905 | 2382-906 | 2382-907 | 204.20 |
| 1 7/16-10 | GH5 | 2383-051 | 2383-052 | 2383-053 | 269.80 |
| 1 7/16-12 | GH4 | 2383-063 | 2383-064 | 2383-065 | 269.80 |
| 1 7/16-16 | GH4 | 2383-087 | 2383-088 | 2383-089 | 220.10 |
| 1 7/16-18 | GH4 | 2383-099 | 2383-100 | 2383-101 | 220.10 |
| 1 7/16-20 | GH4 | 2383-108 | 2383-109 | 2383-110 | 220.10 |
| 1 1/2-8 | GH4 | 2383-286 | 2383-287 | 2383-288 | 269.80 |
| 1 1/2-10 | GH4 | 2383-298 | 2383-299 | 2383-300 | 269.80 |
| 1 1/2-14 | GH4 | 2383-312 | 2383-313 | 2383-314 | 220.10 |
| 1 1/2-14 | GH5 | 2383-315 | 2383-316 | 2383-317 | 220.10 |
| 1 1/2-16 | GH6 | 2383-325 | 2383-326 | 2383-327 | 220.10 |
| 1 1/2-18 | GH4 | 2383-331 | 2383-332 | 2383-333 | 220.10 |
| 1 1/2-20 | GH4 | 2383-339 | 2383-340 | 2383-341 | 220.10 |
| 1 1/2-24 | GH4 | 2383-353 | 2383-354 | 2383-355 | 220.10 |

| SIZE | GH LIMIT | Pittsburg® ALLEGHANY BOTTOMING | PLUG | TAPER | PRICE EACH |
|---|---|---|---|---|---|
| 1 9/16-8 | GH4 | 2383-606 | 2383-607 | 2383-608 | $296.40 |
| 1 9/16-12 | GH6 | 2383-660 | 2383-661 | 2383-662 | 262.60 |
| 1 9/16-16 | GH5 | 2383-675 | 2383-676 | 2383-677 | 262.60 |
| 1 9/16-18 | GH6 | 2383-695 | 2383-696 | 2383-697 | 262.60 |
| 1 9/16-20 | GH8 | 2383-710 | 2383-711 | 2383-712 | 262.60 |
| 1 5/8-5 | GH6 | 2383-870 | 2383-871 | 2383-872 | 296.40 |
| 1 5/8-5 1/2 | GH6 | 2383-876 | 2383-877 | 2383-878 | 296.40 |
| 1 5/8-6 | GH7 | 2383-882 | 2383-883 | 2383-884 | 296.40 |
| 1 5/8-8 | GH4 | 2383-888 | 2383-889 | 2383-890 | 296.40 |
| 1 5/8-10 | GH6 | 2383-900 | 2383-901 | 2383-902 | 262.60 |
| 1 5/8-12 | GH5 | 2383-912 | 2383-913 | 2383-914 | 262.60 |
| 1 5/8-14 | GH6 | 2383-924 | 2383-925 | 2383-926 | 262.60 |
| 1 5/8-16 | GH6 | 2383-939 | 2383-940 | 2383-941 | 262.60 |
| 1 5/8-18 | GH5 | 2383-954 | 2383-955 | 2383-956 | 262.60 |
| 1 5/8-20 | GH5 | 2383-966 | 2383-967 | 2383-968 | 262.60 |
| 1 5/8-24 | GH3 | 2383-978 | 2383-979 | 2383-980 | 262.60 |
| 1 11/16-10 | GH4 | 2384-075 | 2384-076 | 2384-077 | 273.30 |
| 1 11/16-12 | GH4 | 2384-095 | 2384-096 | 2384-097 | 273.30 |
| 1 11/16-16 | GH4 | 2384-122 | 2384-123 | 2384-124 | 273.30 |
| 1 11/16-24 | GH4 | 2384-161 | 2384-162 | 2384-163 | 273.30 |
| 1 3/4-5 | GH5 | 2384-206 | 2384-207 | 2384-208 | 331.30 |
| 1 3/4-8 | GH6 | 2384-230 | 2384-231 | 2384-232 | 331.30 |
| 1 3/4-10 | GH5 | 2384-242 | 2384-243 | 2384-244 | 273.30 |
| 1 3/4-12 | GH5 | 2384-254 | 2384-255 | 2384-256 | 273.30 |
| 1 3/4-16 | GH5 | 2384-278 | 2384-279 | 2384-280 | 273.30 |
| 1 3/4-18 | GH6 | 2384-290 | 2384-291 | 2384-292 | 273.30 |
| 1 3/4-20 | GH8 | 2384-302 | 2384-303 | 2384-304 | 273.30 |
| 1 3/4-24 | GH6 | 2384-308 | 2384-309 | 2384-310 | 273.30 |
| 1 13/16-20 | GH4 | 2384-452 | 2384-453 | 2384-454 | 286.90 |
| 1 7/8-5 | GH7 | 2384-515 | 2384-516 | 2384-517 | 354.40 |
| 1 7/8-8 | GH7 | 2384-530 | 2384-531 | 2384-532 | 354.40 |
| 1 7/8-10 | GH7 | 2384-536 | 2384-537 | 2384-538 | 286.90 |
| 1 7/8-12 | GH5 | 2384-551 | 2384-552 | 2384-553 | 286.90 |
| 1 7/8-16 | GH5 | 2384-572 | 2384-573 | 2384-574 | 286.90 |
| 1 7/8-18 | GH5 | 2384-584 | 2384-585 | 2384-586 | 286.90 |
| 1 7/8-20 | GH5 | 2384-599 | 2384-600 | 2384-601 | 286.90 |
| 1 29/32-20 | GH5 | 2384-679 | 2384-680 | 2384-681 | 298.80 |
| 1 15/16-10 | GH6 | 2384-712 | 2384-713 | 2384-714 | 298.80 |
| 1 15/16-12 | GH6 | 2384-773 | 2384-774 | 2384-775 | 298.80 |
| 1 15/16-16 | GH6 | 2384-797 | 2384-798 | 2384-799 | 298.80 |
| 1 15/16-18 | GH6 | 2384-809 | 2384-810 | 2384-811 | 298.80 |
| 1 15/16-20 | GH6 | 2384-821 | 2384-822 | 2384-823 | 298.80 |
| 2"-4 1/2 | GH6 | 2385-445 | 2385-446 | 2385-447 | 368.50 |
| 2"-6 | GH6 | 2384-910 | 2384-911 | 2384-912 | 368.50 |
| 2"-8 | GH6 | 2384-925 | 2384-926 | 2384-927 | 368.50 |
| 2"-10 | GH6 | 2384-937 | 2384-938 | 2384-939 | 298.80 |
| 2"-12 | GH6 | 2384-949 | 2384-950 | 2384-951 | 298.80 |
| 2"-14 | GH6 | 2384-961 | 2384-962 | 2384-963 | 298.80 |
| 2"-16 | GH6 | 2384-973 | 2384-974 | 2384-975 | 298.80 |
| 2"-18 | GH6 | 2384-985 | 2384-986 | 2384-987 | 298.80 |
| 2"-20 | GH6 | 2384-997 | 2384-998 | 2384-999 | 298.80 |
| 2 1/8-12 | GH5 | 2385-234 | 2385-235 | 2385-236 | 358.40 |
| 2 1/8-16 | GH6 | 2385-243 | 2385-244 | 2385-245 | 358.40 |
| 2 1/4-4 1/2 | GH5 | 2385-442 | 2385-443 | 2385-444 | 498.30 |
| 2 1/4-5 | GH5 | 2385-486 | 2385-487 | 2385-488 | 498.30 |
| 2 1/4-16 | GH5 | 2385-516 | 2385-517 | 2385-518 | 385.10 |
| 2 5/16-24 | GH5 | 2385-641 | 2385-642 | 2385-643 | 406.90 |
| 2 3/8-16 | GH6 | 2385-735 | 2385-736 | 2385-737 | 406.90 |
| 2 1/2-8 | GH5 | 2385-916 | 2385-917 | 2385-918 | 520.10 |
| 2 1/2-12 | GH5 | 2385-931 | 2385-932 | 2385-933 | 448.80 |
| 2 1/2-16 | GH6 | 2385-958 | 2385-959 | 2385-960 | 448.80 |
| 2 7/32-20 | GH5 | 2385-524 | 2385-525 | 2385-526 | 385.10 |
| 2 5/8-16 | GH5 | 2386-198 | 2386-199 | 2386-200 | 469.50 |
| 2 11/16-16 | GH6 | 2386-248 | 2386-249 | 2386-250 | 491.10 |
| 2 3/4-4 | GH8 | 2386-308 | 2386-309 | 2386-310 | 684.50 |
| 2 3/4-8 | GH6 | 2386-320 | 2386-321 | 2386-322 | 684.50 |
| 2 3/4-12 | GH6 | 2386-334 | 2386-335 | 2386-336 | 491.10 |
| 2 3/4-20 | GH6 | 2386-370 | 2386-371 | 2386-372 | 491.10 |
| 2 7/8-24 | GH6 | 2386-465 | 2386-466 | 2386-467 | 498.60 |
| 3"-8 | GH6 | 2386-643 | 2386-644 | 2386-645 | 753.30 |
| 3"-12 | GH6 | 2386-661 | 2386-662 | 2386-663 | 540.10 |
| 3"-16 | GH6 | 2386-676 | 2386-677 | 2386-678 | 540.10 |
| 3 1/4-6 | GH6 | - | 2386-681 | - | 843.70 |

# STI - Screw Thread Insert Taps - High Speed Steel - NC & NF

## STI - Hand Taps

Bottom 3



Plug 2

| SIZE | GH | # OF FLTS. | Pittsburg® ALLEGHANY ORDER NO. BOTTOM | Pittsburg® ALLEGHANY ORDER NO. PLUG | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. BOTTOM | ALLEGIANCE® AMERICAN MADE ORDER NO. PLUG | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 2-56 | 2 | 3 | 3470-721 | 3470-722 | $5.89 | 3560-721 | 3560-722 | $7.80 |
| 4-40 | 1 | 3 | 3471-711 | 3471-712 | 4.97 | 3561-711 | 3561-712 | 6.95 |
| 4-40 | 2 | 3 | 3471-721 | 3471-722 | 4.97 | 3561-721 | 3561-722 | 6.95 |
| 5-40 | 2 | 3 | 3472-121 | 3472-122 | 4.97 | 3562-121 | 3562-122 | 6.95 |
| 6-32 | 2 | 3 | 3472-521 | 3472-522 | 4.97 | 3562-521 | 3562-522 | 6.95 |
| 6-32 | 3 | 3 | 3472-531 | 3472-532 | 4.97 | 3562-531 | 3562-532 | 6.95 |
| 6-40 | 2 | 3 | 3472-721 | 3472-722 | 4.97 | 3562-721 | 3562-722 | 6.95 |
| 8-32 | 2 | 3 | 3472-921 | 3472-922 | 4.97 | 3562-921 | 3562-922 | 6.95 |
| 8-32 | 3 | 3 | 3472-931 | 3472-932 | 4.97 | 3562-931 | 3562-932 | 6.95 |
| 10-24 | 2 | 3 | 3473-321 | 3473-322 | 5.20 | 3563-321 | 3563-322 | 7.25 |
| 10-24 | 3 | 3 | 3473-331 | 3473-332 | 5.20 | 3563-331 | 3563-332 | 7.25 |
| 10-32 | 2 | 3 | 3473-521 | 3473-522 | 5.20 | 3563-521 | 3563-522 | 7.25 |
| 10-32 | 3 | 3 | 3473-531 | 3473-532 | 5.20 | 3563-531 | 3563-532 | 7.25 |
| 12-24 | 3 | 3 | 3473-731 | 3473-732 | 5.20 | 3563-731 | 3563-732 | 7.65 |
| 1/4-20 | 2 | 3 | 3474-121 | 3474-122 | 5.50 | 3564-121 | 3564-122 | 7.65 |
| 1/4-20 | 3 | 3 | 3474-131 | 3474-132 | 5.50 | 3564-131 | 3564-132 | 7.65 |
| 1/4-28 | 2 | 3 | 3474-321 | 3474-322 | 5.50 | 3564-321 | 3564-322 | 7.65 |
| 1/4-28 | 3 | 3 | 3474-331 | 3474-332 | 5.50 | 3564-331 | 3564-332 | 7.65 |
| 5/16-18 | 3 | 4 | 3474-531 | 3474-532 | 5.94 | 3564-531 | 3564-532 | 8.35 |
| 5/16-18 | 4 | 4 | – | – | – | 3564-541 | 3564-542 | 8.35 |
| 5/16-24 | 2 | 4 | – | – | – | 3564-721 | 3564-722 | 8.35 |
| 5/16-24 | 3 | 4 | 3474-731 | 3474-732 | 5.94 | 3564-731 | 3564-732 | 8.35 |
| 3/8-16 | 3 | 4 | 3474-931 | 3474-932 | 7.64 | 3564-931 | 3564-932 | 10.70 |
| 3/8-16 | 4 | 4 | – | – | – | 3564-941 | 3564-942 | 10.70 |
| 3/8-24 | 2 | 4 | – | – | – | 3565-121 | 3565-122 | 10.70 |
| 3/8-24 | 3 | 4 | 3475-131 | 3475-132 | 7.64 | 3565-131 | 3565-132 | 10.70 |
| 7/16-14 | 3 | 4 | 3475-331 | 3475-332 | 9.21 | 3565-331 | 3565-332 | 12.45 |
| 7/16-14 | 4 | 4 | – | – | – | 3565-341 | 3565-342 | 12.45 |
| 7/16-20 | 3 | 4 | 3475-531 | 3475-532 | 9.21 | 3565-531 | 3565-532 | 12.45 |
| 7/16-20 | 4 | 4 | 3475-541† | – | 9.21 | 3565-541 | 3565-542 | 12.45 |
| 1/2-13 | 3 | 4 | 3475-731 | 3475-732 | 9.73 | 3565-731 | 3565-732 | 16.00 |
| 1/2-13 | 4 | 4 | – | – | – | 3565-741 | 3565-742 | 16.00 |
| 1/2-20 | 3 | 4 | 3475-931 | 3475-932 | 9.73 | 3565-931 | 3565-932 | 16.00 |
| 1/2-20 | 4 | 4 | – | – | – | 3565-941 | 3565-942 | 16.00 |
| 5/8-11 | 3 | 4 | 3476-531 | 3476-532 | 22.74 | 3566-531 | 3566-532 | 36.90 |
| 5/8-11 | 4 | 4 | – | – | – | 3566-541 | 3566-542 | 36.90 |
| 5/8-18 | 3 | 4 | 3476-731 | 3476-732 | 22.74 | 3566-731 | 3566-732 | 36.90 |
| 5/8-18 | 4 | 4 | – | – | – | 3566-741 | 3566-742 | 36.90 |
| 3/4-10 | 3 | 4 | 3477-331 | 3477-332 | 27.89 | 3567-331 | 3567-332 | 51.60 |
| 3/4-10 | 5 | 4 | – | – | – | 3567-351 | 3567-352 | 51.60 |
| 3/4-16 | 3 | 4 | 3477-531 | 3477-532 | 27.89 | 3567-531 | 3567-532 | 51.60 |
| 3/4-16 | 4 | 4 | – | – | – | 3567-541 | 3567-542 | 51.60 |
| 7/8-9 | 3 | 4 | – | – | – | 3567-731 | 3567-732 | 79.10 |
| 7/8-9 | 4 | 4 | 3477-741 | 3477-742 | 34.00 | 3567-741† | 3567-742† | 79.10 |
| 7/8-9 | 5 | 4 | – | – | – | 3567-751 | 3567-752 | 79.10 |
| 7/8-14 | 3 | 4 | – | – | – | 3567-931 | 3567-932 | 79.10 |
| 7/8-14 | 4 | 4 | 3477-941 | 3477-942 | 34.00 | 3567-941 | 3567-942 | 79.10 |
| 1-8 | 4 | 4 | 3478-141 | 3478-142 | 42.56 | 3568-141 | 3568-142 | 101.35 |
| 1-8 | 6 | 4 | – | – | – | 3568-161 | 3568-162 | 101.35 |
| 1-12 | 4 | 4 | 3478-341 | 3478-342 | 42.56 | 3568-341† | 3568-342† | 101.35 |
| 1-14 | 4 | 4 | 3478-541 | 3478-542 | 42.56 | 3568-541 | 3568-542 | 101.35 |

† Limited Quantities

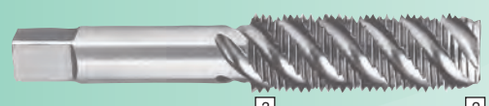
## STI- Spiral Point Plug Taps

3 2

| SIZE | GH | # OF FLTS. | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|
| 2-56 | 2 | 2 | 3580-722 | $6.80 | 3400-722 | $8.40 |
| 4-40 | 1 | 2 | 3581-712 | 5.75 | 3401-712 | 7.50 |
| 4-40 | 2 | 2 | 3581-722 | 5.75 | 3401-722 | 7.50 |
| 5-40 | 2 | 2 | 3582-122 | 5.75 | 3402-122 | 7.50 |
| 6-32 | 2 | 2 | 3582-522 | 5.75 | 3402-522 | 7.50 |
| 6-32 | 3 | 2 | 3582-532 | 5.75 | 3402-532 | 7.50 |
| 6-40 | 2 | 2 | 3582-722 | 5.75 | 3402-722 | 7.50 |
| 8-32 | 2 | 2 | 3582-922 | 5.75 | 3402-922 | 7.50 |
| 8-32 | 3 | 2 | 3582-932 | 5.75 | 3402-932 | 7.50 |
| 10-24 | 2 | 2 | 3583-322 | 6.00 | 3403-322 | 7.65 |
| 10-24 | 3 | 2 | 3583-332 | 6.00 | 3403-332 | 7.65 |
| 10-32 | 2 | 2 | 3583-522 | 6.00 | 3403-522 | 7.65 |
| 10-32 | 3 | 2 | 3583-532 | 6.00 | 3403-532 | 7.65 |
| 12-24 | 3 | 2 | 3583-732 | 6.00 | 3403-732 | 8.10 |
| 1/4-20 | 2 | 2 | 3584-122 | 6.35 | 3404-122 | 8.10 |
| 1/4-20 | 3 | 2 | 3584-132 | 6.35 | 3404-132 | 8.10 |
| 1/4-28 | 2 | 2 | 3584-322 | 6.35 | 3404-322 | 8.10 |
| 1/4-28 | 3 | 2 | 3584-332 | 6.35 | 3404-332 | 8.10 |
| 5/16-18 | 3 | 3 | 3584-532 | 6.85 | 3404-532 | 9.10 |
| 5/16-18 | 4 | 3 | - | - | 3404-542 | 9.10 |
| 5/16-24 | 2 | 3 | - | - | 3404-722 | 9.10 |
| 5/16-24 | 3 | 3 | 3584-732 | 6.85 | 3404-732 | 9.10 |
| 3/8-16 | 3 | 3 | 3584-932 | 8.80 | 3404-932 | 11.45 |
| 3/8-16 | 4 | 3 | - | - | 3404-942 | 11.45 |
| 3/8-24 | 2 | 3 | - | - | 3405-122 | 11.45 |
| 3/8-24 | 3 | 3 | 3585-132 | 8.80 | 3405-132 | 11.45 |
| 7/16-14 | 3 | 3 | 3585-332 | 10.60 | 3405-332 | 14.15 |
| 7/16-14 | 4 | 3 | - | - | 3405-342 | 14.15 |
| 7/16-20 | 3 | 3 | 3585-532 | 10.60 | 3405-532 | 14.15 |
| 7/16-20 | 4 | 3 | - | - | 3405-542 | 14.15 |
| 1/2-13 | 3 | 3 | 3585-732 | 11.20 | 3405-732 | 17.50 |
| 1/2-13 | 4 | 3 | - | - | 3405-742 | 17.50 |
| 1/2-20 | 3 | 3 | 3586-132 | 11.20 | 3405-932 | 17.50 |
| 1/2-20 | 4 | 3 | - | - | 3405-942 | 17.50 |

† Limited Quantities

## STI- Fast Spiral Flute Bottoming Taps



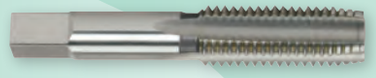
3 2

| SIZE | GH | # OF FLTS. | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|
| 2-56 | 1 | 2 | 3638-511 | $9.45 | 3587-511 | $14.40 |
| 2-56 | 2 | 2 | 3638-514 | 9.45 | 3587-514 | 14.40 |
| 4-40 | 1 | 2 | 3638-551 | 8.00 | 3587-551 | 12.90 |
| 4-40 | 2 | 2 | 3638-554 | 8.00 | 3587-554 | 12.90 |
| 4-40 | 2 | 3 | 3638-555 | 8.00 | 3587-555 | 12.90 |
| 5-40 | 2 | 3 | 3638-584 | 8.00 | 3587-584 | 12.90 |
| 6-32 | 2 | 3 | 3638-601 | 8.00 | 3587-601 | 12.90 |
| 6-32 | 3 | 3 | 3638-604 | 8.00 | 3587-604 | 12.90 |
| 6-40 | 2 | 3 | 3638-614 | 8.00 | 3587-614 | 12.90 |
| 8-32 | 2 | 3 | 3638-621 | 8.00 | 3587-621 | 12.90 |
| 8-32 | 3 | 3 | 3638-624 | 8.00 | 3587-624 | 12.90 |
| 10-24 | 3 | 3 | 3638-644 | 8.35 | 3587-644 | 13.45 |
| 10-32 | 2 | 3 | 3638-651 | 8.35 | 3587-651 | 13.45 |
| 10-32 | 3 | 3 | 3638-654 | 8.35 | 3587-654 | 13.45 |
| 1/4-20 | 2 | 3 | 3638-701 | 8.80 | 3587-701 | 14.20 |
| 1/4-20 | 3 | 3 | 3638-704 | 8.80 | 3587-704 | 14.20 |
| 1/4-28 | 2 | 3 | 3638-711 | $8.80 | 3587-711 | $14.20 |
| 1/4-28 | 3 | 3 | 3638-714 | 8.80 | 3587-714 | 14.20 |
| 5/16-18 | 3 | 3 | 3638-721 | 9.55 | 3587-721 | 15.40 |
| 5/16-18 | 4 | 3 | - | - | 3587-724 | 15.40 |
| 5/16-24 | 2 | 3 | - | - | 3587-731 | 15.40 |
| 5/16-24 | 3 | 3 | 3638-734 | 9.55 | 3587-734 | 15.40 |
| 3/8-16 | 3 | 3 | 3638-741 | 12.25 | 3587-741 | 19.85 |
| 3/8-16 | 4 | 3 | - | - | 3587-743 | 19.85 |
| 3/8-24 | 2 | 3 | 3638-751 | 12.25 | 3587-751 | 19.85 |
| 3/8-24 | 3 | 3 | 3638-754 | 12.25 | 3587-754 | 19.85 |
| 7/16-14 | 3 | 4 | 3638-761 | 14.75 | 3587-761 | 23.05 |
| 7/16-14 | 4 | 4 | - | - | 3587-764 | 23.05 |
| 7/16-20 | 3 | 3 | 3638-771 | 14.75 | 3587-771 | 23.05 |
| 7/16-20 | 4 | 3 | 3638-774 | 14.75 | 3587-774 | 23.05 |
| 1/2-13 | 3 | 4 | 3638-781 | 15.60 | - | - |
| 1/2-13 | 4 | 4 | 3638-784 | 15.60 | 3587-784 | 29.60 |
| 1/2-20 | 3 | 4 | 3638-791 | 15.60 | 3587-791 | 29.60 |

# Metric STI - Screw Thread Insert Taps - High Speed Steel

## STI - Metric Hand Taps

3

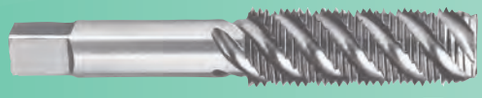


2

| SIZE | # OF FLTS. | Pittsburg® ALLEGHANY LIMIT | ORDER NO. BOTTOM | ORDER NO. PLUG | PRICE EACH | Allegiance® AMERICAN MADE LIMIT | ORDER NO. BOTTOM | ORDER NO. PLUG | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2.2 x 0.45 | 3 | D1 | 3490-145 | 3490-146 | $6.24 | D1 | 3637-145 | 3637-146 | $14.25 |
| 2.5 X 0.45 | 3 | D1 | 3490-172 | 3490-173 | 6.24 | D1 | 3637-172 | 3637-173 | 14.25 |
| 3.0 x 0.50 | 3 | D1 | 3490-227 | 3490-228 | 5.06 | D1 | 3637-227 | 3637-228 | 7.65 |
| 3.5 x 0.60 | 3 | D1 | 3490-281 | 3490-282 | 5.06 | D4 | 3637-281† | 3637-282† | 6.50 |
| 4.0 x 0.70 | 3 | D1 | 3490-326 | 3490-327 | 5.06 | D1 | 3637-326 | 3637-327 | 7.65 |
| 5.0 x 0.80 | 3 | D1 | 3490-389 | 3490-390 | 5.06 | D1 | 3637-389 | 3637-390 | 8.00 |
| 6.0 x 1.00 | 3 | D2 | 3490-465 | 3490-466 | 5.06 | D2 | 3637-465 | 3637-466 | 8.45 |
| 7.0 x 1.00 | 4 | - | - | – | – | D5 | 3637-524† | 3637-525† | 7.20 |
| 8.0 x 1.00 | 4 | D2 | 3490-568 | 3490-569 | 5.69 | D5 | 3637-568† | 3637-569† | 7.80 |
| 8.0 x 1.25 | 4 | D2 | 3490-576 | 3490-577 | 5.69 | D2 | 3637-576 | 3637-577 | 9.15 |
| 9.0 x 1.25 | 4 | - | - | – | – | D5 | 3637-631† | 3637-632† | 9.15 |
| 10.0 x 1.00 | 4 | D2 | 3490-676 | 3490-677 | 11.13 | D6 | 3637-676† | 3637-677† | 11.80 |
| 10.0 x 1.25 | 4 | D2 | 3490-685 | 3490-686 | 11.13 | D6 | 3637-685† | 3637-686† | 11.80 |
| 10.0 x 1.50 | 4 | D3 | 3490-694 | 3490-695 | 11.13 | D3 | 3637-694 | 3637-695 | 11.80 |
| 11.0 x 1.00 | 4 | - | - | – | – | D6 | 3637-712† | 3637-713† | 14.80 |
| 11.0 x 1.25 | 4 | - | - | – | – | D6 | 3637-730† | 3637-731† | 14.80 |
| 11.0 x 1.50 | 4 | - | - | – | – | D6 | 3637-739† | 3637-740† | 14.80 |
| 12.0 x 1.25 | 4 | D3 | 3490-778 | 3490-779 | 13.06 | D6 | – | 3637-779† | 15.50 |
| 12.0 x 1.50 | 4 | D3 | 3490-784 | 3490-785 | 13.06 | D6 | – | 3637-785† | 15.50 |
| 12.0 x 1.75 | 4 | D3 | 3490-801 | 3490-802 | 13.06 | D3 | 3637-801 | 3637-802 | 17.60 |
| 14.0 x 1.50 | 4 | D3 | 3490-945 | 3490-946 | 22.06 | D7 | 3637-945† | – | 22.80 |
| 14.0 x 2.00 | 4 | D4 | 3490-963 | 3490-964 | 22.06 | D7 | 3637-963† | – | 22.80 |
| 16.0 x 1.50 | 4 | D3 | 3491-061 | 3491-062 | 25.36 | D7 | – | 3638-062† | 30.05 |
| 16.0 x 2.00 | 4 | D4 | 3491-070 | 3491-071 | 25.36 | D7 | – | 3638-071† | 30.05 |
| 18.0 x 1.50 | 4 | D3 | 3491-133 | 3491-134 | 32.84 | D7 | – | 3638-134† | 38.95 |
| 18.0 x 2.50 | 4 | D4 | 3491-151 | 3491-152 | 32.84 | D7 | 3638-151† | 3638-152† | 38.95 |
| 20.0 x 1.50 | 4 | D3 | 3491-223 | 3491-224 | 44.94 | D7 | 3638-223† | 3638-224† | 53.25 |
| 20.0 x 2.50 | 4 | D4 | 3491-241 | 3491-242 | 44.94 | D7 | – | – | – |

† Limited Quantities

## Metric STI - Fast Spiral Flute Taps



2

| SIZE | # OF FLTS. | Allegiance® AMERICAN MADE LIMIT | ORDER NO. BOTTOM | ORDER NO. PLUG | PRICE EACH |
|---|---|---|---|---|---|
| 2.2 X 0.45 | 2 | D1 | 3636-145 | – | $16.40 |
| 2.5 X 0.45 | 2 | D1 | 3636-172 | – | 16.40 |
| 3.0 x 0.50 | 2 | D1 | 3636-222 | – | 14.20 |
| 3.0 x 0.50 | 3 | D1 | 3636-226 | 3636-227 | 14.20 |
| 3.5 x 0.60 | 3 | D1 | 3636-280 | – | 14.20 |
| 4.0 x 0.70 | 3 | D1 | 3636-325 | 3636-326 | 14.20 |
| 5.0 x 0.80 | 3 | D1 | 3636-388 | 3636-389 | 14.80 |
| 6.0 x 1.00 | 3 | D2 | 3636-464 | 3636-465 | 15.60 |
| 8.0 x 1.00 | 3 | D2 | 3636-568 | – | 16.95 |
| 8.0 x 1.25 | 3 | D2 | 3636-577 | 3636-578 | 16.95 |
| 10.0 x 1.00 | 3 | D2 | 3636-676 | – | 21.80 |
| 10.0 x 1.25 | 3 | D2 | 3636-685 | – | 21.80 |
| 10.0 x 1.50 | 3 | D3 | 3636-694 | 3636-695 | 21.80 |
| 12.0 x 1.25 | 4 | D3 | 3636-778 | – | 32.60 |
| 12.0 x 1.75 | 4 | D3 | 3636-801 | – | 32.60 |

## Metric STI - Spiral Point Plug Taps

2

| SIZE | # OF FLTS. | Allegiance® AMERICAN MADE LIMIT | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 2.5 X 0.45 | 2 | D1 | 3635-166 | $9.85 |
| 3.0 x 0.50 | 2 | D1 | 3635-184 | 8.80 |
| 3.5 x 0.60 | 2 | D1 | 3635-202 | 8.80 |
| 4.0 x 0.70 | 2 | D1 | 3635-217 | 8.80 |
| 4.0 x 0.70 | 2 | D2 | 3635-219 | 8.80 |
| 5.0 x 0.80 | 2 | D1 | 3635-238 | 9.20 |
| 5.0 x 0.80 | 2 | D2 | 3635-240 | 9.20 |
| 6.0 x 1.00 | 2 | D2 | 3635-263 | 9.70 |
| 8.0 x 1.00 | 3 | D2 | 3635-290 | 10.55 |
| 8.0 x 1.25 | 3 | D2 | 3635-298 | 10.55 |
| 10.0 x 1.00 | 3 | D2 | 3635-331 | 13.55 |
| 10.0 x 1.25 | 3 | D2 | 3635-334 | 13.55 |
| 10.0 x 1.50 | 3 | D3 | 3635-337 | 13.55 |
| 12.0 x 1.25 | 3 | D3 | 3635-365 | 20.25 |
| 12.0 x 1.50 | 3 | D3 | 3635-367 | 20.25 |
| 12.0 x 1.75 | 3 | D3 | 3635-373 | 20.25 |

# Thread Forming Taps

## High Speed Steel

2

MADE IN USA

| SIZE | H-LIMIT | BOTTOM ORDER NO. | PLUG ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 0-80 | H2 | 6370-121 | – | $10.63 |
| 1-64 | H2 | 6370-321 | – | 10.63 |
| 1-72 | H2 | 6370-521 | – | 10.63 |
| 2-56 | H2 | 6370-721 | – | 10.56 |
| 2-56 | H3 | 6370-731 | – | 10.56 |
| 2-64 | H2 | 6370-921 | 6370-922 | 10.56 |
| 2-64 | H3 | 6370-931 | – | 10.56 |
| 3-48 | H3 | 6371-131 | – | 10.56 |
| 3-56 | H3 | 6371-331 | – | 10.56 |
| 4-40 | H3 | 6371-731 | 6371-732 | 9.51 |
| 4-40 | H5 | 6371-751 | 6371-752 | 9.51 |
| 4-48 | H3 | 6371-931 | 6371-932 | 9.51 |
| 5-40 | H3 | 6372-131 | 6372-132 | 9.51 |
| 5-40 | H5 | 6372-151 | 6372-152 | 9.51 |
| 5-44 | H3 | 6372-331 | 6372-332 | 9.51 |
| 6-32 | H3 | 6372-531 | 6372-532 | 7.84 |
| 6-32 | H5 | 6372-551 | 6372-552 | 7.84 |
| 6-40 | H3 | 6372-731 | 6372-732 | 7.84 |
| 6-40 | H5 | 6372-751 | 6372-752 | 7.84 |
| 8-32 | H3 | 6372-931 | 6372-932 | 7.84 |
| 8-32 | H5 | 6372-951 | 6372-952 | 7.84 |
| 8-36 | H3 | 6373-131 | 6373-132 | 7.84 |
| 10-24 | H4 | 6373-341 | 6373-342 | 7.84 |

| SIZE | H-LIMIT | BOTTOM ORDER NO. | PLUG ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 10-24 | H6 | 6373-361 | 6373-362 | $ 7.84 |
| 10-32 | H4 | 6373-541 | 6373-542 | 7.84 |
| 10-32 | H6 | 6373-561 | 6373-562 | 7.84 |
| 12-24 | H4 | 6373-741 | 6373-742 | 7.84 |
| 12-24 | H6 | 6373-761 | 6373-762 | 7.84 |
| 12-28 | H4 | 6373-941 | 6373-942 | 7.84 |
| 1/4-20 | H4 | 6374-141 | 6374-142 | 8.32 |
| 1/4-20 | H6 | 6374-161 | 6374-162 | 8.32 |
| 1/4-28 | H4 | 6374-341 | 6374-342 | 8.32 |
| 5/16-18 | H5 | 6374-551 | 6374-552 | 9.25 |
| 5/16-18 | H7 | 6374-571 | 6374-572 | 9.25 |
| 5/16-24 | H5 | 6374-751 | 6374-752 | 9.25 |
| 5/16-24 | H7 | 6374-771 | 6374-772 | 9.25 |
| 3/8-16 | H5 | 6374-951 | 6374-952 | 9.25 |
| 3/8-16 | H7 | 6374-971 | 6374-972 | 10.56 |
| 3/8-24 | H5 | 6375-151 | 6375-152 | 10.56 |
| 3/8-24 | H7 | 6375-171 | 6375-172 | 10.56 |
| 7/16-14 | H5 | 6375-351 | 6375-352 | 16.07 |
| 7/16-14 | H8 | 6375-381 | 6375-382 | 16.07 |
| 7/16-20 | H5 | 6375-551 | 6375-552 | 16.07 |
| 1/2-13 | H5 | 6375-751 | 6375-752 | 17.96 |
| 1/2-13 | H8 | 6375-781 | 6375-782 | 17.96 |
| 1/2-20 | H5 | 6375-951 | 6375-952 | 17.96 |

# Pulley Taps

## Plug Chamfer – High Speed Steel

3

Pittsburg® ALLEGHANY

| SIZE | GH | NO. OF FLUTES | THREAD LENGTH | SHANK DIA. | 4" OAL ORDER NO. | 4" OAL PRICE EACH | 6" OAL ORDER NO. | 6" OAL PRICE EACH | 8" OAL ORDER NO. | 8" OAL PRICE EACH | 10" OAL ORDER NO. | 10" OAL PRICE EACH | 12" OAL ORDER NO. | 12" OAL PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0-80 | 2 | 3 | 5/16 | .141 | 2323-002† | $7.30 | – | – | – | – | – | – | – | – |
| 2-56 | 2 | 3 | 7/16 | .141 | 2323-017† | 7.30 | – | – | – | – | – | – | – | – |
| 2-64 | 2 | 3 | 7/16 | .141 | 2323-027† | 7.30 | 2323-032† | $7.90 | – | – | – | – | – | – |
| 3-48 | 2 | 3 | 1/2 | .141 | – | – | 2323-042† | 7.90 | – | – | – | – | – | – |
| 3-56 | 2 | 3 | 1/2 | .141 | 2323-052† | 7.30 | 2323-057† | 7.90 | – | – | – | – | – | – |
| 4-40 | 2 | 3 | 9/16 | .141 | – | – | 2323-067† | 7.90 | – | – | – | – | – | – |
| 4-48 | 2 | 3 | 9/16 | .141 | – | – | 2323-077† | 7.90 | – | – | – | – | – | – |
| 5-40 | 2 | 3 | 5/8 | .141 | 2323-082† | 7.30 | 2323-087† | 7.90 | – | – | – | – | – | – |
| 5-44 | 2 | 3 | 5/8 | .141 | – | – | 2323-097† | 7.90 | – | – | – | – | – | – |
| 6-32 | 1 | 2 | 11/16 | .141 | – | – | – | – | 2323-111† | $10.40 | – | – | – | – |
| 6-32 | 3 | 3 | 11/16 | .141 | 2323-102† | 8.10 | 2323-107 | 8.80 | – | – | – | – | – | – |
| 6-40 | 2 | 3 | 11/16 | .141 | – | – | 2323-127† | 8.80 | – | – | – | – | – | – |
| 8-32 | 3 | 4 | 3/4 | .168 | 2323-132† | 8.10 | 2323-137 | 8.80 | 2323-142† | 10.40 | – | – | – | – |
| 8-36 | 3 | 4 | 3/4 | .168 | – | – | 2323-147† | 8.80 | – | – | – | – | – | – |
| 10-24 | 3 | 4 | 7/8 | .194 | 2323-152† | 8.10 | 2323-157 | 8.80 | 2323-162† | 10.40 | – | – | – | – |
| 10-32 | 3 | 4 | 7/8 | .194 | 2323-167† | 8.10 | 2323-172 | 8.80 | 2323-177 | 10.40 | – | – | – | – |
| 12-24 | 3 | 4 | 15/16 | .220 | 2323-182† | 9.40 | – | – | 2323-192† | 12.60 | – | – | – | – |
| 12-28 | 3 | 4 | 15/16 | .220 | 2323-196† | 9.40 | 2323-202† | 10.20 | 2323-207† | 12.60 | – | – | – | – |
| 1/4-20 | 3 | 4 | 1” | .255 | – | – | 2323-277 | 10.90 | 2323-282 | 13.40 | – | – | – | – |
| 1/4-28 | 3 | 4 | 1” | .255 | – | – | 2323-297 | 10.90 | 2323-302 | 13.40 | 2323-307† | $20.90 | 2323-312† | $29.10 |
| 5/16-18 | 3 | 4 | 1-1/8 | .318 | – | – | 2323-317 | 11.50 | 2323-322 | 13.90 | 2323-327† | 21.20 | 2323-332† | 30.70 |
| 5/16-24 | 3 | 4 | 1-1/8 | .318 | – | – | 2323-337 | 11.50 | 2323-342 | 13.90 | 2323-347† | 21.20 | 2323-352† | 30.70 |
| 3/8-16 | 3 | 4 | 1-1/4 | .381 | – | – | 2323-357 | 12.60 | 2323-362 | 15.40 | 2323-367 | 22.70 | 2323-372 | 28.70 |
| 3/8-24 | 3 | 4 | 1-1/4 | .381 | – | – | 2323-377 | 12.60 | 2323-382 | 15.40 | 2323-387 | 22.70 | 2323-392 | 28.40 |
| 7/16-14 | 3 | 4 | 1-7/16 | .444 | – | – | 2323-397 | 13.90 | 2323-402 | 17.45 | 2323-407 | 28.10 | 2323-412 | 31.20 |
| 7/16-20 | 3 | 4 | 1-7/16 | .444 | – | – | 2323-417 | 13.90 | 2323-422 | 17.45 | 2323-427 | 28.10 | 2323-432 | 31.70 |
| 1/2-13 | 3 | 4 | 1-21/32 | .507 | – | – | 2323-442 | 17.45 | 2323-437 | 23.60 | 2323-447 | 32.40 | 2323-452 | 39.90 |
| 1/2-20 | 3 | 4 | 1-21/32 | .507 | – | – | 2323-457 | 17.45 | 2323-462 | 23.60 | 2323-467 | 32.40 | 2323-472 | 39.90 |
| 9/16-12 | 3 | 4 | 1-21/32 | .570 | – | – | 2323-477 | 21.20 | 2323-482 | 26.50 | 2323-487 | 37.60 | 2323-492 | 44.00 |
| 9/16-18 | 3 | 4 | 1-21/32 | .570 | – | – | 2323-497 | 21.20 | 2323-502 | 26.50 | 2323-507 | 37.60 | 2323-512 | 44.00 |
| 5/8-11 | 3 | 4 | 1-13/16 | .633 | – | – | 2323-517 | 24.60 | 2323-522 | 30.75 | 2323-527 | 43.70 | 2323-532 | 51.10 |
| 5/8-18 | 3 | 4 | 1-13/16 | .633 | – | – | 2323-537 | 24.60 | 2323-542 | 30.75 | 2323-547 | 43.70 | 2323-552 | 51.10 |
| 3/4-10 | 3 | 4 | 2” | .759 | – | – | 2323-557 | 31.80 | 2323-562 | 38.50 | 2323-567 | 51.30 | 2323-572 | 61.00 |
| 3/4-16 | 3 | 4 | 2” | .759 | – | – | 2323-577 | 31.80 | 2323-582 | 38.50 | 2323-587 | 51.30 | 2323-592 | 61.00 |

† Limited Quantities

# Pulley & Extension Taps

## Plug Chamfer – High Speed Steel

ALLEGIANCE AMERICAN MADE [2] MADE IN USA

Extension Tap

Pulley Tap

Type: E= Extension P= Pulley * Small Shank † Limited Quantities

| SIZE | GH | # OF FLUTES | THREAD LENGTH | SHK. DIA. | TYPE E/P | 6" OAL ORDER NO. | 6" OAL PRICE EACH | 8" OAL ORDER NO. | 8" OAL PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 6-32 | 3 | 3 | 11/16 | .141 | P | 3763-107 | $21.96 | – | – |
| 8-32 | 3 | 4 | 3/4 | .168 | P | 3763-137 | 21.96 | – | – |
| 10-24 | 3 | 4 | 7/8 | .194 | P | 3763-157 | 22.62 | – | – |
| 10-32 | 3 | 4 | 7/8 | .194 | P | 3763-172 | 22.62 | – | – |
| 1/4-20 | 3 | 4 | 1 | .185* | E | 3763-219 | 22.40 | – | – |
| 1/4-20 | 3 | 4 | 1 | .255 | P | 3764-277 | 22.40 | 3764-282 | $25.60 |
| 1/4-28 | 3 | 4 | 1 | .255 | P | 3764-297 | 22.40 | – | – |
| 5/16-18 | 3 | 4 | 1-1/8 | .240* | E | 3763-319 | 22.84 | – | – |
| 5/16-18 | 3 | 4 | 1-1/8 | .318 | P | 3764-317 | 22.84 | 3764-322 | 26.59 |
| 5/16-24 | 3 | 4 | 1-1/8 | .318 | P | 3764-337 | 22.84 | – | – |
| 3/8-16 | 3 | 4 | 1-1/4 | .275* | E | 3763-359 | 23.98 | – | – |
| 3/8-16 | 3 | 4 | 1-1/4 | .381 | P | 3764-357 | 23.98 | 3764-362 | 28.75 |
| 3/8-24 | 3 | 4 | 1-1/4 | .381 | P | 3764-377 | 24.22 | – | – |
| 7/16-14 | 3 | 4 | 1-7/16 | .323 | E | 3763-397 | 25.48 | – | – |
| 7/16-14 | 3 | 4 | 1-7/16 | .444 | P | – | – | 3764-402 | 36.68 |
| 7/16-20 | 3 | 4 | 1-7/16 | .323 | E | 3763-417 | 25.48 | – | – |
| 1/2-13 | 3 | 4 | 1-21/32 | .367 | E | 3763-437 | 32.05 | – | – |
| 1/2-13 | 3 | 4 | 1-21/32 | .507 | P | – | – | 3764-437 | 37.78 |
| 1/2-20 | 3 | 4 | 1-21/32 | .367 | E | 3763-457 | 32.05 | – | – |
| 9/16-12 | 3 | 4 | 1-21/32 | .429 | E | 3763-477 | 53.42 | – | – |
| 9/16-18 | 3 | 4 | 1-21/32 | .429 | E | 3763-497 | 53.42 | – | – |
| 5/8-11 | 3 | 4 | 1-13/16 | .480 | E | 3763-517 | 59.16 | 3763-527 | 67.68 |
| 5/8-18 | 3 | 4 | 1-13/16 | .480 | E | 3763-537 | 59.16 | – | – |
| 3/4-10 | 3 | 4 | 2 | .590 | E | 3763-557 | 68.39 | 3763-567 | 81.38 |

# Pulley Taps - Bottom Chamfer

## High Speed Steel

[3] Pittsburg® ALLEGHANY

| SIZE | GH | NO. OF FLUTES | THREAD LENGTH | SHANK DIA. | 6" OAL ORDER NO. | 6" OAL PRICE EACH | 8" OAL ORDER NO. | 8" OAL PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 4-40 | 2 | 3 | 9/16 | .141 | 2323-066† | $8.90 | – | – |
| 6-32 | 1 | 2 | 11/16 | .141 | – | – | 2323-110† | $11.70 |
| 8-32 | 1 | 2 | 3/4 | .168 | 2323-135† | 9.90 | 2323-140† | 11.70 |
| 8-32 | 3 | 4 | 3/4 | .168 | 2323-136 | 9.90 | – | – |
| 10-24 | 1 | 2 | 7/8 | .194 | – | – | 2323-161† | 11.70 |
| 10-24 | 3 | 4 | 7/8 | .194 | 2323-156 | 9.90 | – | – |
| 10-32 | 1 | 2 | 7/8 | .194 | – | – | 2323-176† | 11.70 |
| 10-32 | 2 | 4 | 7/8 | .194 | 2323-170† | 9.90 | – | – |
| 10-32 | 3 | 4 | 7/8 | .194 | 2323-171 | 9.90 | – | – |
| 12-24 | 1 | 2 | 15/16 | .220 | 2323-186† | 11.50 | 2323-191† | 14.20 |
| 12-24 | 3 | 4 | 15/16 | .220 | 2323-187† | 11.50 | – | – |
| 12-28 | 3 | 4 | 15/16 | .220 | 2323-201† | 11.50 | – | – |
| 1/4-20 | 3 | 4 | 1" | .255 | 2323-276 | 12.30 | 2323-281 | 15.10 |
| 5/16-18 | 3 | 4 | 1-1/8 | .318 | 2323-316 | 12.90 | 2323-321 | 15.60 |
| 3/8-16 | 3 | 4 | 1-1/4 | .381 | 2323-356 | 14.20 | 2323-361 | 17.30 |
| 7/16-14 | 3 | 4 | 1-7/16 | .444 | 2323-396 | 15.60 | 2323-401 | 19.60 |
| 1/2-13 | 3 | 4 | 1-21/32 | .507 | 2323-440 | 19.60 | 2323-441 | 26.50 |

† Limited Quantities

# Spiral Point Pulley Taps

## Plug Chamfer – High Speed Steel

[3] [2]

| SIZE | GH | NO. OF FLUTES | THREAD LENGTH | SHANK DIA. | Pittsburg® ALLEGHANY 4" OAL ORDER NO. | 4" OAL PRICE EACH | 6" OAL ORDER NO. | 6" OAL PRICE EACH | 8" OAL ORDER NO. | 8" OAL PRICE EACH | ALLEGIANCE AMERICAN MADE 6" OAL ORDER NO. | 6" OAL PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0-80 | 2 | 2 | 5/16 | .141 | 2325-002† | $8.55 | – | – | – | – | – | – |
| 1-64 | 2 | 2 | 3/8 | .141 | 2325-010† | 8.55 | – | – | – | – | – | – |
| 1-72 | 2 | 2 | 3/8 | .141 | 2325-018† | 8.55 | – | – | – | – | – | – |
| 2-56 | 2 | 2 | 7/16 | .141 | 2325-026† | 8.55 | 2325-028† | $9.30 | – | – | – | – |
| 2-64 | 2 | 2 | 7/16 | .141 | 2325-034† | 8.55 | – | – | – | – | – | – |
| 3-48 | 1 | 2 | 1/2 | .141 | 2325-042† | 8.55 | – | – | – | – | – | – |
| 3-48 | 2 | 2 | 1/2 | .141 | – | – | 2325-044† | 9.30 | – | – | – | – |
| 3-56 | 2 | 2 | 1/2 | .141 | – | – | 2325-052† | 9.30 | – | – | – | – |
| 4-36 | 2 | 2 | 9/16 | .141 | – | – | 2325-060† | 9.30 | – | – | – | – |
| 4-40 | 2 | 2 | 9/16 | .141 | 2325-066† | 8.55 | 2325-068† | 9.30 | – | – | – | – |
| 5-40 | 3 | 2 | 5/8 | .141 | – | – | 2325-084† | 9.30 | – | – | – | – |
| 6-32 | 1 | 2 | 11/16 | .141 | – | – | – | – | 2325-102† | $11.90 | – | – |
| 6-32 | 3 | 2 | 11/16 | .141 | 2325-098 | 9.50 | 2325-100 | 10.30 | – | – | 3763-600 | $18.41 |
| 6-40 | 1 | 2 | 11/16 | .141 | – | – | 2325-108† | 10.30 | – | – | – | – |
| 8-32 | 1 | 2 | 3/4 | .168 | – | – | – | – | 2325-118† | 11.90 | – | – |
| 8-32 | 3 | 2 | 3/4 | .168 | 2325-114 | 9.50 | 2325-116 | 10.30 | – | – | 3763-616 | 18.41 |
| 8-36 | 2 | 2 | 3/4 | .168 | 2325-122† | 9.50 | – | – | – | – | – | – |
| 8-36 | 3 | 2 | 3/4 | .168 | – | – | 2325-124† | 10.30 | – | – | – | – |
| 10-24 | 1 | 2 | 7/8 | .194 | – | – | – | – | 2325-134† | 11.90 | – | – |
| 10-24 | 3 | 2 | 7/8 | .194 | 2325-130 | 9.50 | 2325-132 | 10.30 | – | – | 3763-632 | 18.93 |
| 10-32 | 1 | 2 | 7/8 | .194 | – | – | – | – | 2325-142† | 11.90 | – | – |
| 10-32 | 3 | 2 | 7/8 | .194 | 2325-138 | 9.50 | 2325-140 | 10.30 | – | – | 3763-640 | 18.93 |
| 12-24 | 1 | 2 | 15/16 | .220 | – | – | 2325-148† | 10.30 | 2325-150† | 11.90 | – | – |
| 12-24 | 3 | 2 | 15/16 | .220 | 2325-146† | 9.50 | – | – | – | – | – | – |
| 12-28 | 3 | 2 | 15/16 | .220 | 2325-154† | 9.50 | 2325-156† | 10.30 | – | – | – | – |
| 1/4-20 | 3 | 2 | 1" | .255 | 2325-162 | 12.10 | 2325-164 | 13.10 | 2325-166 | 18.50 | 3763-664 | 22.84 |
| 1/4-28 | 3 | 2 | 1" | .255 | 2325-170 | 12.10 | 2325-172 | 13.10 | 2325-174 | 18.90 | 3763-672 | 22.84 |
| 5/16-18 | 3 | 2 | 1-1/8 | .318 | 2325-178 | 12.70 | 2325-180 | 13.80 | 2325-182 | 18.70 | 3763-680 | 23.35 |
| 5/16-24 | 3 | 2 | 1-1/8 | .318 | 2325-186 | 12.70 | 2325-188 | 13.80 | 2325-190 | 19.10 | 3763-688 | 23.35 |
| 3/8-16 | 3 | 3 | 1-1/4 | .381 | 2325-194 | 13.90 | 2325-196 | 15.10 | 2325-198 | 20.80 | 3763-696 | 24.48 |
| 3/8-24 | 3 | 3 | 1-1/4 | .381 | 2325-202 | 13.90 | 2325-204 | 15.10 | 2325-206 | 21.30 | 3763-704 | 25.65 |
| 7/16-14 | 3 | 3 | 1-7/16 | .444 | – | – | 2325-212 | 16.60 | 2325-214 | 23.50 | – | – |
| 7/16-20 | 3 | 3 | 1-7/16 | .444 | – | – | 2325-220 | 16.60 | 2325-222 | 23.50 | – | – |
| 1/2-13 | 3 | 3 | 1-21/32 | .507 | – | – | 2325-228 | 19.20 | 2325-230 | 27.50 | – | – |
| 1/2-20 | 3 | 3 | 1-21/32 | .507 | – | – | 2325-236 | 19.20 | 2325-238 | 27.50 | – | – |
| 5/8-11 | 3 | 3 | 1-13/16 | .633 | – | – | 2325-246 | 30.40 | 2325-248 | 40.80 | – | – |
| 5/8-18 | 3 | 3 | 1-13/16 | .633 | – | – | 2325-254 | 30.40 | 2325-256 | 40.80 | – | – |

† Limited Quantities

# Extension Hand Taps

## Small Shank –High Speed Steel

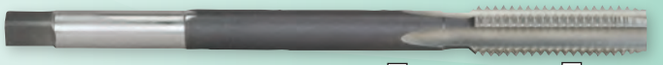
3 Pittsburg® ALLEGHANY

| SIZE | GH | NO. OF FLUTES | THREAD LENGTH | SHANK DIA. | 6" OAL BOTTOMING ORDER NO. | 6" OAL BOTTOMING PRICE EACH | 6" OAL PLUG ORDER NO. | 6" OAL PLUG PRICE EACH | 8" OAL PLUG ORDER NO. | 8" OAL PLUG PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-36 | 2 | 3 | 9/16 | .080 | 2324-059† | $11.10 | 2324-060† | $9.90 | – | – |
| 4-40 | 2 | 3 | 9/16 | .080 | 2324-066† | 11.10 | 2324-067† | 9.90 | – | – |
| 5-40 | 2 | 3 | 5/8 | .093 | 2324-086† | 11.10 | 2324-087† | 9.90 | – | – |
| 5-44 | 2 | 3 | 5/8 | .093 | 2324-096† | 11.10 | 2324-097† | 9.90 | – | – |
| 6-32 | 2 | 3 | 11/16 | .097 | – | – | 2324-103† | 11.00 | – | – |
| 6-32 | 3 | 3 | 11/16 | .097 | – | – | 2324-107 | 11.00 | – | – |
| 6-40 | 2 | 3 | 11/16 | .097 | 2324-126† | 12.40 | 2324-127† | 11.00 | – | – |
| 8-32 | 3 | 4 | 3/4 | .123 | 2324-136 | 12.40 | 2324-137 | 11.00 | – | – |
| 10-24 | 3 | 4 | 7/8 | .136 | 2324-156 | 12.40 | 2324-157 | 11.00 | – | – |
| 10-32 | 3 | 4 | 7/8 | .136 | 2324-171 | 12.40 | 2324-172 | 11.00 | – | – |
| 12-24 | 3 | 4 | 15/16 | .168 | 2324-187† | 14.40 | – | – | – | – |
| 12-28 | 3 | 4 | 15/16 | .168 | 2324-201† | 14.40 | 2324-202† | 12.80 | – | – |
| 14-20 | 3 | 4 | 1" | .185 | 2324-207† | 14.40 | – | – | – | – |
| 14-24 | 3 | 4 | 1" | .185 | 2324-211† | 14.40 | – | – | – | – |
| 1/4-20 | 3 | 4 | 1" | .185 | 2324-216 | 15.40 | 2324-217 | 13.70 | – | – |
| 1/4-28 | 3 | 4 | 1" | .185 | – | – | 2324-297 | 13.70 | – | – |
| 5/16-18 | 3 | 4 | 1-1/8 | .240 | 2324-316 | 16.20 | 2324-317 | 14.40 | – | – |
| 5/16-24 | 3 | 4 | 1-1/8 | .240 | – | – | 2324-337 | 14.40 | – | – |
| 3/8-16 | 3 | 4 | 1-1/4 | .275 | 2324-356 | 17.70 | 2324-357 | 15.80 | 2324-362 | $19.30 |
| 3/8-24 | 3 | 4 | 1-1/4 | .275 | – | – | 2324-377 | 15.80 | – | – |
| 7/16-14 | 3 | 4 | 1-7/16 | .323 | – | – | 2324-397 | 17.40 | 2324-402† | 21.90 |
| 7/16-20 | 3 | 4 | 1-7/16 | .323 | – | – | 2324-417 | 17.40 | 2324-422† | 21.90 |
| 1/2-13 | 3 | 4 | 1-21/32 | .367 | 2324-436 | 24.60 | 2324-437 | 21.90 | 2324-442 | 29.50 |
| 1/2-20 | 3 | 4 | 1-21/32 | .367 | – | – | 2324-457 | 21.90 | 2324-462† | 29.50 |
| 5/8-11 | 3 | 4 | 1-13/16 | .480 | – | – | 2324-517 | 30.80 | 2324-522 | 38.50 |
| 5/8-18 | 3 | 4 | 1-13/16 | .480 | – | – | 2324-537 | 30.80 | – | – |
| 3/4-10 | 3 | 4 | 2" | .590 | – | – | 2324-557 | 39.80 | 2324-562 | 48.20 |
| 3/4-16 | 3 | 4 | 2" | .590 | – | – | 2324-577 | 39.80 | 2324-582† | 48.20 |

† Limited Quantities

# Spiral Point Extension Taps

## 6" OAL – Small Shank – High Speed Steel



3 2

| SIZE | GH | # OF FLTS. | TH'D LGTH. | SHK. DIA. | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 4-48 | 2 | 2 | 9/16 | .080 | 2325-576† | $11.70 | – | – |
| 5-40 | 2 | 2 | 5/8 | .093 | 2325-584† | 11.70 | – | – |
| 5-44 | 2 | 2 | 5/8 | .093 | 2325-592† | 11.70 | – | – |
| 6-32 | 2 | 2 | 11/16 | .097 | 2325-600† | 12.90 | – | – |
| 6-32 | 3 | 2 | 11/16 | .097 | 2325-602 | 12.90 | – | – |
| 8-32 | 3 | 2 | 3/4 | .123 | 2325-616 | 12.90 | – | – |
| 10-24 | 3 | 2 | 7/8 | .136 | 2325-632 | 12.90 | – | – |
| 10-32 | 3 | 2 | 7/8 | .136 | 2325-640 | 12.90 | – | – |
| 12-24 | 2 | 2 | 15/16 | .168 | 2325-648† | 12.90 | – | – |
| 12-28 | 3 | 2 | 15/16 | .168 | 2325-656† | 12.90 | – | – |
| 1/4-20 | 3 | 2 | 1" | .185 | 2325-664 | 16.40 | 3763-665 | $22.84 |
| 1/4-28 | 3 | 2 | 1" | .185 | 2325-672 | 16.40 | – | – |
| 5/16-18 | 3 | 2 | 1-1/8 | .240 | 2325-680 | 17.30 | 3763-681 | 23.35 |
| 5/16-24 | 1 | 2 | 1-1/8 | .240 | 2325-688† | 17.30 | – | – |
| 5/16-24 | 3 | 2 | 1-1/8 | .240 | 2325-689 | 17.30 | – | – |
| 3/8-16 | 3 | 3 | 1-1/4 | .275 | 2325-696 | 18.90 | 3763-697 | 24.48 |
| 3/8-24 | 3 | 3 | 1-1/4 | .275 | 2325-704 | 18.90 | – | – |
| 7/16-14 | 3 | 3 | 1-7/16 | .323 | 2325-712 | 20.80 | 3763-712 | 26.88 |
| 7/16-20 | 1 | 3 | 1-7/16 | .323 | 2325-718† | 20.80 | – | – |
| 7/16-20 | 3 | 3 | 1-7/16 | .323 | 2325-720 | 20.80 | 3763-720 | 26.88 |
| 1/2-13 | 3 | 3 | 1-21/32 | .367 | 2325-728 | 24.00 | 3763-728 | 34.38 |
| 1/2-20 | 3 | 3 | 1-21/32 | .367 | 2325-736 | 24.00 | 3763-736 | 34.38 |

† Limited Quantities

# Nut Taps– Taper Chamfer

## High Speed Steel

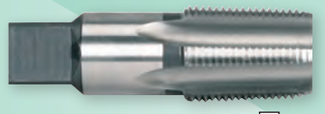
3 2

| SIZE | GH | THREAD LENGTH | OVERALL LENGTH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4-20 | 3 | 1-5/8 | 5 | 2326-185 | $9.28 | 3765-185 | $39.44 |
| 1/4-28 | 3 | 1-5/8 | 5 | 2326-187 | 9.28 | – | – |
| 5/16-18 | 3 | 1-13/16 | 5-1/2 | 2326-192 | 11.07 | 3765-192 | 44.66 |
| 5/16-24 | 3 | 1-13/16 | 5-1/2 | 2326-195 | 11.07 | – | – |
| 3/8-16 | 3 | 2 | 6 | 2326-199 | 12.29 | 3765-199 | 52.74 |
| 3/8-24 | 3 | 2 | 6 | 2326-206 | 12.29 | – | – |
| 7/16-14 | 3 | 2-3/8 | 6-1/2 | 2326-213 | 16.25 | – | – |
| 7/16-20 | 3 | 2-3/8 | 6-1/2 | 2326-220 | 16.25 | – | – |
| 1/2-13 | 3 | 2-1/2 | 7 | 2326-227 | 18.44 | 3765-227 | 68.20 |
| 1/2-20 | 3 | 2-1/2 | 7 | 2326-234 | 18.44 | – | – |
| 9/16-12 | 3 | 2-3/4 | 7-1/2 | 2326-241 | 20.35 | – | – |
| 9/16-18 | 3 | 2-3/4 | 7-1/2 | 2326-248 | 20.35 | – | – |
| 5/8-11 | 3 | 3 | 8 | 2326-255 | 24.85 | – | – |
| 5/8-18 | 3 | 3 | 8 | 2326-262 | 24.85 | – | – |
| 3/4-10 | 3 | 3-3/4 | 9 | 2326-269 | 51.07 | – | – |
| 3/4-16 | 3 | 3-3/4 | 9 | 2326-276 | 51.07 | – | – |
| 7/8-9 | 3 | 3-5/8 | 10 | 2326-283 | 71.40 | – | – |
| 7/8-14 | 3 | 3-5/8 | 10 | 2326-290 | 71.40 | – | – |
| 1-8 | 3 | 4 | 11 | 2326-297 | 88.86 | – | – |
| 1-12 | 3 | 4 | 11 | 2326-304 | 88.86 | – | – |

# Taper Pipe Taps

## Taper Pipe Taps

### ANPT, NPT & NPTF Dryseal - Ground Thread



[3] [2]

| SIZE | NO. OF FLUTES | THREAD LG'TH | OVERALL LENGTH | Pittsburg® ANPT ORDER NO. | Pittsburg® NPT ORDER NO. | Pittsburg® NPTF ORDER NO. | Pittsburg® PRICE EACH | Allegiance® American Made NPT ORDER NO. | Allegiance® American Made NPTF ORDER NO. | Allegiance® American Made PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 11/16 | 2-1/8 | 2312-001 | 2312-002 | 2312-003 | $ 7.79 | 3762-202 | 3762-203 | $ 13.37 |
| 1/8–27* | 4 | 3/4 | 2-1/8 | 2312-007 | 2312-008 | 2312-009 | 7.79 | 3762-208 | 3762-209 | 13.37 |
| 1/8–27 | 4 | 3/4 | 2-1/8 | 2312-010 | 2312-011 | 2312-012 | 7.79 | 3762-212 | 3762-213 | 13.37 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | 2312-016 | 2312-017 | 2312-018 | 8.92 | 3762-217 | 3762-218 | 15.17 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | 2312-022 | 2312-023 | 2312-024 | 11.66 | 3762-223 | 3762-224 | 19.14 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | 2312-028 | 2312-029 | 2312-030 | 19.94 | 3762-229 | 3762-230 | 31.12 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | 2312-034 | 2312-035 | 2312-036 | 27.29 | 3762-235 | 3762-236 | 44.38 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 2312-040 | 2312-041 | 2312-042 | 44.74 | 3762-241 | 3762-242 | 67.26 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 2312-046 | 2312-047 | 2312-048 | 61.89 | 3762-247 | 3762-248 | 96.56 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 2312-049 | 2312-050 | 2312-051 | 86.19 | 3762-250 | 3762-251 | 129.68 |
| 2–11-1/2 | 7 | 1-3/4 | 4-1/2 | 2312-055 | 2312-056 | 2312-057 | 140.86 | 3762-256 | 3762-257 | 168.64 |
| 2-1/2–8 | 8 | 2-9/16 | 5-1/2 | – | 2312-062 | 2312-063 | 244.62 | – | 3762-263 | 224.06 |
| 3–8 | 8 | 2-5/8 | 6 | – | 2312-068 | 2312-069 | 401.93 | – | 3762-269 | 574.70 |
| 3-1/2–8 | 8 | 2-3/4 | 6-1/2 | – | 2312-074 | 2312-075 | 586.26 | – | 3762-275 | 754.34 |
| 4–8 | 10 | 3 | 7 | – | 2312-080 | 2312-081 | 746.43 | – | 3762-281 | 935.37 |

* Large Shank

## Taper Pipe Taps For Cast Iron

MADE IN USA

### NPT & NPTF Dryseal Ground Thread – High Speed Steel

- Designed with flutes and cutting face for tapping cast iron
- **Large shank design**

[2]

| SIZE | NO. OF FLUTES | THREAD LG'TH | OVERALL LENGTH | FOR CAST IRON NPT ORDER NO. | FOR CAST IRON NPTF ORDER NO. | FOR CAST IRON PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 11/16 | 2-1/8 | – | – | – |
| 1/8–27* | 4 | 3/4 | 2-1/8 | 2312-408 | 2312-409 | $ 15.70 |
| 1/8–27 | 4 | 3/4 | 2-1/8 | 2312-411 | 2312-412 | 15.70 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | 2312-417 | 2312-418 | 17.37 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | 2312-423 | 2312-424 | 22.88 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | 2312-429 | 2312-430 | 35.68 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | 2312-435 | 2312-436 | 50.87 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 2312-441 | 2312-442 | 77.30 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 2312-447 | 2312-448 | 110.18 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 2312-450 | 2312-451 | 147.80 |
| 2–11-1/2 | 7 | 1-3/4 | 4-1/2 | 2312-456 | 2312-457 | 201.04 |

* Large Shank

## Left Hand Taper Pipe Taps

### NPT & NPTF Dryseal Ground Thread High Speed Steel

[3]

| SIZE | NO. OF FLUTES | THREAD LG'TH | OAL | LH NPT ORDER NO. | LH NPTF ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16-27 | 4 | 11/16 | 2-1/8 | 2313-001 | 2313-002 | $ 14.10 |
| 1/8-27* | 4 | 3/4 | 2-1/8 | 2313-005 | 2313-006 | 14.10 |
| 1/8-27 | 4 | 3/4 | 2-1/8 | 2313-007 | 2313-008 | 14.10 |
| 1/4-18 | 4 | 1-1/16 | 2-7/16 | 2313-011 | 2313-012 | 16.80 |
| 3/8-18 | 4 | 1-1/16 | 2-9/16 | 2313-015 | 2313-016 | 21.70 |
| 1/2-14 | 4 | 1-3/8 | 3-1/8 | 2313-019 | 2313-020 | 30.40 |
| 3/4-14 | 5 | 1-3/8 | 3-1/4 | 2313-023 | 2313-024 | 44.90 |
| 1-11-1/2 | 5 | 1-3/4 | 3-3/4 | 2313-027 | 2313-028 | 72.20 |
| 1-1/4-11-1/2 | 5 | 1-3/4 | 4 | 2313-031 | 2313-032 | 103.20 |
| 1-1/2-11-1/2 | 7 | 1-3/4 | 4-1/4 | 2313-035 | 2313-036 | 134.20 |
| 2-11-1/2 | 7 | 1-3/4 | 4-1/2 | 2313-039 | 2313-040 | 238.30 |
| 2-1/2-8 | 8 | 2-9/16 | 5-1/2 | 2313-043 | 2313-044 | 510.45 |
| 3-8 | 8 | 2-5/8 | 6 | 2313-047 | 2313-048 | 701.65 |
| 3-1/2-8 | 8 | 2-3/4 | 6-1/2 | 2313-051 | 2313-052 | 855.75 |
| 4-8 | 10 | 3 | 7 | 2313-055 | 2313-056 | 1009.85 |

* Large Shank

## Spiral Flute

Look for Allegiance® AMERICANMADE

### Taper Pipe Taps – HSS

- Used in ductile or stringy material to aid chip ejection.

[2]

| SIZE | NO. OF FLUTES | NPT ORDER NO. | NPTF ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/8-27* | 4 | 2312-508 | 2312-509 | $24.88 |
| 1/4-18 | 4 | 2312-517 | 2312-518 | 28.66 |
| 3/8-18 | 4 | 2312-523 | 2312-524 | 35.88 |
| 1/2-14 | 4 | 2312-529 | 2312-530 | 45.05 |
| 3/4-14 | 5 | 2312-535 | 2312-536 | 68.16 |
| 1-11-1/2 | 5 | 2312-541 | 2312-542 | 136.80 |

* Large Shank

# Pipe Taps

## Pittsburg® Taper Pipe Taps

### NPT - Cut Thread – Carbon Steel

3

| SIZE | NO. OF FLUTES | THREAD LENGTH | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8–27* | 4 | 3/4 | 2-1/8 | 2322-040 | $ 2.46 |
| 1/8–27 | 4 | 3/4 | 2-1/8 | 2322-041 | 2.46 |
| 1/4–18 | 4 | 1-1/16 | 2-1/8 | 2322-042 | 3.79 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | 2322-044 | 5.03 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | 2322-046 | 6.59 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | 2322-048 | 9.40 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 2322-050 | 18.19 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 2322-052 | 28.88 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 2322-054 | 42.08 |
| 2–11-1/2 | 7 | 1-3/4 | 4-1/2 | 2322-056 | 65.40 |
| 2-1/2–8 | 8 | 2-9/16 | 5-1/2 | 2322-058 | 172.64 |
| 3–8 | 8 | 2-5/8 | 6 | 2322-060 | 245.88 |

Sizes available to 6” Diameter - POA

* Large Shank

## Extra Long Taper Pipe Taps

### NPT – Ground Thread – High Speed Steel

3

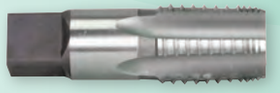
| SIZE | 4” OAL ORDER NO. | 4” OAL PRICE EACH | 6” OAL ORDER NO. | 6” OAL PRICE EACH | 12” OAL ORDER NO. | 12” OAL PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16–27 | 2318-001† | $14.91 | 2318-003† | $18.61 | 2318-009† | $35.09 |
| 1/8–27 | 2318-011 | 14.91 | 2318-013 | 18.61 | 2318-019† | 38.94 |
| 1/4–18 | 2318-021 | 19.14 | 2318-023 | 22.36 | 2318-029 | 58.63 |
| 3/8–18 | 2318-032† | 22.80 | 2318-034 | 25.80 | 2318-040 | 91.74 |
| 1/2–1/4 | – | – | 2318-042 | 34.49 | 2318-048 | 110.44 |
| 3/4–14 | – | – | 2318-050 | 50.37 | 2318-056 | 151.25 |
| 1–11-1/2 | – | – | 2318-058 | 65.79 | 2318-065 | 198.33 |
| 1-1/4–11-1/2 | – | – | 2318-067 | 159.89 | 2318-073 | 241.56 |
| 1-1/2–11-1/2 | – | – | 2318-075 | 211.42 | 2318-081 | 294.47 |

8” and 10” OAL available on request.

† Limited Quantities

## Pittsburg® Interrupted Thread Taper Pipe Taps

### NPT & NPTF Dryseal High Speed Steel



3

| SIZE | NO. OF FLUTES | THREAD LENGTH | OVERALL LENGTH | INTERRUPTED THREAD NPT ORDER NO. | INTERRUPTED THREAD NPTF ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 11/16 | 2-1/8 | 2316-001 | 2316-002 | $ 12.15 |
| 1/8–27* | 4 | 3/4 | 2-1/8 | 2316-005 | 2316-006 | 12.15 |
| 1/8–27 | 4 | 3/4 | 2-1/8 | 2316-007 | 2316-008 | 12.15 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | 2316-011 | 2316-012 | 13.46 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | 2316-015 | 2316-016 | 18.81 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | 2316-019 | 2316-020 | 29.93 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | 2316-023 | 2316-024 | 42.57 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 2316-027 | 2316-028 | 65.25 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 2316-031 | 2316-032 | 91.40 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 2316-035 | 2316-036 | 123.35 |
| 2–11-1/2 | 7 | 1-3/4 | 4-1/2 | 2316-039 | 2316-040 | 166.50 |

* Large Shank

## Look for Allegiance® AMERICANMADE Interrupted Thread Taper Pipe Taps

MADE IN USA

### NPT & NPTF Dryseal Ground Thread High Speed Steel

2

| NOMINAL SIZE | NO. OF FLUTES | THREAD LENGTH | OVERALL LENGTH | SHANK DIA. | INTERRUPTED THREAD NPT ORDER NO. | INTERRUPTED THREAD NPTF ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 11/16 | 2-1/8 | .3125 | – | – | – |
| 1/8–27* (Lg) | 4 | 3/4 | 2-1/8 | .4375 | 3762-308 | 3762-309 | $ 22.85 |
| 1/8–27* (Sm) | 4 | 3/4 | 2-1/8 | .3125 | 3762-312 | 3762-313 | 22.85 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | .5625 | 3762-317 | 3762-318 | 25.39 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | .7000 | 3762-323 | 3762-324 | 31.98 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | .6875 | 3762-329 | 3762-330 | 51.08 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | .9063 | 3762-335 | 3762-336 | 72.64 |
| 1”–11-1/2 | 5 | 1-3/4 | 3-3/4 | 1.1250 | 3762-341 | 3762-342 | 111.44 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 1.3125 | 3762-347 | 3762-348 | 156.24 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 1.5000 | 3762-350 | – | 210.71 |
| 2”–11-1/2 | 7 | 1-3/4 | 4-1/2 | 1.8750 | 3762-356 | – | 283.96 |

## Combined Pipe Tap and Drill

### NPT – High Speed Steel

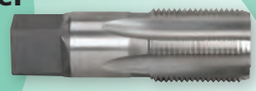
1

| SIZE | NO. OF FLUTES | OVERALL LENGTH | DRILL LENGTH | THREAD LENGTH | DRILL SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 2-13/16 | 11/16 | 11/16 | D | 2334-001 | $34.03 |
| 1/8–27 | 4 | 2-7/8 | 3/4 | 3/4 | R | 2334-002 | 42.91 |
| 1/4–18 | 4 | 3-5/16 | 7/8 | 1-1/16 | 7/16 | 2334-004 | 48.69 |
| 3/8–18 | 4 | 3-1/2 | 15/16 | 1-1/16 | 37/64 | 2334-005 | 56.17 |
| 1/2–14 | 4 | 4-3/8 | 1-1/4 | 1-3/8 | 45/64 | 2334-006 | 85.41 |
| 3/4–14 | 5 | 4-9/16 | 1-5/16 | 1-3/8 | 39/64 | 2334-007 | 119.22 |
| 1–11-1/2 | 4 | 5-3/8 | 1-5/8 | 1-3/4 | 1-5/32 | 2334-008 | 178.89 |

# Straight Pipe Taps

## Pittsburg® ALLEGHANY Straight Pipe Taps

### NPS & NPSF Dryseal – Ground Thread – High Speed Steel



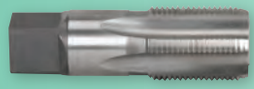
3

| SIZE | NO. OF FLUTES | THREAD LG'TH | OAL | NPS ORDER NO. | NPSF ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 11/16 | 2-1/8 | 2314-001 | 2314-002 | $ 9.26 |
| 1/8–27* | 4 | 3/4 | 2-1/8 | 2314-013 | 2314-015 | 9.26 |
| 1/8–27 | 4 | 3/4 | 2-1/8 | 2314-014 | 2314-016 | 9.26 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | 2314-027 | 2314-028 | 10.24 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | 2314-039 | 2314-040 | 14.26 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | 2314-051 | 2314-052 | 22.54 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | 2314-063 | 2314-064 | 33.12 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 2314-075 | 2314-076 | 50.27 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 2314-087 | 2314-088 | 87.29 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 2314-096 | 2314-097 | 116.50 |
| 2–11-1/2 | 7 | 1-3/4 | 4-1/2 | 2314-104 | 2314-105 | 211.29 |
| 2-1/2–8 | 8 | 2-9/16 | 5-1/2 | 2314-112 | 2314-113 | 434.24 |
| 3–8 | 8 | 2-5/8 | 6 | 2314-120 | 2314-121 | 579.03 |
| 3-1/2–8 | 8 | 2-3/4 | 6-1/2 | 2314-128 | – | 759.80 |
| 4–8 | 10 | 3 | 7 | 2314-136 | – | 940.70 |

* Large Shank

## Pittsburg® ALLEGHANY Straight Pipe Tap

### NH - Garden Hose Ground Thread High Speed Steel



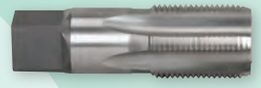
2

| SIZE | NO. OF FLUTES | THREAD LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 3/4–11-1/2 | 4 | 1-3/8 | 3-1/4 | 2314-060 | $90.85 |

## Look for ALLEGIANCE® AMERICANMADE Straight Pipe Taps

### NPS & NPSF Dryseal – Ground Thread – High Speed Steel

MADE IN USA



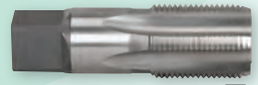
2

| NOMINAL SIZE | NO. OF FLUTES | THREAD LENGTH | OVERALL LENGTH | SHANK DIA. | NPS ORDER NO. | NPSF ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/8–27* (Lg) | 4 | 3/4 | 2-1/8 | .4375 | 3762-408 | 3762-409 | $15.66 |
| 1/8–27* (Sm) | 4 | 3/4 | 2-1/8 | .3125 | 3762-412 | 3762-413 | 15.66 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | .5625 | 3762-417 | 3762-418 | 17.39 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | .7000 | 3762-423 | 3762-424 | 22.73 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | .6875 | 3762-429 | 3762-430 | 36.32 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | .9063 | 3762-435 | 3762-436 | 50.83 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 1.1250 | 3762-441 | – | 77.19 |

* Unless specified, large shanks will be supplied.

## Pittsburg® ALLEGHANY Left Hand Straight Pipe Taps

### NPS & NPSF Dryseal - Ground Thread – High Speed Steel



2

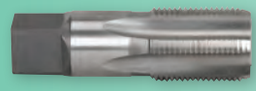
| SIZE | NO. OF FLUTES | THREAD LG'TH | OAL | LH NPS ORDER NO. | LH NPSF ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16–27 | 4 | 11/16 | 2-1/8 | 2315-001 | 2315-002 | $ 39.35 |
| 1/8–27* | 4 | 3/4 | 2-1/8 | 2315-003 | 2315-004 | 43.50 |
| 1/8–27 | 4 | 3/4 | 2-1/8 | 2315-005 | 2315-006 | 43.50 |
| 1/4–18 | 4 | 1-1/16 | 2-7/16 | 2315-009 | 2315-010 | 51.85 |
| 3/8–18 | 4 | 1-1/16 | 2-9/16 | 2315-013 | 2315-014 | 60.15 |
| 1/2–14 | 4 | 1-3/8 | 3-1/8 | 2315-017 | 2315-018 | 79.90 |
| 3/4–14 | 5 | 1-3/8 | 3-1/4 | 2315-021 | 2315-022 | 110.25 |
| 1–11-1/2 | 5 | 1-3/4 | 3-3/4 | 2315-025 | 2315-026 | 140.55 |
| 1-1/4–11-1/2 | 5 | 1-3/4 | 4 | 2315-029 | 2315-030 | 202.10 |
| 1-1/2–11-1/2 | 7 | 1-3/4 | 4-1/4 | 2315-033 | 2315-034 | 244.55 |
| 2–11-1/2 | 7 | 1-3/4 | 4-1/2 | 2315-037 | 2315-038 | 318.75 |
| 2-1/2–8 | 8 | 2-9/16 | 5-1/2 | 2315-041 | 2315-042 | 510.45 |
| 3–8 | 8 | 2-5/8 | 6 | 2315-045 | 2315-046 | 701.65 |
| 3-1/2–8 | 8 | 2-3/4 | 6-1/2 | 2315-049 | 2315-050 | 855.75 |
| 4–8 | 10 | 3 | 7 | 2315-053 | 2315-054 | 1009.85 |

* Large Shank

# 55° Whitworth Thread British Pipe Taps 2

Pittsburg® ALLEGHANY

### BSPP & BSPT - Ground Thread High Speed Steel

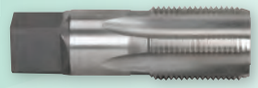


| SIZE | THREAD LG'TH | OAL | BSPP STRAIGHT NO. OF FLUTES | BSPP STRAIGHT ORDER NO. | BSPP STRAIGHT PRICE EACH | BSPT TAPER NO. OF FLUTES | BSPT TAPER ORDER NO. | BSPT TAPER PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8–28* | 3/4 | 2-1/8 | 4 | 2319-103 | $ 6.90 | 4 | 2319-002 | $ 13.70 |
| 1/8–28 | 3/4 | 2-1/8 | 4 | 2319-102 | 6.90 | 4 | 2319-003 | 13.70 |
| 1/4–19 | 1-1/16 | 2-7/16 | 4 | 2319-104 | 10.45 | 4 | 2319-004 | 19.40 |
| 3/8–19 | 1-1/16 | 2-9/16 | 4 | 2319-105 | 13.80 | 4 | 2319-005 | 22.85 |
| 1/2–14 | 1-3/8 | 3-1/8 | 4 | 2319-106 | 20.70 | 4 | 2319-006 | 37.10 |
| 5/8–14 | 1-3/8 | 3-3/16 | 4 | 2319-107 | 32.30 | 4 | 2319-007 | 42.15 |
| 3/4–14 | 1-3/8 | 3-1/4 | 4 | 2319-108 | 29.20 | 5 | 2319-008 | 47.20 |
| 7/8–14 | 1-9/16 | 3-1/2 | 4 | 2319-109 | 47.60 | 5 | 2319-009 | 52.00 |
| 1–11 | 1-3/4 | 3-3/4 | 6 | 2319-110 | 46.15 | 5 | 2319-010 | 56.80 |
| 1-1/4–11 | 1-3/4 | 4 | 6 | 2319-111 | 89.45 | 5 | 2319-011 | 110.05 |
| 1-1/2–11 | 1-3/4 | 4-1/4 | 6 | 2319-112 | 107.60 | 7 | 2319-012 | 131.40 |
| 1-3/4–11 | 1-3/4 | 4-3/8 | 6 | 2319-113 | 197.10 | 7 | 2319-013 | 153.30 |
| 2–11 | 1-3/4 | 4-1/2 | 6 | 2319-114 | 195.90 | 7 | 2319-014 | 271.95 |
| 2-1/4–11 | 2-1/8 | 5 | 6 | 2319-115 | 416.30 | – | – | – |
| 2-1/2–11 | 2-9/16 | 5-1/2 | 6 | 2319-116 | 572.35 | – | – | – |
| 3–11 | 2-5/8 | 6 | 6 | 2319-118 | 918.30 | – | – | – |

* Large Shank

Sizes through 4 inch diameter: POA

### BSPP & BSPT - ISO Standard Ground Thread High Speed Steel



| SIZE | THREAD LG'TH (MM) | OAL (MM) | BSPP STRAIGHT NO. OF FLUTES | BSPP STRAIGHT ORDER NO. | BSPP STRAIGHT PRICE EACH | BSPT TAPER NO. OF FLUTES | BSPT TAPER ORDER NO. | BSPT TAPER PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8–28 | 14 | 59 | 4 | 2319-073 | $6.90 | 4 | 2319-053 | $13.70 |
| 1/4–19 | 19 | 67 | 4 | 2319-074 | 10.45 | 4 | 2319-054 | 19.40 |
| 3/8–19 | 21 | 75 | 4 | 2319-075 | 13.80 | 4 | 2319-055 | 22.85 |
| 1/2–14 | 26 | 87 | 4 | 2319-076 | 20.70 | 4 | 2319-056 | 37.10 |
| 5/8–14 | 26 | 91 | 4 | 2319-077 | 32.30 | 4 | 2319-057 | 42.15 |
| 3/4–14 | 28 | 96 | 4 | 2319-078 | 29.20 | 5 | 2319-058 | 47.20 |
| 7/8–14 | 29 | 102 | 4 | 2319-079 | 47.60 | 5 | 2319-059 | 52.00 |
| 1–11 | 33 | 109 | 6 | 2319-080 | 46.15 | 5 | 2319-060 | 56.80 |
| 1-1/4–11 | 36 | 119 | 6 | 2319-081 | 89.45 | 5 | 2319-061 | 110.05 |
| 1-1/2–11 | 37 | 125 | 6 | 2319-082 | 107.60 | 7 | 2319-062 | 131.40 |
| 1-3/4–11 | 39 | 132 | 6 | 2319-083 | 197.10 | 7 | 2319-063 | 153.30 |
| 2–11 | 41 | 140 | 6 | 2319-084 | 195.90 | 7 | 2319-064 | 271.95 |
| 2-1/2–11 | 45 | 153 | 6 | 2319-086 | 572.35 | – | – | – |
| 3–11 | 48 | 164 | 6 | 2319-088 | 918.30 | – | – | – |

# British Thread Taps & Dies

## 55° Whitworth Thread – High Speed Steel



## Hand Taps

### Right Hand

| SIZE | | PLUG TAP ORDER NO. | PLUG TAP PRICE EACH | BOTTOM TAP ORDER NO. | BOTTOM TAP PRICE EACH | SPIRAL POINT ORDER NO. | SPIRAL POINT PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/8–40 | BSW | 2319-204 | $ 6.11 | 2319-204B | $ 6.11 | 2319-304 | $ 10.49 |
| 5/32–32 | BSW | 2319-205 | 7.80 | 2319-205B | 7.80 | – | – |
| 3/16–24 | BSW | 2319-206 | 6.01 | 2319-206B | 6.01 | 2319-306 | 6.86 |
| 3/16–32 | BSF | 2319-207 | 7.94 | 2319-207B | 7.94 | 2319-307 | 9.07 |
| 1/4–20 | BSW | 2319-208 | 6.11 | 2319-208B | 6.11 | 2319-308 | 8.16 |
| 1/4–26 | BSF | 2319-209 | 6.74 | 2319-209B | 6.74 | 2319-309 | 9.58 |
| 5/16–18 | BSW | 2319-210 | 6.74 | 2319-210B | 6.74 | 2319-310 | 10.66 |
| 5/16–22 | BSF | 2319-211 | 8.17 | 2319-211B | 8.17 | 2319-311 | 10.37 |
| 3/8–16 | BSW | 2319-212 | 9.10 | 2319-212B | 9.10 | 2319-312 | 13.78 |
| 3/8–20 | BSF | 2319-213 | 10.16 | 2319-213B | 10.16 | 2319-313 | 14.85 |
| 7/16–14 | BSW | 2319-214 | 13.09 | 2319-214B | 13.09 | 2319-314 | 17.51 |
| 7/16–18 | BSF | 2319-215 | 14.21 | 2319-215B | 14.21 | 2319-315 | 22.51 |
| 1/2–12 | BSW | 2319-216 | 13.40 | 2319-216B | 13.40 | 2319-316 | 19.50 |
| 1/2–16 | BSF | 2319-217 | 16.21 | 2319-217B | 16.21 | 2319-317 | 21.15 |
| 9/16–12 | BSW | 2319-218 | 23.50 | 2319-218B | 23.50 | 2319-318 | 28.85 |
| 9/16–16 | BSF | 2319-219 | 23.44 | 2319-219B | 23.44 | 2319-319 | 29.36 |
| 5/8–11 | BSW | 2319-220 | 17.89 | 2319-220B | 17.89 | 2319-320 | 29.31 |
| 5/8–14 | BSF | 2319-221 | 23.44 | 2319-221B | 23.44 | 2319-321 | 29.31 |
| 3/4–10 | BSW | 2319-223 | 26.25 | 2319-223B | 26.25 | 2319-322 | 45.12 |
| 3/4–12 | BSF | 2319-224 | 34.67 | 2319-224B | 34.67 | 2319-323 | 44.95 |
| 7/8–9 | BSW | 2319-225 | 43.33 | 2319-225B | 43.33 | 2319-324 | 55.95 |
| 7/8–11 | BSF | 2319-226 | 47.01 | 2319-226B | 47.01 | 2319-325 | 55.66 |
| 1”–8 | BSW | 2319-227 | 53.56 | 2319-227B | 53.56 | 2319-326 | 68.81 |
| 1–10 | BSF | 2319-228 | 58.05 | 2319-228B | 58.05 | 2319-327 | 68.81 |
| 1-1/8–7 | BSW | 2319-229 | 84.43 | 2319-229B | 84.43 | – | – |
| 1-1/8–9 | BSF | 2319-230 | 84.12 | 2319-230B | 84.12 | – | – |
| 1-1/4–7 | BSW | 2319-231 | 101.39 | 2319-231B | 101.39 | – | – |
| 1-1/4–9 | BSF | 2319-232 | 101.07 | 2319-232B | 101.07 | – | – |
| 1-1/2–6 | BSW | 2319-233 | 156.50 | 2319-233B | 156.50 | – | – |
| 1-1/2–8 | BSF | 2319-234 | 156.75 | 2319-234B | 156.75 | – | – |
| 2–4-1/2 | BSW | 2319-235 | 370.87 | 2319-235B | 370.87 | – | – |
| 2–7 | BSF | 2319-236 | 372.43 | 2319-236B | 372.43 | – | – |

Spiral Flute available on request.

## Round Adjustable & Hexagon Rethreading Dies

### Right Hand

| SIZE | | O.D. | H.S. ROUND ADJ. ORDER NO. | H.S. ROUND ADJ. PRICE EACH | CS HEX. ORDER NO. | CS HEX. PRICE EACH |
|---|---|---|---|---|---|---|
| 1/8–40 | BSW | 13/16 | 2437-207 | $ 20.90 | – | – |
| 3/16–24 | BSW | 13/16 | 2437-213 | 20.90 | – | – |
| 1/4–20 | BSW | 1 | 2437-225 | 20.90 | 2485-017 | $ 23.50 |
| 1/4–26 | BSF | 1 | 2437-229 | 23.70 | 2485-021 | 24.50 |
| 5/16–18 | BSW | 1 | 2437-237 | 23.70 | 2485-029 | 27.30 |
| 5/16–22 | BSF | 1 | 2437-241 | 24.70 | 2485-033 | 28.70 |
| 3/8–16 | BSW | 1 | 2437-246 | 23.70 | 2485-037 | 31.80 |
| 3/8–20 | BSF | 1 | 2437-249 | 24.70 | 2485-041 | 33.30 |
| 7/16–14 | BSW | 1-1/2 | 2437-256 | 43.80 | 2485-045 | 36.90 |
| 7/16–18 | BSF | 1-1/2 | 2437-260 | 50.20 | 2485-049 | 42.30 |
| 1/2–12 | BSW | 1-1/2 | 2437-261 | 43.80 | 2485-053 | 40.10 |
| 1/2–16 | BSF | 1-1/2 | 2437-266 | 64.40 | 2485-057 | 41.80 |
| 9/16–12 | BSW | 1-1/2 | 2437-270 | 43.80 | 2485-061 | 49.50 |
| 9/16–16 | BSF | 1-1/2 | 2437-273 | 50.20 | 2485-065 | 51.60 |
| 5/8–11 | BSW | 1-1/2 | 2437-276 | 43.80 | 2485-069 | 49.50 |
| 5/8–14 | BSF | 1-1/2 | 2437-279 | 45.70 | 2485-073 | 51.60 |
| 3/4–10 | BSW | 2 | 2437-288 | 60.70 | 2485-081 | 58.60 |
| 3/4–12 | BSF | 2 | 2437-291 | 63.30 | 2485-085 | 61.40 |
| 7/8–9 | BSW | 2 | 2437-300 | 60.70 | 2485-089 | 68.20 |
| 7/8–11 | BSF | 2 | 2437-303 | 69.80 | 2485-093 | 71.60 |
| 1”–8 | BSW | 2 | 2437-315 | 60.70 | 2485-097 | 91.40 |
| 1–10 | BSF | 2 | 2437-318 | 70.00 | 2485-101 | 95.70 |
| 1-1/8–7 | BSW | 3 | 2437-325 | 253.80 | 2485-109 | 166.50 |
| 1-1/8–9 | BSF | 3 | 2437-328 | 264.50 | 2485-113 | POA |
| 1-1/4–7 | BSW | 3 | 2437-331 | 184.50 | 2485-117 | 166.50 |
| 1-1/4–9 | BSF | 3 | 2437-334 | 192.20 | 2485-121 | POA |
| 1-1/2–6 | BSW | 3 | 2437-342 | 184.50 | 2485-133 | 203.00 |
| 1-1/2–8 | BSF | 3 | 2437-345 | 192.20 | 2485-137 | 203.00 |
| 1-5/8–5 | BSF | 3 | 2437-348 | 184.50 | 2485-145 | POA |
| 1-5/8–8 | BSF | 3 | – | – | 2485-149 | POA |
| 1-3/4–5 | BSW | 3 | 2437-354† | 184.50 | 2485-153 | POA |
| 1-3/4–7 | BSF | 3 | 2437-357† | 184.50 | 2485-157 | POA |
| 2–4-1/2 | BSW | 3 | 2437-363† | 184.50 | 2485-169 | POA |
| 2–7 | BSF | 3 | 2437-366† | 184.50 | 2485-173 | POA |

Sizes not shown – P.O.A.

† Limited Quantities

## British Thread Pipe Dies

### BSPP & BSPT Round Adjustable Die High Speed Steel

| SIZE | O.D. | BSPP ORDER NO. | BSPP PRICE EACH | BSPT ORDER NO. | BSPT PRICE EACH |
|---|---|---|---|---|---|
| 1/16–28 | 1” | 2438-101 | $ 7.40 | 2438-102 | $ 7.40 |
| 1/8–28 | 1” | 2438-105 | 7.40 | 2438-106 | 7.40 |
| 1/8–28 | 1-1/2” | 2438-109 | 17.40 | 2438-110 | 17.40 |
| 1/4–19 | 1-1/2” | 2438-113 | 17.40 | 2438-114 | 17.40 |
| 3/8–19 | 1-1/2” | 2438-117 | 17.40 | 2438-118 | 17.40 |
| 1/2–14 | 2” | 2438-121 | 32.10 | 2438-122 | 32.10 |
| 5/8–14 | 2” | 2438-125 | 32.10 | 2438-126 | 32.10 |
| 3/4–14 | 2” | 2438-129 | 32.10 | 2438-130 | 32.10 |
| 1–11 | 3” | 2438-137 | 96.30 | 2438-139 | 96.30 |
| 1-1/4–11 | 3” | 2438-145 | 96.30 | 2438-146 | 96.30 |
| 1-1/2–11 | 4” | 2438-149 | 236.90 | 2438-150 | 236.90 |
| 2–11 | 4” | 2438-157 | 236.90 | 2438-158 | 236.90 |

# Acme Taps & Dies

## Tandem Acme Taps

### Right Hand & Left Hand – Class 2G – High Speed Steel

3 1 1

| SIZE & PITCH | OVERALL LENGTH | THR'D LENGTH | MAX. DEPTH OF NUT BRONZE & STEEL | MAX. DEPTH OF NUT BRASS & CAST IRON | Pittsburg® ALLEGHANY RIGHT HAND ORDER NO. | Pittsburg® ALLEGHANY RIGHT HAND PRICE EACH | ALLEGIANCE® AMERICAN MADE RIGHT HAND ORDER NO. | ALLEGIANCE® AMERICAN MADE RIGHT HAND PRICE EACH | ALLEGIANCE® AMERICAN MADE LEFT HAND ORDER NO. | ALLEGIANCE® AMERICAN MADE LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 3/8-12 | 4-1/16 | 2-1/8 | 1 | 1-1/2 | 2331-001 | $41.70 | 2331-051 | $54.60 | – | – |
| 7/16-10* | 5 | 3 | 1 | 1-1/2 | – | – | 2331-120† | 155.70 | – | – |
| 7/16-12 | 4-9/16 | 2-3/8 | 1 | 1-1/2 | 2331-002 | 41.70 | 2331-052 | 155.70 | 2331-022 | $184.40 |
| 1/2-8 | 5 | 2-9/16 | 1 | 1-1/2 | – | – | 2331-125 | 155.70 | – | – |
| 1/2-10 | 5 | 2-9/16 | 1 | 1-1/2 | 2331-003 | 45.40 | 2331-053 | 59.50 | 2331-023 | 59.50 |
| 1/2-12 | 5 | 2-9/16 | 1 | 1-1/2 | – | – | 2331-127 | 155.70 | | |
| 5/8-8 | 6-1/4 | 3-3/16 | 1-1/4 | 1-7/8 | 2331-004 | 46.80 | 2331-054 | 61.30 | 2331-024 | 61.30 |
| 5/8-10 | 6-1/4 | 3-3/16 | 1-1/4 | 1-7/8 | – | – | 2331-132 | 169.00 | – | – |
| 5/8-16 | 6-1/4 | 3-3/16 | 1-1/4 | 1-7/8 | – | – | 2331-136 | 169.00 | – | – |
| 3/4-5 | 7-15/16 | 4-5/16 | 1-1/2 | 2-1/4 | – | – | 2331-141 | 199.80 | – | – |
| 3/4-6 | 7-15/16 | 4-5/16 | 1-1/2 | 2-1/4 | 2331-005 | 49.90 | 2331-055 | 65.40 | 2331-025 | 65.40 |
| 3/4-7 | 7-15/16 | 4-5/16 | 1-1/2 | 2-1/4 | – | – | 2331-143 | 199.80 | – | – |
| 3/4-8 | 7-15/16 | 4-5/16 | 1-1/2 | 2-1/4 | – | – | 2331-144 | 69.10 | 2331-344 | 69.10 |
| 3/4-10 | 7-15/16 | 4-5/16 | 1-1/2 | 2-1/4 | – | – | 2331-146 | 199.80 | – | – |
| 7/8-6 | 8-5/8 | 4-3/8 | 1-3/4 | 2-5/8 | 2331-006 | 57.90 | 2331-056 | 76.00 | 2331-026 | 76.00 |
| 7/8-8 | 8-5/8 | 4-3/8 | 1-3/4 | 2-5/8 | – | – | 2331-152 | 203.80 | – | – |
| 7/8-10 | 8-5/8 | 4-3/8 | 1-3/4 | 2-5/8 | – | – | 2331-154 | 203.80 | – | – |
| 1-4 | 10-1/8 | 5-1/4 | 2 | 3 | – | – | 2331-160 | 276.50 | – | – |
| 1-5 | 10-1/8 | 5-1/4 | 2 | 3 | 2331-007 | 65.10 | 2331-057 | 85.40 | 2331-027 | 85.40 |
| 1-6 | 10-1/8 | 5-1/4 | 2 | 3 | – | – | 2331-162 | 276.50 | – | – |
| 1-8 | 10-1/8 | 5-1/4 | 2 | 3 | – | – | 2331-164 | 276.50 | – | – |
| 1-10 | 10-1/8 | 5-1/4 | 2 | 3 | – | – | 2331-166 | 276.50 | – | – |
| 1-1/8-5 | 10-3/4 | 5-1/4 | 2-1/4 | 3-1/8 | 2331-008 | 96.10 | 2331-058 | 110.70 | 2331-028 | 110.70 |
| 1-1/4-5 | 11-1/8 | 5-1/4 | 2-1/2 | 3-3/4 | 2331-009 | 113.30 | 2331-059 | 130.60 | 2331-029 | 130.60 |
| 1-3/8-4 | 12-1/4 | 5-7/8 | 2-3/4 | 4-1/8 | 2331-010 | 130.60 | 2331-060 | 150.60 | 2331-030 | 150.60 |
| 1-1/2-4 | 12-5/8 | 5-7/8 | 3 | 4-1/2 | 2331-011 | 153.00 | 2331-061 | 176.30 | 2331-031 | 176.30 |

* Single Pass

† Limited Quantities. Sizes not shown – POA.

## Special Acme Taps

### 29° Right Hand & Left Hand – Table 302
### Hand Tap Dimensions – Ground Thread
### High Speed Steel

| DIA. | THREAD LENGTH | OVERALL LENGTH | QUANTITY – PRICE 1 | 2 | 3-5 | 6-11 | EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 1 | 2-1/2 | | | | | |
| 5/16 | 1-1/8 | 2-23/32 | | | | | |
| 3/8 | 1-1/4 | 2-15/16 | | | | | |
| 7/16 | 1-7/16 | 3-5/32 | | | | | |
| 1/2 | 1-21/32 | 3-3/8 | | | | | |
| 9/16 | 1-21/32 | 3-19/32 | | | | | |
| 5/8 | 1-13/16 | 3-13/16 | | | | | |
| 11/16 | 1-13/16 | 4-1/32 | | | | | |
| 3/4 | 2 | 4-1/4 | | | | | |
| 13/16 | 2 | 4-15/32 | | | | | |
| 7/8 | 2-7/32 | 4-11/16 | | | | | |
| 15/16 | 2-7/32 | 4-29/32 | | | | | |
| 1 | 2-1/2 | 5-1/8 | | | | | |
| 1-1/8 | 2-9/16 | 5-7/16 | | | | | |
| 1-1/4 | 2-9/16 | 5-3/4 | | | | | |
| 1-3/8 | 3 | 6-1/16 | | | | | |
| 1-1/2 | 3 | 6-3/8 | | | | | |

**P.O.A.**

**Roughers & Finishers In Stock**

## Acme Thread Round Adjustable Dies - High Speed Steel

2

| SIZE & PITCH | O.D. | RIGHT HAND ORDER NO. | RIGHT HAND PRICE EACH | LEFT HAND ORDER NO. | LEFT HAND PRICE EACH |
|---|---|---|---|---|---|
| 1/4-16 | 1 | 2439-005 | $109.20 | 2439-405 | $109.20 |
| 5/16-14 | 1 | 2439-010 | 109.20 | 2439-410 | 109.20 |
| 3/8-12 | 1 | 2439-015† | 109.20 | – | – |
| 3/8-10 | 1 1/2 | 2439-025 | 139.20 | 2439-425 | 139.20 |
| 3/8-12 | 1 1/2 | 2439-027 | 139.20 | 2439-427 | 139.20 |
| 7/16-8 | 1 1/2 | 2439-033 | 139.20 | 2439-433 | 139.20 |
| 7/16-10 | 1 1/2 | 2439-035 | 139.20 | 2439-435 | 139.20 |
| 7/16-12 | 1 1/2 | 2439-037 | 139.20 | 2439-437 | 139.20 |
| 1/2-8 | 1 1/2 | 2439-047 | 139.20 | 2439-447 | 139.20 |
| 1/2-10 | 1 1/2 | 2439-049 | 139.20 | 2439-449 | 139.20 |
| 1/2-12 | 1 1/2 | 2439-051 | 139.20 | 2439-451 | 139.20 |
| 5/8-6 | 2 | 2439-070 | 181.20 | 2439-470 | 181.20 |
| 5/8-8 | 2 | 2439-072 | 181.20 | 2439-472 | 181.20 |
| 5/8-10 | 2 | – | – | 2439-474 | 181.20 |
| 3/4-5 | 2 | 2439-084 | 181.20 | 2439-484 | 181.20 |
| 3/4-6 | 2 | 2439-085 | 181.20 | 2439-485 | 181.20 |
| 3/4-8 | 2 | 2439-087 | 181.20 | 2439-487 | 181.20 |
| 3/4-10 | 2 | 2439-089 | 181.20 | 2439-489 | 181.20 |
| 7/8-5 | 2 | 2439-100 | 192.00 | 2439-500 | 192.00 |
| 7/8-6 | 2 | 2439-101 | 192.00 | 2439-501 | 192.00 |
| 7/8-8 | 2 | – | – | 2439-503 | 192.00 |
| 3/4-5 | 2 1/2 | 2439-125 | 256.80 | – | – |
| 3/4-6 | 2 1/2 | 2439-126 | 256.80 | – | – |
| 1-4 | 2 1/2 | 2439-136 | 256.80 | 2439-536 | 256.80 |
| 1-5 | 2 1/2 | 2439-137 | 256.80 | 2439-537 | 256.80 |
| 1-6 | 2 1/2 | 2439-138 | 256.80 | 2439-538 | 256.80 |
| 1-8 | 2 1/2 | – | – | 2439-540 | 256.80 |
| 1-10 | 2 1/2 | – | – | 2439-542 | 256.80 |
| 1-1/8-4 | 2 1/2 | 2439-170 | 267.60 | 2439-570 | 267.60 |
| 1-1/8-5 | 2 1/2 | 2439-171 | 267.60 | 2439-571 | 267.60 |
| 1-1/8-6 | 2 1/2 | 2439-172 | 267.60 | 2439-572 | 267.60 |
| 1-1/4-4 | 2 1/2 | 2439-182 | 267.60 | 2439-582 | 267.60 |
| 1-1/4-5 | 2 1/2 | 2439-183 | 267.60 | 2439-583 | 267.60 |
| 1-1/4-6 | 2 1/2 | – | – | 2439-584 | 267.60 |
| 1-3/8-4 | 2 1/2 | 2439-194 | 304.80 | 2439-594 | 304.80 |
| 1-3/8-5 | 2 1/2 | 2439-195 | 304.80 | 2439-595 | 304.80 |
| 1-1/2-4 | 2 1/2 | 2439-206 | 304.80 | 2439-606 | 304.80 |
| 1-1/2-5 | 2 1/2 | 2439-207 | 304.80 | 2439-607 | 304.80 |
| 1-3/8-4 | 3 | 2439-243 | 506.40 | 2439-643 | 506.40 |
| 1-1/2-4 | 3 | 2439-293 | 506.40 | 2439-693 | 506.40 |

† Limited Quantities. Sizes not shown – POA.

## Acme Thread Hexagon Rethreading Dies

### Carbon Steel

2

| SIZE & PITCH | RIGHT HAND ORDER NO. | RIGHT HAND PRICE EACH | LEFT HAND ORDER NO. | LEFT HAND PRICE EACH |
|---|---|---|---|---|
| 1/4 - 16 | 2486-001 | $84.00 | 2486-301 | $84.00 |
| 5/16 - 14 | 2486-007 | 85.20 | 2486-307 | 85.20 |
| 3/8 - 12 | 2486-020 | 85.20 | 2486-320 | 85.20 |
| 7/16 - 12 | 2486-038 | 85.20 | 2486-338 | 85.20 |
| 1/2 - 10 | 2486-050 | 96.00 | 2486-350 | 96.00 |
| 5/8 - 8 | 2486-067 | 100.80 | 2486-367 | 100.80 |
| 3/4 - 6 | 2486-085 | 105.60 | 2486-385 | 105.60 |
| 7/8 - 6 | 2486-115 | 109.20 | 2486-415 | 109.20 |
| 1 - 5 | 2486-133 | 116.40 | 2486-433 | 116.40 |
| 1-1/8 - 5 | 2486-169 | 121.20 | 2486-469 | 121.20 |
| 1-1/4 - 5 | 2486-193 | 142.80 | 2486-493 | 142.80 |
| 1-3/8 - 4 | 2486-205 | 147.60 | 2486-505 | 147.60 |
| 1-1/2 - 4 | 2486-223 | 152.40 | 2486-523 | 152.40 |

Size not shown – POA.

# Carbon Steel Round Adjustable Dies

## Right Hand - NC, NF & Special Pitch

8

| SIZE | SERIES | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 00-112 | | 13/16 | 2440-108† | $3.20 |
| 0-80 | NF | 5/8 | 2430-201† | 2.90 |
| 0-80 | NF | 13/16 | 2430-209 | 3.20 |
| 1-56 | | 5/8 | 2440-188† | 2.90 |
| 1-60 | | 5/8 | 2440-195† | 2.90 |
| 1-60 | | 13/16 | 2440-197† | 3.20 |
| 1-64 | NC | 5/8 | 2440-200† | 2.90 |
| 1-64 | NC | 13/16 | 2430-210 | 3.20 |
| 1-72 | NF | 5/8 | 2430-202† | 2.90 |
| 1-72 | NF | 13/16 | 2430-211 | 3.20 |
| 1-80 | | 5/8 | 2440-211† | 2.90 |
| 2-48 | | 5/8 | 2440-230† | 2.90 |
| 2-48 | | 13/16 | 2440-232† | 3.20 |
| 2-56 | NC | 5/8 | 2430-203† | 2.90 |
| 2-56 | NC | 13/16 | 2430-212 | 3.20 |
| 2-56 | NC | 1 | 2440-237 | 4.30 |
| 2-60 | | 5/8 | 2440-240† | 2.90 |
| 2-60 | | 13/16 | 2440-242† | 3.20 |
| 2-64 | NF | 5/8 | 2430-204† | 2.90 |
| 2-64 | NF | 13/16 | 2430-213 | 3.20 |
| 2-64 | NF | 1 | 2440-244 | 4.30 |
| 2-72 | | 5/8 | 2440-249† | 2.90 |
| 3-40 | | 5/8 | 2440-285† | 2.90 |
| 3-40 | | 1 | 2440-287† | 4.30 |
| 3-48 | NC | 5/8 | 2430-205† | 2.90 |
| 3-48 | NC | 13/16 | 2430-214 | 3.20 |
| 3-48 | NC | 1 | 2440-291 | 4.30 |
| 3-54 | | 5/8 | 2440-296† | 2.90 |
| 3-54 | | 13/16 | 2440-298† | 3.20 |
| 3-56 | NF | 5/8 | 2430-206† | 2.90 |
| 3-56 | NF | 13/16 | 2430-215 | 3.20 |
| 3-56 | NF | 1 | 2440-303 | 4.30 |
| 3-60 | | 5/8 | 2440-308† | 2.90 |
| 3-60 | | 13/16 | 2440-310† | 3.20 |
| 4-32 | | 5/8 | 2440-335† | 2.90 |
| 4-32 | | 13/16 | 2440-336† | 3.20 |
| 4-32 | | 1 | 2440-337† | 4.30 |
| 4-36 | NS | 5/8 | 2440-342† | 2.90 |
| 4-36 | NS | 13/16 | 2430-218 | 3.20 |
| 4-36 | NS | 1 | 2440-344 | 4.30 |
| 4-40 | NC | 13/16 | 2430-216 | 3.20 |
| 4-40 | NC | 1 | 2440-347 | 4.30 |
| 4-42 | | 5/8 | 2440-350† | 2.90 |
| 4-42 | | 1 | 2440-352† | 4.30 |
| 4-44 | | 13/16 | 2440-357† | 3.20 |
| 4-48 | NF | 5/8 | 2430-208† | 2.90 |
| 4-48 | NF | 13/16 | 2430-217 | 3.20 |
| 4-48 | NF | 1 | 2440-362 | 4.30 |
| 4-56 | | 5/8 | 2440-367† | 2.90 |
| 5-30 | | 5/8 | 2440-394† | 2.90 |
| 5-32 | | 5/8 | 2440-399† | 2.90 |
| 5-36 | | 13/16 | 2440-406† | 3.20 |
| 5-40 | NC | 5/8 | 2440-411† | 2.90 |
| 5-40 | NC | 13/16 | 2430-219 | 3.20 |
| 5-40 | NC | 1 | 2440-413 | 4.30 |
| 5-44 | NF | 5/8 | 2440-418† | 2.90 |
| 5-44 | NF | 13/16 | 2430-220 | 3.20 |
| 5-44 | NF | 1 | 2440-420 | 4.30 |
| 5-48 | | 13/16 | 2440-425† | 3.20 |
| 5-50 | | 13/16 | 2440-430† | 3.20 |
| 6-24 | | 13/16 | 2440-470† | 3.20 |
| 6-30 | | 5/8 | 2440-475† | 2.90 |
| 6-30 | | 13/16 | 2440-477† | 3.20 |
| 6-30 | | 1 | 2440-479† | 4.30 |
| 6-32 | NC | 5/8 | 2440-483† | 2.90 |
| 6-32 | NC | 13/16 | 2430-221 | 3.20 |
| 6-32 | NC | 1 | 2430-229 | 4.30 |
| 6-36 | | 5/8 | 2440-488† | 2.90 |
| 6-36 | | 13/16 | 2440-490† | 3.20 |
| 6-36 | | 1 | 2440-492† | 4.30 |
| 6-38 | | 5/8 | 2440-497† | 2.90 |
| 6-40 | NF | 5/8 | 2440-502† | 2.90 |
| 6-40 | NF | 13/16 | 2430-222 | 3.20 |
| 6-40 | NF | 1 | 2440-504 | 4.30 |
| 7-24 | | 13/16 | 2440-540† | 3.20 |
| 7-28 | | 5/8 | 2440-545† | 2.90 |
| 7-32 | | 5/8 | 2440-550† | 2.90 |
| 7-32 | | 13/16 | 2440-552† | 3.20 |
| 7-36 | | 5/8 | 2440-559† | 2.90 |
| 7-36 | | 13/16 | 2440-561† | 3.20 |
| 7-36 | | 1 | 2440-563† | 4.30 |
| 7-40 | | 5/8 | 2440-568† | 2.90 |
| 8-24 | | 5/8 | 2440-605† | $2.90 |
| 8-24 | | 13/16 | 2440-607† | 3.20 |
| 8-26 | | 13/16 | 2440-612† | 3.20 |
| 8-28 | | 13/16 | 2440-617† | 3.20 |
| 8-30 | | 5/8 | 2440-622† | 2.90 |
| 8-30 | | 13/16 | 2440-624† | 3.20 |
| 8-30 | | 1 | 2440-626† | 4.30 |
| 8-32 | NC | 5/8 | 2440-631† | 2.90 |
| 8-32 | NC | 13/16 | 2430-223 | 3.20 |
| 8-32 | NC | 1 | 2430-230 | 4.30 |
| 8-34 | | 13/16 | 2440-636† | 3.20 |
| 8-36 | NF | 5/8 | 2440-641† | 2.90 |
| 8-36 | NF | 13/16 | 2430-224 | 3.20 |
| 8-36 | NF | 1 | 2440-642 | 4.30 |
| 8-38 | | 13/16 | 2440-647† | 3.20 |
| 8-40 | | 5/8 | 2440-652† | 2.90 |
| 8-40 | | 13/16 | 2440-654† | 3.20 |
| 8-40 | | 1 | 2440-656† | 4.30 |
| 8-42 | | 13/16 | 2440-661† | 3.20 |
| 8-48 | | 13/16 | 2440-666† | 3.20 |
| 9-24 | | 5/8 | 2440-695† | 2.90 |
| 9-28 | | 13/16 | 2440-700† | 3.20 |
| 9-30 | | 5/8 | 2440-705† | 2.90 |
| 9-32 | | 13/16 | 2440-710† | 3.20 |
| 9-38 | | 13/16 | 2440-720† | 3.20 |
| 10-20 | | 13/16 | 2440-730† | 3.20 |
| 10-22 | | 5/8 | 2440-735† | 2.90 |
| 10-24 | NC | 5/8 | 2440-740† | 2.90 |
| 10-24 | NC | 13/16 | 2430-225 | 3.20 |
| 10-24 | NC | 1 | 2430-231 | 4.30 |
| 10-27 | | 5/8 | 2440-745† | 2.90 |
| 10-30 | | 5/8 | 2440-750† | 2.90 |
| 10-30 | | 13/16 | 2440-752† | 3.20 |
| 10-30 | | 1 | 2440-754† | 4.30 |
| 10-32 | NF | 5/8 | 2440-759† | 2.90 |
| 10-32 | NF | 13/16 | 2430-226 | 3.20 |
| 10-32 | NF | 1 | 2430-232 | 4.30 |
| 10-34 | | 13/16 | 2440-764† | 3.20 |
| 10-36 | | 13/16 | 2440-769† | 3.20 |
| 10-36 | | 1 | 2440-771† | 4.30 |
| 11-28 | | 13/16 | 2440-850† | 3.20 |
| 11-36 | | 13/16 | 2440-865† | 3.20 |
| 12-22 | | 5/8 | 2440-890† | 2.90 |
| 12-24 | NC | 5/8 | 2440-894† | 2.90 |
| 12-24 | NC | 13/16 | 2430-227 | 3.20 |
| 12-24 | NC | 1 | 2430-233 | 4.30 |
| 12-28 | NF | 5/8 | 2440-902† | 2.90 |
| 12-28 | NF | 13/16 | 2430-228 | 3.20 |
| 12-28 | NF | 1 | 2440-904 | 4.30 |
| 12-30 | | 13/16 | 2440-908† | 3.20 |
| 12-32 | NEF | 5/8 | 2440-912† | 2.90 |
| 12-32 | NEF | 13/16 | 2440-914† | 3.20 |
| 12-32 | NEF | 1 | 2440-916† | 4.30 |
| 12-34 | | 13/16 | 2440-920† | 3.20 |
| 12-36 | | 13/16 | 2440-924† | 3.20 |
| 13-20 | | 13/16 | 2440-950† | 3.20 |
| 13-20 | | 1 | 2440-952† | 4.30 |
| 13-22 | | 13/16 | 2440-957† | 3.20 |
| 13-24 | | 13/16 | 2440-962† | 3.20 |
| 13-28 | | 13/16 | 2440-967† | 3.20 |
| 13-32 | | 13/16 | 2440-972† | 3.20 |
| 14-16 | | 13/16 | 2441-000† | 3.20 |
| 14-20 | | 13/16 | 2441-007† | 3.20 |
| 14-20 | | 1 | 2441-009† | 4.30 |
| 14-22 | | 13/16 | 2441-014† | 3.20 |
| 14-24 | | 5/8 | 2441-018† | 2.90 |
| 14-24 | | 13/16 | 2441-020† | 3.20 |
| 14-24 | | 1 | 2441-022† | 4.30 |
| 14-26 | | 13/16 | 2441-026† | 3.20 |
| 14-32 | | 13/16 | 2441-030† | 3.20 |
| 14-36 | | 13/16 | 2441-034† | 3.20 |
| 15-18 | | 5/8 | 2441-045† | 2.90 |
| 15-20 | | 13/16 | 2441-050† | 3.20 |
| 15-22 | | 5/8 | 2441-055† | 2.90 |
| 15-24 | | 1 | 2441-060† | 4.30 |
| 15-32 | | 13/16 | 2441-065† | 3.20 |
| 16-16 | | 13/16 | 2441-090† | 3.20 |
| 16-20 | | 5/8 | 2441-095† | 2.90 |
| 16-20 | | 13/16 | 2441-097† | 3.20 |
| 16-22 | | 13/16 | 2441-102† | 3.20 |
| 16-24 | | 5/8 | 2441-107† | 2.90 |
| 16-24 | | 1 | 2441-109† | 4.30 |
| 16-26 | | 13/16 | 2441-114† | 3.20 |
| 16-28 | | 13/16 | 2441-119† | 3.20 |
| 16-32 | | 13/16 | 2441-124† | $3.20 |
| 18-16 | | 13/16 | 2441-195† | 3.20 |
| 18-16 | | 1 | 2441-197† | 4.30 |
| 18-18 | | 1 | 2441-202† | 4.30 |
| 18-20 | | 5/8 | 2441-206† | 2.90 |
| 18-24 | | 13/16 | 2441-211† | 3.20 |
| 18-30 | | 13/16 | 2441-217† | 3.20 |
| 18-32 | | 13/16 | 2441-221† | 3.20 |
| 19-16 | | 13/16 | 2441-245† | 3.20 |
| 19-18 | | 1 | 2441-250† | 4.30 |
| 19-30 | | 13/16 | 2441-262† | 3.20 |
| 20-16 | | 1 | 2441-285† | 4.30 |
| 20-18 | | 1 | 2441-290† | 4.30 |
| 20-20 | | 13/16 | 2441-295† | 3.20 |
| 20-22 | | 1 | 2441-300† | 4.30 |
| 20-24 | | 1 | 2441-305† | 4.30 |
| 22-16 | | 1 | 2441-380† | 4.30 |
| 24-14 | | 1 | 2441-465† | 4.30 |
| 24-16 | | 1 | 2441-470† | 4.30 |
| 24-18 | | 13/16 | 2441-475† | 3.20 |
| 24-24 | | 1 | 2441-480† | 4.30 |
| 30-16 | | 1 | 2441-740† | 4.30 |
| 1/16-56 | | 5/8 | 2441-785† | 2.90 |
| 1/16-64 | | 13/16 | 2441-790† | 3.20 |
| 5/64-56 | | 13/16 | 2441-832† | 3.20 |
| 5/64-64 | | 13/16 | 2441-837† | 3.20 |
| 3/32-40 | | 13/16 | 2441-880† | 3.20 |
| 3/32-46 | | 13/16 | 2441-885† | 3.20 |
| 3/32-48 | | 13/16 | 2441-890† | 3.20 |
| 3/32-50 | | 1 | 2441-895† | 4.30 |
| 3/32-52 | | 5/8 | 2441-900† | 2.90 |
| 3/32-54 | | 13/16 | 2441-905† | 3.20 |
| 3/32-60 | | 13/16 | 2441-910† | 3.20 |
| 3/32-120 | | 13/16 | 2441-920† | 3.20 |
| 7/64-32 | | 13/16 | 2441-925† | 3.20 |
| 7/64-36 | | 5/8 | 2441-930† | 2.90 |
| 7/64-40 | | 5/8 | 2441-935† | 2.90 |
| 7/64-44 | | 13/16 | 2441-940† | 3.20 |
| 7/64-48 | | 13/16 | 2441-945† | 3.20 |
| 7/64-50 | | 13/16 | 2441-950† | 3.20 |
| 7/64-56 | | 13/16 | 2441-955† | 3.20 |
| 1/8-22 | | 13/16 | 2441-970† | 3.20 |
| 1/8-27 | | 13/16 | 2441-975† | 3.20 |
| 1/8-30 | | 5/8 | 2441-980† | 2.90 |
| 1/8-40 | | 13/16 | 2441-985† | 3.20 |
| 1/8-40 | | 1 | 2430-234† | 4.30 |
| 1/8-42 | | 5/8 | 2441-990† | 2.90 |
| 1/8-48 | | 13/16 | 2441-995† | 3.20 |
| 1/8-48 | | 1 | 2441-997† | 4.30 |
| 1/8-50 | | 13/16 | 2442-001† | 3.20 |
| 1/8-56 | | 5/8 | 2442-005† | 2.90 |
| 9/64-30 | | 5/8 | 2442-015† | 2.90 |
| 5/32-24 | | 13/16 | 2442-060† | 3.20 |
| 5/32-28 | | 13/16 | 2442-065† | 3.20 |
| 5/32-30 | | 13/16 | 2442-069† | 3.20 |
| 5/32-32 | | 13/16 | 2442-073† | 3.20 |
| 5/32-32 | | 1 | 2442-075† | 4.30 |
| 5/32-36 | | 13/16 | 2442-080† | 3.20 |
| 5/32-36 | | 1 | 2442-082† | 4.30 |
| 5/32-40 | | 5/8 | 2442-087† | 2.90 |
| 5/32-50 | | 13/16 | 2442-092† | 3.20 |
| 5/32-58 | | 1 | 2442-097† | 4.30 |
| 11/64-36 | | 5/8 | 2442-114† | 2.90 |
| 11/64-36 | | 13/16 | 2442-116† | 3.20 |
| 11/64-40 | | 13/16 | 2442-121† | 3.20 |
| 3/16-12 | | 1 1/2 | 2442-155† | 9.40 |
| 3/16-22 | | 13/16 | 2442-166† | 3.20 |
| 3/16-24 | | 1 | 2430-235† | 4.30 |
| 3/16-27 | | 13/16 | 2442-171† | 3.20 |
| 3/16-27 | | 1 | 2442-173† | 4.30 |
| 3/16-28 | | 5/8 | 2442-178† | 2.90 |
| 3/16-30 | | 13/16 | 2442-183† | 3.20 |
| 3/16-30 | | 1 | 2442-185† | 4.30 |
| 3/16-32 | | 13/16 | 2442-190† | 3.20 |
| 3/16-32 | | 1 | 2430-236† | 4.30 |
| 3/16-32 | | 1 1/2 | 2442-192† | 9.40 |
| 3/16-36 | WT | 13/16 | 2442-197† | 3.20 |
| 3/16-40 | | 13/16 | 2442-204† | 3.20 |
| 3/16-48 | | 13/16 | 2442-209† | 3.20 |
| 13/64-24 | | 13/16 | 2442-225† | 3.20 |
| 13/64-24 | | 1 | 2442-227† | 4.30 |
| 13/64-30 | | 5/8 | 2442-232† | 2.90 |

† Limited Quantities

WT- Whitworth Thread

# Carbon Steel Round Adjustable Dies

## Right Hand - NC, NF & Special Pitch

8

| SIZE | SERIES | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 13/64-30 | | 13/16 | 2442-234† | $3.20 |
| 13/64-32 | | 1 | 2442-239† | 4.30 |
| 13/64-38 | | 13/16 | 2442-244† | 3.20 |
| 7/32-22 | | 13/16 | 2442-275† | 3.20 |
| 7/32-24 | | 13/16 | 2442-282† | 3.20 |
| 7/32-24 | | 1 | 2442-284† | 4.30 |
| 7/32-28 | | 1 | 2442-289† | 4.30 |
| 7/32-30 | | 13/16 | 2442-294† | 3.20 |
| 7/32-32 | | 13/16 | 2442-299† | 3.20 |
| 7/32-32 | | 1 | 2442-301† | 4.30 |
| 7/32-34 | | 5/8 | 2442-306† | 2.90 |
| 7/32-36 | | 13/16 | 2442-311† | 3.20 |
| 15/64-22 | | 13/16 | 2442-340† | 3.20 |
| 15/64-24 | | 13/16 | 2442-345† | 3.20 |
| 15/64-24 | | 1 | 2442-347† | 4.30 |
| 15/64-32 | | 13/16 | 2442-352† | 3.20 |
| 15/64-32 | | 1 | 2442-354† | 4.30 |
| 15/64-36 | | 13/16 | 2442-359† | 3.20 |
| 1/4-18 | | 13/16 | 2442-393† | 3.20 |
| 1/4-20 | NC | 5/8 | 2442-398† | 2.90 |
| 1/4-20 | NC | 13/16 | 2442-400 | 3.20 |
| 1/4-20 | NC | 1 | 2430-237 | 4.30 |
| 1/4-20 | NC | 1 5/16 | 2430-249† | 4.50 |
| 1/4-20 | NC | 1 1/2 | 2430-259 | 9.40 |
| 1/4-20 | NC | 2 | 2430-276 | 15.60 |
| 1/4-24 | | 1 | 2430-239† | 4.30 |
| 1/4-24 | | 1 1/2 | 2442-414† | 9.40 |
| 1/4-24 | | 1 5/16 | 2442-412† | 4.50 |
| 1/4-24 | | 2 | 2442-416† | 15.60 |
| 1/4-26 | | 5/8 | 2442-426† | 2.90 |
| 1/4-26 | | 1 5/16 | 2442-430† | 4.50 |
| 1/4-27 | | 1 | 2442-435† | 4.30 |
| 1/4-27 | | 1 1/2 | 2442-437† | 9.40 |
| 1/4-28 | NF | 5/8 | 2442-442† | 2.90 |
| 1/4-28 | NF | 13/16 | 2442-444 | 3.20 |
| 1/4-28 | NF | 1 | 2430-238 | 4.30 |
| 1/4-28 | NF | 1 5/16 | 2430-250† | 4.50 |
| 1/4-28 | NF | 1 1/2 | 2430-260 | 9.40 |
| 1/4-28 | NF | 2 | 2430-277 | 15.60 |
| 1/4-30 | | 5/8 | 2442-449† | 2.90 |
| 1/4-32 | NEF | 13/16 | 2442-454† | 3.20 |
| 1/4-32 | NEF | 1 | 2430-240† | 4.30 |
| 1/4-32 | NEF | 1 5/16 | 2442-466† | 4.50 |
| 1/4-32 | NEF | 1 1/2 | 2442-456† | 9.40 |
| 1/4-32 | NEF | 2 | 2442-458† | 15.60 |
| 1/4-36 | | 1 1/2 | 2442-471† | 9.40 |
| 1/4-50 | | 13/16 | 2442-481† | 3.20 |
| 17/64-12 | | 1 | 2442-510† | 4.30 |
| 17/64-18 | | 1 | 2442-515† | 4.30 |
| 17/64-20 | | 1 | 2442-520† | 4.30 |
| 17/64-24 | | 13/16 | 2442-525† | 3.20 |
| 17/64-27 | | 1 | 2442-530† | 4.30 |
| 17/64-28 | | 13/16 | 2442-535† | 3.20 |
| 17/64-32 | | 5/8 | 2442-540† | 2.90 |
| 9/32-16 | | 1 | 2442-565† | 4.30 |
| 9/32-18 | | 13/16 | 2442-570† | 3.20 |
| 9/32-20 | | 5/8 | 2442-575† | 2.90 |
| 9/32-20 | | 1 | 2442-577† | 4.30 |
| 9/32-20 | | 1 1/2 | 2442-579† | 9.40 |
| 9/32-24 | | 13/16 | 2442-584† | 3.20 |
| 9/32-26 | | 1 | 2442-589† | 4.30 |
| 9/32-27 | | 1 | 2442-594† | 4.30 |
| 9/32-28 | | 1 | 2442-599† | 4.30 |
| 9/32-30 | | 13/16 | 2442-604† | 3.20 |
| 9/32-32 | | 13/16 | 2442-609† | 3.20 |
| 9/32-32 | | 1 | 2442-611† | 4.30 |
| 9/32-46 | | 13/16 | 2442-616† | 3.20 |
| 5/16-16 | | 13/16 | 2442-690† | 3.20 |
| 5/16-16 | | 1 | 2442-692† | 4.30 |
| 5/16-16 | | 1 1/2 | 2442-694† | 9.40 |
| 5/16-18 | NC | 13/16 | 2442-699 | 3.20 |
| 5/16-18 | NC | 1 | 2430-241 | 4.30 |
| 5/16-18 | NC | 1 5/16 | 2430-251† | 4.50 |
| 5/16-18 | NC | 1 1/2 | 2430-261 | 9.40 |
| 5/16-18 | NC | 2 | 2430-278 | 15.60 |
| 5/16-20 | | 13/16 | 2442-704† | 3.20 |
| 5/16-20 | | 1 | 2442-706† | 4.30 |
| 5/16-20 | | 1 1/2 | 2442-708† | 9.40 |
| 5/16-20 | | 2 | 2442-710† | 15.60 |
| 5/16-20 | | 2 1/4 | 2442-712† | 15.60 |
| 5/16-24 | NF | 13/16 | 2442-717 | 3.20 |
| 5/16-24 | NF | 1 | 2430-242 | 4.30 |
| 5/16-24 | NF | 1 5/16 | 2430-252† | 4.50 |
| 5/16-24 | NF | 1 1/2 | 2430-262 | 9.40 |
| 5/16-24 | NF | 2 | 2430-279 | 15.60 |
| 5/16-26 | | 1 | 2442-722† | $4.30 |
| 5/16-27 | | 13/16 | 2442-727† | 3.20 |
| 5/16-27 | | 1 | 2442-729† | 4.30 |
| 5/16-27 | | 1 5/16 | 2442-429† | 4.50 |
| 5/16-32 | NEF | 13/16 | 2442-741† | 3.20 |
| 5/16-32 | NEF | 1 | 2430-243† | 4.30 |
| 5/16-32 | NEF | 1 5/16 | 2442-743† | 4.50 |
| 5/16-32 | NEF | 1 1/2 | 2442-745† | 9.40 |
| 5/16-32 | NEF | 2 | 2442-747† | 15.60 |
| 5/16-100 | | 1 | 2442-800† | 4.30 |
| 21/64-18 | | 13/16 | 2442-820† | 3.20 |
| 21/64-18 | | 1 1/2 | 2442-822† | 9.40 |
| 21/64-36 | | 13/16 | 2442-831† | 3.20 |
| 11/32-16 | | 13/16 | 2442-870† | 3.20 |
| 11/32-20 | | 1 | 2442-875† | 4.30 |
| 11/32-20 | | 1 1/2 | 2442-877† | 9.40 |
| 11/32-24 | | 1 | 2442-882† | 4.30 |
| 11/32-28 | | 1 | 2442-887† | 4.30 |
| 11/32-40 | | 1 | 2442-901† | 4.30 |
| 3/8-16 | NC | 1 | 2430-244 | 4.30 |
| 3/8-16 | NC | 1 5/16 | 2430-253† | 4.50 |
| 3/8-16 | NC | 1 1/2 | 2430-263 | 9.40 |
| 3/8-16 | NC | 2 | 2430-280 | 15.60 |
| 3/8-20 | | 1 | 2443-024† | 4.30 |
| 3/8-20 | | 1 5/16 | 2443-026† | 4.50 |
| 3/8-20 | | 1 1/2 | 2443-028† | 9.40 |
| 3/8-20 | | 2 | 2443-030† | 15.60 |
| 3/8-24 | NF | 1 | 2430-245 | 4.30 |
| 3/8-24 | NF | 1 5/16 | 2430-254† | 4.50 |
| 3/8-24 | NF | 1 1/2 | 2430-264 | 9.40 |
| 3/8-24 | NF | 2 | 2430-281 | 15.60 |
| 3/8-26 | | 1 5/16 | 2443-040† | 4.50 |
| 3/8-27 | | 1 1/2 | 2443-045† | 9.40 |
| 3/8-32 | NEF | 1 1/2 | 2443-050† | 9.40 |
| 3/8-32 | NEF | 2 | 2443-055† | 15.60 |
| 3/8-40 | | 1 | 2443-060† | 4.30 |
| 13/32-16 | | 1 1/2 | 2443-185† | 9.40 |
| 13/32-20 | | 13/16 | 2443-190† | 3.20 |
| 13/32-20 | | 1 | 2443-192† | 4.30 |
| 13/32-20 | | 1 1/2 | 2443-194† | 9.40 |
| 13/32-24 | | 13/16 | 2443-199† | 3.20 |
| 7/16-12 | | 1 | 2443-295† | 4.30 |
| 7/16-14 | NC | 1 | 2430-246 | 4.30 |
| 7/16-14 | NC | 1 5/16 | 2430-255† | 4.50 |
| 7/16-14 | NC | 1 1/2 | 2430-265 | 9.40 |
| 7/16-14 | NC | 2 | 2430-282 | 15.60 |
| 7/16-16 | | 1 | 2443-310† | 4.30 |
| 7/16-18 | | 1 1/2 | 2443-315† | 9.40 |
| 7/16-20 | NF | 1 | 2430-247 | 4.30 |
| 7/16-20 | NF | 1 5/16 | 2430-256† | 4.50 |
| 7/16-20 | NF | 1 1/2 | 2430-266 | 9.40 |
| 7/16-20 | NF | 2 | 2430-283 | 15.60 |
| 7/16-24 | | 1 | 2443-323† | 4.30 |
| 7/16-24 | | 1 1/2 | 2443-325† | 9.40 |
| 7/16-24 | | 2 | 2443-327† | 15.60 |
| 7/16-27 | | 1 | 2443-332† | 4.30 |
| 7/16-28 | NEF | 2 | 2443-337† | 15.60 |
| 1/2-12 | | 1 5/16 | 2443-560† | 4.50 |
| 1/2-12 | | 1 1/2 | 2443-562† | 9.40 |
| 1/2-12 | | 2 | 2443-564† | 15.60 |
| 1/2-13 | NC | 1 | 2443-569 | 4.30 |
| 1/2-13 | NC | 1 5/16 | 2430-257† | 4.50 |
| 1/2-13 | NC | 1 1/2 | 2430-267 | 9.40 |
| 1/2-13 | NC | 2 | 2430-284 | 15.60 |
| 1/2-20 | NF | 1 | 2443-582 | 4.30 |
| 1/2-20 | NF | 1 5/16 | 2430-258† | 4.50 |
| 1/2-20 | NF | 1 1/2 | 2430-268 | 9.40 |
| 1/2-20 | NF | 2 | 2430-285 | 15.60 |
| 1/2-24 | | 1 | 2443-589† | 4.30 |
| 1/2-24 | | 1 1/2 | 2443-591† | 9.40 |
| 1/2-24 | | 2 | 2443-594† | 15.60 |
| 1/2-27 | | 1 1/2 | 2443-599† | 9.40 |
| 1/2-28 | NEF | 2 | 2443-604† | 15.60 |
| 1/2-32 | | 1 1/2 | 2443-609† | 9.40 |
| 17/32-40 | | 1 1/2 | 2443-750† | 9.40 |
| 9/16-12 | NC | 1 1/2 | 2430-269 | 9.40 |
| 9/16-12 | NC | 2 | 2430-286 | 15.60 |
| 9/16-12 | NC | 2 1/2 | 2443-845† | 18.50 |
| 9/16-18 | NF | 1 1/2 | 2430-270 | 9.40 |
| 9/16-18 | NF | 2 | 2430-287 | 15.60 |
| 9/16-18 | NF | 2 1/2 | 2443-854† | 18.50 |
| 9/16-20 | | 1 1/2 | 2443-859† | 9.40 |
| 9/16-20 | | 2 1/2 | 2443-861† | 18.50 |
| 9/16-24 | NEF | 1 1/2 | 2443-865† | 9.40 |
| 9/16-24 | NEF | 2 | 2443-867† | 15.60 |
| 9/16-27 | | 1 1/2 | 2443-872† | 9.40 |
| 5/8-11 | NC | 1 1/2 | 2430-271 | $9.40 |
| 5/8-11 | NC | 2 | 2430-288 | 15.60 |
| 5/8-11 | NC | 2 1/2 | 2430-299 | POA |
| 5/8-12 | | 2 | 2444-110† | 15.60 |
| 5/8-13 | | 1 1/2 | 2444-115† | 9.40 |
| 5/8-18 | NF | 1 1/2 | 2430-272 | 9.40 |
| 5/8-18 | NF | 2 | 2430-289 | 15.60 |
| 5/8-18 | NF | 2 1/2 | 2444-120† | 18.50 |
| 5/8-20 | | 1 1/2 | 2444-127† | 9.40 |
| 5/8-20 | | 2 | 2444-129† | 15.60 |
| 5/8-20 | | 2 1/2 | 2444-131† | 18.50 |
| 5/8-24 | NEF | 1 1/2 | 2444-136† | 9.40 |
| 5/8-24 | NEF | 2 | 2444-138† | 15.60 |
| 5/8-32 | | 2 | 2444-148† | 15.60 |
| 11/16-11 | NC | 1 1/2 | 2444-365 | 9.40 |
| 11/16-11 | NC | 2 | 2430-290 | 15.60 |
| 11/16-11 | NC | 2 1/2 | 2444-367 | POA |
| 11/16-16 | NF | 1 1/2 | 2444-372 | 9.40 |
| 11/16-16 | NF | 2 | 2430-291 | 15.60 |
| 11/16-16 | NF | 2 1/2 | 2444-374† | 18.50 |
| 11/16-20 | | 2 1/2 | 2444-384† | 18.50 |
| 11/16-27 | | 1 1/2 | 2444-392† | 9.40 |
| 11/16-27 | | 2 | 2444-394† | 15.60 |
| 11/16-32 | | 2 | 2444-399† | 15.60 |
| 11/16-36 | | 1 5/16 | 2444-404† | 4.50 |
| 45/64-32 | | 2 | 2444-465† | 15.60 |
| 3/4-10 | NC | 1 1/2 | 2444-616 | 9.40 |
| 3/4-10 | NC | 2 | 2430-292 | 15.60 |
| 3/4-10 | NC | 2 1/2 | 2430-300 | 18.50 |
| 3/4-12 | | 2 | 2444-621† | 15.60 |
| 3/4-16 | NF | 1 1/2 | 2444-626 | 9.40 |
| 3/4-16 | NF | 2 | 2430-293 | 15.60 |
| 3/4-16 | NF | 2 1/2 | 2430-301 | 18.50 |
| 3/4-18 | | 1 1/2 | 2444-631† | 9.40 |
| 3/4-20 | NEF | 1 1/2 | 2444-636† | 9.40 |
| 3/4-20 | NEF | 2 | 2444-638† | 15.60 |
| 3/4-20 | NEF | 2 1/2 | 2444-640† | 18.50 |
| 3/4-27 | | 2 | 2444-650† | 15.60 |
| 13/16-10 | | 2 | 2444-915† | 15.60 |
| 13/16-14 | | 2 | 2444-920† | 15.60 |
| 13/16-18 | | 2 | 2444-925† | 15.60 |
| 13/16-20 | NEF | 2 | 2444-930† | 15.60 |
| 27/32-24 | | 2 | 2445-076† | 15.60 |
| 7/8- 9 | NC | 2 | 2430-294 | 15.60 |
| 7/8- 9 | NC | 2 1/2 | 2430-302 | 18.50 |
| 7/8- 9 | NC | 3 | 2445-180† | 22.00 |
| 7/8-12 | | 2 1/2 | 2445-187† | 18.50 |
| 7/8-14 | NF | 2 | 2430-295 | 15.60 |
| 7/8-14 | NF | 2 1/2 | 2430-303 | 18.50 |
| 7/8-20 | NEF | 2 | 2445-199† | 15.60 |
| 7/8-20 | NEF | 2 1/2 | 2445-201† | 18.50 |
| 7/8-24 | | 2 1/2 | 2445-206† | 18.50 |
| 7/8-30 | | 2 | 2445-216† | 15.60 |
| 7/8-32 | | 2 1/2 | 2445-221† | 18.50 |
| 59/64-18 | | 2 | 2445-390† | 15.60 |
| 15/16-16 | | 2 1/2 | 2445-444† | 18.50 |
| 15/16-18 | | 2 | 2445-449† | 15.60 |
| 15/16-20 | NEF | 2 | 2445-454† | 15.60 |
| 15/16-20 | NEF | 2 1/2 | 2445-456† | 18.50 |
| 15/16-27 | | 2 | 2445-466† | 15.60 |
| 31/32-38 | | 2 | 2445-602† | 15.60 |
| 1- 8 | NC | 2 | 2445-695 | 15.60 |
| 1- 8 | NC | 2 1/2 | 2430-304 | 18.50 |
| 1- 8 | NC | 3 | 2430-307 | 22.00 |
| 1-10 | | 3 | 2445-700† | 22.00 |
| 1-12 | NF | 2 | 2445-710 | 15.60 |
| 1-12 | NF | 2 1/2 | 2430-305 | 18.50 |
| 1-12 | NF | 3 | 2430-308 | 22.00 |
| 1-14 | NS | 2 | 2445-715 | 15.60 |
| 1-14 | NS | 2 1/2 | 2430-306 | 18.50 |
| 1-14 | NS | 3 | 2430-309 | 22.00 |
| 1-16 | | 2 1/2 | 2445-722† | 18.50 |
| 1-20 | NEF | 2 | 2445-727† | 15.60 |
| 1-20 | NEF | 2 1/2 | 2445-731† | 18.50 |
| 1-20 | NEF | 3 | 2445-733† | 22.00 |
| 1-24 | | 2 | 2445-740† | 15.60 |
| 1-24 | | 2 1/2 | 2445-742† | 18.50 |
| 1-27 | | 3 | 2445-749† | 22.00 |
| 1 1/16-12 | | 3 | 2445-905† | 22.00 |
| 1 1/16-14 | | 2 1/2 | 2445-910† | 18.50 |
| 1 1/16-14 | | 3 | 2445-912† | 22.00 |
| 1 1/16-17 | | 3 | 2445-917† | 22.00 |
| 1 1/16-18 | NEF | 3 | 2445-922† | 22.00 |
| 1 1/16-20 | | 2 1/2 | 2445-927† | 18.50 |

† Limited Quantities

# Carbon Steel Round Adjustable Dies

## Right Hand - NC, NF & Special Pitch

8

| SIZE | SERIES | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1 3/32-20 | | 2 1/2 | 2446-008† | $18.50 |
| 1 1/8- 7 | NC | 2 | 2446-050† | 15.60 |
| 1 1/8- 7 | NC | 3 | 2430-310 | 22.00 |
| 1 1/8- 8 | | 3 | 2446-055† | 22.00 |
| 1 1/8-12 | NF | 3 | 2430-311 | 22.00 |
| 1 1/8-14 | | 3 | 2446-061† | 22.00 |
| 1 1/8-16 | | 2 1/2 | 2446-065† | 18.50 |
| 1 1/8-16 | | 3 | 2446-067† | 22.00 |
| 1 1/8-18 | NEF | 2 1/2 | 2446-072† | 18.50 |
| 1 1/8-18 | NEF | 3 | 2446-074† | 22.00 |
| 1 1/8-20 | | 2 | 2446-079† | 15.60 |
| 1 1/8-20 | | 3 | 2446-081† | 22.00 |
| 1 1/8-24 | | 2 | 2446-086† | 15.60 |
| 1 1/8-24 | | 2 1/2 | 2446-088† | 18.50 |
| 1 1/8-32 | | 2 1/2 | 2446-099† | 18.50 |
| 1 3/16-16 | | 2 1/2 | 2446-207† | 18.50 |
| 1 3/16-18 | NEF | 2 1/2 | 2446-212† | 18.50 |
| 1 3/16-18 | NEF | 3 | 2446-214† | 22.00 |
| 1 3/16-20 | | 2 1/2 | 2446-219† | 18.50 |
| 1 3/16-20 | | 3 | 2446-221† | 22.00 |
| 1 3/16-32 | | 3 | 2446-237† | 22.00 |
| 1 1/4- 7 | NC | 3 | 2430-312 | 22.00 |
| 1 1/4- 8 | | 3 | 2446-330† | 22.00 |
| 1 1/4-12 | NF | 3 | 2430-313 | 22.00 |
| 1 1/4-16 | | 2 1/2 | 2446-340† | 18.50 |
| 1 1/4-16 | | 3 | 2446-342† | 22.00 |
| 1 1/4-18 | NEF | 2 1/2 | 2446-347† | 18.50 |
| 1 1/4-18 | NEF | 3 | 2446-349† | 22.00 |
| 1 1/4-20 | | 2 1/2 | 2446-354† | 18.50 |
| 1 1/4-20 | | 3 | 2446-356† | 22.00 |
| 1 1/4-24 | | 3 | 2446-361† | 22.00 |
| 1 1/4-32 | | 3 | 2446-371† | 22.00 |
| 1 5/16-12 | | 2 1/2 | 2446-455† | 18.50 |
| 1 5/16-12 | | 3 | 2446-457† | 22.00 |
| 1 5/16-20 | | 3 | 2446-467† | 22.00 |
| 1 3/8- 6 | NC | 3 | 2430-314 | 22.00 |
| 1 3/8-12 | NF | 3 | 2430-315 | 22.00 |
| 1 3/8-14 | | 3 | 2446-589† | 22.00 |
| 1 3/8-16 | | 3 | 2446-594† | 22.00 |
| 1 3/8-18 | NEF | 2 1/2 | 2446-599† | 18.50 |
| 1 3/8-18 | NEF | 3 | 2446-601† | 22.00 |
| 1 3/8-20 | | 2 1/2 | 2446-606† | 18.50 |
| 1 3/8-20 | | 3 | 2446-608† | 22.00 |
| 1 7/16-12 | | 3 | 2446-712† | 22.00 |
| 1 7/16-18 | | 3 | 2446-722† | 22.00 |
| 1 7/16-20 | | 3 | 2446-727† | 22.00 |
| 1 7/16-32 | | 3 | 2446-742† | 22.00 |
| 1 1/2- 6 | NC | 3 | 2430-316 | 22.00 |
| 1 1/2-12 | NF | 3 | 2430-317 | 22.00 |
| 1 1/2-14 | | 3 | 2446-841† | 22.00 |
| 1 1/2-16 | | 2 1/2 | 2446-846† | 18.50 |
| 1 1/2-18 | NEF | 2 1/2 | 2446-851† | 18.50 |
| 1 1/2-18 | NEF | 3 | 2446-853† | 22.00 |
| 1 1/2-36 | | 3 | 2446-877† | 22.00 |
| 1 9/16-24 | | 3 | 2447-032† | 22.00 |
| 1 9/16-32 | | 3 | 2447-042† | 22.00 |
| 1 5/8- 5 1/2 | | 3 | 2447-135† | 22.00 |
| 1 5/8- 8 | | 3 | 2447-140† | 22.00 |
| 1 5/8-10 | | 3 | 2447-145† | 22.00 |
| 1 5/8-10 | | 4 | 2447-147† | 73.50 |
| 1 5/8-12 | | 3 | 2447-152† | 22.00 |
| 1 5/8-14 | | 3 | 2447-157† | 22.00 |
| 1 5/8-16 | | 3 | 2447-162† | 22.00 |

† Limited Quantities

| SIZE | SERIES | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1 5/8-18 | NEF | 3 | 2447-167† | $22.00 |
| 1 5/8-24 | | 3 | 2447-172† | 22.00 |
| 1 5/8-32 | | 3 | 2447-183† | 22.00 |
| 1 21/32-32 | | 3 | 2447-215† | 22.00 |
| 1 11/16-16 | | 3 | 2447-237† | 22.00 |
| 1 11/16-32 | | 3 | 2447-253† | 22.00 |
| 1 3/4- 8 | | 3 | 2447-305† | 22.00 |
| 1 13/16-18 | | 3 | 2447-392† | 22.00 |
| 1 27/32-48 | | 3 | 2447-435† | 22.00 |
| 1 7/8-4 1/2 | WT | 3 1/2 | 2447-445† | 42.50 |
| 1 7/8-4 1/2 | WT | 4 | 2447-447† | 73.50 |
| 1 7/8- 5 | | 3 | 2447-452† | 22.00 |
| 1 7/8-10 | | 3 | 2447-462† | 22.00 |
| 1 7/8-12 | | 3 | 2447-467† | 22.00 |
| 1 7/8-16 | | 3 | 2447-472† | 22.00 |
| 1 7/8-16 | | 4 | 2447-474† | 73.50 |
| 1 7/8-18 | | 3 | 2447-479† | 22.00 |
| 1 7/8-18 | | 3 1/2 | 2447-481† | 42.50 |
| 1 29/32-32 | | 3 | 2447-550† | 22.00 |
| 1 15/16-32 | | 3 | 2447-605† | 22.00 |
| 1 15/16-48 | | 3 | 2447-625† | 22.00 |
| 2- 4 1/2 | | 3 | 2447-640† | 22.00 |
| 2-12 | | 3 | 2447-650† | 22.00 |
| 2-12 | | 4 | 2447-652† | 73.50 |
| 2-18 | | 3 | 2447-662† | 22.00 |
| 2-20 | | 3 | 2447-667† | 22.00 |
| 2-20 | | 3 1/2 | 2447-669† | 42.50 |
| 2-32 | | 3 1/2 | 2447-690† | 42.50 |
| 2 1/16-32 | | 3 1/2 | 2447-755† | 42.50 |
| 2 3/32-32 | | 3 1/2 | 2447-780† | 42.50 |
| 2 1/8- 8 | | 3 1/2 | 2447-795† | 42.50 |
| 2 1/8-12 | | 3 1/2 | 2447-800† | 42.50 |
| 2 1/8-12 | | 4 | 2447-805† | 73.50 |
| 2 1/8-14 | | 3 1/2 | 2447-808† | 42.50 |
| 2 1/8-16 | | 4 | 2447-814† | 73.50 |
| 2 1/8-20 | | 3 1/2 | 2447-819† | 42.50 |
| 2 1/8-24 | | 3 | 2447-825† | 22.00 |
| 2 1/8-32 | | 3 1/2 | 2447-835† | 42.50 |
| 2 3/16-12 | | 4 | 2447-871† | 73.50 |
| 2 1/4- 4 1/2 | | 4 | 2447-915† | 73.50 |
| 2 1/4-12 | | 4 | 2447-925† | 73.50 |
| 2 1/4-16 | | 4 | 2447-930† | 73.50 |
| 2 5/16-12 | | 3 1/2 | 2447-995† | 42.50 |
| 2 5/16-12 | | 4 | 2447-997† | 73.50 |
| 2 5/16-32 | | 3 1/2 | 2448-012† | 42.50 |
| 2 3/8-12 | | 4 | 2448-043† | 73.50 |
| 2 3/8-32 | | 3 1/2 | 2448-065† | 42.50 |
| 2 7/16-16 | | 4 | 2448-108† | 73.50 |
| 2 1/2- 7 1/2 | | 5 1/2 | 2448-155† | 118.90 |
| 2 1/2-16 | | 4 | 2448-171† | 73.50 |
| 2 5/8-12 | | 4 | 2448-281† | 73.50 |
| 2 3/4-10 | | 5 | 2448-375† | 118.90 |
| 2 3/4-12 | | 5 | 2448-380† | 118.90 |
| 2 7/8-12 | | 5 | 2448-446† | 118.90 |
| 3-10 | | 5 | 2448-541† | 118.90 |
| 3-12 | | 5 | 2448-546† | 118.90 |
| 3 1/8-12 | | 5 | 2448-601† | 118.90 |
| 3 3/8-12 | | 5 7/8 | 2448-736† | 118.90 |
| 3 3/8-12 | | 6 | 2448-738† | 192.50 |
| 3 1/2-12 | | 5 | 2448-785† | 118.90 |
| 3 1/2-12 | | 6 | 2448-787† | 192.50 |
| 3 5/8-12 | | 6 | 2448-841† | 192.50 |
| 5 1/4-12 | | 8 | 2449-075† | 450.00 |

WT- Whitworth Thread

# High Speed Steel Round Adjustable Dies

## Right Hand & Left Hand – NC, NF, & NS

| SIZE | NC NF NS | O.D. | [1] Allegiance American Made RIGHT HAND ORDER NO. | [1] Allegiance American Made RIGHT HAND PRICE EACH | [8] Pittsburg Alleghany RIGHT HAND ORDER NO. | [8] Pittsburg Alleghany RIGHT HAND PRICE EACH | [8] Pittsburg Alleghany LEFT HAND ORDER NO. | [8] Pittsburg Alleghany LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 0-80 | NF | 5/8 | – | – | 2450-144† | $3.20 | – | – |
| 1-72 | NF | 5/8 | – | – | 2450-202† | 3.20 | – | – |
| 2-56 | NC | 5/8 | – | – | 2450-232† | 3.20 | – | – |
| 2-64 | NF | 5/8 | – | – | 2450-240† | 3.20 | – | – |
| 3-48 | NC | 5/8 | – | – | 2450-285† | 3.20 | – | – |
| 3-56 | NF | 5/8 | – | – | 2450-293† | 3.20 | – | – |
| 4-36 | NS | 5/8 | – | – | 2450-340† | 3.20 | – | – |
| 4-40 | NC | 5/8 | – | – | 2450-349† | 3.20 | – | – |
| 4-48 | NF | 5/8 | – | – | 2450-358† | 3.20 | – | – |
| 5-40 | NC | 5/8 | – | – | 2450-409† | 3.20 | – | – |
| 5-44 | NF | 5/8 | – | – | 2450-415† | 3.20 | – | – |
| 6-32 | NC | 5/8 | – | – | 2450-481† | 3.20 | – | – |
| 8-32 | NC | 5/8 | – | – | 2450-623† | 3.20 | – | – |
| 8-36 | NF | 5/8 | – | – | 2450-629† | 3.20 | – | – |
| 10-24 | NC | 5/8 | – | – | 2450-741† | 3.20 | – | – |
| 10-32 | NF | 5/8 | – | – | 2450-760 | 3.20 | – | – |
| 0-80 | NF | 13/16 | – | – | 2450-146 | 5.20 | 2470-142 | $5.20 |
| 1-64 | NC | 13/16 | – | – | 2450-197 | 5.20 | 2470-190 | 5.20 |
| 1-72 | NF | 13/16 | – | – | 2450-204 | 5.20 | 2470-199 | 5.20 |
| 2-56 | NC | 13/16 | – | – | 2450-233 | 5.20 | 2470-230 | 5.20 |
| 2-64 | NF | 13/16 | – | – | 2450-242 | 5.20 | 2470-240 | 5.20 |
| 3-48 | NC | 13/16 | – | – | 2450-286 | 5.20 | 2470-280 | 5.20 |
| 3-56 | NF | 13/16 | – | – | 2450-295 | 5.20 | 2470-290 | 5.20 |
| 4-36 | NS | 13/16 | – | – | 2450-342 | 5.20 | 2470-340 | 5.20 |
| 4-40 | NC | 13/16 | – | – | 2450-351 | 4.00 | 2470-345 | 5.20 |
| 4-48 | NF | 13/16 | – | – | 2450-359 | 4.00 | 2470-355 | 5.20 |
| 5-40 | NC | 13/16 | 2420-101 | $19.80 | 2430-101 | 4.00 | 2470-408 | 5.20 |
| 5-44 | NF | 13/16 | 2420-102 | 19.80 | 2430-102 | 4.00 | 2470-415 | 5.20 |
| 6-32 | NC | 13/16 | 2420-103 | 19.80 | 2430-103 | 4.00 | 2470-475 | 5.20 |
| 6-40 | NF | 13/16 | 2420-104 | 19.80 | 2430-104 | 4.00 | 2470-490 | 5.20 |
| 8-32 | NC | 13/16 | 2420-105 | 19.80 | 2430-105 | 4.00 | 2470-617 | 5.20 |
| 8-36 | NF | 13/16 | 2420-106 | 19.80 | 2430-106 | 4.00 | 2470-624 | 5.20 |
| 10-24 | NC | 13/16 | 2420-107 | 19.80 | 2430-107 | 4.00 | 2470-740 | 5.20 |
| 10-32 | NF | 13/16 | 2420-108 | 19.80 | 2430-108 | 4.00 | 2470-753 | 5.20 |
| 12-24 | NC | 13/16 | 2420-109 | 19.80 | 2430-109 | 4.00 | 2470-885 | 5.20 |
| 12-28 | NF | 13/16 | 2420-110 | 19.80 | 2430-110 | 4.00 | 2470-892 | 5.20 |
| 1/4-20 | NC | 13/16 | 2420-111 | 19.80 | 2430-111 | 4.00 | 2472-395 | 5.20 |
| 1/4-28 | NF | 13/16 | 2420-112 | 19.80 | 2430-112 | 4.00 | 2472-418 | 5.20 |
| 5/16-18 | NC | 13/16 | 2420-113 | 19.80 | 2430-113 | 4.00 | 2472-700 | 5.20 |
| 5/16-24 | NF | 13/16 | 2420-114 | 19.80 | 2430-114 | 4.00 | 2472-715 | 5.20 |
| 2-56 | NC | 1 | – | – | 2450-235 | 6.50 | – | – |
| 2-64 | NF | 1 | – | – | 2450-244 | 6.50 | – | – |
| 3-48 | NC | 1 | – | – | 2450-288 | 6.50 | – | – |
| 3-56 | NF | 1 | – | – | 2450-297 | 6.50 | – | – |
| 4-36 | NS | 1 | – | – | 2450-344 | 6.50 | – | – |
| 4-40 | NC | 1 | – | – | 2450-353 | 5.50 | 2470-347 | 6.50 |
| 4-48 | NF | 1 | – | – | 2450-360 | 5.50 | 2470-357 | 6.50 |
| 5-40 | NC | 1 | – | – | 2450-410 | 5.50 | 2470-410 | 6.50 |
| 5-44 | NF | 1 | – | – | 2450-416 | 5.50 | 2470-417 | 6.50 |
| 6-32 | NC | 1 | 2420-115 | 24.50 | 2430-115 | 5.50 | 2470-477 | 6.50 |
| 6-40 | NF | 1 | 2420-175 | 24.50 | 2450-502 | 5.50 | 2470-492 | 6.50 |
| 8-32 | NC | 1 | 2420-116 | 24.50 | 2430-116 | 5.50 | 2470-619 | 6.50 |
| 8-36 | NF | 1 | 2420-176 | 24.50 | 2450-630 | 5.50 | 2470-626 | 6.50 |
| 10-24 | NC | 1 | 2420-117 | 24.50 | 2430-117 | 5.50 | 2470-742 | 6.50 |
| 10-32 | NF | 1 | 2420-118 | 24.50 | 2430-118 | 5.50 | 2470-755 | 6.50 |
| 12-24 | NC | 1 | 2420-119 | 24.50 | 2430-119 | 5.50 | 2470-887 | 6.50 |
| 12-28 | NF | 1 | 2420-177 | 24.50 | 2450-899 | 5.50 | 2470-894 | 6.50 |
| 1/4-20 | NC | 1 | 2420-120 | 24.50 | 2430-120 | 5.50 | 2472-397 | 6.50 |
| 1/4-28 | NF | 1 | 2420-121 | 24.50 | 2430-121 | 5.50 | 2472-420 | 6.50 |
| 5/16-18 | NC | 1 | 2420-122 | 24.50 | 2430-122 | 5.50 | 2472-702 | 6.50 |
| 5/16-24 | NF | 1 | 2420-123 | 24.50 | 2430-123 | 5.50 | 2472-717 | 6.50 |
| 3/8-16 | NC | 1 | 2420-124 | 24.50 | 2430-124 | 5.50 | 2473-014 | 6.50 |
| 3/8-24 | NF | 1 | 2420-125 | 24.50 | 2430-125 | 5.50 | 2473-035 | 6.50 |
| 7/16-14 | NC | 1 | 2420-126 | 24.50 | 2430-126 | 5.50 | 2473-300 | 6.50 |
| 7/16-20 | NF | 1 | 2420-127 | 24.50 | 2430-127 | 5.50 | 2473-315 | 6.50 |
| 1/2-13 | NC | 1 | 2420-178 | 24.50 | 2453-564 | 5.50 | 2473-565 | 6.50 |
| 1/2-20 | NF | 1 | 2420-179 | 24.50 | 2453-585 | 5.50 | 2473-583 | 6.50 |
| 10-24 | NC | 1-1/2 | – | – | 2450-744† | 11.90 | – | – |
| 1/4-20 | NC | 1-1/2 | 2420-148 | 37.30 | 2430-148 | 11.90 | 2472-399 | 15.20 |
| 1/4-28 | NF | 1-1/2 | 2420-149 | 37.30 | 2430-149 | 11.90 | 2472-422 | 15.20 |
| 5/16-18 | NC | 1-1/2 | 2420-150 | 37.30 | 2430-150 | 11.90 | 2472-706 | 15.20 |
| 5/16-24 | NF | 1-1/2 | 2420-151 | 37.30 | 2430-151 | 11.90 | 2472-719 | 15.20 |
| 3/8-16 | NC | 1-1/2 | 2420-152 | 37.30 | 2430-152 | 11.90 | 2473-016 | 15.20 |
| 3/8-24 | NF | 1-1/2 | 2420-153 | 37.30 | 2430-153 | 11.90 | 2473-037 | 15.20 |
| 7/16-14 | NC | 1-1/2 | 2420-154 | $37.30 | 2430-154 | $11.90 | 2473-302 | $15.20 |
| 7/16-20 | NF | 1-1/2 | 2420-155 | 37.30 | 2430-155 | 11.90 | 2473-317 | 15.20 |
| 1/2-13 | NC | 1-1/2 | 2420-156 | 37.30 | 2430-156 | 11.90 | 2473-567 | 15.20 |
| 1/2-20 | NF | 1-1/2 | 2420-157 | 37.30 | 2430-157 | 11.90 | 2473-585 | 15.20 |
| 9/16-12 | NC | 1-1/2 | 2420-158 | 37.30 | 2430-158 | 11.90 | 2473-845 | 15.20 |
| 9/16-18 | NF | 1-1/2 | 2420-159 | 37.30 | 2430-159 | 11.90 | 2473-859 | 15.20 |
| 5/8-11 | NC | 1-1/2 | 2420-160 | 37.30 | 2430-160 | 11.90 | 2474-110 | 15.20 |
| 5/8-18 | NF | 1-1/2 | 2420-161 | 37.30 | 2430-161 | 11.90 | 2474-130 | 15.20 |
| 11/16-11 | NC | 1-1/2 | – | – | 2454-367 | 11.90 | 2474-368 | 15.20 |
| 11/16-16 | NF | 1-1/2 | – | – | 2454-382 | 11.90 | 2474-376 | 15.20 |
| 3/4-10 | NC | 1-1/2 | 2420-168 | 43.20 | 2454-618 | 11.90 | 2474-619 | 15.20 |
| 3/4-16 | NF | 1-1/2 | 2420-169 | 43.20 | 2454-643 | 11.90 | 2474-638 | 15.20 |
| 1/4-20 | NC | 2 | – | – | 2452-400 | 20.90 | 2472-401 | 26.20 |
| 1/4-28 | NF | 2 | – | – | 2452-428 | 20.90 | 2472-424 | 26.20 |
| 5/16-18 | NC | 2 | – | – | 2452-705 | 20.90 | 2472-708 | 26.20 |
| 5/16-24 | NF | 2 | – | – | 2452-717 | 20.90 | 2472-721 | 26.20 |
| 3/8-16 | NC | 2 | – | – | 2453-017 | 20.90 | 2473-018 | 26.20 |
| 3/8-24 | NF | 2 | – | – | 2453-038 | 20.90 | 2473-039 | 26.20 |
| 7/16-14 | NC | 2 | – | – | 2453-307 | 20.90 | 2473-304 | 26.20 |
| 7/16-20 | NF | 2 | – | – | 2453-322 | 20.90 | 2473-319 | 26.20 |
| 1/2-13 | NC | 2 | – | – | 2453-568 | 20.90 | 2473-569 | 26.20 |
| 1/2-20 | NF | 2 | – | – | 2453-588 | 20.90 | 2473-587 | 26.20 |
| 9/16-12 | NC | 2 | – | – | 2453-851 | 20.90 | 2473-847 | 26.20 |
| 9/16-18 | NF | 2 | – | – | 2453-864 | 20.90 | 2473-861 | 26.20 |
| 5/8-11 | NC | 2 | 2420-162 | 53.70 | 2430-162 | 20.90 | 2474-112 | 26.20 |
| 5/8-18 | NF | 2 | 2420-163 | 53.70 | 2430-163 | 20.90 | 2474-132 | 26.20 |
| 11/16-11 | NC | 2 | – | – | 2454-369 | 20.90 | 2474-370 | 26.20 |
| 11/16-16 | NF | 2 | – | – | 2454-384 | 20.90 | 2474-378 | 26.20 |
| 3/4-10 | NC | 2 | 2420-164 | 53.70 | 2430-164 | 20.90 | 2474-623 | 26.20 |
| 3/4-16 | NF | 2 | 2420-165 | 53.70 | 2430-165 | 20.90 | 2474-640 | 26.20 |
| 7/8-9 | NC | 2 | 2420-166 | 57.20 | 2430-166 | 20.90 | 2475-178 | 26.20 |
| 7/8-14 | NF | 2 | 2420-167 | 57.20 | 2430-167 | 20.90 | 2475-189 | 26.20 |
| 1-8 | NC | 2 | 2420-170 | 57.20 | 2455-696 | 20.90 | 2475-694 | 26.20 |
| 1-12 | NF | 2 | 2420-171 | 57.20 | 2455-710 | 20.90 | 2475-703 | 26.20 |
| 1-14 | NS | 2 | 2420-172 | 57.20 | 2455-719 | 20.90 | 2475-708 | 26.20 |
| 1 1/8- 7 | NC | 2 | – | – | 2456-044 | 20.90 | – | – |
| 1 1/8-12 | NF | 2 | – | – | 2456-062 | 20.90 | – | – |
| 1/2-13 | NC | 2-1/2 | – | – | 2453-569† | 42.70 | – | – |
| 1/2-20 | NF | 2-1/2 | – | – | 2453-590† | 42.70 | – | – |
| 9/16-12 | NC | 2-1/2 | – | – | 2453-852† | 42.70 | – | – |
| 9/16-18 | NF | 2-1/2 | – | – | 2453-865† | 42.70 | – | – |
| 5/8-11 | NC | 2-1/2 | – | – | 2454-117† | 42.70 | 2474-114† | 43.10 |
| 5/8-18 | NF | 2-1/2 | – | – | 2454-139† | 42.70 | – | – |
| 3/4-10 | NC | 2-1/2 | – | – | 2454-622 | 42.70 | 2474-625 | 43.10 |
| 3/4-16 | NF | 2-1/2 | – | – | 2454-646 | 42.70 | 2474-642 | 43.10 |
| 7/8- 9 | NC | 2-1/2 | – | – | 2455-179 | 42.70 | 2475-180 | 43.10 |
| 7/8-14 | NF | 2-1/2 | – | – | 2455-191 | 42.70 | 2475-191 | 43.10 |
| 1-8 | NC | 2-1/2 | – | – | 2455-698 | 42.70 | 2475-696 | 43.10 |
| 1-12 | NF | 2-1/2 | – | – | 2455-712 | 42.70 | 2475-705 | 43.10 |
| 1-14 | NS | 2-1/2 | – | – | 2455-721 | 42.70 | 2475-710 | 43.10 |
| 1-1/8-7 | NC | 2-1/2 | 2420-180 | 75.80 | 2456-046 | 42.70 | 2476-045 | 43.10 |
| 1-1/8-12 | NF | 2-1/2 | 2420-181 | 75.80 | 2456-064 | 42.70 | 2476-056 | 43.10 |
| 1-1/4-7 | NC | 2-1/2 | 2420-182 | 75.80 | 2456-328 | 42.70 | 2476-327 | 43.10 |
| 1-1/4-12 | NF | 2-1/2 | 2420-183 | 75.80 | 2456-343 | 42.70 | 2476-338 | 43.10 |
| 1-3/8-6 | NC | 2-1/2 | – | – | 2456-574 | 42.70 | 2476-575 | 43.10 |
| 1-3/8-12 | NF | 2-1/2 | – | – | 2456-589 | 42.70 | 2476-586 | 43.10 |
| 1-1/2-6 | NC | 2-1/2 | – | – | 2456-830 | 42.70 | 2476-830 | 43.10 |
| 1-1/2-12 | NF | 2-1/2 | – | – | 2456-845 | 42.70 | 2476-841 | 43.10 |
| 3/4-10 | NC | 3 | – | – | 2454-624† | 69.00 | – | – |
| 7/8- 9 | NC | 3 | – | – | 2455-181† | 69.00 | – | – |
| 7/8-14 | NF | 3 | – | – | 2455-193† | 69.00 | – | – |
| 1-8 | NC | 3 | – | – | 2455-700 | 69.00 | – | – |
| 1-12 | NF | 3 | – | – | 2455-714 | 69.00 | – | – |
| 1-14 | NS | 3 | – | – | 2455-723 | 69.00 | – | – |
| 1-1/8-7 | NC | 3 | – | – | 2456-048 | 69.00 | 2476-047 | 77.40 |
| 1-1/8-12 | NF | 3 | – | – | 2456-066 | 69.00 | 2476-058 | 77.40 |
| 1-1/4-7 | NC | 3 | – | – | 2456-330 | 69.00 | 2476-329 | 77.40 |
| 1-1/4-12 | NF | 3 | – | – | 2456-345 | 69.00 | 2476-340 | 77.40 |
| 1-3/8-6 | NC | 3 | 2420-190 | 156.30 | 2456-576 | 69.00 | 2476-577 | 77.40 |
| 1-3/8-12 | NF | 3 | 2420-191 | 156.30 | 2456-591 | 69.00 | 2476-588 | 77.40 |
| 1-1/2-6 | NC | 3 | 2420-192 | 156.30 | 2456-832 | 69.00 | 2476-832 | 77.40 |
| 1-1/2-12 | NF | 3 | 2420-193 | 156.30 | 2456-847 | 69.00 | 2476-843 | 77.40 |

† Limited Quantities

# Popular Special R.H. Round Adjustable Dies

## High Speed Steel

| SIZE | O.D. | ORDER NUMBER | PRICE EACH [8] |
|---|---|---|---|
| 0-72 | 5/8 | 2450-136† | $3.20 |
| 5-48 | 5/8 | 2450-419† | 3.20 |
| 5-80 | 5/8 | 2450-178† | 3.20 |
| 1-56 | 13/16 | 2450-190 | 5.70 |
| 1-80 | 13/16 | 2450-209 | 5.70 |
| 2-72 | 13/16 | 2450-249 | 5.70 |
| 2-80 | 13/16 | 2450-255 | 5.70 |
| 3-64 | 13/16 | 2450-303 | 5.70 |
| 3-72 | 13/16 | 2450-308 | 5.70 |
| 3-80 | 13/16 | 2450-313 | 5.70 |
| 4-32 | 13/16 | 2450-336 | 5.70 |
| 4-56 | 13/16 | 2450-364 | 5.70 |
| 4-60 | 13/16 | 2450-368 | 5.70 |
| 4-64 | 13/16 | 2450-372 | 5.70 |
| 4-72 | 13/16 | 2450-376 | 5.70 |
| 4-80 | 13/16 | 2450-380 | 5.70 |
| 5-32 | 13/16 | 2450-400 | 5.70 |
| 5-48 | 13/16 | 2450-420 | 5.70 |
| 5-56 | 13/16 | 2450-426 | 5.70 |
| 5-60 | 13/16 | 2450-431 | 5.70 |
| 5-64 | 13/16 | 2450-435 | 5.70 |
| 5-72 | 13/16 | 2450-439 | 5.70 |
| 5-80 | 13/16 | 2450-443 | 5.70 |
| 6-36 | 13/16 | 2450-488 | 5.70 |
| 6-48 | 13/16 | 2450-513 | 5.70 |
| 6-56 | 13/16 | 2450-519 | 5.70 |
| 6-60 | 13/16 | 2450-525 | 5.70 |
| 6-64 | 13/16 | 2450-529 | 5.70 |
| 6-72 | 13/16 | 2450-533 | 5.70 |
| 6-80 | 13/16 | 2450-537 | 5.70 |
| 8-24 | 13/16 | 2450-606 | 5.70 |
| 8-30 | 13/16 | 2450-619 | 5.70 |
| 8-40 | 13/16 | 2450-637 | 5.70 |
| 8-48 | 13/16 | 2450-647 | 5.70 |
| 8-56 | 13/16 | 2450-652 | 5.70 |
| 8-60 | 13/16 | 2450-656 | 5.70 |
| 8-64 | 13/16 | 2450-660 | 5.70 |
| 8-80 | 13/16 | 2450-668 | 5.70 |
| 10-28 | 13/16 | 2450-751 | 5.70 |
| 10-30 | 13/16 | 2450-756 | 5.70 |
| 10-36 | 13/16 | 2450-767 | 5.70 |
| 10-40 | 13/16 | 2450-774 | 5.70 |
| 10-48 | 13/16 | 2450-781 | 5.70 |
| 10-56 | 13/16 | 2450-796 | 5.70 |
| 10-60 | 13/16 | 2450-799 | 5.70 |
| 10-64 | 13/16 | 2450-803 | 5.70 |
| 10-72 | 13/16 | 2450-807 | 5.70 |
| 10-80 | 13/16 | 2450-811 | 5.70 |
| 12-30 | 13/16 | 2450-902 | 5.70 |
| 12-32 NEF | 13/16 | 2450-906 | 5.70 |
| 12-36 | 13/16 | 2450-913 | 5.70 |
| 12-40 | 13/16 | 2450-917 | 5.70 |
| 12-48 | 13/16 | 2450-921 | 5.70 |
| 12-56 | 13/16 | 2450-925 | 5.70 |
| 5/32-32 | 13/16 | 2452-062 | 5.70 |
| 7/32-32 | 13/16 | 2452-282 | 5.70 |
| 1/4-24 | 13/16 | 2452-410 | 5.70 |
| 1/4-32 NEF | 13/16 | 2452-434 | 5.70 |
| 1/4-40 | 13/16 | 2452-449 | 5.70 |
| 5/16-32 NEF | 13/16 | 2452-738 | 5.70 |
| 4-56 | 1 | 2450-365 | 7.10 |
| 4-64 | 1 | 2450-373 | 7.10 |
| 4-80 | 1 | 2450-381 | 7.10 |
| 5-32 | 1 | 2450-401 | 7.10 |
| 5-36 | 1 | 2450-406 | 7.10 |
| 5-48 | 1 | 2450-421 | 7.10 |
| 5-56 | 1 | 2450-427 | 7.10 |
| 6-36 | 1 | 2450-489 | 7.10 |
| 6-48 | 1 | 2450-514 | 7.10 |
| 6-56 | 1 | 2450-520 | 7.10 |
| 8-24 | 1 | 2450-607 | 7.10 |
| 8-30 | 1 | 2450-620 | 7.10 |
| 8-40 | 1 | 2450-638 | 7.10 |

† Limited Quantities

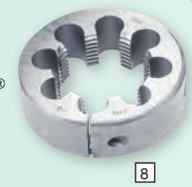
| SIZE | O.D. | ORDER NUMBER | PRICE EACH [8] |
|---|---|---|---|
| 10-28 | 1 | 2450-752 | $7.10 |
| 10-30 | 1 | 2450-757 | 7.10 |
| 10-36 | 1 | 2450-768 | 7.10 |
| 10-40 | 1 | 2450-775 | 7.10 |
| 10-44 | 1 | 2450-778 | 7.10 |
| 10-60 | 1 | 2450-800 | 7.10 |
| 10-64 | 1 | 2450-804 | 7.10 |
| 12-32 NEF | 1 | 2450-907 | 7.10 |
| 12-36 | 1 | 2450-914 | 7.10 |
| 12-40 | 1 | 2450-918 | 7.10 |
| 12-48 | 1 | 2450-922 | 7.10 |
| 1/4-16 | 1 | 2452-394 | 7.10 |
| 1/4-18 | 1 | 2452-397 | 7.10 |
| 1/4-22 | 1 | 2452-404 | 7.10 |
| 1/4-24 | 1 | 2452-411 | 7.10 |
| 1/4-26 | 1 | 2452-419 | 7.10 |
| 1/4-27 | 1 | 2452-422 | 7.10 |
| 1/4-30 | 1 | 2452-431 | 7.10 |
| 1/4-32 NEF | 1 | 2452-435 | 7.10 |
| 1/4-36 | 1 | 2452-441 | 7.10 |
| 1/4-40 | 1 | 2452-450 | 7.10 |
| 1/4-48 | 1 | 2452-463 | 7.10 |
| 1/4-56 | 1 | 2452-475 | 7.10 |
| 1/4-60 | 1 | 2452-479 | 7.10 |
| 1/4-64 | 1 | 2452-484 | 7.10 |
| 1/4-72 | 1 | 2452-492 | 7.10 |
| 1/4-80 | 1 | 2452-500 | 7.10 |
| 9/32-32 | 1 | 2452-588 | 7.10 |
| 5/16-16 | 1 | 2452-699 | 7.10 |
| 5/16-20 | 1 | 2452-708 | 7.10 |
| 5/16-22 | 1 | 2452-713 | 7.10 |
| 5/16-27 | 1 | 2452-723 | 7.10 |
| 5/16-28 | 1 | 2452-728 | 7.10 |
| 5/16-30 | 1 | 2452-733 | 7.10 |
| 5/16-32 NEF | 1 | 2452-739 | 7.10 |
| 5/16-36 | 1 | 2452-749 | 7.10 |
| 5/16-40 | 1 | 2452-754 | 7.10 |
| 5/16-48 | 1 | 2452-768 | 7.10 |
| 5/16-56 | 1 | 2452-778 | 7.10 |
| 5/16-64 | 1 | 2452-786 | 7.10 |
| 5/16-80 | 1 | 2452-802 | 7.10 |
| 11/32-32 | 1 | 2452-889 | 7.10 |
| 3/8-14 | 1 | 2453-011 | 7.10 |
| 3/8-18 | 1 | 2453-020 | 7.10 |
| 3/8-20 | 1 | 2453-025 | 7.10 |
| 3/8-27 | 1 | 2453-047 | 7.10 |
| 3/8-28 | 1 | 2453-052 | 7.10 |
| 3/8-30 | 1 | 2453-057 | 7.10 |
| 3/8-32 NEF | 1 | 2453-062 | 7.10 |
| 3/8-36 | 1 | 2453-069 | 7.10 |
| 3/8-40 | 1 | 2453-077 | 7.10 |
| 3/8-48 | 1 | 2453-089 | 7.10 |
| 3/8-56 | 1 | 2453-103 | 7.10 |
| 3/8-64 | 1 | 2453-110 | 7.10 |
| 3/8-72 | 1 | 2453-116 | 7.10 |
| 3/8-80 | 1 | 2453-122 | 7.10 |
| 13/32-32 | 1 | 2453-203 | 7.10 |
| 7/16-12 | 1 | 2453-298 | 7.10 |
| 7/16-16 | 1 | 2453-310 | 7.10 |
| 7/16-18 | 1 | 2453-315 | 7.10 |
| 7/16-24 | 1 | 2453-328 | 7.10 |
| 7/16-27 | 1 | 2453-337 | 7.10 |
| 7/16-28 NEF | 1 | 2453-342 | 7.10 |
| 7/16-30 | 1 | 2453-349 | 7.10 |
| 7/16-32 | 1 | 2453-354 | 7.10 |
| 7/16-36 | 1 | 2453-360 | 7.10 |
| 7/16-40 | 1 | 2453-366 | 7.10 |
| 7/16-48 | 1 | 2453-373 | 7.10 |
| 7/16-56 | 1 | 2453-380 | 7.10 |
| 7/16-64 | 1 | 2453-387 | 7.10 |
| 1/2-12 | 1 | 2453-558 | 7.10 |
| 1/2-14 | 1 | 2453-571 | 7.10 |
| 1/2-16 | 1 | 2453-575 | 7.10 |

| SIZE | O.D. | ORDER NUMBER | PRICE EACH [8] |
|---|---|---|---|
| 1/2-18 | 1 | 2453-580 | $7.10 |
| 1/2-24 | 1 | 2453-597 | 7.10 |
| 1/2-27 | 1 | 2453-612 | 7.10 |
| 1/2-28 NEF | 1 | 2453-617 | 7.10 |
| 1/2-30 | 1 | 2453-623 | 7.10 |
| 1/2-32 | 1 | 2453-628 | 7.10 |
| 1/2-36 | 1 | 2453-636 | 7.10 |
| 1/2-40 | 1 | 2453-644 | 7.10 |
| 1/2-48 | 1 | 2453-651 | 7.10 |
| 1/2-56 | 1 | 2453-663 | 7.10 |
| 1/4-24 | 1-1/2 | 2452-413 | 17.50 |
| 1/4-27 | 1-1/2 | 2452-424 | 17.50 |
| 1/4-32 NEF | 1-1/2 | 2452-437 | 17.50 |
| 1/4-36 | 1-1/2 | 2452-443 | 17.50 |
| 1/4-40 | 1-1/2 | 2452-452 | 17.50 |
| 5/16-20 | 1-1/2 | 2452-710 | 17.50 |
| 5/16-27 | 1-1/2 | 2452-725 | 17.50 |
| 5/16-28 | 1-1/2 | 2452-730 | 17.50 |
| 5/16-30 | 1-1/2 | 2452-735 | 17.50 |
| 5/16-32 NEF | 1-1/2 | 2452-741 | 17.50 |
| 5/16-40 | 1-1/2 | 2452-756 | 17.50 |
| 11/32-32 | 1-1/2 | 2452-891 | 17.50 |
| 3/8-14 | 1-1/2 | 2453-012 | 17.50 |
| 3/8-18 | 1-1/2 | 2453-022 | 17.50 |
| 3/8-20 | 1-1/2 | 2453-029 | 17.50 |
| 3/8-27 | 1-1/2 | 2453-049 | 17.50 |
| 3/8-28 | 1-1/2 | 2453-054 | 17.50 |
| 3/8-30 | 1-1/2 | 2453-059 | 17.50 |
| 3/8-32 NEF | 1-1/2 | 2453-064 | 17.50 |
| 3/8-36 | 1-1/2 | 2453-071 | 17.50 |
| 3/8-40 | 1-1/2 | 2453-079 | 17.50 |
| 3/8-48 | 1-1/2 | 2453-091 | 17.50 |
| 13/32-32 | 1-1/2 | 2453-205 | 17.50 |
| 7/16-12 | 1-1/2 | 2453-300 | 17.50 |
| 7/16-16 | 1-1/2 | 2453-312 | 17.50 |
| 7/16-18 | 1-1/2 | 2453-317 | 17.50 |
| 7/16-24 | 1-1/2 | 2453-330 | 17.50 |
| 7/16-27 | 1-1/2 | 2453-339 | 17.50 |
| 7/16-28 NEF | 1-1/2 | 2453-344 | 17.50 |
| 7/16-30 | 1-1/2 | 2453-351 | 17.50 |
| 7/16-32 | 1-1/2 | 2453-356 | 17.50 |
| 7/16-36 | 1-1/2 | 2453-362 | 17.50 |
| 7/16-40 | 1-1/2 | 2453-368 | 17.50 |
| 7/16-48 | 1-1/2 | 2453-375 | 17.50 |
| 15/32-32 | 1-1/2 | 2453-480 | 17.50 |
| 1/2-12 | 1-1/2 | 2453-559 | 17.50 |
| 1/2-14 | 1-1/2 | 2453-572 | 17.50 |
| 1/2-16 | 1-1/2 | 2453-577 | 17.50 |
| 1/2-18 | 1-1/2 | 2453-582 | 17.50 |
| 1/2-24 | 1-1/2 | 2453-599 | 17.50 |
| 1/2-27 | 1-1/2 | 2453-614 | 17.50 |
| 1/2-28 NEF | 1-1/2 | 2453-620 | 17.50 |
| 1/2-30 | 1-1/2 | 2453-625 | 17.50 |
| 1/2-32 | 1-1/2 | 2453-630 | 17.50 |
| 1/2-36 | 1-1/2 | 2453-638 | 17.50 |
| 1/2-40 | 1-1/2 | 2453-646 | 17.50 |
| 1/2-48 | 1-1/2 | 2453-653 | 17.50 |
| 1/2-56 | 1-1/2 | 2453-665 | 17.50 |
| 1/2-64 | 1-1/2 | 2453-671 | 17.50 |
| 9/16-14 | 1-1/2 | 2453-858 | 17.50 |
| 9/16-16 | 1-1/2 | 2453-861 | 17.50 |
| 9/16-20 | 1-1/2 | 2453-868 | 17.50 |
| 9/16-24 NEF | 1-1/2 | 2453-874 | 17.50 |
| 9/16-27 | 1-1/2 | 2453-886 | 17.50 |
| 9/16-28 | 1-1/2 | 2453-889 | 17.50 |
| 9/16-32 | 1-1/2 | 2453-895 | 17.50 |
| 9/16-36 | 1-1/2 | 2453-900 | 17.50 |
| 9/16-40 | 1-1/2 | 2453-905 | 17.50 |
| 9/16-48 | 1-1/2 | 2453-911 | 17.50 |
| 5/8-10 | 1-1/2 | 2454-111 | 17.50 |
| 5/8-12 | 1-1/2 | 2454-120 | 17.50 |
| 5/8-14 | 1-1/2 | 2454-130 | 17.50 |
| 5/8-16 | 1-1/2 | 2454-133 | 17.50 |
| 5/8-20 | 1-1/2 | 2454-142 | 17.50 |

(continued)

# Popular Special R.H. Round Adjustable Dies

## High Speed Steel



| SIZE | O.D. | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 5/8-24 NEF | 1-1/2 | 2454-150 | $17.50 |
| 5/8-27 | 1-1/2 | 2454-161 | 17.50 |
| 5/8-28 | 1-1/2 | 2454-166 | 17.50 |
| 5/8-32 | 1-1/2 | 2454-174 | 17.50 |
| 5/8-36 | 1-1/2 | 2454-180 | 17.50 |
| 5/8-40 | 1-1/2 | 2454-185 | 17.50 |
| 5/8-48 | 1-1/2 | 2454-190 | 17.50 |
| 5/8-56 | 1-1/2 | 2454-195 | 17.50 |
| 5/8-64 | 1-1/2 | 2454-200 | 17.50 |
| 11/16-12 | 1-1/2 | 2454-372 | 17.50 |
| 11/16-14 | 1-1/2 | 2454-377 | 17.50 |
| 11/16-18 | 1-1/2 | 2454-387 | 17.50 |
| 11/16-20 | 1-1/2 | 2454-392 | 17.50 |
| 11/16-24 NEF | 1-1/2 | 2454-398 | 17.50 |
| 11/16-27 | 1-1/2 | 2454-407 | 17.50 |
| 11/16-28 | 1-1/2 | 2454-412 | 17.50 |
| 11/16-32 | 1-1/2 | 2454-418 | 17.50 |
| 11/16-40 | 1-1/2 | 2454-429 | 17.50 |
| 3/4-12 | 1-1/2 | 2454-630 | 17.50 |
| 3/4-14 | 1-1/2 | 2454-635 | 17.50 |
| 3/4-18 | 1-1/2 | 2454-649 | 17.50 |
| 3/4-20 NEF | 1-1/2 | 2454-654 | 17.50 |
| 3/4-24 | 1-1/2 | 2454-664 | 17.50 |
| 3/4-27 | 1-1/2 | 2454-675 | 17.50 |
| 3/4-28 | 1-1/2 | 2454-680 | 17.50 |
| 3/4-32 | 1-1/2 | 2454-688 | 17.50 |
| 3/4-40 | 1-1/2 | 2454-698 | 17.50 |
| 3/4-48 | 1-1/2 | 2454-706 | 17.50 |
| 1/2-12 | 2 | 2453-561 | 32.50 |
| 1/2-32 | 2 | 2453-632 | 32.50 |
| 9/16-20 | 2 | 2453-869 | 32.50 |
| 9/16-24 NEF | 2 | 2453-876 | 32.50 |
| 5/8-12 | 2 | 2454-122 | 32.50 |
| 5/8-20 | 2 | 2454-144 | 32.50 |
| 5/8-24 NEF | 2 | 2454-152 | 32.50 |
| 5/8-27 | 2 | 2454-163 | 32.50 |
| 5/8-32 | 2 | 2454-176 | 32.50 |
| 11/16-12 | 2 | 2454-374 | 32.50 |
| 11/16-14 | 2 | 2454-379 | 32.50 |
| 11/16-18 | 2 | 2454-389 | 32.50 |
| 11/16-20 | 2 | 2454-394 | 32.50 |
| 11/16-24 NEF | 2 | 2454-400 | 32.50 |
| 11/16-27 | 2 | 2454-409 | 32.50 |
| 11/16-32 | 2 | 2454-420 | 32.50 |
| 11/16-36 | 2 | 2454-425 | 32.50 |
| 11/16-40 | 2 | 2454-431 | 32.50 |
| 3/4-12 | 2 | 2454-632 | 32.50 |
| 3/4-14 | 2 | 2454-637 | 32.50 |
| 3/4-18 | 2 | 2454-651 | 32.50 |
| 3/4-20 NEF | 2 | 2454-656 | 32.50 |
| 3/4-24 | 2 | 2454-666 | 32.50 |
| 3/4-27 | 2 | 2454-677 | 32.50 |
| 3/4-28 | 2 | 2454-682 | 32.50 |
| 3/4-32 | 2 | 2454-690 | 32.50 |
| 3/4-36 | 2 | 2454-694 | 32.50 |
| 3/4-40 | 2 | 2454-700 | 32.50 |
| 3/4-48 | 2 | 2454-708 | 32.50 |
| 13/16-10 | 2 | 2454-916 | 32.50 |
| 13/16-12 | 2 | 2454-919 | 32.50 |
| 13/16-14 | 2 | 2454-925 | 32.50 |
| 13/16-16 | 2 | 2454-928 | 32.50 |
| 13/16-18 | 2 | 2454-931 | 32.50 |
| 13/16-20 NEF | 2 | 2454-934 | 32.50 |
| 13/16-24 | 2 | 2454-939 | 32.50 |
| 13/16-27 | 2 | 2454-944 | 32.50 |
| 13/16-28 | 2 | 2454-947 | 32.50 |
| 13/16-32 | 2 | 2454-953 | 32.50 |
| 7/8-10 | 2 | 2455-184 | 32.50 |
| 7/8-12 | 2 | 2455-187 | 32.50 |
| 7/8-16 | 2 | 2455-196 | 32.50 |
| 7/8-18 | 2 | 2455-201 | 32.50 |
| 7/8-20 NEF | 2 | 2455-206 | 32.50 |
| 7/8-24 | 2 | 2455-211 | 32.50 |
| 7/8-27 | 2 | 2455-219 | 32.50 |

| SIZE | O.D. | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 7/8-28 | 2 | 2455-225 | $32.50 |
| 7/8-32 | 2 | 2455-231 | 32.50 |
| 7/8-36 | 2 | 2455-235 | 32.50 |
| 7/8-40 | 2 | 2455-240 | 32.50 |
| 15/16-12 | 2 | 2455-442 | 32.50 |
| 15/16-14 | 2 | 2455-445 | 32.50 |
| 15/16-16 | 2 | 2455-448 | 32.50 |
| 15/16-18 | 2 | 2455-451 | 32.50 |
| 15/16-20 NEF | 2 | 2455-454 | 32.50 |
| 15/16-24 | 2 | 2455-462 | 32.50 |
| 15/16-27 | 2 | 2455-468 | 32.50 |
| 15/16-28 | 2 | 2455-471 | 32.50 |
| 15/16-32 | 2 | 2455-476 | 32.50 |
| 1-10 | 2 | 2455-704 | 32.50 |
| 1-16 | 2 | 2455-726 | 32.50 |
| 1-18 | 2 | 2455-733 | 32.50 |
| 1-20 NEF | 2 | 2455-739 | 32.50 |
| 1-24 | 2 | 2455-748 | 32.50 |
| 1-27 | 2 | 2455-754 | 32.50 |
| 1-28 | 2 | 2455-761 | 32.50 |
| 1-32 | 2 | 2455-767 | 32.50 |
| 1-36 | 2 | 2455-774 | 32.50 |
| 1-40 | 2 | 2455-779 | 32.50 |
| 1-1/16-8 | 2 | 2455-902 | 32.50 |
| 1-1/16-12 | 2 | 2455-916 | 32.50 |
| 1-1/16-16 | 2 | 2455-925 | 32.50 |
| 1-1/16-18 NEF | 2 | 2455-934 | 32.50 |
| 1-1/16-20 | 2 | 2455-939 | 32.50 |
| 1-1/16-24 | 2 | 2455-949 | 32.50 |
| 1-1/16-32 | 2 | 2455-964 | 32.50 |
| 1-1/8-8 | 2 | 2456-051 | 32.50 |
| 1-1/8-16 | 2 | 2456-076 | 32.50 |
| 1-1/8-18 NEF | 2 | 2456-083 | 32.50 |
| 1-1/8-20 | 2 | 2456-090 | 32.50 |
| 1-1/8-24 | 2 | 2456-097 | 32.50 |
| 7/16-12 | 2-1/2 | 2453-303† | 48.20 |
| 3/4-20 NEF | 2-1/2 | 2454-658 | 48.20 |
| 7/8-27 | 2-1/2 | 2455-221 | 48.20 |
| 15/16-20 NEF | 2-1/2 | 2455-456 | 48.20 |
| 1-10 | 2-1/2 | 2455-706 | 48.20 |
| 1-16 | 2-1/2 | 2455-728 | 48.20 |
| 1-18 | 2-1/2 | 2455-735 | 48.20 |
| 1-20 NEF | 2-1/2 | 2455-741 | 48.20 |
| 1-27 | 2-1/2 | 2455-756 | 48.20 |
| 1-32 | 2-1/2 | 2455-769 | 48.20 |
| 1-1/16-8 | 2-1/2 | 2455-904 | 48.20 |
| 1-1/16-12 | 2-1/2 | 2455-918 | 48.20 |
| 1-1/16-14 | 2-1/2 | 2455-922 | 48.20 |
| 1-1/16-16 | 2-1/2 | 2455-927 | 48.20 |
| 1-1/16-18 NEF | 2-1/2 | 2455-936 | 48.20 |
| 1-1/16-20 | 2-1/2 | 2455-941 | 48.20 |
| 1-1/16-24 | 2-1/2 | 2455-951 | 48.20 |
| 1-1/16-32 | 2-1/2 | 2455-966 | 48.20 |
| 1-1/8-8 | 2-1/2 | 2456-053 | 48.20 |
| 1-1/8-10 | 2-1/2 | 2456-059 | 48.20 |
| 1-1/8-14 | 2-1/2 | 2456-070 | 48.20 |
| 1-1/8-16 | 2-1/2 | 2456-078 | 48.20 |
| 1-1/8-18 NEF | 2-1/2 | 2456-085 | 48.20 |
| 1-1/8-20 | 2-1/2 | 2456-092 | 48.20 |
| 1-1/8-24 | 2-1/2 | 2456-099 | 48.20 |
| 1-1/8-27 | 2-1/2 | 2456-105 | 48.20 |
| 1-1/8-32 | 2-1/2 | 2456-113 | 48.20 |
| 1-3/16-8 | 2-1/2 | 2456-198 | 48.20 |
| 1-3/16-12 | 2-1/2 | 2456-204 | 48.20 |
| 1-3/16-14 | 2-1/2 | 2456-207 | 48.20 |
| 1-3/16-16 | 2-1/2 | 2456-210 | 48.20 |
| 1-3/16-18 NEF | 2-1/2 | 2456-215 | 48.20 |
| 1-3/16-20 | 2-1/2 | 2456-220 | 48.20 |
| 1-3/16-32 | 2-1/2 | 2456-237 | 48.20 |
| 1-1/4-8 | 2-1/2 | 2456-333 | 48.20 |
| 1-1/4-10 | 2-1/2 | 2456-338 | 48.20 |
| 1-1/4-14 | 2-1/2 | 2456-347 | 48.20 |
| 1-1/4-16 | 2-1/2 | 2456-351 | 48.20 |

| SIZE | O.D. | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 1-1/4-18 NEF | 2-1/2 | 2456-358 | $48.20 |
| 1-1/4-20 | 2-1/2 | 2456-363 | 48.20 |
| 1-1/4-24 | 2-1/2 | 2456-369 | 48.20 |
| 1-1/4-32 | 2-1/2 | 2456-382 | 48.20 |
| 1-1/4-40 | 2-1/2 | 2456-390 | 48.20 |
| 1-5/16-8 | 2-1/2 | 2456-455 | 48.20 |
| 1-5/16-12 | 2-1/2 | 2456-461 | 48.20 |
| 1-5/16-14 | 2-1/2 | 2456-466 | 48.20 |
| 1-5/16-16 | 2-1/2 | 2456-471 | 48.20 |
| 1-5/16-18 NEF | 2-1/2 | 2456-476 | 48.20 |
| 1-5/16-20 | 2-1/2 | 2456-481 | 48.20 |
| 1-3/8-8 | 2-1/2 | 2456-579 | 48.20 |
| 1-3/8-10 | 2-1/2 | 2456-584 | 48.20 |
| 1-3/8-14 | 2-1/2 | 2456-594 | 48.20 |
| 1-3/8-16 | 2-1/2 | 2456-597 | 48.20 |
| 1-3/8-18 NEF | 2-1/2 | 2456-602 | 48.20 |
| 1-3/8-20 | 2-1/2 | 2456-607 | 48.20 |
| 1-3/8-24 | 2-1/2 | 2456-614 | 48.20 |
| 1-7/16-8 | 2-1/2 | 2456-710 | 48.20 |
| 1-7/16-12 | 2-1/2 | 2456-716 | 48.20 |
| 1-7/16-16 | 2-1/2 | 2456-724 | 48.20 |
| 1-7/16-18 | 2-1/2 | 2456-729 | 48.20 |
| 1-7/16-20 | 2-1/2 | 2456-734 | 48.20 |
| 1-7/16-24 | 2-1/2 | 2456-740 | 48.20 |
| 1-1/2-8 | 2-1/2 | 2456-835 | 48.20 |
| 1-1/2-10 | 2-1/2 | 2456-840 | 48.20 |
| 1-1/2-14 | 2-1/2 | 2456-850 | 48.20 |
| 1-1/2-16 | 2-1/2 | 2456-855 | 48.20 |
| 1-1/2-18 NEF | 2-1/2 | 2456-860 | 48.20 |
| 1-1/2-20 | 2-1/2 | 2456-865 | 48.20 |
| 1-1/2-24 | 2-1/2 | 2456-872 | 48.20 |
| 1-1/2-28 | 2-1/2 | 2456-883 | 48.20 |
| 1-1/2-32 | 2-1/2 | 2456-888 | 48.20 |
| 1-1/2-40 | 2-1/2 | 2456-896 | 48.20 |
| 15/16-20 NEF | 3 | 2455-458† | 79.50 |
| 1-16 | 3 | 2455-730 | 79.50 |
| 1-20 NEF | 3 | 2455-743 | 79.50 |
| 1-27 | 3 | 2455-758 | 79.50 |
| 1-1/16-20 | 3 | 2455-943 | 79.50 |
| 1-1/16-32 | 3 | 2455-968 | 79.50 |
| 1-1/8-8 | 3 | 2456-055 | 79.50 |
| 1-1/8-16 | 3 | 2456-080 | 79.50 |
| 1-1/8-18 NEF | 3 | 2456-087 | 79.50 |
| 1-3/16-18 NEF | 3 | 2456-217 | 79.50 |
| 1-3/16-20 | 3 | 2456-222 | 79.50 |
| 1-1/4-8 | 3 | 2456-335 | 79.50 |
| 1-1/4-10 | 3 | 2456-340 | 79.50 |
| 1-1/4-16 | 3 | 2456-353 | 79.50 |
| 1-1/4-18 NEF | 3 | 2456-360 | 79.50 |
| 1-1/4-20 | 3 | 2456-365 | 79.50 |
| 1-1/4-32 | 3 | 2456-384 | 79.50 |
| 1-5/16-12 | 3 | 2456-463 | 79.50 |
| 1-5/16-14 | 3 | 2456-468 | 79.50 |
| 1-5/16-16 | 3 | 2456-473 | 79.50 |
| 1-5/16-18 NEF | 3 | 2456-478 | 79.50 |
| 1-5/16-20 | 3 | 2456-483 | 79.50 |
| 1-3/8-8 | 3 | 2456-581 | 79.50 |
| 1-3/8-10 | 3 | 2456-586 | 79.50 |
| 1-3/8-16 | 3 | 2456-599 | 79.50 |
| 1-3/8-18 NEF | 3 | 2456-604 | 79.50 |
| 1-3/8-20 | 3 | 2456-609 | 79.50 |
| 1-3/8-24 | 3 | 2456-616 | 79.50 |
| 1-7/16-12 | 3 | 2456-718 | 79.50 |
| 1-7/16-16 | 3 | 2456-726 | 79.50 |
| 1-7/16-18 | 3 | 2456-731 | 79.50 |
| 1-7/16-20 | 3 | 2456-736 | 79.50 |
| 1-1/2-8 | 3 | 2456-837 | 79.50 |
| 1-1/2-10 | 3 | 2456-842 | 79.50 |
| 1-1/2-14 | 3 | 2456-852 | 79.50 |
| 1-1/2-16 | 3 | 2456-857 | 79.50 |
| 1-1/2-18 NEF | 3 | 2456-862 | 79.50 |
| 1-1/2-20 | 3 | 2456-867 | 79.50 |
| 1-1/2-24 | 3 | 2456-874 | 79.50 |

† Limited Quantities

(continued)

# Popular Special R.H. Round Adjustable Dies

## High Speed Steel

| SIZE | O.D. | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 1-9/16-12 | 3 | 2457-020 | $79.50 |
| 1-9/16-16 | 3 | 2457-026 | 79.50 |
| 1-9/16-18 | 3 | 2457-029 | 79.50 |
| 1-9/16-20 | 3 | 2457-031 | 79.50 |
| 1-5/8-5-1/2 | 3 | 2457-137 | 79.50 |
| 1-5/8-8 | 3 | 2457-143 | 79.50 |
| 1-5/8-10 | 3 | 2457-146 | 79.50 |
| 1-5/8-12 | 3 | 2457-152 | 79.50 |
| 1-5/8-14 | 3 | 2457-157 | 79.50 |
| 1-5/8-16 | 3 | 2457-160 | 79.50 |
| 1-5/8-18 | 3 | 2457-163 | 79.50 |
| 1-5/8-20 | 3 | 2457-166 | 79.50 |
| 1-5/8-24 | 3 | 2457-173 | 79.50 |
| 1-11/16-12 | 3 | 2457-236 | 79.50 |
| 1-11/16-16 | 3 | 2457-242 | 79.50 |
| 1-11/16-18 | 3 | 2457-246 | 79.50 |
| 1-11/16-20 | 3 | 2457-250 | 79.50 |
| 1-3/4-5 | 3 | 2457-298 | 79.50 |
| 1-3/4-6 | 3 | 2457-301 | 79.50 |
| 1-3/4-8 | 3 | 2457-307 | 79.50 |
| 1-3/4-10 | 3 | 2457-310 | 79.50 |
| 1-3/4-12 | 3 | 2457-315 | 79.50 |
| 1-3/4-14 | 3 | 2457-318 | 79.50 |
| 1-3/4-16 | 3 | 2457-321 | 79.50 |
| 1-3/4-18 | 3 | 2457-326 | 79.50 |
| 1-3/4-20 | 3 | 2457-329 | 79.50 |
| 1-3/4-24 | 3 | 2457-336 | 79.50 |
| 1-13/16-12 | 3 | 2457-389 | 79.50 |
| 1-13/16-16 | 3 | 2457-395 | 79.50 |
| 1-13/16-18 | 3 | 2457-398 | 79.50 |
| 1-7/8-5 | 3 | 2457-449 | 79.50 |
| 1-7/8-8 | 3 | 2457-457 | 79.50 |
| 1-7/8-10 | 3 | 2457-462 | 79.50 |
| 1-7/8-12 | 3 | 2457-465 | 79.50 |
| 1-7/8-14 | 3 | 2457-470 | 79.50 |
| 1-7/8-16 | 3 | 2457-475 | 79.50 |
| 1-7/8-18 | 3 | 2457-480 | 79.50 |
| 1-7/8-20 | 3 | 2457-483 | 79.50 |
| 1-15/16-12 | 3 | 2457-578 | 79.50 |
| 1-15/16-16 | 3 | 2457-583 | 79.50 |
| 1-15/16-18 | 3 | 2457-588 | 79.50 |
| 2-4-1/2 | 3 | 2457-640 | 79.50 |
| 2-6 | 3 | 2457-646 | 79.50 |
| 2-8 | 3 | 2457-649 | 79.50 |
| 2-10 | 3 | 2457-654 | 79.50 |
| 2-12 | 3 | 2457-659 | 79.50 |
| 2-14 | 3 | 2457-666 | 79.50 |
| 2-16 | 3 | 2457-671 | 79.50 |
| 2-18 | 3 | 2457-674 | 79.50 |
| 2-20 | 3 | 2457-681 | 79.50 |
| 1-5/8-20 | 3-1/2 | 2457-168† | 79.50 |
| 1-11/16-20 | 3-1/2 | 2457-252† | 79.50 |
| 1-11/16-24 | 3-1/2 | 2457-259† | 79.50 |
| 1-3/4-24 | 3-1/2 | 2457-338† | 79.50 |
| 1-13/16-12 | 3-1/2 | 2457-391† | 79.50 |
| 1-13/16-20 | 3-1/2 | 2457-402† | 79.50 |
| 1-7/8-5 | 3-1/2 | 2457-451† | 79.50 |
| 1-7/8-14 | 3-1/2 | 2457-472† | 79.50 |
| 1-15/16-18 | 3-1/2 | 2457-590† | 79.50 |
| 2-14 | 3-1/2 | 2457-668† | 79.50 |
| 2-18 | 3-1/2 | 2457-676† | 79.50 |
| 2-20 | 3-1/2 | 2457-683† | 79.50 |
| 2-1/8-8 | 3-1/2 | 2457-796† | 79.50 |
| 2-1/8-16 | 3-1/2 | 2457-813† | 79.50 |
| 1-3/4-10 | 4 | 2457-312† | 131.30 |

† Limited Quantities

| SIZE | O.D. | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 2-12 | 4 | 2457-663 | $131.30 |
| 2-18 | 4 | 2457-678 | 131.30 |
| 2-1/8-8 | 4 | 2457-798 | 131.30 |
| 2-1/8-12 | 4 | 2457-806 | 131.30 |
| 2-1/8-16 | 4 | 2457-815 | 131.30 |
| 2-1/8-18 | 4 | 2457-819 | 131.30 |
| 2-1/4-4-1/2 | 4 | 2457-916 | 131.30 |
| 2-1/4-8 | 4 | 2457-924 | 131.30 |
| 2-1/4-12 | 4 | 2457-930 | 131.30 |
| 2-1/4-16 | 4 | 2457-936 | 131.30 |
| 2-1/4-18 | 4 | 2457-939 | 131.30 |
| 2-1/4-20 | 4 | 2457-942 | 131.30 |
| 2-3/8-8 | 4 | 2458-040 | 131.30 |
| 2-3/8-12 | 4 | 2458-046 | 131.30 |
| 2-3/8-16 | 4 | 2458-053 | 131.30 |
| 2-3/8-18 | 4 | 2458-058 | 131.30 |
| 2-3/8-20 | 4 | 2458-061 | 131.30 |
| 2-1/2-4 | 4 | 2458-150 | 131.30 |
| 2-1/2-8 | 4 | 2458-156 | 131.30 |
| 2-1/2-12 | 4 | 2458-164 | 131.30 |
| 2-1/2-16 | 4 | 2458-172 | 131.30 |
| 2-1/2-18 | 4 | 2458-176 | 131.30 |
| 2-1/2-20 | 4 | 2458-180 | 131.30 |
| 2-5/8-12 | 4 | 2458-288 | 131.30 |
| 2-5/8-16 | 4 | 2458-298 | 131.30 |
| 2-3/8-16 | 5 | 2458-054 | 333.20 |
| 2-5/8-8 | 5 | 2458-281 | 333.20 |
| 2-5/8-12 | 5 | 2458-291 | 333.20 |
| 2-5/8-14 | 5 | 2458-295 | 333.20 |
| 2-5/8-16 | 5 | 2458-299 | 333.20 |
| 2-5/8-18 | 5 | 2458-303 | 333.20 |
| 2-3/4-4 | 5 | 2458-370 | 333.20 |
| 2-3/4-8 | 5 | 2458-375 | 333.20 |
| 2-3/4-12 | 5 | 2458-381 | 333.20 |
| 2-3/4-16 | 5 | 2458-390 | 333.20 |
| 2-7/8-8 | 5 | 2458-443 | 333.20 |
| 2-7/8-12 | 5 | 2458-449 | 333.20 |
| 2-7/8-18 | 5 | 2458-458 | 333.20 |
| 3-4 | 5 | 2458-539 | 333.20 |
| 3-8 | 5 | 2458-545 | 333.20 |
| 3-12 | 5 | 2458-553 | 333.20 |
| 3-16 | 5 | 2458-557 | 333.20 |
| 3-18 | 5 | 2458-561 | 333.20 |
| 3-1/8-4 | 5 | 2458-595 | 333.20 |
| 3-1/8-8 | 5 | 2458-599 | 333.20 |
| 3-1/8-12 | 5 | 2458-606 | 333.20 |
| 3-1/4-4 | 5 | 2458-640 | 333.20 |
| 3-1/4-8 | 5 | 2458-645 | 333.20 |
| 3-1/4-12 | 5 | 2458-650 | 333.20 |
| 3-3/8-8 | 5 | 2458-738 | 333.20 |
| 3-3/8-12 | 5 | 2458-742 | 333.20 |
| 3-1/2-4 | 5 | 2458-775 | 333.20 |
| 3-1/2-8 | 5 | 2458-780 | 333.20 |
| 3-1/2-12 | 5 | 2458-785 | 333.20 |
| 3-5/8-8 | 5 | 2458-840 | 333.20 |
| 3-5/8-12 | 5 | 2458-845 | 333.20 |
| 3-3/4-4 | 6 | 2458-880 | 597.70 |
| 3-3/4-8 | 6 | 2458-885 | 597.70 |
| 3-3/4-12 | 6 | 2458-890 | 597.70 |
| 3-7/8-8 | 6 | 2458-930 | 597.70 |
| 3-7/8-12 | 6 | 2458-935 | 597.70 |
| 4-4 | 6 | 2458-970 | 597.70 |
| 4-8 | 6 | 2458-975 | 597.70 |
| 4-12 | 6 | 2458-980 | 597.70 |

**BRITISH - LEFT HAND - ACME : MULTIPLE LEAD THREADS ARE IN STOCK FOR IMMEDIATE DELIVERY. SIZES NOT LISTED AND U.S.A. MANUFACTURED DIES ARE QUOTED UPON REQUEST**

# Full Special Round Adjustable Dies

## Right Hand, High Speed Steel

**When inquiring, please specify size and quantity.**

**POPULAR SPECIAL ROUND DIES SEE PAGES 144-146**

Pittsburg® ALLEGHANY

| SIZE | 13/16 OD | 1" OD | 1-1/2" OD | PRICE EACH |
|---|---|---|---|---|
| 00-90 | 2450-090 | – | – | POA |
| 0-90 | 2450-155 | – | – | POA |
| 2-96 | 2450-265 | – | – | POA |
| 3-40 | 2450-280 | – | – | POA |
| 3-60 | 2450-301 | – | – | POA |
| 4-60 | – | 2450-369 | – | POA |
| 4-72 | – | 2450-377 | – | POA |
| 4-90 | 2450-384 | 2450-385 | – | POA |
| 5-60 | – | 2450-432 | – | POA |
| 5-64 | – | 2450-436 | – | POA |
| 5-72 | – | 2450-440 | – | POA |
| 5-80 | – | 2450-444 | – | POA |
| 5-100 | – | 2450-460 | – | POA |
| 6-24 | 2450-465 | 2450-466 | – | POA |
| 6-28 | 2450-470 | – | – | POA |
| 6-30 | 2450-476 | – | – | POA |
| 6-38 | 2450-495 | 2450-496 | – | POA |
| 6-42 | – | 2450-506 | – | POA |
| 6-44 | – | 2450-508 | – | POA |
| 6-64 | – | 2450-530 | – | POA |
| 6-72 | – | 2450-534 | – | POA |
| 6-80 | – | 2450-538 | – | POA |
| 7-30 | – | 2450-547 | – | POA |
| 7-32 | 2450-550 | 2450-551 | – | POA |
| 7-36 | 2450-554 | 2450-555 | – | POA |
| 7-40 | 2450-558 | 2450-559 | – | POA |
| 7-48 | 2450-567 | – | – | POA |
| 7-64 | 2450-578 | 2450-579 | – | POA |
| 8-26 | 2450-610 | 2450-611 | – | POA |
| 8-28 | – | 2450-615 | – | POA |
| 8-44 | – | 2450-644 | – | POA |
| 8-48 | – | 2450-648 | – | POA |
| 8-56 | – | 2450-653 | – | POA |
| 8-60 | – | 2450-657 | – | POA |
| 8-64 | – | 2450-661 | – | POA |
| 8-72 | 2450-664 | 2450-665 | – | POA |
| 8-90 | 2450-673 | – | – | POA |
| 9-24 | 2450-696 | 2450-697 | – | POA |
| 9-30 | – | 2450-704 | – | POA |
| 9-32 | 2450-707 | 2450-708 | – | POA |
| 9-36 | – | 2450-712 | – | POA |
| 9-40 | 2450-718 | 2450-719 | – | POA |
| 9-56 | 2450-722 | – | – | POA |
| 10-20 | 2450-735 | – | – | POA |
| 10-38 | – | 2450-771 | – | POA |
| 10-48 | – | 2450-782 | – | POA |
| 10-50 | – | 2450-786 | – | POA |
| 10-52 | 2450-789 | 2450-790 | – | POA |
| 10-56 | – | 2450-797 | – | POA |
| 10-72 | – | 2450-808 | – | POA |
| 10-80 | – | 2450-812 | – | POA |
| 10-96 | – | 2450-815 | – | POA |
| 11-24 | – | 2450-845 | – | POA |
| 11-28 | – | 2450-849 | – | POA |
| 11-32 | – | 2450-852 | – | POA |
| 11-36 | – | 2450-856 | – | POA |
| 11-40 | – | 2450-860 | – | POA |
| 11-48 | – | 2450-868 | – | POA |
| 12-64 | – | 2450-930 | – | POA |
| 12-72 | – | 2450-933 | – | POA |
| 12-80 | – | 2450-937 | – | POA |
| 13-28 | – | 2450-961 | – | POA |
| 14-18 | 2450-993 | – | – | POA |
| 14-20 | 2450-997 | 2450-998 | – | POA |
| 14-24 | 2451-005 | 2451-006 | – | POA |
| 14-28 | 2451-012 | – | – | POA |
| 14-32 | – | 2451-017 | – | POA |
| 14-64 | – | 2451-028 | – | POA |
| 15-20 | | – | 2451-049 | POA |
| 16-20 | 2451-100 | – | – | POA |
| 16-22 | – | 2451-104 | – | POA |
| 16-36 | – | 2451-118 | – | POA |
| 16-40 | – | 2451-123 | – | POA |
| 18-32 | – | 2451-215 | – | POA |
| 1/16-64 | 2451-791 | – | – | POA |

† Limited Quantities

| SIZE | 5/8 OD | 13/16 OD | 1" OD | 1-1/2" OD | PRICE EACH |
|---|---|---|---|---|---|
| 3/32-32 | – | 2451-870 | – | – | POA |
| 3/32-48 | – | 2451-879 | – | – | POA |
| 3/32-50 | – | 2451-882 | – | – | POA |
| 3/32-80 | – | 2451-896 | – | – | POA |
| .100-100 | 2451-915 | 2451-917 | – | – | POA |
| 1/8- 44 | – | 2451-975 | – | – | POA |
| 1/8-100 | – | 2451-995 | – | – | POA |
| 9/64-40 | – | 2452-018 | – | – | POA |
| 5/32-32 | – | – | 2452-063 | – | POA |
| 5/32-36 | – | 2452-067 | 2452-068 | – | POA |
| 5/32-40 | 2452-071 | 2452-072 | 2452-073 | – | POA |
| 5/32-50 | – | – | 2452-077 | – | POA |
| 5/32-60 | – | 2452-082 | – | – | POA |
| 5/32-64 | – | – | 2452-085 | – | POA |
| 5/32-80 | – | 2452-090 | – | – | POA |
| 11/64-40 | – | 2452-116 | – | – | POA |
| 3/16-18 | – | 2452-155 | – | – | POA |
| 3/16-20 | – | 2452-159 | – | – | POA |
| 3/16-24 | – | 2452-162 | 2452-163 | – | POA |
| 3/16-28 | – | 2452-168 | – | – | POA |
| 3/16-32 | – | 2452-172 | 2452-173 | – | POA |
| 3/16-40 | – | – | 2452-181 | – | POA |
| 3/16-48 | – | 2452-186 | – | – | POA |
| 3/16-50 | – | – | 2452-190 | – | POA |
| 3/16-56 | – | 2452-194 | – | – | POA |
| 3/16-60 | – | 2452-196 | – | – | POA |
| 3/16-64 | – | 2452-198 | – | – | POA |
| 3/16-72 | – | 2452-202 | – | – | POA |
| 3/16-80 | – | – | 2452-206 | – | POA |
| 3/16-100 | – | 2452-214 | – | – | POA |
| 13/64-48 | – | 2452-235 | – | – | POA |
| 7/32-20 | – | – | 2452-272 | – | POA |
| 7/32-24 | – | 2452-274 | – | – | POA |
| 7/32-28 | – | 2452-277 | – | – | POA |
| 7/32-32 | – | – | 2452-283 | – | POA |
| 7/32-36 | – | 2452-287 | – | – | POA |
| 7/32-40 | – | 2452-291 | 2452-292 | – | POA |
| 7/32-48 | – | 2452-296 | 2452-297 | – | POA |
| 7/32-60 | – | 2452-302 | 2452-303 | – | POA |
| 7/32-64 | – | – | 2452-307 | – | POA |
| 7/32-72 | – | 2452-310 | – | – | POA |
| 7/32-80 | – | – | 2452-315 | – | POA |
| 15/64-28 | – | 2452-340 | – | – | POA |
| 15/64-64 | – | – | 2452-354 | – | POA |
| 15/64-80 | – | 2452-360 | – | – | POA |
| 1/4-10 | – | – | 2452-384 | – | POA |
| 1/4-12 | – | – | 2452-388 | – | POA |
| 1/4-14 | – | – | 2452-391 | – | POA |
| 1/4-23 | – | – | 2452-407 | – | POA |
| 1/4-25 | – | – | 2452-416 | – | POA |
| 1/4-38 | – | – | 2452-446 | – | POA |
| 1/4-42 | – | – | 2452-455 | – | POA |
| 1/4-44 | – | – | – | 2452-459 | POA |
| 1/4-46 | – | – | 2452-461 | – | POA |
| 1/4-50 | – | – | 2452-467 | – | POA |
| 1/4-52 | – | – | 2452-470 | – | POA |
| 1/4-64 | – | 2452-483 | – | – | POA |
| 17/64-20 | – | – | 2452-511 | – | POA |
| 17/64-24 | – | 2452-516 | – | – | POA |
| 17/64-28 | – | 2452-520 | – | – | POA |
| 17/64-32 | – | – | 2452-525 | – | POA |
| 17/64-40 | – | – | 2452-550 | – | POA |
| 9/32-20 | – | – | 2452-570 | – | POA |
| 9/32-24 | – | – | 2452-575 | – | POA |
| 9/32-27 | – | – | 2452-580 | – | POA |
| 9/32-28 | – | – | 2452-583 | – | POA |
| 9/32-36 | – | – | 2452-593 | – | POA |
| 9/32-40 | – | – | 2452-598 | – | POA |
| 9/32-48 | – | – | 2452-606 | – | POA |
| 9/32-56 | – | – | 2452-614 | – | POA |
| 9/32-64 | – | – | 2452-622 | – | POA |
| 19/64-24 | – | – | 2452-650 | – | POA |
| 19/64-32 | – | – | 2452-658 | – | POA |
| 19/64-64 | – | – | – | 2452-668 | POA |
| 5/16-10 | – | – | 2452-690 | – | POA |
| 5/16-12 | – | – | 2452-693 | – | POA |
| 5/16-14 | – | – | 2452-696 | – | POA |
| 5/16-16 | – | – | – | 2452-701 | POA |
| 5/16-26 | – | – | 2452-720 | – | POA |

(continued)

# Full Special Round Adjustable Dies

## Right Hand, High Speed Steel

**When inquiring, please specify size and quantity.**

**POPULAR SPECIAL ROUND DIES SEE PAGES 142-144**

Pittsburg® ALLEGHANY

| SIZE | 1" OD | 1 1/2" OD | 2" OD | PRICE EACH |
|---|---|---|---|---|
| 5/16-32 NEF | – | – | 2452-743 | POA |
| 5/16-34 | 2452-746 | – | – | POA |
| 5/16-42 | 2452-759 | – | – | POA |
| 5/16-44 | 2452-762 | – | – | POA |
| 5/16-46 | 2452-765 | – | – | POA |
| 5/16-50 | 2452-771 | – | – | POA |
| 5/16-72 | 2452-794 | – | – | POA |
| 5/16-100 | 2452-812 | – | – | POA |
| 21/64-36 | 2452-830 | – | – | POA |
| 11/32-18 | 2452-868 | – | – | POA |
| 11/32-20 | 2452-871 | – | – | POA |
| 11/32-24 | 2452-876 | – | – | POA |
| 11/32-27 | 2452-881 | – | – | POA |
| 11/32-28 | 2452-884 | – | – | POA |
| 11/32-36 | – | 2452-897 | – | POA |
| 11/32-40 | 2452-902 | – | – | POA |
| 11/32-48 | 2452-910 | – | – | POA |
| 11/32-56 | 2452-918 | – | – | POA |
| 11/32-60 | 2452-923 | – | – | POA |
| 11/32-64 | 2452-928 | – | – | POA |
| 3/8-10 | 2453-005 | – | – | POA |
| 3/8-12 | 2453-008 | – | – | POA |
| 3/8-20 | – | – | 2453-031 | POA |
| 3/8-22 | 2453-034 | – | – | POA |
| 3/8-25 | 2453-041 | – | – | POA |
| 3/8-26 | 2453-044 | – | – | POA |
| 3/8-38 | 2453-074 | – | – | POA |
| 3/8-44 | 2453-084 | – | – | POA |
| 3/8-50 | – | 2453-095 | – | POA |
| 3/8-52 | 2453-098 | – | – | POA |
| 3/8-80 | – | 2453-124 | – | POA |
| 25/64-27 | 2453-132 | – | – | POA |
| 25/64-32 | – | 2453-137 | – | POA |
| 25/64-40 | 2453-141 | – | – | POA |
| 25/64-48 | 2453-149 | – | – | POA |
| 13/32-16 | – | 2453-180 | – | POA |
| 13/32-20 | 2453-184 | – | – | POA |
| 13/32-24 | 2453-188 | 2453-190 | – | POA |
| 13/32-26 | – | 2453-194 | – | POA |
| 13/32-27 | 2453-196 | – | – | POA |
| 13/32-28 | 2453-199 | – | – | POA |
| 13/32-36 | 2453-209 | 2453-211 | – | POA |
| 13/32-40 | 2453-215 | – | – | POA |
| 13/32-48 | 2453-220 | – | – | POA |
| 27/64-20 | – | 2453-249 | – | POA |
| 27/64-36 | 2453-258 | – | – | POA |
| 27/64-48 | 2453-260 | – | – | POA |
| 7/16- 8 | – | 2453-292 | – | POA |
| 7/16-10 | – | 2453-295 | – | POA |
| 7/16-22 | 2453-325 | – | – | POA |
| 7/16-26 | – | 2453-334 | – | POA |
| 7/16-28 NEF | – | – | 2453-346 | POA |
| 7/16-56 | – | 2453-382 | – | POA |
| 7/16-64 | – | 2453-388 | – | POA |
| 15/32-14 | – | 2453-450 | – | POA |
| 15/32-18 | – | 2453-455 | – | POA |
| 15/32-20 | 2453-458 | 2453-460 | – | POA |
| 15/32-24 | 2453-465 | 2453-467 | – | POA |
| 15/32-27 | 2453-471 | 2453-473 | – | POA |
| 15/32-28 | 2453-476 | – | – | POA |
| 15/32-36 | – | 2453-485 | – | POA |
| 15/32-40 | 2453-489 | 2453-491 | – | POA |
| 1/2- 8 | – | 2453-550 | – | POA |
| 1/2-10 | 2453-552 | 2453-553 | – | POA |
| 1/2-11 | – | 2453-556 | – | POA |
| 1/2-22 | 2453-593 | – | – | POA |
| 1/2-25 | 2453-602 | 2453-604 | 2453-606 | POA |
| 1/2-26 | – | 2453-609 | – | POA |
| 1/2-28 WT | 2453-618 | – | – | POA |
| 1/2-38 | 2453-641 | – | – | POA |
| 1/2-50 | 2453-656 | 2453-658 | – | POA |
| 1/2-60 | – | 2453-668 | – | POA |
| 1/2-68 | 2453-674 | 2453-675 | – | POA |
| 1/2-70 | – | 2453-678 | – | POA |
| 1/2-72 | – | 2453-681 | – | POA |
| 1/2-80 | – | 2453-685 | – | POA |
| 17/32-12 | – | 2453-735 | – | POA |
| 17/32-13 | – | 2453-738 | – | POA |

| SIZE | 1 1/2" OD | 2" OD | PRICE EACH |
|---|---|---|---|
| 17/32-18 | 2453-743 | – | POA |
| 17/32-20 | 2453-746 | – | POA |
| 17/32-24 | 2453-751 | – | POA |
| 17/32-27 | 2453-755 | – | POA |
| 17/32-28 | 2453-758 | – | POA |
| 17/32-32 | 2453-762 | – | POA |
| 17/32-36 | 2453-765 | – | POA |
| 17/32-40 | 2453-767 | – | POA |
| 17/32-48 | 2453-772 | – | POA |
| 35/64-28 | 2453-808 | – | POA |
| 9/16-10 | 2453-845 | – | POA |
| 9/16-11 | 2453-848 | – | POA |
| 9/16-13 | 2453-855 | – | POA |
| 9/16-25 | 2453-879 | – | POA |
| 9/16-26 WT | 2453-882 | – | POA |
| 9/16-30 | 2453-892 | – | POA |
| 9/16-80 | 2453-935 | – | POA |
| 37/64-40 | 2453-965 | – | POA |
| 19/32-18 | 2454-000 | – | POA |
| 19/32-20 | 2454-003 | – | POA |
| 19/32-24 | 2454-008 | – | POA |
| 19/32-27 | 2454-012 | – | POA |
| 19/32-28 | 2454-015 | – | POA |
| 19/32-32 | 2454-020 | – | POA |
| 19/32-40 | 2454-026 | – | POA |
| 19/32-48 | 2454-032 | – | POA |
| 19/32-64 | 2454-042 | – | POA |
| 5/8- 8 | 2454-105 | – | POA |
| 5/8- 9 | 2454-108 | – | POA |
| 5/8-13 | 2454-125 | 2454-127 | POA |
| 5/8-22 | 2454-147 | – | POA |
| 5/8-25 | – | 2454-155 | POA |
| 5/8-26 | 2454-158 | – | POA |
| 5/8-30 | 2454-169 | 2454-171 | POA |
| 21/32-11 | 2454-261 | – | POA |
| 21/32-18 | 2454-266 | – | POA |
| 21/32-20 | 2454-269 | – | POA |
| 21/32-24 | 2454-273 | – | POA |
| 21/32-32 | 2454-279 | 2454-281 | POA |
| 21/32-40 | 2454-288 | 2454-290 | POA |
| 0.669-20 | 2454-310 | – | POA |
| 11/16-28 | – | 2454-414 | POA |
| 11/16-48 | 2454-436 | 2454-438 | POA |
| 23/32-18 | 2454-507 | – | POA |
| 23/32-20 | – | 2454-510 | POA |
| 23/32-24 | – | 2454-515 | POA |
| 23/32-32 | – | 2454-522 | POA |
| 23/32-40 | – | 2454-529 | POA |
| 23/32-48 | – | 2454-535 | POA |
| 3/4- 8 | 2454-613 | 2454-615 | POA |
| 3/4-10 NC | – | 2454-621* | 20.90 |
| 3/4-11 1/2 | – | 2454-627 | POA |
| 3/4-15 | 2454-640 | – | POA |
| 3/4-22 | 2454-661 | – | POA |
| 3/4-25 | – | 2454-669 | POA |
| 3/4-26 | – | 2454-672 | POA |
| 3/4-30 | – | 2454-685 | POA |
| 3/4-56 | – | 2454-714 | POA |
| 3/4-64 | – | 2454-719 | POA |
| 3/4-72 | – | 2454-724 | POA |
| 25/32- 9 | – | 2454-792 | POA |
| 25/32-10 | – | 2454-795 | POA |
| 25/32-16 | – | 2454-804 | POA |
| 25/32-18 | – | 2454-807 | POA |
| 25/32-20 | – | 2454-810 | POA |
| 25/32-24 | – | 2454-815 | POA |
| 25/32-40 | – | 2454-830 | POA |
| 13/16- 9 | – | 2454-913 | POA |
| 13/16-13 | – | 2454-922 | POA |
| 13/16-40 | – | 2454-966 | POA |
| 27/32-20 | – | 2455-074 | POA |
| 27/32-32 | – | 2455-084 | POA |
| 27/32-40 | – | 2455-091 | POA |
| 27/32-48 | – | 2455-098 | POA |
| 7/8- 8 | – | 2455-175 | POA |
| 7/8-26 | – | 2455-215 | POA |
| 7/8-26 WT | – | 2455-216 | POA |
| 7/8-30 | – | 2455-228 | POA |
| 7/8-48 | – | 2455-249 | POA |

WT - Whitworth Thread

* 2 1/4" OD (DISCONTINUED)

(continued)

# Full Special Round Adjustable Dies

## Right Hand, High Speed Steel

**When inquiring, please specify size and quantity.**

**POPULAR SPECIAL ROUND DIES SEE PAGES 142-144**

Pittsburg® ALLEGHANY

| SIZE | 2" OD | 2 1/2" OD | 3" OD | 4" OD | PRICE EACH |
|---|---|---|---|---|---|
| 29/32-14 | 2455-330 | – | – | – | POA |
| 29/32-18 | 2455-336 | – | – | – | POA |
| 29/32-20 | 2455-339 | – | – | – | POA |
| 29/32-24 | 2455-343 | – | – | – | POA |
| 29/32-32 | 2455-349 | – | – | – | POA |
| 15/16- 6 | 2455-430 | – | – | – | POA |
| 15/16- 9 | 2455-436 | – | – | – | POA |
| 15/16-10 | 2455-439 | – | – | – | POA |
| 15/16-26 | 2455-465 | – | – | – | POA |
| 15/16-40 | 2455-485 | – | – | – | POA |
| 15/16-48 | 2455-494 | – | – | – | POA |
| 31/32-16 | 2455-583 | – | – | – | POA |
| 31/32-20 | 2455-586 | – | – | – | POA |
| 1-14 | 2455-720* | – | – | – | POA |
| 1-26 | 2455-751 | – | – | – | POA |
| 1-30 | 2455-764 | – | – | – | POA |
| 1-48 | 2455-792 | – | – | – | POA |
| 1-56 | 2455-800 | – | – | – | POA |
| 1-64 | 2455-810 | – | – | – | POA |
| 1 1/32-14 | 2455-840 | – | – | – | POA |
| 1 1/16-10 | 2455-907 | 2455-909 | – | – | POA |
| 1 1/16-11 | – | – | 2455-913 | – | POA |
| 1 1/16-17 | – | – | 2455-931 | – | POA |
| 1 1/16-22 | 2455-946 | – | – | – | POA |
| 1 1/16-27 | – | 2455-955 | – | – | POA |
| 1 1/16-28 | 2455-958 | 2455-960 | – | – | POA |
| 1 1/16-40 | – | 2455-972 | – | – | POA |
| 1 1/16-48 | – | 2455-980 | – | – | POA |
| 1 3/32-18 | 2456-010 | – | – | – | POA |
| 1 3/32-32 | 2456-025 | – | – | – | POA |
| 1 1/8-15 | – | 2456-073 | – | – | POA |
| 1 1/8-28 | – | 2456-108 | – | – | POA |
| 1 1/8-40 | 2456-114 | 2456-121 | – | – | POA |
| 1 9/64-12 | – | 2456-130 | – | – | POA |
| 1 5/32-18 | 2456-145 | – | – | – | POA |
| 1 5/32-20 | 2456-148 | – | – | – | POA |
| 1 5/32-24 | 2456-153 | 2456-155 | – | – | POA |
| 1 5/32-32 | 2456-162 | – | – | – | POA |
| 1 3/16-10 | – | 2456-201 | – | – | POA |
| 1 3/16-18 NEF | 2456-213* | – | – | – | POA |
| 1 3/16-24 | – | 2456-227 | – | – | POA |
| 1 3/16-28 | – | 2456-232 | – | – | POA |
| 1 3/16-40 | – | 2456-246 | – | – | POA |
| 1 1/4-26 | – | 2456-371 | – | – | POA |
| 1 1/4-26 WT | – | 2456-372 | – | – | POA |
| 1 1/4-27 | – | 2456-375 | – | – | POA |
| 1 1/4-28 | – | 2456-378 | – | – | POA |
| 1 5/16-10 | – | 2456-458 | – | – | POA |
| 1 5/16-24 | – | 2456-488 | – | – | POA |
| 1 5/16-28 | – | 2456-493 | – | – | POA |
| 1 5/16-32 | – | 2456-498 | – | – | POA |
| 1 5/16-40 | – | 2456-506 | – | – | POA |
| 1 3/8-27 | – | 2456-618 | – | – | POA |
| 1 3/8-28 | – | 2456-621 | – | – | POA |
| 1 3/8-32 | – | 2456-626 | – | – | POA |
| 1 3/8-40 | – | 2456-633 | – | – | POA |
| 1 7/16-10 | – | 2456-713 | – | – | POA |
| 1 7/16-14 | – | 2456-721 | – | – | POA |
| 1 7/16-26 | – | 2456-743 | – | – | POA |
| 1 7/16-28 | – | 2456-745 | – | – | POA |
| 1 7/16-32 | – | 2456-750 | – | 2456-753 | POA |
| 1 7/16-40 | – | 2456-760 | – | – | POA |
| 1 15/32-24 | – | 2456-797 | – | – | POA |
| 1 1/2-26 WT | – | – | 2456-877 | – | POA |
| 1 1/2-27 | – | 2456-880 | – | – | POA |
| 1 9/16- 8 | – | 2457-015 | – | – | POA |
| 1 9/16-14 | – | 2457-023 | – | – | POA |
| 1 9/16-24 | – | 2457-037 | – | – | POA |
| 1 9/16-32 | – | 2457-045 | – | – | POA |

* 2 1/4" OD (Limited Quantities) WT - Whitworth Thread

| SIZE | 3" OD | 3 1/2" OD† | 4" OD | 5" OD | 6" OD | PRICE EACH |
|---|---|---|---|---|---|---|
| 1 5/8- 6 | 2457-140 | – | – | – | – | POA |
| 1 5/8-11 1/2 | 2457-149 | – | – | – | – | POA |
| 1 5/8-32 | 2457-181 | – | – | – | – | POA |
| 1 5/8-40 | 2457-190 | – | – | – | – | POA |
| 1 11/16- 6 | 2457-228 | – | – | – | – | POA |
| 1 11/16- 8 | 2457-231 | – | – | – | – | POA |
| 1 11/16-14 | 2457-239 | – | – | – | – | POA |
| 1 11/16-24 | 2457-257 | | | | | POA |
| 1 3/4- 7 | 2457-304 | – | – | – | – | POA |
| 1 3/4-16 | – | – | 2457-323 | – | – | POA |
| 1 3/4-32 | 2457-346 | – | – | – | – | POA |
| 1 3/4-40 | 2457-354 | – | – | – | – | POA |
| 1 13/16-32 | 2457-413 | – | – | – | – | POA |
| 1 7/8- 6 | 2457-454 | – | – | – | – | POA |
| 1 7/8-24 | 2457-490 | – | – | – | – | POA |
| 1 29/32-18 | – | – | 2457-525 | – | – | POA |
| 1 15/16-20 | 2457-593 | – | – | – | – | POA |
| 2-24 | 2457-688 | – | – | – | – | POA |
| 2-27 | 2457-693 | – | – | – | – | POA |
| 2-32 | 2457-700 | – | – | – | – | POA |
| 2 1/16-12 | – | 2457-740 | 2457-742 | – | – | POA |
| 2 1/16-16 | – | – | 2457-748 | – | – | POA |
| 2 1/16-18 | – | 2457-752 | – | – | – | POA |
| 2 1/16-20 | – | 2457-756 | – | – | – | POA |
| 2 1/16-24 | – | – | 2457-762 | – | – | POA |
| 2 1/8- 4 1/2 | – | 2457-791 | – | – | – | POA |
| 2 1/8-10 | – | 2457-801 | – | – | – | POA |
| 2 1/8-20 | – | 2457-823 | – | – | – | POA |
| 2 1/8-24 | – | 2457-829 | – | – | – | POA |
| 2 3/16-12 | – | – | 2457-870 | – | – | POA |
| 2 3/16-14 | – | – | 2457-873 | – | – | POA |
| 2 3/16-16 | – | – | 2457-876 | – | – | POA |
| 2 1/4- 6 | – | – | – | 2457-921 | – | POA |
| 2 1/4-10 | – | – | 2457-927 | – | – | POA |
| 2 1/4-14 | – | – | 2457-933 | – | – | POA |
| 2 1/4-24 | – | – | 2457-950 | – | – | POA |
| 2 9/32-24 | – | 2457-980 | – | – | – | POA |
| 2 5/16-12 | – | – | 2457-996 | – | – | POA |
| 2 5/16-16 | – | – | 2458-002 | – | – | POA |
| 2 5/16-18 | – | – | 2458-005 | – | – | POA |
| 2 5/16-20 | – | – | 2458-008 | – | – | POA |
| 2 3/8- 4 | – | – | 2458-035 | – | – | POA |
| 2 3/8-10 | – | – | 2458-043 | – | – | POA |
| 2 3/8-14 | – | – | 2458-049 | – | – | POA |
| 2 7/16-12 | – | – | 2458-108 | – | – | POA |
| 2 7/16-20 | – | – | 2458-118 | – | – | POA |
| 2 1/2-10 | – | – | 2458-160 | – | – | POA |
| 2 1/2-14 | – | – | 2458-168 | – | – | POA |
| 2 9/16-12 | – | – | 2458-236 | – | – | POA |
| 2 9/16-24 | – | – | 2458-245 | – | – | POA |
| 2 5/8- 4 | – | – | – | 2458-275 | – | POA |
| 2 5/8-10 | – | – | – | 2458-285 | – | POA |
| 2 3/4-10 | – | – | – | 2458-379 | – | POA |
| 2 3/4-14 | – | – | – | 2458-385 | – | POA |
| 2 3/4-18 | – | – | – | 2458-395 | – | POA |
| 2 3/4-24 | – | – | – | 2458-400 | – | POA |
| 2 7/8-10 | – | – | – | 2458-446 | – | POA |
| 2 15/16-12 | – | – | – | 2458-490 | – | POA |
| 3-10 | – | – | – | 2458-549 | – | POA |
| 3 1/8-16 | – | – | – | 2458-611 | – | POA |
| 3 1/8-18 | – | – | – | 2458-615 | – | POA |
| 3 1/4- 6 | – | – | – | – | 2458-643 | POA |
| 3 1/4-16 | – | – | – | 2458-655 | – | POA |
| 3 1/2-16 | – | – | – | 2458-790 | – | POA |
| 3 5/8-16 | – | – | – | 2458-850 | – | POA |
| 3 3/4-16 | – | – | – | – | 2458-895 | POA |
| 3 7/8-16 | – | – | – | – | 2458-940 | POA |
| 4-16 | – | – | – | – | 2458-985 | POA |
| 4 1/8-12 | – | – | – | – | 2459-015 | POA |

† Limited Quantities

# Standard Metric Round Adjustable Dies

## Right Hand – High Speed Steel

8

| SIZE | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1.6 x 0.35 | 13/16 | 2431-078 | $5.70 |
| 1.8 x 0.35 | 13/16 | 2431-090 | 5.70 |
| 2.0 x 0.40 | 13/16 | 2431-108 | 5.70 |
| 2.2 x 0.45 | 13/16 | 2431-126 | 5.70 |
| 2.5 x 0.45 | 13/16 | 2431-144 | 5.70 |
| 3.0 x 0.50 | 13/16 | 2431-174 | 5.70 |
| 3.5 x 0.60 | 13/16 | 2431-198 | 5.70 |
| 4.0 x 0.50 | 13/16 | 2431-207 | 5.70 |
| 4.0 x 0.70 | 13/16 | 2431-210 | 5.70 |
| 4.5 x 0.75 | 13/16 | 2431-222 | 5.70 |
| 5.0 x 0.80 | 13/16 | 2431-228 | 5.70 |
| 6.0 x 1.00 | 13/16 | 2431-234 | 5.70 |
| 6.3 x 1.00 | 13/16 | 2431-240 | 5.70 |
| 7.0 x 1.00 | 13/16 | 2431-246 | 5.70 |
| 8.0 x 1.00 | 13/16 | 2431-252 | 5.70 |
| 8.0 x 1.25 | 13/16 | 2431-258 | 5.70 |
| 1.6 x 0.35 | 1 | 2431-264 | 6.50 |
| 1.8 x 0.35 | 1 | 2431-270 | 6.50 |
| 2.0 x 0.40 | 1 | 2431-276 | 6.50 |
| 2.2 x 0.45 | 1 | 2431-282 | 6.50 |
| 2.3 x 0.40 | 1 | 2431-285 | 6.50 |
| 2.5 x 0.45 | 1 | 2431-288 | 6.50 |
| 2.6 x 0.45 | 1 | 2431-291 | 6.50 |
| 3.0 x 0.50 | 1 | 2431-294 | 6.50 |
| 3.0 x 0.60 | 1 | 2431-300 | 6.50 |
| 3.5 x 0.60 | 1 | 2431-306 | 6.50 |
| 4.0 x 0.50 | 1 | 2431-318 | 6.50 |
| 4.0 x 0.70 | 1 | 2431-324 | 6.50 |
| 4.5 x 0.50 | 1 | 2431-336 | 6.50 |
| 4.5 x 0.75 | 1 | 2431-342 | 6.50 |
| 5.0 x 0.50 | 1 | 2431-348 | 6.50 |
| 5.0 x 0.80 | 1 | 2431-360 | 6.50 |
| 5.0 x 0.90 | 1 | 2431-366 | 6.50 |
| 5.0 x 1.00 | 1 | 2431-372 | 6.50 |
| 5.5 x 0.90 | 1 | 2431-384 | 6.50 |
| 3.5 x 0.50 | 1 | 2431-304 | 6.50 |
| 6.0 x 0.50 | 1 | 2431-390 | 6.50 |
| 6.0 x 0.75 | 1 | 2431-402 | 6.50 |
| 6.0 x 1.00 | 1 | 2431-408 | 6.50 |
| 6.0 x 1.25 | 1 | 2431-414 | 6.50 |
| 6.3 x 1.00 | 1 | 2431-426 | $6.50 |
| 7.0 x 0.75 | 1 | 2431-438 | 6.50 |
| 7.0 x 1.00 | 1 | 2431-444 | 6.50 |
| 8.0 x 0.75 | 1 | 2431-474 | 6.50 |
| 8.0 x 1.00 | 1 | 2431-480 | 6.50 |
| 8.0 x 1.25 | 1 | 2431-486 | 6.50 |
| 9.0 x 1.00 | 1 | 2431-504 | 6.50 |
| 9.0 x 1.25 | 1 | 2431-510 | 6.50 |
| 10.0 x 0.75 | 1 | 2431-516 | 6.50 |
| 10.0 x 1.00 | 1 | 2431-528 | 6.50 |
| 10.0 x 1.25 | 1 | 2431-534 | 6.50 |
| 10.0 x 1.50 | 1 | 2431-540 | 6.50 |
| 11.0 x 1.50 | 1 | 2431-558 | 6.50 |
| 12.0 x 1.25 | 1 | 2431-576 | 6.50 |
| 12.0 x 1.75 | 1 | 2431-588 | 6.50 |
| 6.0 x 1.00 | 1 1/2 | 2431-600 | 13.40 |
| 7.0 x 1.00 | 1 1/2 | 2431-606 | 13.40 |
| 8.0 x 1.00 | 1 1/2 | 2431-612 | 13.40 |
| 8.0 x 1.25 | 1 1/2 | 2431-618 | 13.40 |
| 9.0 x 1.25 | 1 1/2 | 2431-624 | 13.40 |
| 10.0 x 0.75 | 1 1/2 | 2431-636 | 13.40 |
| 10.0 x 1.00 | 1 1/2 | 2431-642 | 13.40 |
| 10.0 x 1.25 | 1 1/2 | 2431-648 | 13.40 |
| 10.0 x 1.50 | 1 1/2 | 2431-654 | 13.40 |
| 11.0 x 1.00 | 1 1/2 | 2431-660 | 13.40 |
| 11.0 x 1.50 | 1 1/2 | 2431-672 | 13.40 |
| 12.0 x 1.00 | 1 1/2 | 2431-678 | 13.40 |
| 12.0 x 1.25 | 1 1/2 | 2431-684 | 13.40 |
| 12.0 x 1.50 | 1 1/2 | 2431-690 | 13.40 |
| 12.0 x 1.75 | 1 1/2 | 2431-696 | 13.40 |
| 14.0 x 1.00 | 1 1/2 | 2431-744 | 13.40 |
| 14.0 x 1.25 | 1 1/2 | 2431-750 | 13.40 |
| 14.0 x 1.50 | 1 1/2 | 2431-756 | 13.40 |
| 14.0 x 2.00 | 1 1/2 | 2431-768 | 13.40 |
| 16.0 x 1.00 | 1 1/2 | 2431-828 | 13.40 |
| 16.0 x 1.50 | 1 1/2 | 2431-840 | 13.40 |
| 16.0 x 2.00 | 1 1/2 | 2431-846 | 13.40 |
| 18.0 x 1.00 | 1 1/2 | 2431-951 | 13.40 |
| 18.0 x 1.50 | 1 1/2 | 2431-882 | 13.40 |
| 18.0 x 2.00 | 1 1/2 | 2431-894 | $13.40 |
| 18.0 x 2.50 | 1 1/2 | 2431-988 | 13.40 |
| 20.0 x 1.00 | 1 1/2 | 2432-000 | 13.40 |
| 20.0 x 1.50 | 1 1/2 | 2431-906 | 13.40 |
| 20.0 x 2.50 | 1 1/2 | 2431-912 | 13.40 |
| 14.0 x 1.25 | 2 | 2431-924 | 24.70 |
| 16.0 x 1.50 | 2 | 2431-930 | 24.70 |
| 16.0 x 2.00 | 2 | 2431-936 | 24.70 |
| 18.0 x 1.50 | 2 | 2431-960 | 24.70 |
| 18.0 x 2.00 | 2 | 2431-966 | 24.70 |
| 18.0 x 2.50 | 2 | 2431-972 | 24.70 |
| 20.0 x 1.50 | 2 | 2432-008 | 24.70 |
| 20.0 x 2.00 | 2 | 2432-014 | 24.70 |
| 20.0 x 2.50 | 2 | 2432-020 | 24.70 |
| 22.0 x 1.00 | 2 | 2432-032 | 24.70 |
| 22.0 x 1.50 | 2 | 2432-040 | 24.70 |
| 22.0 x 2.00 | 2 | 2432-045 | 24.70 |
| 22.0 x 2.50 | 2 | 2432-050 | 24.70 |
| 24.0 x 1.50 | 2 | 2432-074 | 24.70 |
| 24.0 x 2.00 | 2 | 2432-080 | 24.70 |
| 24.0 x 3.00 | 2 | 2432-086 | 24.70 |
| 27.0 x 2.00 | 2 | 2432-141 | 24.70 |
| 27.0 x 3.00 | 2 | 2432-143 | 24.70 |
| 30.0 x 1.50 | 2 | 2432-156 | 24.70 |
| 30.0 x 2.00 | 2 | 2432-158 | 24.70 |
| 30.0 x 3.50 | 2 | 2432-198 | 24.70 |
| 27.0 x 2.00 | 2 1/2 | 2432-170 | 50.40 |
| 27.0 x 3.00 | 2 1/2 | 2432-176 | 50.40 |
| 30.0 x 2.00 | 2 1/2 | 2432-194 | 50.40 |
| 30.0 x 3.50 | 2 1/2 | 2432-200 | 50.40 |
| 33.0 x 2.00 | 2 1/2 | 2432-218 | 50.40 |
| 33.0 x 3.50 | 2 1/2 | 2432-224 | 50.40 |
| 36.0 x 3.00 | 2 1/2 | 2432-254 | 50.40 |
| 36.0 x 4.00 | 2 1/2 | 2432-260 | 50.40 |
| 39.0 x 3.00 | 3 | 2432-374 | 86.40 |
| 39.0 x 4.00 | 3 | 2432-380 | 86.40 |
| 42.0 x 4.50 | 3 | 2432-408 | 86.40 |
| 45.0 x 4.50 | 3 | 2432-438 | 86.40 |
| 48.0 x 5.00 | 3 | 2432-464 | 86.40 |

# Special Metric Round Adjustable Dies

## Right Hand – HSS Any size not listed available on request. Many special sizes in stock.

8

| SIZE | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1.0 x 0.20 | 13/16 | 2431-030 | $6.40 |
| 1.0 x 0.25 | 13/16 | 2431-042 | 6.40 |
| 1.2 x 0.20 | 13/16 | 2431-048 | 6.40 |
| 1.4 x 0.20 | 13/16 | 2431-054 | 6.40 |
| 1.5 x 0.30 | 13/16 | 2431-066 | 6.40 |
| 1.7 x 0.20 | 13/16 | 2431-084 | 6.40 |
| 2.0 x 0.20 | 13/16 | 2431-096 | 6.40 |
| 2.0 x 0.25 | 13/16 | 2431-102 | 6.40 |
| 2.0 x 0.50 | 13/16 | 2431-120 | 6.40 |
| 2.3 x 0.25 | 13/16 | 2431-132 | 6.40 |
| 2.3 x 0.40 | 13/16 | 2431-138 | 6.40 |
| 2.5 x 0.50 | 13/16 | 2431-150 | 6.40 |
| 2.6 x 0.35 | 13/16 | 2431-156 | 6.40 |
| 3.0 x 0.60 | 13/16 | 2431-176 | 6.40 |
| 3.5 x 0.35 | 13/16 | 2431-192 | 6.40 |
| 4.0 x 0.35 | 13/16 | 2431-204 | 6.40 |
| 4.0 x 0.75 | 13/16 | 2431-212 | 6.40 |
| 4.0 x 0.75 | 1 | 2431-330 | 7.10 |
| 5.0 x 0.75 | 1 | 2431-354 | 7.10 |
| 5.5 x 0.75 | 1 | 2431-378 | 7.10 |
| 6.0 x 1.50 | 1 | 2431-420 | 7.10 |
| 7.0 x 1.25 | 1 | 2431-450 | 7.10 |
| 8.0 x 0.50 | 1 | 2431-462 | 7.10 |
| 8.0 x 1.50 | 1 | 2431-492 | 7.10 |
| 9.0 x 0.75 | 1 | 2431-498 | 7.10 |
| 10.0 x 1.75 | 1 | 2431-546 | 7.10 |
| 11.0 x 0.50 | 1 | 2431-550 | $7.10 |
| 11.0 x 0.75 | 1 | 2431-552 | 7.10 |
| 12.0 x 0.75 | 1 | 2431-564 | 7.10 |
| 12.0 x 1.00 | 1 | 2431-572 | 7.10 |
| 12.0 x 1.50 | 1 | 2431-582 | 7.10 |
| 11.0 x 1.25 | 1 1/2 | 2431-666 | 17.50 |
| 12.0 x 2.00 | 1 1/2 | 2431-702 | 17.50 |
| 13.0 x 1.00 | 1 1/2 | 2431-711 | 17.50 |
| 13.0 x 1.50 | 1 1/2 | 2431-713 | 17.50 |
| 13.0 x 1.75 | 1 1/2 | 2431-720 | 17.50 |
| 13.0 x 2.00 | 1 1/2 | 2431-725 | 17.50 |
| 14.0 x 0.50 | 1 1/2 | 2431-740 | 17.50 |
| 14.0 x 1.75 | 1 1/2 | 2431-760 | 17.50 |
| 15.0 x 0.75 | 1 1/2 | 2431-786 | 17.50 |
| 15.0 x 1.00 | 1 1/2 | 2431-792 | 17.50 |
| 15.0 x 1.50 | 1 1/2 | 2431-798 | 17.50 |
| 15.0 x 1.75 | 1 1/2 | 2431-804 | 17.50 |
| 15.0 x 2.00 | 1 1/2 | 2431-810 | 17.50 |
| 16.0 x 0.75 | 1 1/2 | 2431-820 | 17.50 |
| 16.0 x 1.25 | 1 1/2 | 2431-834 | 17.50 |
| 17.0 x 0.75 | 1 1/2 | 2431-852 | 17.50 |
| 17.0 x 1.00 | 1 1/2 | 2431-858 | 17.50 |
| 17.0 x 1.25 | 1 1/2 | 2431-864 | 17.50 |
| 17.0 x 1.50 | 1 1/2 | 2431-870 | 17.50 |
| 17.0 x 2.00 | 1 1/2 | 2431-876 | 17.50 |
| 18.0 x 1.25 | 1 1/2 | 2431-880 | 17.50 |
| 18.0 x 1.75 | 1 1/2 | 2431-888 | 17.50 |
| 18.0 x 1.00 | 2 | 2431-954 | 32.50 |
| 20.0 x 1.00 | 2 | 2432-002 | $32.50 |
| 23.0 x 1.50 | 2 | 2432-059 | 32.50 |
| 24.0 x 1.00 | 2 | 2432-062 | 32.50 |
| 25.0 x 1.00 | 2 | 2432-092 | 32.50 |
| 25.0 x 1.25 | 2 | 2432-104 | 32.50 |
| 25.0 x 1.50 | 2 | 2432-098 | 32.50 |
| 25.0 x 2.00 | 2 | 2432-110 | 32.50 |
| 26.0 x 1.50 | 2 | 2432-124 | 32.50 |
| 26.0 x 2.00 | 2 | 2432-128 | 32.50 |
| 27.0 x 1.00 | 2 | 2432-134 | 32.50 |
| 28.0 x 1.50 | 2 | 2432-150 | 32.50 |
| 28.0 x 1.50 | 2 1/2 | 2432-153 | 65.50 |
| 30.0 x 1.00 | 2 1/2 | 2432-182 | 65.50 |
| 30.0 x 1.50 | 2 1/2 | 2432-188 | 65.50 |
| 36.0 x 2.00 | 2 1/2 | 2432-248 | 65.50 |
| 34.0 x 1.50 | 2 1/2 | 2432-230 | 65.50 |
| 34.0 x 3.50 | 2 1/2 | 2432-233 | 65.50 |
| 35.0 x 1.50 | 2 1/2 | 2432-236 | 65.50 |
| 36.0 x 1.50 | 2 1/2 | 2432-242 | 65.50 |
| 38.0 x 4.00 | 2 1/2 | 2432-272 | 65.50 |
| 39.0 x 1.50 | 3 | 2432-368 | 115.60 |
| 40.0 x 1.50 | 3 | 2432-386 | 115.60 |
| 42.0 x 1.50 | 3 | 2432-398 | 115.60 |
| 42.0 x 3.00 | 3 | 2432-404 | 115.60 |
| 45.0 x 1.50 | 3 | 2432-428 | 115.60 |
| 48.0 x 3.00 | 3 | 2432-458 | 115.60 |

# Left Hand Metric Round Adjustable Dies

## High Speed Steel

Pittsburg® ALLEGHANY

[8]

| SIZE | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 3.0 x 0.50 | 1 | 2433-294 | $9.70 |
| 3.5 x 0.60 | 1 | 2433-306 | 9.70 |
| 4.0 x 0.70 | 1 | 2433-334 | 9.70 |
| 4.5 x 0.75 | 1 | 2433-342 | 9.70 |
| 5.0 x 0.80 | 1 | 2433-360 | 9.70 |
| 6.0 x 1.00 | 1 | 2433-408 | 9.70 |
| 7.0 x 1.00 | 1 | 2433-444 | 9.70 |
| 8.0 x 1.00 | 1 | 2433-480 | 9.70 |
| 8.0 x 1.25 | 1 | 2433-485 | 9.70 |
| 10.0 x 1.25 | 1 | 2433-535 | 9.70 |
| 10.0 x 1.50 | 1 | 2433-540 | 9.70 |
| 12.0 x 1.25 | 1 | 2433-582 | 9.70 |
| 12.0 x 1.75 | 1 | 2433-588 | 9.70 |
| 14.0 x 2.00 | 1 | 2433-600† | 9.70 |

† Limited Quantities

| SIZE | OUTSIDE DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 12.0 x 1.25 | 1 1/2 | 2433-684 | $19.40 |
| 12.0 x 1.75 | 1 1/2 | 2433-696 | 19.40 |
| 14.0 x 1.50 | 1 1/2 | 2433-756 | 19.40 |
| 14.0 x 2.00 | 1 1/2 | 2433-760 | 19.40 |
| 16.0 x 1.50 | 1 1/2 | 2433-840 | 19.40 |
| 16.0 x 2.00 | 1 1/2 | 2433-846 | 19.40 |
| 18.0 x 1.50 | 1 1/2 | 2433-882 | 19.40 |
| 18.0 x 2.50 | 1 1/2 | 2433-988 | 19.40 |
| 20.0 x 2.50 | 2 | 2434-020 | 61.50 |
| 22.0 x 2.50 | 2 | 2434-050 | 61.50 |
| 24.0 x 3.00 | 2 | 2434-086 | 61.50 |
| 27.0 x 3.00 | 2 1/2 | 2434-176 | 94.50 |
| 30.0 x 3.50 | 2 1/2 | 2434-224 | 94.50 |

# Hexagon Rethreading Dies

## Carbon Steel & High Speed Steel – NC, NF & NS

[8] [2] [3]

| | | CARBON STEEL | | | | HSS | |
|---|---|---|---|---|---|---|---|
| | | Pittsburg® ALLEGHANY | | Allegiance® AMERICAN MADE | | Pittsburg® ALLEGHANY | |
| SIZE | NC NF NS | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 2-56 | NC | 2490-230 | $3.18 | – | – | – | – |
| 2-64 | NF | 2490-240 | 3.49 | – | – | – | – |
| 3-48 | NC | 2490-280 | 3.49 | – | – | – | – |
| 3-56 | NF | 2490-290 | 3.49 | – | – | – | – |
| 4-40 | NC | 2490-345 | 2.40 | 2482-184 | $5.67 | 2500-345 | $3.74 |
| 4-48 | NF | 2490-353 | 2.40 | – | – | – | – |
| 5-40 | NC | 2490-410 | 2.40 | 2482-186 | 5.67 | – | – |
| 5-44 | NF | 2490-415 | 2.40 | – | – | – | – |
| 6-32 | NC | 2490-475 | 2.40 | 2482-188 | 5.67 | 2500-475 | 3.74 |
| 6-40 | NF | 2490-485 | 2.40 | – | – | 2500-485 | 3.74 |
| 8-32 | NC | 2490-615 | 2.40 | 2482-190 | 5.67 | 2500-615 | 3.74 |
| 8-36 | NF | 2490-620 | 2.40 | – | – | 2500-620 | 3.74 |
| 10-24 | NC | 2490-740 | 2.40 | 2482-192 | 6.08 | 2500-740 | 3.74 |
| 10-32 | NF | 2490-751 | 2.40 | 2482-194 | 6.08 | 2500-751 | 3.74 |
| 12-24 | NC | 2490-885 | 2.40 | 2482-196 | 6.08 | 2500-885 | 3.74 |
| 12-28 | NF | 2490-890 | 2.40 | – | – | 2500-890 | 3.74 |
| 1/4-20 | NC | 2482-101 | 2.40 | 2482-201 | 6.87 | 2502-405 | 3.74 |
| 1/4-28 | NF | 2482-102 | 2.40 | 2482-202 | 6.87 | 2502-417 | 3.74 |
| 5/16-18 | NC | 2482-103 | 2.79 | 2482-203 | 7.31 | 2502-698 | 4.76 |
| 5/16-24 | NF | 2482-104 | 2.79 | 2482-204 | 7.31 | 2502-706 | 4.76 |
| 3/8-16 | NC | 2482-105 | 3.19 | 2482-205 | 8.15 | 2503-011 | 6.89 |
| 3/8-24 | NF | 2482-106 | 3.19 | 2482-206 | 8.15 | 2503-025 | 6.89 |
| 7/16-14 | NC | 2482-107 | 3.36 | 2482-207 | 9.07 | 2503-300 | 8.47 |
| 7/16-20 | NF | 2482-108 | 3.36 | 2482-208 | 9.07 | 2503-315 | 8.47 |

[8] [2] [3]

| | | CARBON STEEL | | | | HSS | |
|---|---|---|---|---|---|---|---|
| | | Pittsburg® ALLEGHANY | | Allegiance® AMERICAN MADE | | Pittsburg® ALLEGHANY | |
| SIZE | NC NF NS | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/2-13 | NC | 2482-109 | $3.83 | 2482-209 | $10.17 | 2503-562 | $12.13 |
| 1/2-20 | NF | 2482-110 | 3.83 | 2482-210 | 10.17 | 2503-575 | 12.13 |
| 9/16-12 | NC | 2482-111 | 4.39 | 2482-211 | 10.62 | 2503-845 | 16.06 |
| 9/16-18 | NF | 2482-112 | 4.39 | 2482-212 | 10.62 | 2503-853 | 16.06 |
| 5/8-11 | NC | 2482-113 | 5.16 | 2482-213 | 13.24 | 2504-111 | 19.91 |
| 5/8-18 | NF | 2482-114 | 5.16 | 2482-214 | 13.24 | 2504-125 | 19.91 |
| 11/16-11 | NC | 2482-115 | 6.36 | 2482-215 | 15.82 | 2504-365 | 24.32 |
| 11/16-16 | NF | 2482-116 | 6.36 | 2482-216 | 15.82 | 2504-380 | 24.32 |
| 3/4-10 | NC | 2482-117 | 6.36 | 2482-217 | 17.59 | 2504-617 | 24.85 |
| 3/4-16 | NF | 2482-118 | 6.36 | 2482-218 | 17.59 | 2504-626 | 24.85 |
| 7/8-9 | NC | 2482-119 | 7.97 | 2482-219 | 19.47 | 2505-177 | 29.80 |
| 7/8-14 | NF | 2482-120 | 7.97 | 2482-220 | 19.47 | 2505-185 | 29.80 |
| 1-8 | NC | 2482-121 | 9.15 | 2482-221 | 21.25 | 2505-697 | 34.76 |
| 1-12 | NF | 2482-122 | 9.15 | 2482-222 | 21.25 | 2505-703 | 34.76 |
| 1-14 | NS | 2482-123 | 9.15 | 2482-223 | 21.25 | 2505-706 | 34.76 |
| 1-1/8-7 | NC | 2482-124 | 11.15 | 2482-224 | 24.97 | 2506-050 | 55.86 |
| 1-1/8-12 | NF | 2482-125 | 11.15 | 2482-225 | 24.97 | 2506-059 | 55.86 |
| 1-1/4-7 | NC | 2482-126 | 13.90 | 2482-226 | 27.66 | 2506-327 | 67.62 |
| 1-1/4-12 | NF | 2482-127 | 13.90 | 2482-227 | 27.66 | 2506-337 | 67.62 |
| 1-3/8-6 | NC | 2482-128 | 15.88 | 2482-228 | 52.26 | 2506-575 | 79.38 |
| 1-3/8-12 | NF | 2482-129 | 15.88 | 2482-229 | 52.26 | 2506-592 | 79.38 |
| 1-1/2-6 | NC | 2482-130 | 19.47 | 2482-230 | 57.21 | 2506-830 | 100.01 |
| 1-1/2-12 | NF | 2482-131 | 19.47 | 2482-231 | 57.21 | 2506-847 | 100.01 |

# Metric Hexagon Dies

## Right Hand – Carbon Steel

8

### Standard Metric Sizes

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M 3.0 X 0.50 | 2483-090 | $2.40 |
| M 3.5 X 0.60 | 2483-097 | 2.40 |
| M 4.0 x 0.07 | 2483-101 | 2.40 |
| M 4.5 x 0.75 | 2483-104 | 2.40 |
| M 5.0 x 0.80 | 2483-106 | 2.40 |
| M 6.0 x 1.00 | 2483-111 | 2.40 |
| M 6.3 x 1.00 | 2483-116 | 2.40 |
| M 7.0 x 1.00 | 2483-121 | 2.77 |
| M 8.0 x 1.00 | 2483-126 | 2.77 |
| M 8.0 x 1.25 | 2483-131 | 2.77 |
| M 9.0 X 1.00 | 2483-139 | 3.19 |
| M 9.0 X 1.25 | 2483-140 | 3.19 |
| M 10.0 x 1.00 | 2483-146 | 3.19 |
| M 10.0 x 1.25 | 2483-151 | 3.19 |
| M 10.0 x 1.50 | 2483-156 | 3.19 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M 12.0 x 1.25 | 2483-171 | $3.83 |
| M 12.0 x 1.50 | 2483-173 | 3.83 |
| M 12.0 x 1.75 | 2483-176 | 3.83 |
| M 14.0 x 1.25 | 2483-186 | 3.83 |
| M 14.0 x 1.50 | 2483-191 | 3.83 |
| M 14.0 x 2.00 | 2483-196 | 3.83 |
| M 16.0 x 1.50 | 2483-206 | 5.16 |
| M 16.0 x 2.00 | 2483-211 | 5.16 |
| M 18.0 x 1.50 | 2483-226 | 6.36 |
| M 18.0 x 2.50 | 2483-236 | 6.36 |
| M 20.0 x 1.50 | 2483-246 | 6.36 |
| M 20.0 x 2.50 | 2483-251 | 6.36 |
| M 22.0 x 1.50 | 2483-261 | 7.97 |
| M 22.0 x 2.50 | 2483-266 | 7.97 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M 24.0 x 1.50 | 2483-271 | $10.30 |
| M 24.0 x 2.00 | 2483-276 | 10.30 |
| M 24.0 x 3.00 | 2483-281 | 10.30 |
| M 27.0 x 2.00 | 2483-301 | 11.15 |
| M 27.0 x 3.00 | 2483-306 | 11.15 |
| M 30.0 X 1.50 | 2483-316 | 11.15 |
| M 30.0 x 2.00 | 2483-321 | 11.15 |
| M 30.0 x 3.50 | 2483-326 | 11.15 |
| M 33.0 x 2.00 | 2483-331 | 15.88 |
| M 33.0 x 3.50 | 2483-336 | 15.88 |
| M 36.0 x 3.00 | 2483-343 | 20.42 |
| M 36.0 x 4.00 | 2483-346 | 20.42 |
| M 39.0 x 3.00 | 2483-354 | 24.71 |
| M 39.0 x 4.00 | 2483-355 | 24.71 |

### Special Metric Sizes

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M 2.0 X 0.45 | 2483-086 | $3.46 |
| M 3.0 X 0.60 | 2483-091 | 3.46 |
| M 4.0 X 0.75 | 2483-099 | 3.46 |
| M 5.5 X 0.90 | 2483-109 | 3.46 |
| M 8.0 X 1.50 | 2483-136 | 3.85 |
| M11.0 X 1.00 | 2483-159 | 5.08 |
| M11.0 X 1.25 | 2483-161 | 5.08 |
| M12.0 X 1.00 | 2483-166 | 5.91 |
| M14.0 X 1.00 | 2483-181 | 5.91 |
| M15.0 X 1.50 | 2483-199 | 7.62 |
| M15.0 X 1.75 | 2483-201 | 7.62 |
| M16.0 X 1.00 | 2483-202 | 7.62 |
| M16.0 X 1.25 | 2483-203 | 7.62 |
| M17.0 X 1.00 | 2483-216 | 10.17 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M17.0 X 1.50 | 2483-221 | $10.17 |
| M18.0 X 1.75 | 2483-231 | 10.17 |
| M20.0 X 1.00 | 2483-241 | 10.17 |
| M20.0 X 1.25 | 2483-243 | 10.17 |
| M22.0 X 1.00 | 2483-253 | 11.50 |
| M22.0 X 2.00 | 2483-264 | 11.50 |
| M24.0 X 2.50 | 2483-279 | 14.79 |
| M25.0 X 1.50 | 2483-286 | 14.79 |
| M25.0 X 2.00 | 2483-288 | 14.79 |
| M26.0 X 1.50 | 2483-291 | 14.79 |
| M26.0 X 3.00 | 2483-296 | 14.79 |
| M27.0 X 1.50 | 2483-299 | 17.84 |
| M28.0 X 1.50 | 2483-308 | 17.84 |
| M28.0 X 2.00 | 2483-309 | 17.84 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M 28.0 X 3.00 | 2483-311 | $17.84 |
| M 30.0 X 3.00 | 2483-324 | 17.84 |
| M 32.0 X 1.50 | 2483-327 | 22.24 |
| M 33.0 X 1.50 | 2483-329 | 23.30 |
| M 35.0 X 1.50 | 2483-341 | 23.30 |
| M 36.0 X 1.50 | 2483-342 | 31.56 |
| M 39.0 X 1.50 | 2483-352 | 33.36 |
| M 40.0 X 1.50 | 2483-353 | 33.58 |
| M 40.0 X 2.00 | 2483-356 | 33.58 |
| M 42.0 X 1.50 | 2483-358 | 33.58 |
| M 42.0 X 4.50 | 2483-359 | 33.58 |
| M 45.0 X 1.50 | 2483-361 | 37.26 |
| M 50.0 X 1.50 | 2483-366 | 44.03 |
| M 60.0 X 2.00 | 2483-386 | POA |

# Hexagon Rethreading Dies– Left Hand

## Carbon Steel & High Speed Steel – NC, NF & NS

3

| SIZE | NC NF NS | CARBON STEEL ORDER NO. | CARBON STEEL PRICE EACH | HSS ORDER NO. | HSS PRICE EACH |
|---|---|---|---|---|---|
| 4-40 | NC | 2510-345 | $3.98 | – | – |
| 4-48 | NF | 2510-353 | 3.98 | – | – |
| 5-40 | NC | 2510-410 | 3.98 | – | – |
| 5-44 | NF | 2510-415 | 3.98 | – | – |
| 6-32 | NC | 2510-475 | 3.98 | – | – |
| 6-40 | NF | 2510-485 | 3.98 | – | – |
| 8-32 | NC | 2510-615 | 3.98 | – | – |
| 8-36 | NF | 2510-620 | 3.98 | – | – |
| 10-24 | NC | 2510-740 | 3.98 | – | – |
| 10-32 | NF | 2510-751 | 3.98 | – | – |
| 12-24 | NC | 2510-885 | 3.98 | – | – |
| 12-28 | NF | 2510-890 | 3.98 | – | – |
| 1/4-20 | NC | 2512-403 | 2.47 | 2522-403 | POA |
| 1/4-28 | NF | 2512-417 | 2.47 | 2522-417 | POA |

| SIZE | NC NF NS | CARBON STEEL ORDER NO. | CARBON STEEL PRICE EACH | HSS ORDER NO. | HSS PRICE EACH |
|---|---|---|---|---|---|
| 5/16-18 | NC | 2512-698 | $2.87 | 2522-698 | POA |
| 5/16-24 | NF | 2512-706 | 2.87 | 2522-706 | POA |
| 3/8-16 | NC | 2513-010 | 3.29 | 2523-010 | POA |
| 3/8-24 | NF | 2513-026 | 3.29 | 2523-026 | POA |
| 7/16-14 | NC | 2513-300 | 3.47 | 2523-300 | POA |
| 7/16-20 | NF | 2513-313 | 3.47 | 2523-313 | POA |
| 1/2-13 | NC | 2513-562 | 3.94 | 2523-562 | POA |
| 1/2-20 | NF | 2513-575 | 3.94 | 2523-575 | POA |
| 9/16-12 | NC | 2513-845 | 4.91 | 2523-845 | POA |
| 9/16-18 | NF | 2513-852 | 4.91 | 2523-852 | POA |
| 5/8-11 | NC | 2514-111 | 5.29 | 2524-111 | POA |
| 5/8-18 | NF | 2514-125 | 5.29 | 2524-125 | POA |
| 11/16-11 | NC | 2514-367 | 6.87 | 2524-367 | POA |
| 11/16-16 | NF | 2514-375 | 6.87 | 2524-375 | POA |

| SIZE | NC NF NS | CARBON STEEL ORDER NO. | CARBON STEEL PRICE EACH | HSS ORDER NO. | HSS PRICE EACH |
|---|---|---|---|---|---|
| 3/4-10 | NC | 2514-617 | $6.53 | 2524-617 | POA |
| 3/4-16 | NF | 2514-626 | 6.53 | 2524-626 | POA |
| 7/8-9 | NC | 2515-177 | 8.22 | 2525-177 | POA |
| 7/8-14 | NF | 2515-185 | 8.22 | 2525-185 | POA |
| 1-8 | NC | 2515-697 | 10.64 | 2525-697 | POA |
| 1-12 | NF | 2515-703 | 10.64 | 2525-703 | POA |
| 1-14 | NS | 2515-706 | 10.64 | 2525-706 | POA |
| 1-1/8-7 | NC | 2516-050 | 11.53 | – | – |
| 1-1/8-12 | NF | 2516-059 | 11.53 | – | – |
| 1-1/4-7 | NC | 2516-327 | 14.34 | 2526-327 | POA |
| 1-1/4-12 | NF | 2516-337 | 14.34 | 2526-337 | POA |
| 1-3/8-6 | NC | 2516-577 | 18.63 | 2526-577 | POA |
| 1-3/8-12 | NF | 2516-592 | 18.63 | 2526-592 | POA |
| 1-1/2-6 | NC | 2516-832 | 21.10 | 2526-832 | POA |
| 1-1/2-12 | NF | 2516-847 | 21.10 | 2526-847 | POA |

# Popular Special Hexagon Dies

## Carbon Steel - Right Hand

3

| CARBON STEEL RIGHT HAND | | |
|---|---|---|
| SIZE | ORDER NO. | PRICE EACH |
| 4-32 | 2490-335 | $3.50 |
| 6-36 | 2490-480 | 3.50 |
| 12-32 | 2490-895 | 3.50 |
| 14-20 | 2491-005 | 3.50 |
| 1/4-24 | 2492-410 | 3.50 |
| 1/4-27 | 2492-415 | 3.50 |
| 1/4-32 | 2492-425 | 3.50 |
| 1/4-36 | 2492-430 | 3.50 |
| 1/4-40 | 2492-435 | 3.50 |
| 1/4-48 | 2492-445 | 3.50 |
| 9/32-32 | 2492-585 | 3.97 |
| 5/16-20 | 2492-702 | 3.97 |
| 5/16-27 | 2492-710 | 3.97 |
| 5/16-28 | 2492-713 | 3.97 |
| 5/16-32 | 2492-723 | 3.97 |
| 5/16-40 | 2492-733 | 3.97 |
| 3/8-18 | 2493-015 | 4.18 |
| 3/8-20 | 2493-020 | 4.18 |
| 3/8-27 | 2493-033 | 4.18 |
| 3/8-28 | 2493-036 | 4.18 |
| 3/8-32 | 2493-046 | 4.18 |
| 3/8-40 | 2493-055 | 4.18 |
| 3/8-48 | 2493-065 | 4.18 |
| 7/16-16 | 2493-305 | 4.71 |
| 7/16-18 | 2493-310 | 4.71 |
| 7/16-24 | 2493-320 | 4.71 |
| 7/16-27 | 2493-325 | 4.71 |
| 7/16-28 | 2493-330 | 4.71 |
| 7/16-32 | 2493-340 | 4.71 |
| 7/16-40 | 2493-350 | 4.71 |
| 1/2-12 | 2493-560 | 5.59 |
| 1/2-14 | 2493-564 | 5.59 |
| 1/2-16 | 2493-568 | 5.59 |
| 1/2-18 | 2493-572 | 5.59 |
| 1/2-24 | 2493-582 | 5.59 |
| 1/2-27 | 2493-589 | 5.59 |
| 1/2-28 | 2493-592 | 5.59 |
| 1/2-32 | 2493-600 | 5.59 |
| 1/2-40 | 2493-610 | 5.59 |
| 9/16-16 | 2493-850 | 6.42 |
| 9/16-20 | 2493-855 | 6.42 |
| 9/16-24 | 2493-860 | 6.42 |
| 9/16-27 | 2493-868 | 6.42 |
| 9/16-32 | 2493-876 | 6.42 |
| 9/16-40 | 2493-986 | 6.42 |
| 5/8-10 | 2494-109 | 7.06 |
| 5/8-12 | 2494-113 | 7.06 |
| 5/8-14 | 2494-119 | 7.06 |
| 5/8-16 | 2494-123 | 7.06 |
| 5/8-20 | 2494-128 | 7.06 |
| 5/8-24 | 2494-133 | 7.06 |
| 5/8-27 | 2494-139 | 7.06 |
| 5/8-28 | 2494-142 | 7.06 |
| 5/8-32 | 2494-147 | 7.06 |
| 5/8-40 | 2494-157 | 7.06 |

| CARBON STEEL RIGHT HAND | | |
|---|---|---|
| SIZE | ORDER NO. | PRICE EACH |
| 11/16-14 | 2494-373 | $8.70 |
| 11/16-18 | 2494-378 | 8.70 |
| 11/16-20 | 2494-382 | 8.70 |
| 11/16-24 | 2494-387 | 8.70 |
| 11/16-27 | 2494-392 | 8.70 |
| 11/16-28 | 2494-395 | 8.70 |
| 11/16-32 | 2494-400 | 8.70 |
| 3/4-12 | 2494-620 | 8.70 |
| 3/4-18 | 2494-629 | 8.70 |
| 3/4-20 | 2494-633 | 8.70 |
| 3/4-24 | 2494-638 | 8.70 |
| 3/4-27 | 2494-645 | 8.70 |
| 3/4-32 | 2494-653 | 8.70 |
| 13/16-10 | 2494-915 | 9.34 |
| 13/16-12 | 2494-920 | 9.34 |
| 13/16-16 | 2494-930 | 9.34 |
| 13/16-18 | 2494-935 | 9.34 |
| 13/16-20 | 2494-940 | 9.34 |
| 13/16-24 | 2494-945 | 9.34 |
| 13/16-27 | 2494-950 | 9.34 |
| 13/16-28 | 2494-955 | 9.34 |
| 13/16-32 | 2494-960 | 9.34 |
| 7/8-10 | 2495-179 | 9.49 |
| 7/8-12 | 2495-183 | 9.49 |
| 7/8-16 | 2495-187 | 9.49 |
| 7/8-18 | 2495-191 | 9.49 |
| 7/8-20 | 2495-195 | 9.49 |
| 7/8-24 | 2495-201 | 9.49 |
| 7/8-27 | 2495-208 | 9.49 |
| 7/8-28 | 2495-211 | 9.49 |
| 7/8-32 | 2495-217 | 9.49 |
| 7/8-40 | 2495-227 | 9.49 |
| 15/16-12 | 2495-445 | 12.12 |
| 15/16-16 | 2495-451 | 12.12 |
| 15/16-18 | 2495-455 | 12.12 |
| 15/16-20 | 2495-459 | 12.12 |
| 15/16-24 | 2495-465 | 12.12 |
| 15/16-27 | 2495-470 | 12.12 |
| 15/16-32 | 2495-477 | 12.12 |
| 1-10 | 2495-700 | 12.12 |
| 1-16 | 2495-709 | 12.12 |
| 1-18 | 2495-713 | 12.12 |
| 1-20 | 2495-717 | 12.12 |
| 1-24 | 2495-723 | 12.12 |
| 1-27 | 2495-728 | 12.12 |
| 1-32 | 2495-737 | 12.12 |
| 1 1/16-12 | 2495-911 | 15.20 |
| 1 1/16-14 | 2495-915 | 15.20 |
| 1 1/16-16 | 2495-919 | 15.20 |
| 1 1/16-18 | 2495-923 | 15.20 |
| 1 1/16-20 | 2495-927 | 15.20 |
| 1 1/16-24 | 2495-933 | 15.20 |
| 1 1/8-8 | 2496-052 | 15.20 |
| 1 1/8-10 | 2496-056 | 15.20 |
| 1 1/8-14 | 2496-062 | 15.20 |

| CARBON STEEL RIGHT HAND | | |
|---|---|---|
| SIZE | ORDER NO. | PRICE EACH |
| 1 1/8-16 | 2496-066 | $15.20 |
| 1 1/8-18 | 2496-070 | 15.20 |
| 1 1/8-20 | 2496-074 | 15.20 |
| 1 3/16-8 | 2496-198 | 15.89 |
| 1 3/16-12 | 2496-206 | 15.89 |
| 1 3/16-16 | 2496-214 | 15.89 |
| 1 3/16-18 | 2496-218 | 15.89 |
| 1 1/4-8 | 2496-330 | 15.89 |
| 1 1/4-10 | 2496-334 | 15.89 |
| 1 1/4-14 | 2496-340 | 15.89 |
| 1 1/4-16 | 2496-344 | 15.89 |
| 1 1/4-18 | 2496-348 | 15.89 |
| 1 1/4-20 | 2496-352 | 15.89 |
| 1 5/16-8 | 2496-458 | 18.14 |
| 1 5/16-12 | 2496-466 | 18.14 |
| 1 5/16-18 | 2496-478 | 18.14 |
| 1 3/8-8 | 2496-583 | 18.14 |
| 1 3/8-10 | 2496-589 | 18.14 |
| 1 3/8-16 | 2496-599 | 18.14 |
| 1 3/8-18 | 2496-600 | 18.14 |
| 1 3/8-20 | 2496-605 | 18.14 |
| 1 7/16-8 | 2496-713 | 25.31 |
| 1 7/16-12 | 2496-721 | 25.31 |
| 1 7/16-16 | 2496-729 | 25.31 |
| 1 7/16-18 | 2496-733 | 25.31 |
| 1 1/2-8 | 2496-838 | 25.31 |
| 1 1/2-14 | 2496-850 | 25.31 |
| 1 1/2-16 | 2496-854 | 25.31 |
| 1 1/2-18 | 2496-858 | 25.31 |
| 1 1/2-20 | 2496-862 | 25.31 |
| 1 5/8-5 1/2 | 2497-138 | 37.05 |
| 1 5/8-8 | 2497-145 | 37.05 |
| 1 5/8-12 | 2497-153 | 37.05 |
| 1 5/8-14 | 2497-157 | 37.05 |
| 1 5/8-16 | 2497-161 | 37.05 |
| 1 5/8-18 | 2497-165 | 37.05 |
| 1 5/8-20 | 2497-169 | 37.05 |
| 1 3/4-5 | 2497-298 | 37.05 |
| 1 3/4-6 | 2497-301 | 37.05 |
| 1 3/4-8 | 2497-307 | 37.05 |
| 1 3/4-10 | 2497-311 | 37.05 |
| 1 3/4-12 | 2497-315 | 60.27 |
| 1 3/4-16 | 2497-323 | 37.05 |
| 1 3/4-18 | 2497-327 | 37.05 |
| 1 3/4-20 | 2497-331 | 37.05 |
| 1 7/8-5 | 2497-448 | 42.78 |
| 1 7/8-8 | 2497-455 | 42.78 |
| 1 7/8-12 | 2497-463 | 42.78 |
| 1 7/8-14 | 2497-467 | 42.78 |
| 1 7/8-16 | 2497-471 | 42.78 |
| 1 7/8-18 | 2497-475 | 42.78 |
| 1 7/8-20 | 2497-479 | 42.78 |
| 2-4 1/2 | 2497-640 | 50.51 |
| 2-8 | 2497-650 | 50.51 |
| 2-12 | 2497-660 | 50.51 |

| CARBON STEEL RIGHT HAND | | |
|---|---|---|
| SIZE | ORDER NO. | PRICE EACH |
| 2-16 | 2497-668 | $50.51 |
| 2-18 | 2497-672 | 50.51 |
| 2-20 | 2497-676 | 50.51 |
| 2 1/8-8 | 2497-800 | 50.51 |
| 2 1/8-12 | 2497-808 | 50.51 |
| 2 1/8-16 | 2497-816 | 50.51 |
| 2 1/4-4 1/2 | 2497-918 | 83.55 |
| 2 1/4-8 | 2497-926 | 50.51 |
| 2 1/4-12 | 2497-934 | 50.51 |
| 2 1/4-16 | 2497-942 | 50.51 |
| 2 1/4-18 | 2497-946 | 50.51 |
| 2 3/8-8 | 2498-040 | 84.05 |
| 2 3/8-12 | 2498-048 | 84.05 |
| 2 3/8-16 | 2498-056 | 84.05 |
| 2 1/2-4 | 2498-150 | 84.05 |
| 2 1/2-8 | 2498-163 | 84.05 |
| 2 1/2-12 | 2498-171 | 84.05 |
| 2 1/2-16 | 2498-179 | 84.05 |
| 2 5/8-4 | 2498-275 | 99.78 |
| 2 5/8-8 | 2498-281 | 99.78 |
| 2 5/8-12 | 2498-289 | 99.78 |
| 2 3/4-4 | 2498-370 | 99.78 |
| 2 3/4-8 | 2498-376 | 99.78 |
| 2 3/4-12 | 2498-384 | 99.78 |
| 2 7/8-8 | 2498-450 | 142.42 |
| 2 7/8-12 | 2498-455 | 142.42 |
| 3-4 | 2498-537 | 165.14 |
| 3-8 | 2498-545 | 165.14 |
| 3-12 | 2498-553 | 165.14 |
| 3-16 | 2498-559 | 165.14 |
| 3 1/8-4 | 2498-595 | 181.79 |
| 3 1/8-8 | 2498-600 | 181.79 |
| 3 1/8-12 | 2498-605 | 181.79 |
| 3 1/4-4 | 2498-642 | 181.79 |
| 3 1/4-8 | 2498-650 | 181.79 |
| 3 1/4-12 | 2498-655 | 181.79 |
| 3 3/8-8 | 2498-735 | 181.79 |
| 3 3/8-12 | 2498-740 | 181.79 |
| 3 1/2-4 | 2498-775 | 207.73 |
| 3 1/2-8 | 2498-785 | 207.73 |
| 3 1/2-12 | 2498-790 | 207.73 |
| 3 5/8- 8 | 2498-840 | 313.83 |
| 3 5/8-12 | 2498-845 | 313.83 |
| 3 3/4-4 | 2498-880 | 349.42 |
| 3 3/4-8 | 2498-885 | 349.42 |
| 3 3/4-12 | 2498-890 | 349.42 |
| 3 7/8-12 | 2498-935 | 387.92 |
| 4-4 | 2498-970 | 343.78 |
| 4-8 | 2498-975 | 343.78 |
| 4-12 | 2498-980 | 343.78 |
| 4 1/4-12 | 2499-025 | 425.57 |
| 4 1/2-8 | 2499-105 | 445.73 |
| 4 1/2-12 | 2499-110 | 445.73 |
| 5-12 | 2499-185 | 525.25 |

**We stock RH & LH, Carbon Steel & High Speed, Screw Machine, Fractional, and Decimal Size Special Hex Dies. Price on application.**

# Full Special Hexagon Dies

## Right & Left Hand

**Please specify quantity when ordering.**

**POPULAR SPECIAL CARBON STEEL R.H. HEX DIES SEE PAGE 153**

Pittsburg® ALLEGHANY

| SIZE | CARBON STEEL RIGHT HAND ORDER NO. | PRICE EACH | H.S.S. RIGHT HAND ORDER NO. | PRICE EACH | CARBON STEEL LEFT HAND ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 4-36 | 2490-340 | POA | – | – | – | – |
| 5-32 | 2490-400 | POA | – | – | – | – |
| 5-64 | – | – | 2500-435 | POA | – | – |
| 6-36 | See Popular Specials | | – | – | 2510-480 | POA |
| 8-40 | 2490-625 | POA | 2500-625 | POA | 2510-625 | POA |
| 10-28 | 2490-745 | POA | – | – | – | – |
| 10-30 | 2490-748 | POA | – | – | – | – |
| 12-56 | 2490-915 | POA | – | – | – | – |
| 12-60 | 2490-920 | POA | – | – | – | – |
| 14-24 | 2491-010 | POA | – | – | – | – |
| 1/16-64 | 2491-795 | POA | – | – | – | – |
| 3/32-48 | 2491-885 | POA | – | – | – | – |
| 5/32-32 | 2492-060 | POA | – | – | – | – |
| 5/32-36 | 2492-065 | POA | – | – | – | – |
| 3/16-24 | 2492-165 | POA | – | – | – | – |
| 3/16-32 | 2492-175 | POA | – | – | – | – |
| 7/32-24 | 2492-275 | POA | – | – | – | – |
| 7/32-32 | 2492-285 | POA | – | – | – | – |
| 1/4-16 | 2492-395 | POA | – | – | – | – |
| 1/4-18 | 2492-400 | POA | – | – | – | – |
| 1/4-24 | See Popular Specials | | 2502-410 | POA | 2512-410 | POA |
| 1/4-26 | – | – | – | – | 2512-413 | POA |
| 1/4-27 | See Popular Specials | | – | – | 2512-415 | POA |
| 1/4-30 | 2492-420 | POA | – | – | – | – |
| 1/4-32 | See Popular Specials | | 2502-425 | POA | 2512-425 | POA |
| 1/4-36 | See Popular Specials | | – | – | 2512-430 | POA |
| 1/4-40 | See Popular Specials | | – | – | 2512-435 | POA |
| 5/16-20 | See Popular Specials | | 2502-702 | POA | 2512-702 | POA |
| 5/16-30 | 2492-718 | POA | – | – | – | – |
| 5/16-32 | See Popular Specials | | 2502-723 | POA | 2512-723 | POA |
| 5/16-40 | See Popular Specials | | – | – | 2512-733 | POA |
| 5/16-50 | – | – | 2502-744 | POA | – | – |
| 21/64-20 | 2492-825 | POA | – | – | – | – |
| 11/32-24 | 2492-876 | POA | – | – | – | – |
| 3/8-18 | See Popular Specials | | 2503-015 | POA | – | – |
| 3/8-20 | See Popular Specials | | 2503-020 | POA | 2513-020 | POA |
| 3/8-26 | 2493-030 | POA | – | – | – | – |
| 3/8-28 | See Popular Specials | | 2503-036 | POA | – | – |
| 3/8-30 | 2493-041 | POA | – | – | – | – |
| 3/8-32 | See Popular Specials | | 2503-046 | POA | 2513-046 | POA |
| 3/8-40 | See Popular Specials | | – | – | 2513-055 | POA |
| 13/32-28 | 2493-197 | POA | – | – | – | – |
| 13/32-40 | 2493-210 | POA | – | – | – | – |
| 17/64-36 | 2493-265 | POA | – | – | – | – |
| 7/16-18 | See Popular Specials | | – | – | 2513-310 | POA |
| 7/16-24 | See Popular Specials | | 2503-320 | POA | 2513-320 | POA |
| 7/16-28 | See Popular Specials | | 2503-330 | POA | 2513-330 | POA |
| 7/16-30 | 2493-335 | POA | – | – | – | – |
| 7/16-32 | See Popular Specials | | – | – | 2513-340 | POA |
| 7/16-40 | See Popular Specials | | – | – | 2513-350 | POA |
| 1/2-12 | See Popular Specials | | 2503-560 | POA | – | – |
| 1/2-16 | See Popular Specials | | – | – | 2513-568 | POA |
| 1/2-18 | See Popular Specials | | – | – | 2513-572 | POA |
| 1/2-22 | 2493-578 | POA | – | – | – | – |
| 1/2-24 | See Popular Specials | | – | – | 2513-582 | POA |
| 1/2-25 | 2493-585 | POA | – | – | – | – |
| 1/2-27 | See Popular Specials | | 2503-589 | POA | 2513-589 | POA |
| 1/2-28 | See Popular Specials | | 2503-592 | POA | 2513-592 | POA |
| 1/2-30 | 2493-596 | POA | – | – | – | – |
| 1/2-32 | See Popular Specials | | – | – | 2513-600 | POA |
| 1/2-40 | See Popular Specials | | – | – | 2513-610 | POA |
| 9/16-8 | 2493-840 | POA | – | – | – | – |
| 9/16-16 | See Popular Specials | | – | – | 2513-850 | POA |
| 9/16-20 | See Popular Specials | | 2503-855 | POA | 2513-855 | POA |
| 9/16-24 | See Popular Specials | | 2503-860 | POA | 2513-860 | POA |
| 9/16-25 | 2493-863 | POA | 2503-863 | POA | – | – |
| 9/16-28 | 2493-871 | POA | – | – | – | – |
| 9/16-32 | See Popular Specials | | 2503-876 | POA | 2513-876 | POA |
| 5/8-8 | 2494-105 | POA | – | – | – | – |
| 5/8-12 | See Popular Specials | | – | – | 2514-113 | POA |
| 5/8-13 | 2494-116 | POA | – | – | – | – |
| 5/8-16 | See Popular Specials | | – | – | 2514-123 | POA |
| 5/8-20 | See Popular Specials | | 2504-128 | POA | 2514-128 | POA |
| 5/8-24 | See Popular Specials | | 2504-135 | POA | 2514-133 | POA |
| 5/8-32 | See Popular Specials | | 2504-147 | POA | 2514-147 | POA |
| 21/32-20 | 2494-270 | POA | – | – | – | – |
| 21/32-32 | 2494-280 | POA | – | – | – | – |
| 11/16-10 | 2494-365 | POA | – | – | – | – |
| 11/16-12 | 2494-369 | POA | – | – | – | – |
| 11/16-18 | See Popular Specials | | 2504-378 | POA | 2514-378 | POA |
| 11/16-20 | See Popular Specials | | 2504-382 | POA | 2514-382 | POA |
| 11/16-24 | See Popular Specials | | 2504-387 | POA | 2514-387 | POA |
| 11/16-40 | 2494-410 | POA | – | – | – | – |
| 3/4-8 | 2494-615 | POA | 2504-615 | POA | – | – |
| 3/4-12 | See Popular Specials | | – | – | 2514-620 | POA |
| 3/4-14 | 2494-624 | POA | – | – | 2514-624 | POA |
| 3/4-18 | See Popular Specials | | – | – | 2514-629 | POA |
| 3/4-20 | See Popular Specials | | 2504-633 | POA | 2514-633 | POA |
| 3/4-24 | See Popular Specials | | – | – | 2514-638 | POA |
| 3/4-25 | 2494-641 | POA | – | – | – | – |
| 3/4-28 | 2494-648 | POA | – | – | – | – |
| 3/4-32 | See Popular Specials | | 2504-653 | POA | – | – |
| 3/4-40 | 2494-663 | POA | – | – | – | – |
| 25/32-9 | 2494-790 | POA | – | – | – | – |
| 25/32-16 | 2494-800 | POA | – | – | – | – |
| 13/16- 8 | 2494-910 | POA | – | – | – | – |
| 13/16-10 | See Popular Specials | | 2504-915 | POA | 2514-915 | POA |
| 13/16-14 | 2494-925 | POA | – | – | – | – |
| 13/16-16 | See Popular Specials | | – | – | 2514-930 | POA |
| 13/16-18 | See Popular Specials | | – | – | 2514-935 | POA |
| 13/16-20 | See Popular Specials | | 2504-940 | POA | 2514-940 | POA |
| 13/16-24 | See Popular Specials | | – | – | 2514-945 | POA |
| 13/16-40 | 2494-970 | POA | – | – | – | – |
| 7/8-8 | 2495-175 | POA | – | – | – | – |
| 7/8-12 | See Popular Specials | | – | – | 2515-183 | POA |
| 7/8-16 | See Popular Specials | | – | – | 2515-187 | POA |
| 7/8-18 | See Popular Specials | | – | – | 2515-191 | POA |
| 7/8-20 | See Popular Specials | | 2505-195 | POA | 2515-195 | POA |
| 7/8-24 | See Popular Specials | | – | – | 2515-201 | POA |
| 7/8-25 | 2495-204 | POA | – | – | – | – |
| 15/16-8 | 2495-435 | POA | – | – | – | – |
| 15/16-9 | 2495-438 | POA | – | – | – | – |
| 15/16-10 | 2495-441 | POA | – | – | – | – |
| 15/16-12 | See Popular Specials | | – | – | 2515-445 | POA |
| 15/16-16 | See Popular Specials | | 2505-451 | POA | 2515-451 | POA |
| 15/16-18 | See Popular Specials | | – | – | 2515-455 | POA |
| 15/16-20 | See Popular Specials | | 2505-459 | POA | 2515-459 | POA |
| 15/16-32 | See Popular Specials | | 2505-477 | POA | – | – |
| 31/32-12 | 2495-580 | POA | – | – | – | – |
| 1-7 | 2495-695 | POA | – | – | – | – |
| 1-10 | See Popular Specials | | – | – | 2515-700 | POA |
| 1-16 | See Popular Specials | | 2505-709 | POA | 2515-709 | POA |
| 1-18 | See Popular Specials | | 2505-713 | POA | 2515-713 | POA |
| 1-20 | See Popular Specials | | 2505-717 | POA | 2515-717 | POA |
| 1-24 | See Popular Specials | | – | – | 2515-723 | POA |
| 1-28 | 2495-731 | POA | – | – | – | – |
| 1-32 | See Popular Specials | | 2505-737 | POA | – | – |
| 1-40 | 2495-747 | POA | – | – | – | – |
| 1 1/32-12 | 2495-836 | POA | – | – | – | – |
| 1 1/16-7 | 2495-900 | POA | 2505-900 | POA | – | – |
| 1 1/16-8 | 2495-903 | POA | – | – | 2515-903 | POA |
| 1 1/16-10 | 2495-907 | POA | – | – | – | – |
| 1 1/16-12 | See Popular Specials | | 2505-911 | POA | 2515-911 | POA |
| 1 1/16-18 | See Popular Specials | | 2505-923 | POA | – | – |
| 1 1/16-20 | See Popular Specials | | 2505-927 | POA | – | – |
| 1 1/16-32 | 2495-943 | POA | – | – | – | – |
| 1 1/8-5 | 2496-045 | POA | – | – | – | – |
| 1 1/8-6 | 2496-048 | POA | – | – | – | – |
| 1 1/8-8 | See Popular Specials | | 2506-052 | POA | 2516-052 | POA |
| 1 1/8-10 | See Popular Specials | | – | – | 2516-056 | POA |
| 1 1/8-16 | See Popular Specials | | 2506-066 | POA | 2516-066 | POA |
| 1 1/8-18 | See Popular Specials | | 2506-070 | POA | 2516-070 | POA |

(continued)

# Full Special Hexagon Dies

## Right & Left Hand

**Please specify quantity when ordering.**

**POPULAR SPECIAL CARBON STEEL R.H. HEX DIES SEE PAGE 153**

Pittsburg® ALLEGHANY

| SIZE | CARBON STEEL RIGHT HAND ORDER NO. | CARBON STEEL RIGHT HAND PRICE EACH | H.S.S. RIGHT HAND ORDER NO. | H.S.S. RIGHT HAND PRICE EACH | CARBON STEEL LEFT HAND ORDER NO. | CARBON STEEL LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|
| 1 1/8-20 | See Popular Specials | | 2506-074 | POA | 2516-074 | POA |
| 1 1/8-24 | 2496-080 | POA | – | – | – | – |
| 1 1/8-32 | 2496-090 | POA | – | – | – | – |
| 1 5/32-14 | 2496-145 | POA | – | – | – | – |
| 1 5/32-18 | 2496-150 | POA | – | – | – | – |
| 1 5/32-32 | 2496-165 | POA | – | – | – | – |
| 1 3/16-7 | 2496-195 | POA | – | – | – | – |
| 1 3/16-8 | See Popular Specials | | – | – | 2516-198 | POA |
| 1 3/16-10 | 2496-202 | POA | – | – | 2516-202 | POA |
| 1 3/16-12 | See Popular Specials | | – | – | 2516-206 | POA |
| 1 3/16-14 | 2496-210 | POA | – | – | 2516-210 | POA |
| 1 3/16-18 | See Popular Specials | | 2506-218 | POA | – | – |
| 1 3/16-20 | 2496-222 | POA | – | – | – | – |
| 1 3/16-24 | 2496-228 | POA | – | – | – | – |
| 1 3/16-32 | 2496-238 | POA | – | – | – | – |
| 1 1/4-8 | See Popular Specials | | 2506-330 | POA | 2516-330 | POA |
| 1 1/4-10 | See Popular Specials | | 2506-334 | POA | 2516-334 | POA |
| 1 1/4-16 | See Popular Specials | | 2506-344 | POA | 2516-344 | POA |
| 1 1/4-18 | See Popular Specials | | 2506-348 | POA | 2516-348 | POA |
| 1 1/4-20 | See Popular Specials | | – | – | 2516-352 | POA |
| 1 1/4-24 | 2496-358 | POA | – | – | – | – |
| 1 1/4-27 | 2496-363 | POA | – | – | – | – |
| 1 1/4-28 | 2496-366 | POA | – | – | – | – |
| 1 1/4-32 | 2496-372 | POA | – | – | – | – |
| 1 5/16-7 | 2496-455 | POA | – | – | – | – |
| 1 5/16-8 | See Popular Specials | | – | – | 2516-458 | POA |
| 1 5/16-10 | 2496-462 | POA | – | – | – | – |
| 1 5/16-12 | See Popular Specials | | 2506-466 | POA | 2516-466 | POA |
| 1 5/16-14 | 2496-470 | POA | – | – | – | – |
| 1 5/16-16 | 2496-474 | POA | – | – | 2516-474 | POA |
| 1 5/16-18 | See Popular Specials | | 2506-478 | POA | – | – |
| 1 5/16-20 | 2496-482 | POA | 2506-482 | POA | 2516-482 | POA |
| 1 5/16-24 | 2496-488 | POA | – | – | – | – |
| 1 5/16-32 | 2496-498 | POA | – | – | – | – |
| 1 3/8-7 | 2496-580 | POA | – | – | – | – |
| 1 3/8-8 | See Popular Specials | | 2506-583 | POA | 2516-583 | POA |
| 1 3/8-9 | 2496-586 | POA | – | – | – | – |
| 1 3/8-14 | 2496-595 | POA | – | – | – | – |
| 1 3/8-16 | See Popular Specials | | – | – | 2516-599 | POA |
| 1 3/8-18 | See Popular Specials | | 2506-601 | POA | 2516-602 | POA |
| 1 3/8-20 | See Popular Specials | | – | – | 2516-605 | POA |
| 1 3/8-24 | 2496-611 | POA | 2506-611 | POA | – | – |
| 1 3/8-32 | 2496-621 | POA | – | – | – | – |
| 1 7/16-7 | 2496-710 | POA | – | – | – | – |
| 1 7/16-10 | 2496-717 | POA | – | – | – | – |
| 1 7/16-12 | See Popular Specials | | 2506-721 | POA | 2516-721 | POA |
| 1 7/16-14 | 2496-725 | POA | – | – | – | – |
| 1 7/16-18 | See Popular Specials | | 2506-733 | POA | 2516-733 | POA |
| 1 7/16-20 | 2496-737 | POA | – | – | – | – |
| 1 7/16-24 | 2496-743 | POA | – | – | – | – |
| 1 7/16-32 | 2496-753 | POA | – | – | – | – |
| 1 1/2-7 | 2496-835 | POA | – | – | – | – |
| 1 1/2-8 | See Popular Specials | | 2506-838 | POA | 2516-838 | POA |
| 1 1/2-9 | 2496-841 | POA | – | – | – | – |
| 1 1/2-10 | 2496-844 | POA | – | – | 2516-844 | POA |
| 1 1/2-16 | See Popular Specials | | – | – | 2516-854 | POA |
| 1 1/2-18 | See Popular Specials | | 2506-858 | POA | 2516-858 | POA |
| 1 1/2-20 | See Popular Specials | | – | – | 2516-862 | POA |
| 1 1/2-24 | 2496-868 | POA | – | – | – | – |
| 1 1/2-32 | 2496-878 | POA | – | – | – | – |
| 1 9/16-8 | 2497-015 | POA | – | – | – | – |
| 1 9/16-12 | 2497-020 | POA | – | – | – | – |
| 1 9/16-14 | 2497-024 | POA | – | – | – | – |
| 1 9/16-16 | 2497-028 | POA | – | – | – | – |
| 1 9/16-18 | – | – | 2507-032 | POA | 2517-031 | POA |
| 1 9/16-20 | 2497-034 | POA | – | – | – | – |
| 1 5/8-5 | 2497-135 | POA | – | – | – | – |
| 1 5/8-5 1/2 | See Popular Specials | | 2507-138 | POA | 2517-138 | POA |
| 1 5/8-6 | 2497-141 | POA | – | – | – | – |
| 1 5/8-8 | See Popular Specials | | 2507-145 | POA | 2517-145 | POA |
| 1 5/8-10 | 2497-149 | POA | – | – | – | – |
| 1 5/8-12 | See Popular Specials | | 2507-153 | POA | 2517-153 | POA |
| 1 5/8-16 | See Popular Specials | | – | – | 2517-161 | POA |

| SIZE | CARBON STEEL RIGHT HAND ORDER NO. | CARBON STEEL RIGHT HAND PRICE EACH | H.S.S. RIGHT HAND ORDER NO. | H.S.S. RIGHT HAND PRICE EACH | CARBON STEEL LEFT HAND ORDER NO. | CARBON STEEL LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|
| 1 11/16-5 | 2497-225 | POA | – | – | – | – |
| 1 11/16-8 | 2497-230 | POA | – | – | – | – |
| 1 11/16-12 | 2497-235 | POA | – | – | – | – |
| 1 11/16-16 | 2497-240 | POA | – | – | – | – |
| 1 11/16-18 | 2497-245 | POA | – | – | 2517-245 | POA |
| 1 3/4-5 | See Popular Specials | | 2507-298 | POA | 2517-298 | POA |
| 1 3/4-7 | 2497-304 | POA | – | – | – | – |
| 1 3/4-8 | See Popular Specials | | 2507-307 | POA | 2517-307 | POA |
| 1 3/4-10 | See Popular Specials | | 2507-311 | POA | – | – |
| 1 3/4-12 | See Popular Specials | | 2507-315 | POA | 2517-315 | POA |
| 1 3/4-14 | 2497-319 | POA | – | – | – | – |
| 1 3/4-16 | See Popular Specials | | – | – | 2517-323 | POA |
| 1 13/16-12 | 2497-390 | POA | – | – | – | – |
| 1 13/16-16 | 2497-395 | POA | – | – | – | – |
| 1 7/8-5 | See Popular Specials | | 2507-448 | POA | 2517-448 | POA |
| 1 7/8-6 | 2497-451 | POA | 2507-451 | POA | – | – |
| 1 7/8-8 | See Popular Specials | | 2507-455 | POA | 2517-455 | POA |
| 1 7/8-10 | 2497-459 | POA | 2507-459 | POA | 2517-459 | POA |
| 1 7/8-12 | See Popular Specials | | 2507-463 | POA | 2517-463 | POA |
| 1 7/8-16 | See Popular Specials | | 2507-471 | POA | 2517-471 | POA |
| 1 15/16-8 | 2497-575 | POA | – | – | 2517-575 | POA |
| 1 15/16-10 | – | – | – | – | 2517-577 | POA |
| 1 15/16-12 | 2497-580 | POA | – | – | – | – |
| 1 15/16-16 | 2497-585 | POA | – | – | – | – |
| 1 15/16-18 | 2497-590 | POA | – | – | – | – |
| 2-4 | – | – | 2507-640 | POA | – | – |
| 2-4 1/2 | See Popular Specials | | 2507-641 | POA | 2517-640 | POA |
| 2-5 | 2497-643 | POA | – | – | – | – |
| 2-6 | 2497-646 | POA | – | – | 2517-646 | POA |
| 2-8 | See Popular Specials | | 2507-650 | POA | 2517-650 | POA |
| 2-10 | 2497-654 | POA | 2507-654 | POA | 2517-654 | POA |
| 2-11 | 2497-657 | POA | – | – | – | – |
| 2-12 | See Popular Specials | | 2507-660 | POA | 2517-660 | POA |
| 2-14 | 2497-664 | POA | – | – | – | – |
| 2-16 | See Popular Specials | | – | – | 2517-668 | POA |
| 2-20 | See Popular Specials | | 2507-668 | POA | – | – |
| 2 1/16-12 | 2497-745 | POA | – | – | – | – |
| 2 1/16-16 | 2497-750 | POA | – | – | – | – |
| 2 1/16-40 | 2497-768 | POA | – | – | – | – |
| 2 1/8-4 1/2 | 2497-795 | POA | 2507-795 | POA | – | – |
| 2 1/8-8 | See Popular Specials | | 2507-800 | POA | 2517-800 | POA |
| 2 1/8-10 | 2497-804 | POA | – | – | – | – |
| 2 1/8-12 | See Popular Specials | | 2507-808 | POA | 2517-808 | POA |
| 2 1/8-14 | 2497-812 | POA | – | – | – | – |
| 2 1/8-18 | 2497-820 | POA | – | – | – | – |
| 2 1/8-20 | 2497-824 | POA | – | – | – | – |
| 2 3/16-8 | 2497-870 | POA | – | – | – | – |
| 2 3/16-12 | 2497-875 | POA | – | – | – | – |
| 2 3/16-16 | 2497-880 | POA | – | – | – | – |
| 2 3/16-18 | 2497-884 | POA | – | – | – | – |
| 2 3/16-20 | 2497-888 | POA | 2507-888 | POA | – | – |
| 2 1/4-4 | 2497-915 | POA | – | – | – | – |
| 2 1/4-4 1/2 | See Popular Specials | | 2507-918 | POA | 2517-918 | POA |
| 2 1/4-6 | 2497-922 | POA | – | – | – | – |
| 2 1/4-8 | See Popular Specials | | 2507-926 | POA | 2517-926 | POA |
| 2 1/4-10 | 2497-930 | POA | – | – | – | – |
| 2 1/4-12 | See Popular Specials | | 2507-934 | POA | 2517-934 | POA |
| 2 1/4-14 | 2497-938 | POA | – | – | – | – |
| 2 1/4-20 | 2497-950 | POA | – | – | – | – |
| 2 5/16-12 | 2498-000 | POA | – | – | 2518-000 | POA |
| 2 3/8-4 | 2498-035 | POA | – | – | – | – |
| 2 3/8-8 | See Popular Specials | | 2508-040 | POA | – | – |
| 2 3/8-10 | 2498-044 | POA | 2508-044 | POA | – | – |
| 2 3/8-12 | See Popular Specials | | 2508-048 | POA | 2518-048 | POA |
| 2 3/8-14 | 2498-052 | POA | – | – | – | – |
| 2 3/8-18 | 2498-060 | POA | – | – | – | – |
| 2 3/8-20 | 2498-064 | POA | – | – | – | – |
| 2 7/16-12 | 2498-110 | POA | – | – | – | – |
| 2 1/2-4 | See Popular Specials | | 2508-150 | POA | 2518-150 | POA |
| 2 1/2-4 1/2 | 2498-153 | POA | – | – | – | – |
| 2 1/2-5 | 2498-156 | POA | – | – | – | – |
| 2 1/2-6 | 2498-159 | POA | – | – | – | – |

(continued)

# Full Special Hexagon Dies

## Right & Left Hand (Continued)

**Please specify quantity when ordering.**

**POPULAR SPECIAL CARBON STEEL R.H. HEX DIES: SEE PAGE 153**

Pittsburg® ALLEGHANY

| SIZE | CARBON STEEL RIGHT HAND ORDER NO. | CARBON STEEL RIGHT HAND PRICE EACH | H.S.S. RIGHT HAND ORDER NO. | H.S.S. RIGHT HAND PRICE EACH | CARBON STEEL LEFT HAND ORDER NO. | CARBON STEEL LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|
| 2 1/2-8 | See Popular Specials | | 2508-163 | POA | 2518-163 | POA |
| 2 1/2-10 | 2498-167 | POA | – | – | – | – |
| 2 1/2-12 | See Popular Specials | | 2508-171 | POA | 2518-171 | POA |
| 2 1/2-14 | 2498-175 | POA | – | – | – | – |
| 2 1/2-16 | See Popular Specials | | 2508-179 | POA | – | – |
| 2 1/2-18 | 2498-183 | POA | – | – | – | – |
| 2 9/16-8 | – | – | 2508-235 | POA | – | – |
| 2 9/16-18 | 2498-240 | POA | – | – | – | – |
| 2 5/8-8 | See Popular Specials | | 2508-281 | POA | – | – |
| 2 5/8-10 | 2498-285 | POA | – | – | – | – |
| 2 5/8-14 | 2498-293 | POA | – | – | – | – |
| 2 5/8-16 | 2498-297 | POA | 2508-297 | POA | – | – |
| 2 11/16-8 | 2498-325 | POA | – | – | – | – |
| 2 3/4-4 | See Popular Specials | | 2508-370 | POA | 2518-370 | POA |
| 2 3/4-8 | See Popular Specials | | 2508-376 | POA | 2518-376 | POA |
| 2 3/4-10 | 2498-380 | POA | – | – | – | – |
| 2 3/4-12 | See Popular Specials | | 2508-384 | POA | 2518-384 | POA |
| 2 3/4-14 | 2498-388 | POA | – | – | – | – |
| 2 3/4-16 | 2498-392 | POA | – | – | – | – |
| 2 3/4-18 | 2498-396 | POA | – | – | – | – |
| 2 7/8-4 | 2498-440 | POA | – | – | – | – |
| 2 7/8-6 | 2498-445 | POA | – | – | – | – |
| 2 7/8-8 | See Popular Specials | | 2508-450 | POA | – | – |
| 2 7/8-16 | 2498-460 | POA | – | – | – | – |
| 3-3 1/2 | 2498-535 | POA | – | – | – | – |
| 3-4 | See Popular Specials | | 2508-537 | POA | 2518-537 | POA |
| 3-6 | 2498-541 | POA | – | – | – | – |
| 3-8 | See Popular Specials | | 2508-545 | POA | – | – |
| 3-10 | 2498-549 | POA | – | – | – | – |
| 3-12 | See Popular Specials | | 2508-553 | POA | 2518-553 | POA |
| 3-16 | See Popular Specials | | – | – | 2518-559 | POA |
| 3 1/8-16 | 2498-610 | POA | – | – | – | – |
| 3 1/8-18 | 2498-615 | POA | – | – | – | – |
| 3 1/8-20 | 2498-620 | POA | – | – | – | – |
| 3 1/4-4 | See Popular Specials | | 2508-642 | POA | 2518-642 | POA |
| 3 1/4-6 | 2498-646 | POA | – | – | – | – |
| 3 1/4-12 | See Popular Specials | | – | – | 2518-655 | POA |
| 3 1/4-16 | 2498-660 | POA | – | – | – | – |

| SIZE | CARBON STEEL RIGHT HAND ORDER NO. | CARBON STEEL RIGHT HAND PRICE EACH | H.S.S. RIGHT HAND ORDER NO. | H.S.S. RIGHT HAND PRICE EACH | CARBON STEEL LEFT HAND ORDER NO. | CARBON STEEL LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|
| 3 1/2-4 | See Popular Specials | | – | – | 2518-775 | POA |
| 3 1/2-6 | 2498-780 | POA | – | – | – | – |
| 3 1/2-8 | See Popular Specials | | 2508-785 | POA | – | – |
| 3 1/2-12 | See Popular Specials | | 2508-790 | POA | 2518-790 | POA |
| 3 1/2-16 | 2498-795 | POA | – | – | – | – |
| 3 5/8-12 | See Popular Specials | | – | – | 2518-845 | POA |
| 3 5/8-16 | 2498-850 | POA | – | – | – | – |
| 3 3/4-16 | 2498-895 | POA | – | – | – | – |
| 3 3/4-18 | 2498-900 | POA | – | – | – | – |
| 4-3 1/4 | 2498-965 | POA | – | – | – | – |
| 4-4 | See Popular Specials | | – | – | 2518-970 | POA |
| 4-12 | See Popular Specials | | – | – | 2518-980 | POA |
| 4-16 | 2498-985 | POA | – | – | – | – |
| 4 1/4-4 | 2499-015 | POA | – | – | – | – |
| 4 1/4-8 | 2499-020 | POA | – | – | 2518-650 | POA |
| 4 1/4-12 | See Popular Specials | | 2509-025 | POA | – | – |
| 4 3/8-8 | 2499-070 | POA | – | – | – | – |
| 4 3/8-12 | 2499-075 | POA | – | – | – | – |
| 4 1/2-4 | 2499-100 | POA | – | – | 2519-100 | POA |
| 4 3/4-4 | 2499-130 | POA | – | – | – | – |
| 4 3/4-8 | 2499-135 | POA | – | – | – | – |
| 4 3/4-12 | 2499-140 | POA | 2509-140 | POA | – | – |
| 5-4 | 2499-170 | POA | – | – | – | – |
| 5-6 | 2499-175 | POA | – | – | – | – |
| 5-8 | 2499-180 | POA | – | – | – | – |
| 5 1/4-4 | 2499-200 | POA | – | – | – | – |
| 5 1/4-8 | 2499-205 | POA | – | – | – | – |
| 5 1/4-12 | 2499-210 | POA | – | – | – | – |
| 5 1/2-4 | 2499-240 | POA | – | – | – | – |
| 5 1/2-8 | 2499-245 | POA | – | – | – | – |
| 5 1/2-12 | 2499-250 | POA | – | – | – | – |
| 5 3/4-6 | 2499-280 | POA | – | – | – | – |
| 5 3/4-8 | 2499-285 | POA | – | – | – | – |
| 5 3/4-12 | 2499-290 | POA | – | – | – | – |
| 6-4 | 2499-305 | POA | – | – | – | – |
| 6-8 | 2499-310 | POA | – | – | – | – |
| 6-12 | 2499-315 | POA | – | – | – | – |
| 6 3/8-12 | 2499-380 | POA | – | – | – | – |

Pittsburg® ALLEGHANY

2

# Square Bolt Dies

## Carbon Steel

| SIZE | SQUARE SIZE | THICKNESS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/4-20 | 2-1/2 | 1/2 | 2530-001 | $ 18.00 |
| 5/16-18 | 2-1/2 | 1/2 | 2530-004 | 18.00 |
| 3/8-16 | 2-1/2 | 1/2 | 2530-006 | 18.00 |
| 7/16-14 | 2-1/2 | 1/2 | 2530-008 | 18.00 |
| 1/2-13 | 2-1/2 | 3/4 | 2530-010 | 27.00 |
| 5/8-11 | 2-1/2 | 3/4 | 2530-014 | 27.00 |
| 3/4-10 | 2-1/2 | 3/4 | 2530-016 | 27.00 |
| 7/8-9 | 2-1/2 | 3/4 | 2530-018 | 27.00 |

| SIZE | SQUARE SIZE | THICKNESS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1-8 | 2-1/2 | 1 | 2530-020 | $ 29.00 |
| 1-1/8-7 | 2-1/2 | 1 | 2530-023 | 29.00 |
| 1-1/4-7 | 2-1/2 | 1 | 2530-025 | 29.00 |
| 1-3/8-6 | 2-1/2 | 1 | 2530-027 | 29.00 |
| 1-1/2-6 | 3 | 1 | 2530-030 | 44.00 |
| 1-3/4-5 | 3 | 1-1/4 | 2530-034 | 49.00 |
| 2-4-1/2 | 3-3/4 | 2 | 2530-036 | 73.00 |

# Pipe Dies

## Round Adjustable

**NPT (Taper Pipe) & NPS (Straight Pipe) Right Hand – High Speed Steel**

[8]

| SIZE | OD | NPT TAPER ORDER NO. | NPT TAPER PRICE EACH | NPS STRAIGHT ORDER NO. | NPS STRAIGHT PRICE EACH |
|---|---|---|---|---|---|
| 1/16-27 | 1 | 2436-102 | $ 7.00 | 2436-101 | $ 7.00 |
| 1/8-27 | 1 | 2436-106 | 7.00 | 2436-105 | 7.00 |
| 1/8-27 | 1-1/2 | 2436-110 | 16.10 | 2436-109 | 16.50 |
| 1/4-18 | 1-1/2 | 2436-118 | 16.10 | 2436-119 | 16.50 |
| 3/8-18 | 1-1/2 | 2436-126 | 16.10 | 2436-125 | 16.50 |
| 1/4-18 | 2 | 2436-122 | 28.20 | 2436-121 | 30.50 |
| 3/8-18 | 2 | 2436-130 | 28.20 | 2436-129 | 30.50 |
| 1/2-14 | 2 | 2436-134 | 28.20 | 2436-133 | 30.50 |
| 3/4-14 | 2 | 2436-142 | 28.20 | 2436-141 | 30.50 |
| 3/4-14 | 2-1/2 | 2436-146 | 40.10 | 2436-145 | 48.20 |
| 1-11-1/2 | 2-1/2 | 2436-154 | 40.10 | 2436-153 | 48.20 |
| 1-11-1/2 | 3 | 2436-158 | 81.60 | 2436-157 | 91.70 |
| 1-1/4-11-1/2 | 3 | 2436-162 | 81.60 | 2436-161 | 91.70 |
| 1-1/2-11-1/2 | 3 | 2436-170 | 81.60 | 2436-169 | 91.70 |
| 1-1/2-11-1/2 | 4 | 2436-172 | 188.00 | 2436-171 | 225.60 |
| 2-11-1/2 | 4 | 2436-178 | 188.00 | 2436-177 | 225.60 |
| 2-1/2-8 | 5 | 2436-182 | 293.00 | 2436-181 | 351.60 |
| 3-8 | 5 | 2436-188 | 293.00 | 2436-187 | 351.60 |

## Left Hand Round Adjustable

**NPT (Taper Pipe) & NPS (Straight Pipe) High Speed Steel**

[2]

| SIZE | OD | LEFT HAND NPT TAPER ORDER NO. | LEFT HAND NPT TAPER PRICE EACH | LEFT HAND NPS STRAIGHT ORDER NO. | LEFT HAND NPS STRAIGHT PRICE EACH |
|---|---|---|---|---|---|
| 1/16-27 | 1 | 2436-302 | $78.00 | 2436-301 | $78.00 |
| 1/8-27 | 1 | 2436-306 | 78.00 | 2436-305 | 78.00 |
| 1/8-27 | 1-1/2 | 2436-310 | 99.60 | 2436-309 | 99.60 |
| 1/4-18 | 1-1/2 | 2436-318 | 99.60 | 2436-317 | 99.60 |
| 3/8-18 | 1-1/2 | 2436-330 | 99.60 | 2436-329 | 99.60 |
| 1/4-18 | 2 | 2436-322 | 117.60 | 2436-321 | 117.60 |
| 3/8-18 | 2 | 2436-334 | 117.60 | 2436-333 | 117.60 |
| 1/2-14 | 2 | 2436-338 | 127.20 | 2436-337 | 127.20 |
| 3/4-14 | 2 | 2436-346 | 127.20 | 2436-345 | 127.20 |
| 3/4-14 | 2-1/2 | 2436-350 | 166.80 | 2436-349 | 166.80 |
| 1-11-1/2 | 2-1/2 | 2436-358 | 174.00 | 2436-357 | 174.00 |
| 1-11-1/2 | 3 | 2436-362 | 289.20 | 2436-361 | 289.20 |
| 1-1/4-11-1/2 | 3 | 2436-366 | 289.20 | 2436-365 | 289.20 |
| 1-1/2-11-1/2 | 3 | 2436-374 | 375.60 | 2436-373 | 375.60 |
| 2-11-1/2 | 4 | 2436-382 | 446.40 | 2436-381 | 446.40 |
| 2-1/2-8 | 5 | 2436-385 | 660.00 | 2436-386 | 792.00 |
| 3-8 | 5 | 2436-392 | 823.20 | 2436-391 | 686.40 |

## Hexagon Rethreading Dies

**NPT (Taper Pipe) NPS (Straight Pipe) Right Hand – Carbon Steel**

| SIZE | Pittsburg® ALLEGHANY [8] NPT ORDER NUMBER | Pittsburg® ALLEGHANY [8] PRICE EACH | ALLEGIANCE® AMERICAN MADE [2] NPT ORDER NUMBER | ALLEGIANCE® AMERICAN MADE [2] PRICE EACH | Pittsburg® ALLEGHANY [8] NPS ORDER NUMBER | Pittsburg® ALLEGHANY [8] PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16-27 | 2484-002 | $ 3.26 | – | – | 2484-001 | $3.46 |
| 1/8-27 | 2484-006 | 3.30 | 2483-906 | $ 10.17 | 2484-005 | 3.46 |
| 1/4-18 | 2484-018 | 3.39 | 2483-918 | 11.29 | 2484-017 | 4.44 |
| 3/8-18 | 2484-030 | 4.46 | 2483-930 | 15.60 | 2484-029 | 5.62 |
| 1/2-14 | 2484-034 | 6.83 | 2483-934 | 22.56 | 2484-033 | 7.58 |
| 3/4-14 | 2484-042 | 9.38 | 2483-942 | 27.88 | 2484-041 | 9.93 |
| 1-11-1/2 | 2484-054 | 13.03 | 2483-954 | 53.98 | 2484-053 | 13.06 |
| 1-1/4-11-1/2 | 2484-062 | 28.31 | – | – | – | – |
| 1-1/2-11-1/2 | 2484-070 | 33.89 | – | – | – | – |
| 2-11-1/2 | 2484-078 | 72.94 | – | – | – | – |
| 2-1/2-8 | 2484-082 | 139.37 | – | – | – | – |
| 3-8 | 2484-087 | 312.84 | – | – | – | – |
| 3-1/2-8 | 2484-092 | 447.82 | – | – | – | – |
| 4-8 | 2484-097 | 619.97 | – | – | – | – |

Left Hand Sizes – POA

## Hexagon Rethreading Dies

**NPT (Taper Pipe), Right Hand – High Speed Steel**

[8]

| SIZE | ORDER NUMBER | PRICE EACH |
|---|---|---|
| 1/16-27 | 2484-102 | $8.81 |
| 1/8-27 | 2484-106 | 8.81 |
| 1/4-18 | 2484-118 | 19.30 |
| 3/8-18 | 2484-130 | 23.62 |
| 1/2-14 | 2484-134 | 34.05 |
| 3/4-14 | 2484-142 | 65.48 |
| 1-11 1/2 | 2484-154 | 92.34 |
| 1 1/4-11 1/2 | 2484-162 | 123.83 |
| 1 1/2-11 1/2 | 2484-170 | 180.14 |

## Round Adjustable Die

**NPSH Pipe–Garden Hose High Speed Steel**

[8]

| SIZE | O.D. | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 3/4-11-1/2 | 2” | 2436-143 | $123.70 |
| 3/4-11-1/2 | 2-1/2 | 2436-144 | 162.20 |

## Square Pipe Dies

**NPT (Taper Pipe) Right Hand – Carbon Steel**

Left Hand Threads, Special Square Sizes and High Speed Steel Dies are available on request.

[2]

| SIZE | BLANK NO. | SQUARE SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/8-27 | 0 | 2 x 1/2 | 2531-009 | $26.00 |
| 1/4-18 | 0 | 2 x 1/2 | 2531-016 | 26.00 |
| 3/8-18 | 0 | 2 x 1/2 | 2531-030 | 26.00 |
| 1/2-14 | 0 | 2 x 1/2 | 2531-047 | 26.00 |
| 1/8-27 | 1 | 2-1/2 x 3/4 | 2531-011 | 31.50 |
| 1/4-18 | 1 | 2-1/2 x 3/4 | 2531-019 | 31.50 |
| 3/8-18 | 1 | 2-1/2 x 3/4 | 2531-036 | 31.50 |
| 1/2-14 | 1 | 2-1/2 x 3/4 | 2531-050 | 31.50 |
| 3/4-14 | 1 | 2-1/2 x 3/4 | 2531-061 | 31.50 |
| 1-11-1/2 | 1 | 2-1/2 x 3/4 | 2531-072 | 31.50 |
| 1/2-14 | 1-1/2 | 3 x 3/4 | 2531-053 | 36.70 |
| 3/4-14 | 1-1/2 | 3 x 3/4 | 2531-064 | 36.70 |
| 1-11-1/2 | 1-1/2 | 3 x 3/4 | 2531-075 | 36.70 |
| 1-1/4-11-1/2 | 1-1/2 | 3 x 3/4 | 2531-086 | 36.70 |
| 1-11-1/2 | 2 | 4 x 1 | 2531-078 | 48.50 |
| 1-1/4-11-1/2 | 2 | 4 x 1 | 2531-092 | 48.50 |
| 1-1/2-11-1/2 | 2 | 4 x 1 | 2531-100 | 48.50 |
| 2-11-1/2 | 2 | 4 x 1 | 2531-105 | 48.50 |

# Tap & Die Sets– Round Dies



## 39 Pieces - Round Adj. Dies #4 THRU 1/2"

### Taps & 1-' Round Adjustable Dies

• Plastic Storage Case Included
• Contains one Plug Tap and Round Die in the following thread:

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-585
Price Each: $211.17

Pittsburg® ALLEGHANY

Order No. 2591-505
Price Each: $70.50

**High Speed Steel**

Pittsburg® ALLEGHANY

Order No. 2591-507
Price Each: $150.00

| MACH. SCREW | THREAD SIZES FRACTIONAL | FRACTIONAL |
|---|---|---|
| 4-40 NC | 1/4"-20 NC | 7/16"-14 NC |
| 6-32 NC | 1/4"-28 NF | 7/16"-20 NF |
| 8-32 NC | 5/16"-18 NC | 1/2"-13 NC |
| 10-24 NC | 5/16"-24 NF | 1/2"-20 NF |
| 10-32 NF | 3/8"-16 NC | Pipe |
| 12-24 NC | 3/8"-24 NF | 1/8"-27 NPT |

**THREADING TOOLS**

Adj. Die Stock - 1" Round Dies
T-Handle Wrench - Taps No. 0 - 1/4"
Adj. Handle Tap Wrench - Taps No. 0 - 1/2"
18 Leaf Standard Thread Pitch Gage

## 39 Pieces - Solid Round Dies #4 THRU 1/2"

### Taps & 1" Solid Round Dies

• Plastic Storage Case Included
• Contains one Plug Tap and Round Die in the following thread:

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-599 Price Each: $148.17

| MACH. SCREW | THREAD SIZES FRACTIONAL | FRACTIONAL |
|---|---|---|
| 4-40 NC | 1/4"-20 NC | 7/16"-14 NC |
| 6-32 NC | 1/4"-28 NF | 7/16"-20 NF |
| 8-32 NC | 5/16"-18 NC | 1/2"-13 NC |
| 10-24 NC | 5/16"-24 NF | 1/2"-20 NF |
| 10-32 NF | 3/8"-16 NC | Pipe |
| 12-24 NC | 3/8"-24 NF | 1/8"-27 NPT |

**THREADING TOOLS**

Adj. Die Stock - 1" Round Dies
T-Handle Wrench - Taps No. 0 - 1/4"
Adj. Handle Tap Wrench - Taps No. 0 - 1/2"
18 Leaf Standard Thread Pitch Gage

## 41 Pieces 1/4 THRU 3/4"

### Carbon Steel Tap & Adjustable/Solid Round 1-1/2" Die Super Set

• Plastic Storage Case Included
• Contains one Plug Tap and Round Die in the following thread:

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-600
Price Each: $386.04

**High Speed Steel**

IRWIN HANSON.

Order No. 2591-660
Price Each: $1063.55

| FRACTIONAL | THREAD SIZES FRACTIONAL | FRACTIONAL |
|---|---|---|
| 1/4"-20 NC | 7/16"-14 NC | 5/8"-11 NC |
| 1/4"-28 NF | 7/16"-20 NF | 5/8"-18 NF |
| 5/16"-18 NC | 1/2"-13 NC | 3/4"-10 NC |
| 5/16"-24 NF | 1/2"-20 NF | 3/4"-16 NF |
| 3/8"-16 NC | 9/16"-12 NC | Pipe-1/8"-27 NPT |
| 3/8"-24 NF | 9/16"-18 NF | Pipe-1/4"-18 NPT |

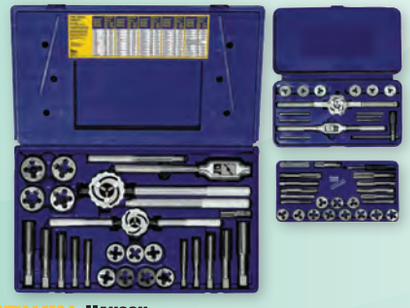
**THREADING TOOLS**

Adj. Die Stock - 1-1/2" Round Dies
T-Handle Wrench - Taps No. 1/4" to 1/2"
Adj. Handle Tap Wrench - Taps 1/4" to 1"
18 Leaf Standard Thread Pitch Gage

## 64 Pieces #4 THRU 1"

### Adjustable/Solid Round Die Super Set - Carbon Steel

• Plastic Storage Case Included
• Contains one Plug Tap and Round Die in the following thread:



IRWIN HANSON.

Order No. 2591-635 Price Each: $763.18

Pittsburg® ALLEGHANY

Order No. 2591-510 Price Each: $210.70

| MACH. SCREW | THREAD SIZES FRACTIONAL | FRACTIONAL & PIPE |
|---|---|---|
| 1" Adj. Round | 1" Adj. Round | 1-1/2" Adj. Round |
| 4-40 NC | 1/4"-20 NC | 5/8"-11 NC |
| 6-32 NC | 1/4"-28 NF | 5/8"-18 NF |
| 8-32 NC | 5/16"-18 NC | 3/4"-10 NC |
| 10-24 NC | 5/16"-24 NF | 3/4"-16 NF |
| 10-32 NF | 3/8"-16 NC | 2" Adj. Round |
| 12-24 NC | 3/8"-24 NF | 7/8"-9 NC |
| | 7/16"-14 NC | 7/8"-14 NF |
| | 7/16"-20 NF | 1"-8 NC |
| | 1/2"-13 NC | 1"-12 NS |
| | 1/2"-20 NF | 1" Solid Round |
| | 1-1/2" Adj. Round | Pipe-1/8"-27 NPT |
| | 9/16"-12 NC | 1-1/2" Solid Round |
| | 9/16"-18 NF | Pipe-1/4"-18 NPT |

**THREADING TOOLS**

Adj. Die Stock - 1 Adj. Round Dies
Adj. Die Stock - 1-1/2"Adj. Round Dies
Adj. Die Stock - 2"Adj. Round Dies
Adj. Handle Tap Wrench - Taps 0 to 1/2"
Adj. Handle Tap Wrench - Taps 1/4" to 1"
T-Handle Wrench - Taps No. 0 to 1/4"
18 Leaf Standard Thread Pitch Gage

# Tap & Die Sets

IRWIN. HANSON.

## 117 Pieces #4 THRU 1/2" Fractional/Metric

**Carbon Steel**

IRWIN. HANSON.

Order No. 2591-598 Price Each: $419.22 [2]

- Plastic storage case included
- Contains one Plug Tap and Hexagon Re-threading Die in the following thread:

| THREAD SIZES | | |
|---|---|---|
| MACH. SCREW | FRACTIONAL | FRACTIONAL & PIPE |
| 4-40 NC | 3/8"-24 NF | 7 mm - 1.00 |
| 6-32 NC | 7/16"-14 NC | 8 mm - 1.00 |
| 8-32 NC | 7/16"-20 NF | 8 mm - 1.25 |
| 10-24 NC | 1/2"-13 NC | 9 mm - 1.00 |
| 10-32 NF | 1/2"-20 NF | 9 mm - 1.25 |
| 12-24 NC | Metric | 10 mm - 1.25 |
| Fractional | 3 mm - 0.50 | 10 mm - 1.50 |
| 1/4"-20 NC | 4 mm - 0.70 | 11 mm - 1.50 |
| 1/4"-28 NF | 4 mm - 0.75 | 12 mm - 1.50 |
| 5/16"-18 NC | 5 mm - 0.80 | 12 mm - 1.75 |
| 5/16"-24 NF | 5 mm - 0.90 | Pipe-1/8"-27 NPT |
| 3/8"-16 NC | 6 mm - 1.00 | Pipe-1/4"-18 BSP |

**SPIRAL FLUTE SCREW EXTRACTOR**

EX-1, EX-2, EX-3, EX-4, EX-5

**THREADING TOOLS**

Adj. Die Stock - 1 Dies
Plain Die Stock - 5/8"Hex Dies
Adj. Handle Tap Wrench - Taps 0 to 1/2"
2-in-1 Tap Wrench - Taps 1/4" to 1/2"
T-Handle Wrench - Taps No. 0 to 1/4"
16 Leaf Metric Thread Pitch Gage
18 Leaf Standard Thread Pitch Gage
Empty Plastic Case

**DRILL BITS**

0.003, 0.007, 0.009, 0.0016, 0.0019, 0.0020, 0.0021, 0.0025, 0.0029, 0.0030, 0.0036, 0.0039, 0.0043, Letter B, Letter F, Letter H, Letter I, Letter J, Letter O, Letter Q, Letter R, Letter S, Letter U, Letter Z, 5/64", 7/64", 5/32", 1/4", 19/64", 5/16", 21/64", 3/8", 25/64", 13/32", 27/64", 29/64"

GEARWRENCH

## 11-pc. Master Ratcheting Tap & Die Drive Tool Set

- Set includes: Large & Medium Ratcheting "T" Wrench, Large Locking Tap Adapter, Large Hex Die Adapter, Medium & Small Tap Adapter, Medium Die Adapter, Male Extension Adapter, Female Extension Adapter, Sliding T for Adapters, 4mm Hex Key

Order No. 7442-469 Price Each: $140.52 [3]

GEARWRENCH

## 5 Pc. Medium Ratcheting Tap and Die Drive Tool Set

- Set includes: Tap and Die Ratcheting "T" Wrench, Small & Medium Tap Adapters, Medium Hex Die Adaptor, Sliding "T" for Adapters

Order No. 7442-470 Price Each: $62.89 [3]

GEARWRENCH

## 4-pc. Large Ratcheting T-Wrench Drive Tool Set

- Large Ratcheting "T" Wrench, Large Locking Tap Adapter, Large Hex Die Adapter, 4mm Hex Key

Order No. 7442-471 Price Each: $84.35 [3]

# Tap & Die Sets



## 66 Pieces #4 THRU 1" Taps & 1" Hexagon Dies

• Plastic storage cases
• Contains one Tap and Hexagon Re-threading Die in the following thread:

| THREAD SIZES MACH. SCREW/FRAC. | FRACTIONAL | PIPE |
|---|---|---|
| 4-40 NC | 7/16"-14 NC | 1/8"-27 NPT |
| 6-32 NC | 7/16"-20 NF | 1/4"-18 NPT |
| 8-32 NC | 1/2"-13 NC | |
| 10-24 NC | 1/2"-20 NF | |
| 10-32 NF | 9/16"-12 NC | |
| 12-24 NC | 9/16"-12 NF | |
| | 5/8"-11 NC | |
| | 5/8"-18 NF | |
| Fractional | 3/4"-10 NC | |
| 1/4"-20 NC | 3/4"-16 NF | |
| 1/4"-28 NF | 7/8"-9 NC | |
| 5/16"-18 NC | 7/8"-14 NF | |
| 5/16"-24 NF | 1"-8 NC | |
| 3/8"-16 NC | 1"-8 NC | |
| 3/8"-24 NF | 1"-12 NS | |

**THREADING TOOLS**

Adj. Die Stock - 1" Dies • Plain Die Stock 5/8" Hex Dies
Adj. Die Stock - 1-7/16"Hex Dies
Adj. Die Stock - 1-13/16"Hex Dies
Adj. Handle Tap Wrench - Taps 0 to 1/2"
Adj. Handle Tap Wrench - Taps 1/4" to 1"
T-Handle Wrench - Taps No. 0 to 1/4"
18 Leaf Standard Thread Pitch Gage

**Carbon Steel**
IRWIN HANSON.

Order No. 2591-625
Price Each: $551.94

## 76 Pieces #4 THRU 1/2"

**Fractional/Metric** • Plastic storage case included

• Contains one Tap and Hexagon Re-threading Die in the following thread:

| THREAD SIZES MACH. SCREW | FRACTIONAL/METRIC | METRIC & PIPE |
|---|---|---|
| 4-40 NC | 3/8"-24 NF | 7 mm - 1.00 |
| 6-32 NC | 7/16"-14 NC | 8 mm - 1.00 |
| 8-32 NC | 7/16"-20 NF | 8 mm - 1.25 |
| 10-24 NC | 1/2"-13 NC | 9 mm - 1.00 |
| 10-32 NF | 1/2"-20 NF | 9 mm - 1.25 |
| 12-24 NC | Metric | 10 mm - 1.25 |
| Fractional | 3 mm - 0.50 | 10 mm - 1.50 |
| 1/4"-20 NC | 4 mm - 0.70 | 11 mm - 1.50 |
| 1/4"-28 NF | 4 mm - 0.75 | 12 mm - 1.50 |
| 5/16"-18 NC | 5 mm - 0.80 | 12 mm - 1.75 |
| 5/16"-24 NF | 5 mm - 0.90 | Pipe-1/8"-27 NPT |
| 3/8"-16 NC | 6 mm - 1.00 | Pipe-1/4"-18 BSP |

**THREADING TOOLS**

Adj. Die Stock - 1 Dies
Plain Die Stock - 5/8"Hex Dies
Adj. Handle Tap Wrench - Taps 0 to 1/2"
Adj. Handle Tap Wrench - Taps 1/4" to 1/2"
T-Handle Wrench - Taps No. 0 to 1/4"
16 Leaf Metric Thread Pitch Gage
18 Leaf Standard Thread Pitch Gage
Empty Plastic Case

**Carbon Steel**
IRWIN HANSON.

Order No. 2591-597
Price Each: $279.85

## 10 Pieces – Re-threading Hex Die Sets- NC & NF

**Fractional**

• Wooden storage case
• Contains one of each re-threading Hex Die in the following thread:

| THREAD SIZES NC | |
|---|---|
| 1/4"-20 NC | 9/16"-12 NC |
| 5/16"-18 NC | 5/8"-11 NC |
| 3/8"-16 NC | 3/4"-10 NC |
| 7/16"-14 NC | 7/8"-9 NC |
| 1/2"-13 NC | 1"-8 NC |
| **NF** | |
| 1/4"-28 NF | 9/16"-18 NF |
| 5/16"-24 NF | 5/8"-18 NF |
| 3/8"-24 NF | 3/4"-16 NF |
| 7/16"-20 NF | 7/8"-14 NF |
| 1/2"-20 NF | 1"-12 NF |

**NC - Carbon Steel**
IRWIN HANSON.
Order No. 2591-555 Price Each: $134.41

Pittsburg® ALLEGHANY Order No. 2591-500 Price Each: $50.80

**NF - Carbon Steel**
IRWIN HANSON.
Order No. 2591-565 Price Each: $134.41

## 12 Pieces– Taps & Re-threading Pipe Die Sets

**Fractional/Metric**

• Storage case
• Contains one tap and one of each re-threading Hex Die in the following thread sizes:

| THREAD SIZES NPT | |
|---|---|
| 1/8"-27 NPT | 1/2"-14 NPT |
| 1/4"-18 NPT | 3/4"-14 NPT |
| 3/8"-18 NPT | 1"-11-1/2 NPT |

**Carbon Steel**
IRWIN HANSON.
Order No. 2591-645 Price Each: $229.53

Pittsburg® ALLEGHANY
Order No. 2591-508 Price Each: $77.50

**High Speed Steel**
Pittsburg® ALLEGHANY
Order No. 2591-509 Price Each: $158.90

## 6 Pieces – Re-threading Hex Pipe Die Set

**Fractional:**

• Wooden storage case
• Contains one of each re-threading Hex Die in the following thread

| DIE SIZES NPT | |
|---|---|
| 1/8" - 27 NPT | 1/2" - 14 NPT |
| 1/4" - 18 NPT | 3/4" - 14 NPT |
| 3/8" - 18 NPT | 1"- 11-1/2 NPT |

**Carbon Steel**
IRWIN HANSON.
Order No. 2591-644 Price Each: $141.48

# Tap & Die Sets - Hex Dies

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-596 Price Each: $38.71

## 12 Pieces
## 6-32 THRU 1/4"
### Taps & 5/8" Hex Dies

- Carded set

Top 5 machine screw & fractional sizes

- Contains one Tap and Hexagon Die in the following thread:

| THREAD SIZES MACH. SCREW | THREAD SIZES FRACTIONAL |
|---|---|
| 6-32 NC<br>8-32 NC<br>10-24 NC<br>10-32 NF | 1/4"-20 NC |

**THREADING TOOLS**

Plain Die Stock - 5/8" Hex Dies
T-Handle Wrench -
Taps No. 0 - 1/4"

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-595 Price Each: $51.44

2

## 12 Pieces
## Fractional
## 1/4" THRU 1/2"
### Taps & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hexagon Die in the following thread:

| THREAD SIZES FRACTIONAL | |
|---|---|
| 1/4"-20 NC<br>5/16"-18 NC<br>3/8"-16 NC<br>7/16"-14 NC | 1/2"-13 NC |

**THREADING TOOLS**

Plain Die Stock - 1" Dies
Offset Adj. Tap Wrench -
Taps No. 0 - 1/2"

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-594 Price Each: $100.10

## 24 Pieces
## Fractional 1/4" - 1/2"
### Taps & 1" Hex Dies

- Plastic storage case
- Contains one Plug Tap and Hexagon Die in the following thread:

| THREAD SIZES FRACTIONAL | |
|---|---|
| 1/4"-20 NC<br>1/4"-28 NF<br>5/16"-18 NC<br>5/16"-24 NF<br>3/8"-16 NC<br>3/8"-24 NF | 7/16"-14 NC<br>7/16"-20 NF<br>1/2"-13 NC<br>1/2"-20 NF<br>Pipe<br>1/8"-27 NPT |

**THREADING TOOLS**

Plain Die Stock - 1" Round Dies
Offset Adj. Tap Wrench - Taps
No. 0 - 1/2"

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-615 Price Each: $385.49

## 25 Pieces
## Fractional 9/16" - 1"
### Taps & 1-7/16" &
### 1-13/16" Hex Dies

- Plastic storage case
- Contains one Tap and Hexagon Die in the following thread:

| THREAD SIZES FRACTIONAL | |
|---|---|
| 9/16"-12 NC<br>9/16"-18 NF<br>5/8"-11 NC<br>5/8"-18 NF<br>3/4"-10 NC<br>3/4"-16 NF | 7/8"-9 NC<br>7/8"-14 NF<br>1"-8 NC<br>1"-14 NS<br>Pipe<br>1/4"-18 NPT |

**THREADING TOOLS**

Adj. Die Stock: 1-7/16" Hex Dies
Adj. Die Stock: 1-13/16" Hex Dies
Adj. Tap Wrench -
Tap No. 1/4-1"

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-665 Price Each: $166.49

## 41 Pieces
## #4 THRU 1/2"
### Taps & 5/8" & 1" Hex Dies

- Plastic storage case
- Contains one Tap and Hex Die in the following thread:

| MACH. SCREW | THREAD SIZES FRACTIONAL | FRAC./PIPE |
|---|---|---|
| 4-40 NC<br>6-32 NC<br>8-32 NC<br>10-24 NC<br>10-32 NF<br>12-24 NC | 1/4"-20 NC<br>1/4"-28 NF<br>5/16"-18 NC<br>5/16"-24 NF<br>3/8"-16 NC<br>3/8"-24 NF | 7/16"-14 NC<br>7/16"-20 NF<br>1/2"-13 NC<br>1/2"-20 NF<br>Pipe<br>1/8"-27 NPT |

**THREADING TOOLS**

Adj. Die Stock- 1"Dies /Plain Die Stock 5/8" Hex Dies
Adj. Tap Wrench- Taps No. 0 to 1/4"
2-in-1 Tap Wrench- 1/4" to 1/2"
18-Leaf Std. Thread Pitch Gauge

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-593 Price Each: $309.38

## 53 Pieces
## #6 THRU 3/4"
### Taps & 1" & 1-7/16" Hex Dies

- Plastic storage case
- Contains one Tap and Hexagon Die in the following thread:

| MACH. SCREW | THREAD SIZES FRACTIONAL | FRAC./PIPE |
|---|---|---|
| 6-32 NC<br>8-32 NC<br>10-24 NC<br>10-32 NF<br>12-24 NC | 1/4"-20 NC<br>1/4"-28 NF<br>5/16"-18 NC<br>5/16"-24 NF<br>3/8"-16 NC<br>3/8"-24 NF<br>7/16"-14 NC | 9/16"-12 NC<br>9/16"-18 NF<br>5/8"-11 NC<br>5/8"-18 NF<br>3/4"-10 NC<br>3/4"-16 NF |
| | 7/16"-20 NF<br>1/2"-13 NC<br>1/2"-20 NF | Pipe<br>1/8"-27 NPT<br>1/4"-18 NPT |

**THREADING TOOLS**

Adj. Die Stock- 1"Dies /Adj. Die Stock 1-7/16" Hex Dies
T-Handle Wrench - Taps No. 0 to 1/4"
(2) Adj. Tap Wrenches- Taps No. 0 to 1/2", 1/4"-1"
18-Leaf Std. Thread Pitch Gauge

# Tap & Die Sets– Hex Dies– Metric

## 24 Pieces
## 3mm to 12mm
### Taps & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

| THREAD SIZES FRACTIONAL | |
|---|---|
| 3 mm - 0.50 | 9 mm - 1.25 |
| 4 mm - 0.70 | 10 mm - 1.50 |
| 5 mm - 0.80 | 12 mm - 1.50 |
| 6 mm - 1.00 | 12 mm - 1.75 |
| 7 mm - 1.00 | Pipe |
| 8 mm - 1.25 | 1/8"-28 BSP |

**THREADING TOOLS**

Plain Die Stock: 1" Dies
Offset Adj. Tap Wrench - Taps No. 0 to 1/2"

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-520 Price Each: $97.24

## 25 Pieces
## 14mm to 24mm
### Taps & 1-7/16" & 1-13/16" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

| THREAD SIZES FRACTIONAL | |
|---|---|
| 14 mm - 1.25 | 18 mm - 2.50 |
| 14 mm - 1.50 | 20 mm - 2.50 |
| 14 mm - 2.00 | 22 mm - 1.50 |
| 16 mm - 1.50 | 24 mm - 2.00 |
| 16 mm - 2.00 | 24 mm - 3.00 |
| 18 mm - 1.50 | |

**THREADING TOOLS**

Adj. Die Stock: 1-7/16" Hex Dies
Adj. Die Stock: 1-13/16" Hex Dies
Adj. Handle Tap Wrench - Taps No. 1/4-1"

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-592 Price Each: $385.49

## 41 Pieces
## 3mm to 12mm
### Taps & 5/8" & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

| THREAD SIZES FRACTIONAL | |
|---|---|
| 3 mm - 0.50 | 9 mm - 1.00 |
| 4 mm - 0.75 | 9 mm - 1.25 |
| 5 mm - 0.80 | 10 mm - 1.25 |
| 5 mm - 0.90 | 11 mm - 1.50 |
| 6 mm - 1.00 | 12 mm - 1.50 |
| 7 mm - 1.00 | 12 mm - 1.75 |
| 8 mm - 1.00 | Pipe |
| 8 mm - 1.25 | 1/8"-28 BSP |

**THREADING TOOLS**

Adj. Die Stock: 1" Dies
Plain Die Stock: 5/8" Hex Dies
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"
2-in-1 Tap Wrench- 1/4" to 1/2"
16-Leaf Metric Thread Pitch Gauge

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-605 Price Each: $166.49

## 41 Pieces
## Fractional/Metric
### Taps & 5/8" & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

| THREAD SIZES MACH. SCREW/FRAC. | FRAC./METRIC | METRIC |
|---|---|---|
| 6-32 NC | 7/16"-14 NC | 7 mm - 1.00 |
| 8-32 NC | 1/2"-13 NC | 8 mm - 1.25 |
| 10-24 NC | 1/8"-27 NPT | 10 mm - 1.25 |
| Fractional | Metric | 10 mm - 1.50 |
| 1/4"-20 NC | 4 mm - 0.75 | 12 mm - 1.75 |
| 5/16"-18 NC | 5 mm - 0.80 | |
| 3/8"-16 NC | 6 mm - 1.00 | |

**THREADING TOOLS**

Adj. Die Stock- 1"Dies /Plain Die Stock 5/8" Hex Dies
Adj. Tap Wrench- Taps No. 0 to 1/2"
T-handle Tap Wrench- Taps No. 0 to 1/4"
2-in-1 Tap Wrench- Taps 1/4"to 1/2"
Std. & Metric Thread Pitch Gauge

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-591
Price Each: $166.49

## 53 Pieces
## 3mm to 18mm
### Taps & 1" & 1-7/16" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

| THREAD SIZES METRIC | | |
|---|---|---|
| 3 mm - 0.50 | 9 mm - 1.25 | 16 mm - 1.50 |
| 4 mm - 0.70 | 10 mm - 1.25 | 16 mm - 2.00 |
| 5 mm - 0.80 | 10 mm - 1.50 | 18 mm - 1.50 |
| 5 mm - 0.90 | 11 mm - 1.50 | 18 mm - 2.50 |
| 6 mm - 1.00 | 12 mm - 1.50 | |
| 7 mm - 1.00 | 12 mm - 1.75 | Pipe |
| 8 mm - 1.25 | 14 mm - 1.25 | 1/8"-28 BSP |
| 9 mm - 1.00 | 14 mm - 2.00 | 1/4"-19 BSP |

**THREADING TOOLS**

Adj. Die Stock: 1" Dies/ Adj. Die Stock: Hex Dies
T-handle Wrench- Taps No. 0 to 1/4"
T-handle Wrench- Taps No. 0 to 1/2"
Adj. Handle Tap Wrench -Taps 1/4 to 1"
16-Leaf Metric Thread Pitch Gauge

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-606 Price Each: $333.50

## 66 Pieces
## 3 mm to 24 mm
### Taps & 5/8", 1" , 1-7/16" , 1-13/16"
### Solid Round Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

| THREAD SIZES METRIC | | |
|---|---|---|
| 3 mm - 0.50 | 9 mm - 1.25 | 16 mm - 2.00 |
| 4 mm - 0.70 | 10 mm - 1.25 | 18 mm - 1.50 |
| 4 mm - 0.75 | 10 mm - 1.50 | 18 mm - 2.50 |
| 5 mm - 0.80 | 11 mm - 1.50 | 20 mm - 2.50 |
| 5 mm - 0.90 | 12 mm - 1.50 | 22 mm - 1.50 |
| 6 mm - 1.00 | 12 mm - 1.75 | 24 mm - 2.00 |
| 7 mm - 1.00 | 14 mm - 1.25 | 24 mm - 3.00 |
| 8 mm - 1.00 | 14 mm - 1.50 | |
| 8 mm - 1.25 | 14 mm - 2.00 | Pipe |
| 9 mm - 1.00 | 16 mm - 1.50 | 1/8"-28 BSP |

**THREADING TOOLS**

Adj. Die Stock - 1 Dies
Adj. Die Stock - 1-7/16" Dies
Adj. Die Stock - 1-3/16" Dies
Plain Die Stock - 5/8"Hex Dies
Adj. Handle Tap Wrench - Taps 0 to 1/2"
Adj. Handle Tap Wrench - Taps 1/4" to 1"
2-in-1 Tap Wrench - Taps 1/4"to 1/2"
16 Leaf Metric Thread Pitch Gage

**Carbon Steel**

IRWIN HANSON.

Order No. 2591-612
Price Each: $551.94

# Extractors

## IRWIN HANSON® Straight Flute Extractors

• Will not expand material being removed, resulting in easier removal

2

| DESC. | DRILL TO USE | FOR SCREW & BOLT SIZES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| ST-1 | 9/64" | 3/16-5/16", 5-8mm, No. 10 | 2591-361 | $ 2.09 |
| ST-2 | 3/16" | 3/8",10mm | 2591-362 | 2.22 |
| ST-3 | 15/64" | 7/16" and 1/8" NPT, 10mm, 1/8" BSP | 2591-363 | 2.50 |
| ST-4 | 5/16" | 1/2"-9/16" and 1/4"NPT, 12-14mm, 1/4" BSP | 2591-364 | 2.94 |
| ST-5 | 3/8" | 5/8"and 3/8" NPT, 16mm, 3/8" BSP | 2591-365 | 4.31 |
| ST-6 | 15/32" | 3/4"and 1/2" NPT, 20mm, 1/2" BSP | 2591-366 | 6.42 |
| ST-7 | 9/16" | 7/8", 22mm, 5/8" BSP | 2591-367 | 7.81 |
| **SETS** | | | | |
| 5-pc. set | | ST-1 - ST-5 | 2591-370 | 15.85 |
| 6-pc. set | | ST-1 - ST-6 | 2591-372 | 21.44 |

## IRWIN HANSON® Spiral Extractor & Drill Bit Combo Packs

2

### 10-piece Vinyl Pouch Set

| DESCRIPTION | DRILL BITS |
|---|---|
| EX-1 | 5/64" |
| EX-2 | 7/64" |
| EX-3 | 5/32" |
| EX-4 | 1/4" |
| EX-5 | 19/64" |
| **ORDER NO.** | **PRICE EACH** |
| 2591-398 | $ 34.46 |

### 10-piece Metal Index Set

| DESCRIPTION | DRILL BITS |
|---|---|
| EX-1 | 5/64" |
| EX-2 | 7/64" |
| EX-3 | 5/32" |
| EX-4 | 1/4" |
| EX-5 | 19/64" |
| **ORDER NO.** | **PRICE EACH** |
| 2591-399 | $ 48.79 |

## Pittsburg® ALLEGHANY 10-Piece Extractor Set

### Spiral Flute & Drill Bit

3

Set Includes:
Screw extractor sizes: No. 1 - 5
with left-hand spiral HS drill sizes:
5/64, 7/64, 5/32, 1/4, & 17/64.

**Order No. 2591-250**
**Price Each $18.05**

## Screw Extractors

### Spiral Flute

Pittsburg® ALLEGHANY

3

| EXTR. NO. | DRILL TO USE | FOR SCREW & BOLT SIZES | FOR PIPE SIZES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | 5/64 | 3/16-1/4 | . . | 2591-210 | $ 0.78 |
| 2 | 7/64 | 1/4-5/16 | . . | 2591-212 | 0.87 |
| 3 | 5/32 | 5/16-7/16 | . . | 2591-214 | 1.02 |
| 4 | 1/4 | 7/16-9/16 | . . | 2591-216 | 1.43 |
| 5 | 17/64 | 9/16-3/4 | 1/8 | 2591-218 | 1.68 |
| 5-1/4 | 23/64 | 11/16-15/16 | 1/4 | 2591-220 | 4.08 |
| 6 | 13/32 | 3/4-1 | . . | 2591-222 | 3.43 |
| 6-3/8 | 31/64 | 15/16-1-1/8 | 3/8 | 2591-224 | 13.30 |
| 7 | 17/32 | 1-1-3/8 | . . | 2591-226 | 6.06 |
| 7-1/2 | 39/64 | 1-1/8-1-1/2 | 1/2 | 2591-228 | 14.68 |
| 8 | 13/16 | 1-3/8-1-3/4 | 3/4 | 2591-230 | 7.86 |
| 9 | 1-1/16 | 1-3/4-2-1/8 | 1 | 2591-232 | 10.57 |
| 10 | 1-5/16 | 2-1/8-2-1/2 | 1-1/4 | 2591-234 | 21.59 |
| 11 | 1-9/16 | 2-1/2-3 | 1-1/2 | 2591-236 | 29.11 |
| 12 | 1-15/16 | 3-3-1/2 | 2 | 2591-238 | 38.10 |

## Screw Extractor Sets

### Supplied In Plastic Case/Pouch

3

| EXTRACTORS INCLUDED | ORDER NUMBER | PRICE EACH |
|---|---|---|
| 1,2,3,4,5+ | 2591-245 | $ 5.43 |
| 1,2,3,4,5,6+ | 2591-246 | 8.84 |
| 6,7,8,9 | 2591-247 | 24.93 |
| 1,2,3,4,5,6,7,8,9 | 2591-248 | 29.59 |
| 4,5,6 | 2591-249 | 6.57 |

## IRWIN HANSON® Spiral Flute Extractors

2

| DESC. | DRILL TO USE | FOR SCREW & BOLT SIZES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| EX-1 | 5/64" | 3/32"-5/32", 2.5mm-4mm, No. 3-6 | 2591-381 | $ 1.67 |
| EX-2 | 7/64" | 5/32"-7/32", 4mm-6mm, No. 6-12 | 2591-382 | 1.90 |
| EX-3 | 5/32" | 7/32"-9/32", 6mm-8mm, No. 12 | 2591-383 | 1.98 |
| EX-4 | 1/4" | 9/32"-3/8", 1/8" NPT, 1/8" BSP 8mm-10mm | 2591-384 | 2.26 |
| EX-5 | 19/64" | 3/8"-5/8", 1/4" NPT, 1/4" BSP, 10mm-16mm | 2591-385 | 3.00 |
| EX-6 | 13/32" | 5/8"-7/8", 3/8" NPT, 3/8" BSP,16mm-22mm | 2591-386 | 6.42 |
| EX-7 | 17/32" | 7/8"-1-1/8", 1/2" NPT, 1/2" BSP,22mm-27mm | 2591-387 | 12.24 |
| EX-8 | 13/16" | 1-1/8"-1-3/8", 3/4" NPT, 3/4" BSP,27mm-36mm | 2591-388 | 16.26 |
| EX-9 | 1-1/16" | 1-3/8"-2", 1" NPT, 1" BSP,36mm-52mm | 2591-389 | 21.95 |
| EX-10 | 1-15/16" | 2-1/8"-2-1/2", 1-1/4" NPT, 1-1/4" BSP,52mm-68mm | 2591-390 | 36.45 |
| **SETS** | | | | |
| 4-pc set: | | EX-2 - EX-5 | 2591-394 | 9.21 |
| 5-pc set: | | EX-1 - EX-5 | 2591-395 | 12.58 |
| 6-pc set: | | EX-1 - EX-6 | 2591-396 | 18.87 |
| 9-pc set: | | EX-1 - EX-9 | 2591-397 | 67.65 |

# Extractors

## IRWIN HANSON Bolt Extractors

NEW ITEM

### Fractional 9-piece Set [2]

| REMOVES METRIC SIZE BOLTS | REMOVES FRACTIONAL SIZE BOLTS | DRIVE SIZE |
|---|---|---|
| – | 1/4” | 3/8” |
| 8 mm | 5/16” | 3/8” |
| – | 3/8” | 3/8” |
| 11 mm | 7/16” | 3/8” |
| – | 1/2” | 3/8” |
| 14 mm | 9/16” | 3/8” |
| 16 mm | 5/8” | 3/8” |
| – | 11/16” | 3/8” |
| 19 mm | 3/4” | 1/2” |

Order No. 2591-440 Price Each $107.07

### Individual Sizes

| REMOVES METRIC SIZE BOLTS | REMOVES FRACTIONAL SIZE BOLTS | DRIVE SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| – | 1/4” | 3/8” | 2591-421 | $ 9.90 |
| 8 mm | 5/16” | 3/8” | 2591-422 | 9.90 |
| – | 3/8” | 3/8” | 2591-423 | 9.90 |
| 10 mm | – | 3/8” | 2591-424 | 9.90 |
| 11 mm | 7/16” | 3/8” | 2591-425 | 10.48 |
| 12 mm | – | 3/8” | 2591-426 | 10.48 |
| – | 1/2” | 3/8” | 2591-427 | 10.48 |
| 13 mm | – | 3/8” | 2591-428 | 10.48 |
| 14 mm | 9/16” | 3/8” | 2591-429 | 12.82 |
| 16 mm | 5/8” | 3/8” | 2591-430 | 12.82 |
| 17 mm | – | 3/8” | 2591-431 | 14.57 |
| – | 11/16” | 3/8” | 2591-432 | 14.57 |
| 19 mm | 3/4” | 3/8” | 2591-433 | 17.46 |
| 19 mm | 3/4” | 1/2” | 2591-434 | 20.96 |
| 21 mm | 13/16” | 1/2” | 2591-435 | 20.96 |
| 22 mm | 7/8” | 1/2” | 2591-436 | 20.96 |
| 24 mm | 15/16” | 1/2” | 2591-437 | 20.96 |
| – | 1” | 1/2” | 2591-438 | 20.96 |

- Reversal spiral flutes are designed to bite down to produce maximum gripping power
- High carbon steel ensures longer life and greater durability
- Universal lobular design fits all types of fasteners
- 3/8” square drive for use with hand ratchets, impact sockets and air ratchets; hex flats for use with flat wrench, adj. wrench, sockets, or VISE-GRIP locking pliers

## IRWIN HANSON Hex Head Multi Spline

[2]

| DESC. | HEX HEAD SIZE | BOLT DIA. | REC. DRILL BIT DIA. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8” | 1/2” | #12 | 1/8” | 2591-451 | $ 2.70 |
| 5/32” | 1/2” | 1/4” | 5/32” | 2591-452 | 2.70 |
| 3/16” | 1/2” | 5/16” | 3/16” | 2591-453 | 2.70 |
| 7/32” | 1/2” | 3/8” | 7/32” | 2591-454 | 2.70 |
| 1/4” | 1/2” | 7/16” | 1/4” | 2591-455 | 2.70 |
| 9/32” | 1/2” | 1/2” | 9/32” | 2591-456 | 2.70 |
| 5/16” | 1/2” | 9/16” | 5/16” | 2591-457 | 2.70 |
| 11/32” | 1/2” | 5/8” | 11/32” | 2591-458 | 2.70 |
| 3/8” | 1/2” | 11/16” | 3/8” | 2591-459 | 2.70 |
| 13/32” | 1/2” | 3/4” | 13/32” | 2591-460 | 2.70 |
| 7/16” | 5/8” | 13/16” | 7/16” | 2591-461 | 2.98 |
| 15/32” | 5/8” | 7/8” | 15/32” | 2591-462 | 2.98 |
| 1/2” | 5/8” | 15/16” | 1/2” | 2591-463 | 2.98 |
| 17/32” | 3/4” | 1” | 17/32” | 2591-464 | 3.09 |
| 9/16” | 3/4” | 1-1/16” | 9/16” | 2591-465 | 3.09 |
| 19/32” | 3/4” | 1-1/8” | 19/32” | 2591-466 | 3.09 |
| 5/8” | 3/4” | 1-1/4” | 5/8” | 2591-467 | 3.09 |
| 21/32” | 7/8” | 1-5/16” | 21/32” | 2591-468 | 3.29 |
| 11/16” | 7/8” | 1-5/16” | 11/16” | 2591-469 | 3.29 |
| 23/32” | 7/8” | 1-3/8” | 23/32” | 2591-470 | 3.29 |
| 3/4” | 7/8” | 1-7/16” | 3/4” | 2591-471 | 3.29 |
| 25/32” | 1” | 1-1/2” | 25/32” | 2591-472 | 3.91 |
| 13/16” | 1” | 1-9/16” | 13/16” | 2591-473 | 3.91 |
| 27/32” | 1” | 1-5/8” | 27/32” | 2591-474 | 3.91 |
| 7/8” | 1” | 1-11/16” | 7/8” | 2591-475 | 3.91 |
| **SETS** | | | | | |
| 10-pc set: | | 1/8” to 13/32” | | 2591-480 | 30.98 |
| 15-pc set: | | 1/8” to 9/16” | | 2591-482 | 45.42 |
| 25-pc set: | | 1/8” to 7/8” | | 2591-484 | 79.76 |

- Aggressive left-hand spiral design provides extra gripping power
- Designed to remove broken studs, bolts, socket screws and fittings for high-torque applications
- Constructed of high-carbon steel for strength under stressful conditions
- Designed for use with socket or flat wrenches

10-pc set:
1/8” to 13/32”

## IRWIN HANSON 13- pc. Professionals Industrial Bolt Extractor Set

Order No. 2591-442
Price Each $153.65 [2]

| REMOVES METRIC SIZE BOLTS | REMOVES FRACTIONAL SIZE BOLTS | DRIVE SIZE |
|---|---|---|
| – | 1/4” | 3/8” |
| 8 mm | 5/16” | 3/8” |
| – | 3/8” | 3/8” |
| 10 mm | – | 3/8” |
| 11 mm | 7/16” | 3/8” |
| 12 mm | – | 3/8” |
| – | 1/2” | 3/8” |
| 13 mm | – | 3/8” |
| 14 mm | 9/16” | 3/8” |
| 16 mm | 5/8” | 3/8” |
| 17 mm | – | 3/8” |
| – | 11/16” | 3/8” |
| 19 mm | 3/4” | 3/8” |

## IRWIN HANSON Lugnut Specialty Set

| REMOVES METRIC SIZE BOLTS | REMOVES FRACTIONAL SIZE BOLTS | DRIVE SIZE |
|---|---|---|
| 19 mm | 3/4” | 1/2” |
| 21 mm | 13/16” | 1/2” |
| 22 mm | 7/8” | 1/2” |
| 24 mm | 15/16” | 1/2” |
| – | 1” | 1/2” |

Order No. 2591-444 Price Each $104.74

## WALTON REPS- Pipe, Stud, & Screw Extractors

- Four point grip, which assures strong bite
- Shallow grip which lessens expansion and jamming
- Instant release from bite after job is completed
- Rust-resistant black oxide finish

With REPS extractors on hand, you are assured that expensive machinery will not be damaged by makeshift methods of removing broken pipes and studs. REPS extractors work by pulling, rather than reaming, and are designed for strength, durability, and easy handling.

### Individual Sizes

Standard extractors are for right-hand pipe & studs.
Left hand available upon request. [6]

| EXTRACTOR NO. | FOR PIPE SIZES | FOR SCREW OR STUD SIZES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1 | 1/8” | 3/8” | 3153-001 | $ 6.75 |
| 2 | 1/4” | 1/2” | 3153-002 | 11.30 |
| 3 | 3/8” | 5/8” or 3/4” | 3153-003 | 13.00 |
| 4 | 1/2” | – | 3153-004 | 15.80 |
| 10 | – | 7/8” or 1” | 3153-010 | 19.55 |
| 5 | 3/4” | 1-1/8” or 1-1/4” | 3153-005 | 22.15 |
| 6 | 1” | 1-1/2” or 1-3/4” | 3153-006 | 29.55 |
| 7 | 1-1/4” | 2” | 3153-007 | 41.65 |
| 8 | 1-1/2” | 2-1/4” or 2-1/2” | 3153-008 | 68.60 |
| 9 | 2” | 3” or 3-1/2” | 3153-009 | 110.95 |

### Sets

| MFG. NO. | EXTRACTORS INCLUDED | ORDER NUMBER | PRICE EACH |
|---|---|---|---|
| 205 | 1,2,3,4,5 | 3153-705 | $ 82.75 |
| 206 | 1,2,3,4,5,6 | 3153-706 | 112.35 |
| 207 | 1,2,3,4,10,5,6 | 3153-707 | 131.85 |
| 210 | 1 each all 10 | 3153-710 | 370.70 |

# WALTON

## Tap Extractors for Machine Screw and Hand Taps

| WALTON TAP EXTRACTOR SIZE | COMPLETE TAP EXTRACTOR 6-FLUTE | 4-FLUTE | 3-FLUTE | 2-FLUTE | NET PRICE EACH | EXTRA FINGERS 6-FLUTE | 4-FLUTE | 3-FLUTE | 2-FLUTE | NET PRICE EACH | EXTRA COLLAR OR SLEEVE (EACH) | EXTRA HOLDER (EACH) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #4 (3mm) | – | – | 3149-304 | 3149-204 | $12.40 | – | – | 3150-304 | 3150-204 | $0.50 | | |
| #5 (1/8") (3.2mm) | – | – | 3149-305 | 3149-205 | 12.40 | – | – | 3150-305 | 3150-205 | 0.50 | | |
| #6 (3.5mm) | – | 3149-406 | 3149-306 | 3149-206 | 12.40 | – | 3150-406 | 3150-306 | 3150-206 | 0.50 | | |
| #8 (4mm) | – | 3149-408 | 3149-308 | 3149-208 | 12.40 | – | 3150-408 | 3150-308 | 3150-208 | 0.50 | | |
| #10 (3/16") (5mm) | – | 3149-410 | 3149-310 | 3149-210 | 12.40 | – | 3150-410 | 3150-310 | 3150-210 | 0.70 | | |
| #12 (5.5mm) | – | 3149-412 | 3149-312 | 3149-212 | 12.75 | – | 3150-412 | 3150-312 | 3150-212 | 0.70 | | |
| 1/4" (6mm) | – | 3149-416 | 3149-316 | 3149-216 | 12.75 | – | 3150-416 | 3150-316 | 3150-216 | 0.88 | | |
| 9/32" (7mm) | – | 3149-418 | – | – | 12.75 | – | 3150-418 | – | – | 0.88 | | |
| 5/16" (7mm, 8mm) | – | 3149-420 | 3149-320 | 3149-220 | 13.35 | – | 3150-420 | 3150-320 | 3150-220 | 1.00 | | |
| 11/32" | – | 3149-422 | – | – | 13.35 | – | 3150-422 | – | – | 1.00 | P. | P. |
| 3/8" (9mm, 10mm) | – | 3149-424 | 3149-324 | 3149-224 | 13.35 | – | 3150-424 | 3150-324 | 3150-224 | 1.00 | | |
| 13/32" (10mm) | – | 3149-426 | – | – | 14.00 | – | 3150-426 | – | – | 1.03 | O. | O. |
| 7/16" (11mm) | – | 3149-428 | 3149-328 | 3149-228 | 14.00 | – | 3150-428 | 3150-328 | 3150-228 | 1.03 | | |
| 1/2" (12mm) | – | 3149-432 | 3149-332 | 3149-232 | 14.90 | – | 3150-432 | 3150-332 | 3150-232 | 1.29 | | |
| 9/16" (14mm) | – | 3149-436 | 3149-336 | – | 20.55 | – | 3150-436 | 3150-336 | – | 1.48 | A. | A. |
| 5/8" (16mm) | – | 3149-440 | 3149-340 | – | 22.25 | – | 3150-440 | 3150-340 | – | 1.84 | | |
| 11/16" (18mm) | – | 3149-444 | – | – | 24.70 | – | 3150-444 | – | – | 1.84 | | |
| 3/4" (18mm, 20mm) | – | 3149-448 | 3149-348 | – | 28.70 | – | 3150-448 | 3150-348 | – | 2.09 | | |
| 7/8" (22mm) | – | 3149-456 | 3149-356 | – | 31.15 | – | 3150-456 | 3150-356 | – | 2.72 | | |
| 1" (25mm) | – | 3149-464 | 3149-364 | – | 35.00 | – | 3150-464 | 3150-364 | – | 2.72 | | |
| 1-1/8" (28mm) | 3149-672 | 3149-472 | – | – | 82.65 | 3150-672 | 3150-472 | – | – | 5.59 | | |
| 1-1/4" (32mm) | 3149-680 | 3149-480 | – | – | 94.30 | 3150-680 | 3150-480 | – | – | 6.67 | | |
| 1-3/8" (35mm) | 3149-688 | 3149-488 | – | – | 105.00 | 3150-688 | 3150-488 | – | – | 6.67 | | |
| 1-1/2" (38mm) | 3149-696 | 3149-496 | – | – | 118.30 | 3150-696 | 3150-496 | – | – | 7.82 | | |

EDP Part Number shown indicates available flute style for each size. Parts are not interchangeable between flute styles. 4-Flute style supplied, unless otherwise specified.

### Standard Sets

**Set No. 1**
3/16, 1/4, 5/16, 3/8, 7/16, 1/2
#3153-501 . . . . . $82.50

**Set No. 2**
1/4, 5/16, 3/8, 7/16, 1/2, 5/8
#3153-502 . . . . . $92.45

**Set No. 3**
5/16, 3/8, 7/16, 1/2, 9/16, 5/8
#3153-503 . . . . . $100.25

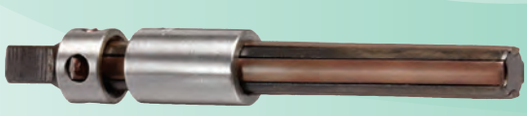
**Set No. 11**
1/8*, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1
#3153-511 . . . . . $208.40

**Set No. 13**
4-5-6-8-10-12-1/4-5/16-3/8-7/16-1/2-5/8-3/4
#3153-513 . . . . . $194.40

**Set No. 15**
4-5-6-8-10-12-1/4-5/16-3/8-7/16-1/2-5/8-3/4-7/8, 1
#3153-515 . . . . . $257.30

Sets packed in sturdy compartmented case at no extra cost. Refer to catalog #778 for sizes and flute styles in each standard set. May be specified in * other flute styles at same price.

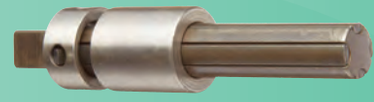
## Tap Extractors for S.T.I. Taps



| WALTON STI TAP EXTRACTOR SIZE | COMPLETE TAP EXTRACTOR 4-FLUTE | 3-FLUTE | 2-FLUTE | NET PRICE EACH | EXTRA FINGERS 4-FLUTE | 3-FLUTE | 2-FLUTE | NET PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| #4 | – | 3151-304 | 3151-204 | $ 16.50 | – | 3152-304 | 3152-204 | $0.75 |
| #5 | – | 3151-305 | 3151-205 | 16.50 | – | 3152-305 | 3152-205 | 0.75 |
| #6 | – | 3151-306 | 3151-206 | 16.50 | – | 3152-306 | 3152-206 | 0.75 |
| #8 | – | 3151-308 | 3151-208 | 16.50 | – | 3152-308 | 3152-208 | 1.09 |
| #10 | 3151-110 | 3151-310 | 3151-210 | 16.50 | 3152-110 | 3152-310 | 3152-210 | 1.09 |
| #12 | – | 3151-312 | 3151-212 | 16.50 | – | 3152-312 | 3152-212 | 1.09 |
| 1/4" | 3151-116 | 3151-316 | 3151-216 | 17.35 | 3152-116 | 3152-316 | 3152-216 | 1.30 |
| 5/16" | 3151-120 | 3151-320 | – | 17.75 | 3152-120 | 3152-320 | – | 1.30 |
| 3/8" | 3151-124 | 3151-324 | – | 19.65 | 3152-124 | 3152-324 | – | 1.84 |
| 7/16" | 3151-128 | – | – | 21.60 | 3152-128 | – | – | 2.12 |
| 1/2" | 3151-132 | – | – | 23.30 | 3152-132 | – | – | 2.12 |
| 9/16" | 3151-136 | – | – | 25.15 | 3152-136 | – | – | 2.29 |
| 5/8" | 3151-140 | – | – | 26.05 | 3152-140 | – | – | 2.29 |

Designed specifically to remove broken HELICAL COIL WIRE SCREW THREAD INSERT (STI) Taps. Orders for Extractors and Extra Fingers must clearly state STI TAPS or TAPS FOR HELICAL COIL WIRE SCREW THREAD INSERTS and must specify 4-FLUTE, 3-FLUTE, OR 2-FLUTE.

## Tap Extractors for Pipe Taps

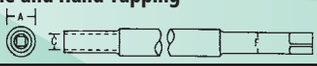


| WALTON PIPE TAP EXTRACTOR SIZE | COMPLETE TAP EXTRACTOR 5-FLUTE | 4-FLUTE | NET PRICE EACH | EXTRA FINGERS 5-FLUTE | 4-FLUTE | NET PRICE EACH |
|---|---|---|---|---|---|---|
| 1/8" | 3151-508 | 3151-408 | $ 17.85 | 3152-508 | 3152-408 | $1.31 |
| 1/4" | 3151-516 | 3151-416 | 21.15 | 3152-516 | 3152-416 | 1.84 |
| 3/8" | 3151-525 | 3151-424 | 25.95 | 3152-524 | 3152-424 | 2.31 |
| 1/2" | 3151-532 | 3151-432 | 29.50 | 3152-532 | 3152-432 | 2.60 |
| 3/4" | 3151-548 | – | 38.10 | 3152-548 | – | 3.23 |
| 1" | 3151-564 | – | 45.30 | 3152-564 | – | 5.57 |

Designed specifically to remove broken Pipe Taps. Orders for Extractors and Extra Fingers must clearly state PIPE TAP and must specify 4-FLUTE or 5-FLUTE.

## Tap Extensions Style B

for Machine and Hand Tapping
8" OAL



| TAP SIZE | EDP NO. | A | C | F | PRICE EACH |
|---|---|---|---|---|---|
| #0–#6 | 3154-106 | 5/16 | .142 | .255 | $30.65 |
| #8 | 3154-108 | 3/8 | .169 | .255 | 33.10 |
| #10 (3/16") | 3154-110 | 3/8 | .195 | .255 | 35.10 |
| #12 | 3154-112 | 7/16 | .221 | .255 | 36.10 |
| 1/4" | 3154-116 | 7/16 | .256 | .381 | 37.85 |
| 5/16" | 3154-120 | 1/2 | .319 | .381 | 39.85 |
| 3/8" | 3154-124 | 5/8 | .382 | .367 | 43.70 |
| 7/16" | 3154-128 | 5/8 | .324 | .381 | 45.60 |
| 1/2" | 3154-132 | 5/8 | .368 | .381 | 47.70 |
| SET NO. 9 3153-509 SET OF 9 EXTENSIONS ABOVE | | | | | |
| 9/16" | 3154-136 | 11/16 | .430 | .428 | $53.75 |
| 5/8" | 3154-140 | 3/4 | .481 | .479 | 57.30 |
| 3/4" | 3154-148 | 7/8 | .591 | .589 | 69.90 |
| 7/8" | 3154-156 | 1-1/16 | .698 | .696 | 83.70 |
| 1" | 3154-162 | 1-1/16 | .801 | .799 | 94.55 |

16th & sizes through 1-1/2: POA

## Tap Extensions Style A

for Hand Tapping Only
5" OAL

| TAP SIZE | EDP NO. | SQUARE TAP SHANK | SQUARE SOCKET OPENING | NET PRICE PER SET |
|---|---|---|---|---|
| #10 (3/16") | 3154-010 | .152 | .154 | $ 31.15 |
| 1/4" | 3154-016 | .191 | .193 | 33.00 |
| 5/16" | 3154-020 | .238 | .242 | 35.75 |
| 3/8" (.206 sq.) | 3154-024 | .206 | .210 | 38.35 |
| 3/8" (.286 sq.) | 3154-025 | .286 | .290 | 40.80 |
| 7/16" | 3154-028 | .242 | .246 | 41.55 |
| 1/2" | 3154-032 | .275 | .279 | 44.20 |
| 5/8" | 3154-040 | .360 | .364 | 48.30 |
| 7/8" | 3154-056 | .523 | .527 | 73.10 |
| 1" | 3154-064 | .600 | .604 | 89.80 |

All dimensions in inches. Each set contains two 5" long extensions. Set No. 9 packed in a sturdy plastic case at no extra cost.

## Tap Extensions Style B

for Pipe Taps
8" OAL

| PIPE TAP SIZE | EDP NO.NET | PRICE EACH |
|---|---|---|
| 1/16" & 1/8" | 3154-200 | $74.60 |
| 1/8" | 3154-208 | 79.70 |
| 1/4" | 3154-216 | 84.70 |
| 3/8" | 3154-224 | 91.45 |
| 1/2" | 3154-232 | 101.35 |

**Empty Plastic Set Case**
Order No. 3154-410
Price Each…$16.00

## Spare Parts

for all Style "B" Tap Extensions

| HEX KEY SIZE | EDP NO. | EACH |
|---|---|---|
| .050 | 3154-300 | $1.15 |
| 5/64" | 3154-305 | 1.35 |
| 1/8" | 3154-308 | 1.40 |
| 5/32" | 3154-310 | 1.55 |

| SET SCREW SIZE | EDP NO. | EACH |
|---|---|---|
| #3-48 x 3/32" | 3154-401 | $0.65 |
| #8-36 x 1/8" | 3154-402 | 0.60 |
| 1/4-28 x 3/16" | 3154-403 | 0.60 |
| 5/16-24 x 1/4" | 3154-404 | 0.75 |

# Kits and Insert Packets



## The Recoil System…

- Provides stronger and more efficient threads.
- Creates superior threads with greater holding power.
- Is quick and easy to use.
- Is the simple way to repair stripped or damaged threads.
- Saves time and money.
- Is suitable for new applications requiring strong threads.
- Is ideal for alloys and other light materials.
- Simplifies changeover from imperial to metric, and vice versa.
- Installed inserts meet current military and aviation standards.
- Inserts are interchangeable with other brands of helically wound inserts.
- Inserts are manufactured from type 304 (18-8) stainless steel.
- Inserts are available to meet the following military standards and specifications: MS 122076 series, MS 124651 series, MS 21209, MIL-1-8846,SBAC standards, DTD-734, Defense Standards,on request..

The Recoil system consists of Recoil stainless steel helically wound precision inserts, high-quality HSS taps and installation tools. Inserts are available in both free-running or locking types in a wide range of imperial, metric and spark plug sizes.

## How Recoil Works…

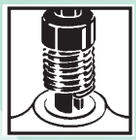
### Drill…

Drill to clear out the damaged thread (if necessary).

### Tap …

Thread insert tap supplied. Tap thread should match up with bolt.

### Install…



Wind insert in with light downward pressure until 1/4 to 1/2 turn below surface, driving tang towards bottom of hole.

### Tang Removal…

Remove tool and sit back on top of tang. Tap down sharply. Do not try to twist tang off. Sparkplug and fine threads, use long nose pliers and pull tang out.

# Recoil Threaded Inserts

**Recoil repair kits consist of high quality taps, drills, insertion tool, inserts and instructions.**

## Kits

| REPAIR KIT SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 2-56UNC | 3536-070 | $36.66 |
| 3-48UNC | 3536-080 | 36.66 |
| 3-56UNF | 3536-090 | 38.26 |
| 4-40UNC | 3536-100 | 35.13 |
| 4-48UNF | 3536-105 | 38.26 |
| 5-40UNC | 3536-108 | 35.13 |
| 6-32UNC | 3536-110 | 31.47 |
| 6-40UNF | 3536-115 | 38.26 |
| 8-32UNC | 3536-120 | 31.70 |
| 8-36UNF | 3536-125 | 38.26 |
| 10-24UNC | 3536-130 | 33.30 |
| 10-32UNF | 3536-138 | 36.78 |
| 12-24UNC | 3536-148 | 33.59 |
| 1/4-20UNC | 3536-158 | 34.01 |
| 1/4-28UNF | 3536-166 | 37.14 |
| 5/16-18UNC | 3536-186 | 36.37 |
| 5/16-24UNF | 3536-192 | 38.14 |
| 3/8-16UNC | 3536-212 | 39.85 |
| 3/8-24UNF | 3536-220 | 42.04 |
| 7/16-14UNC | 3536-240 | 41.62 |
| 7/16-20UNF | 3536-246 | 43.81 |
| 1/2-13UNC | 3536-266 | 49.47 |
| 1/2-20UNF | 3536-273 | 51.66 |
| 9/16-12UNC | 3536-280 | 61.87 |
| 9/16-18UNF | 3536-283 | 69.84 |
| 5/8-11UNC | 3536-293 | 71.50 |
| 5/8-18UNF | 3536-296 | 75.57 |
| 3/4-16UNF | 3536-300 | 88.32 |
| 3/4-10UNC | 3536-303 | 87.14 |
| 7/8-9UNC | 3536-305 | 142.23 |
| 7/8-14UNF | 3536-306 | 163.89 |
| 1-8UNC | 3536-308 | 178.95 |
| 1-12UNF | 3536-309 | 210.71 |
| 1-14UNF | 3536-310 | 210.71 |
| 1-1/8-7UNC | 3536-312 | 216.97 |
| 1-1/8-12UNF | 3536-313 | 235.15 |
| 1-1/4-7UNC | 3536-315 | 254.22 |
| 1-1/4-12UNF | 3536-316 | 263.96 |
| 1-3/8-6UNC | 3536-318 | 284.92 |
| 1-3/8-12UNF | 3536-319 | 297.62 |
| 1-1/2-6UNC | 3536-321 | 316.74 |
| 1-1/2-12UNF | 3536-322 | 331.86 |

## Insert Packets

| PACKET SIZE | ORDER NO. | PKG. QTY. | PRICE P/PKG. |
|---|---|---|---|
| 2-56 x 1.5D | 3536-390 | 10 | $4.58 |
| 3-48 x 1.5D | 3536-393 | 10 | 4.58 |
| 3-56 x 1.5D | 3536-394 | 10 | 4.29 |
| 4-40 x 1.5D | 3536-400 | 10 | 4.29 |
| 4-48 x 1.5D | 3536-403 | 10 | 4.29 |
| 5-40 x 1.5D | 3536-407 | 10 | 4.29 |
| 6-32 x 1.5D | 3536-410 | 10 | 4.29 |
| 6-40 x 1.5D | 3536-415 | 10 | 4.29 |
| 8-32 x 1.5D | 3536-420 | 10 | 4.29 |
| 8-36 x 1.5D | 3536-423 | 10 | 4.29 |
| 10-24 x 1.5D | 3536-427 | 10 | 4.29 |
| 10-32 x 1.5D | 3536-430 | 10 | 4.29 |
| 1/4-20 x 1.5D | 3536-434 | 10 | 4.29 |
| 12-24 x 1.5D | 3536-435 | 10 | 5.74 |
| 1/4-28 x 1.5D | 3536-438 | 10 | 4.29 |
| 5/16-18 x 1.5D | 3536-458 | 10 | 5.65 |
| 5/16-24 x 1.5D | 3536-466 | 10 | 5.65 |
| 3/8-16 x 1.5D | 3536-486 | 10 | 6.68 |
| 3/8-24 x 1.5D | 3536-492 | 10 | 6.68 |
| 7/16-14 x 1.5D | 3536-512 | 10 | 7.40 |
| 7/16-20 x 1.5D | 3536-520 | 10 | 7.40 |
| 1/2-13 x 1.5D | 3536-540 | 10 | 10.84 |
| 1/2-20 x 1.5D | 3536-546 | 10 | 10.84 |
| 9/16-12 x 1.5D | 3536-556 | 5 | 10.15 |
| 9/16-18 x 1.5D | 3536-558 | 5 | 10.15 |
| 5/8-11x 1.5D | 3536-566 | 5 | 12.99 |
| 5/8-18x 1.5D | 3536-570 | 5 | 12.99 |
| 3/4-10 x 1.5D | 3536-573 | 5 | 18.89 |
| 3/4-16 x 1.5D | 3536-593 | 5 | 18.89 |
| 7/8-9 x 1.5D | 3536-597 | 3 | 15.06 |
| 7/8-14 x 1.5D | 3536-599 | 3 | 15.06 |
| 1-8 x 1.5D | 3536-601 | 3 | 19.78 |
| 1-12 x 1.5D | 3536-602 | 3 | 19.78 |
| 1-14 x 1.5D | 3536-603 | 3 | 19.78 |
| 1-1/8-7 x 1.5D | 3536-610 | 1 | 4.20 |
| 1-1/8-12 x 1.5D | 3536-611 | 1 | 4.20 |
| 1-1/2-12 x 1.5D | 3536-612 | 1 | 6.32 |
| 1-1/4-7 x 1.5D | 3536-614 | 1 | 4.68 |
| 1-1/4-12 x 1.5D | 3536-615 | 1 | 4.68 |
| 1-3/8-6 x 1.5D | 3536-617 | 1 | 5.22 |
| 1-3/8-12 x 1.5D | 3536-618 | 1 | 5.22 |
| 1-1/2-6 x 1.5D | 3536-620 | 1 | 6.32 |

## Metric Threaded Insert Kits

Spark plug kits include a pilot nose tap which guides and cuts the larger size, ensuring accurate alignment. No drilling is required.

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| M3 x 0.50 | 3536-335 | $53.73 |
| M4 x 0.70 | 3536-339 | 37.43 |
| M5 x 0.80 | 3536-341 | 37.02 |
| M6 x 1.00 | 3536-343 | 37.37 |
| M8 x 1.00 | 3536-351 | 44.34 |
| M8 x 1.25 | 3536-353 | 38.38 |
| M10 x 1.25 | 3536-361 | 54.61 |
| M10 x 1.50 | 3536-363 | 42.21 |
| M12 x 1.25 | 3536-369 | 58.74 |
| M12 x 1.50 | 3536-371 | 58.74 |
| M12 x 1.75 | 3536-373 | 51.95 |
| **SPARK PLUG KITS** | | |
| M10 x 1.00 | 3536-359 | $66.83 |
| M12 x 1.25 | 3536-325 | 73.50 |
| M14 x 1.25 | 3536-323 | 95.70 |
| M18 x 1.50 | 3536-324 | 97.89 |

## Metric Threaded Insert Packets

| SIZE | ORDER NO. | PKG. QTY. | PRICE P/ PKG. |
|---|---|---|---|
| M 3x 0.50 x 1.5D | 3536-621 | 10 | $ 4.29 |
| M 4 x 0.70 x 1.5D | 3536-622 | 10 | 4.29 |
| M 5 x 0.80 x 1.5D | 3536-624 | 10 | 4.29 |
| M 6 x 1.00 x 1.5D | 3536-623 | 10 | 4.29 |
| M 8 x 1.00 x 1.5D | 3536-631 | 10 | 5.65 |
| M 8 x 1.25 x 1.5D | 3536-633 | 10 | 5.65 |
| M10 x 1.00 x 1.5D | 3536-637 | 10 | 7.15 |
| M10 x 1.25 x 1.5D | 3536-641 | 10 | 7.15 |
| M10 x 1.50 x 1.5D | 3536-643 | 10 | 7.15 |
| M12 x 1.25 x 1.5D | 3536-647 | 10 | 10.84 |
| M12 x 1.50 x 1.5D | 3536-651 | 10 | 10.84 |
| M12 x 1.75 x 1.5D | 3536-653 | 10 | 10.84 |
| **SPARK PLUG THREADED INSERT PACKETS** | | | |
| M10 x 1.00 x 1/2 | 3536-640 | 10 | $5.96 |
| M12 x 1.25 x 1/2 | 3536-649 | 10 | 7.38 |
| M12 x 1.25 x 3/4 | 3536-650 | 10 | 8.74 |
| M14 x 1.25 x 3/8 | 3536-663 | 10 | 5.96 |
| M14 x 1.25 x 1/2 | 3536-664 | 10 | 8.74 |
| M14 x 1.25 x 3/4 | 3536-665 | 10 | 12.75 |
| M18 x 1.50 x 1/2 | 3536-683 | 10 | 5.96 |

## Recoil Range Kits

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| UNC 1/4-1/2 | 3536-700 | $196.14 |
| UNF 1/4-1/2 | 3536-701 | 202.08 |
| M5X .8-12 X 1.75 | 3536-702 | 196.38 |

# Keyserts & Installation Tools



RECOIL® QUALITY THREAD INSERT SYSTEMS

## The Solid Alternative for Thread Repair

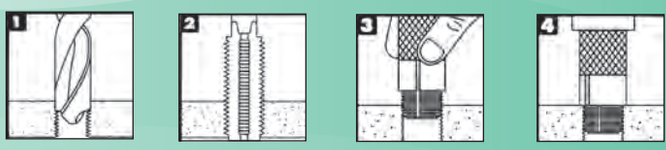
Keyserts are solid, one-piece, key-locking inserts used to repair damaged threads for use in original equipment. The keysert locking keys provide a positive mechanical lock which prevents rotation due to vibration or torsion.

FEATURES:
- Installed with standard drills and taps • Easy installation
- May be used in many materials; aluminum, magnesium, and cold rolled steel
- Easy to remove

## Heavy Duty Keyserts - Inch Sizes - Carbon Steel

| I.D. INTERNAL THREAD | TAP DRILL SIZE | O.D. EXT. THREAD | LENGTH | CARBON STEEL INSERT PART NO. | CARBON STEEL INSERT PRICE EACH | INSTALLATION TOOL PART NO. | INSTALLATION TOOL PRICE EACH |
|---|---|---|---|---|---|---|---|
| 8-32 | I | 5/16-18 | 0.31 | 3536-808 | $2.47 | 3537-308 | $24.12 |
| 10-24 | Q | 3/8-16 | 0.31 | 3536-810 | 1.43 | 3537-310 | 20.36 |
| 10-32 | Q | 3/8-16 | 0.31 | 3536-811 | 1.43 | | |
| 1/4-20 | X | 7/16-14 | 0.37 | 3536-816 | 1.48 | 3537-316 | 18.64 |
| 1/4-28 | X | 7/16-14 | 0.37 | 3536-817 | 1.48 | | |
| 5/16-18 | 29/64 | 1/2-13 | 0.43 | 3536-820 | 1.59 | 3537-320 | 22.40 |
| 5/16-24 | 29/64 | 1/2-13 | 0.43 | 3536-821 | 1.59 | | |
| 3/8-16 | 33/64 | 9/16-12 | 0.50 | 3536-824 | 1.78 | 3537-324 | 22.40 |
| 3/8-24 | 33/64 | 9/16-12 | 0.50 | 3536-825 | 1.78 | | |
| 7/16-14 | 37/64 | 5/8-11 | 0.62 | 3536-828 | 2.34 | | |
| 7/16-20 | 37/64 | 5/8-11 | 0.62 | 3536-829 | 2.38 | | |
| 1/2-13 | 45/64 | 3/4-16 | 0.62 | 3536-832 | 2.73 | 3537-332 | 24.40 |
| 1/2-20 | 45/64 | 3/4-16 | 0.62 | 3536-833 | 2.73 | | |
| 9/16-12 | 45/64 | 3/4-16 | 0.81 | 3536-836 | 3.89 | | |
| 9/16-18 | 45/64 | 3/4-16 | 0.81 | 3536-837 | 3.89 | | |
| 5/8-11 | 53/64 | 7/8-14 | 0.87 | 3536-840 | 4.86 | 3537-340 | 24.40 |
| 5/8-18 | 53/64 | 7/8-14 | 0.87 | 3536-841 | 4.99 | | |
| 3/4-10 | 11/16 | 11/8-12 | 1.12 | 3536-848 | 7.42 | 3537-348 | 28.86 |
| 3/4-16 | 11/16 | 11/8-12 | 1.12 | 3536-849 | 7.42 | | |
| 7/8-9 | 13/16 | 11/4-12 | 1.25 | 3536-856 | 9.54 | | |
| 7/8-14 | 13/16 | 11/4-12 | 1.25 | 3536-857 | 9.54 | | |
| 1-8 | 15/16 | 13/8-12 | 1.37 | 3536-864 | 21.48 | 3537-364 | 28.86 |
| 1-12 | 15/16 | 13/8-12 | 1.37 | 3536-865 | 21.48 | | |
| 1-14 | 15/16 | 13/8-12 | 1.37 | 3536-866 | 21.48 | | |

## Installation



Drill out old threads w/std. drill. Chamfer hole w/standard countersink (82-100°).

Tap new threads with a std. tap.

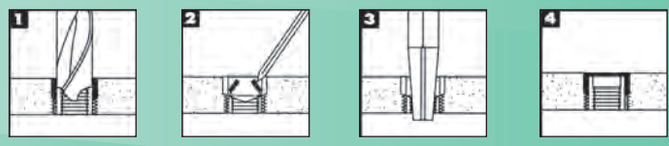
Screw in the insert until slightly below the surface.

Drive keys down with several hammer taps on the proper installation tool.

## Thin Wall Keyserts - Inch Sizes - Carbon Steel

| I.D. INTERNAL THREAD | TAP DRILL SIZE | O.D. EXT. THREAD | LENGTH | CARBON STEEL INSERT PART NO. | CARBON STEEL INSERT PRICE EACH | INSTALLATION TOOL PART NO. | INSTALLATION TOOL PRICE EACH |
|---|---|---|---|---|---|---|---|
| 10-24 | I | 5/16-18 | 0.31 | 3536-910 | $1.43 | 3537-310 | $20.36 |
| 10-32 | I | 5/16-18 | 0.31 | 3536-911 | 1.43 | 3537-316 | 18.64 |
| 1/4-20 | Q | 3/8-16 | 0.37 | 3536-916 | 1.48 | | |
| 1/4-28 | Q | 3/8-16 | 0.37 | 3536-917 | 1.48 | | |
| 5/16-18 | X | 7/16-14 | 0.43 | 3536-920 | 1.59 | 3537-320 | 22.40 |
| 5/16-24 | X | 7/16-14 | 0.43 | 3536-921 | 1.59 | 3537-324 | 22.40 |
| 3/8-16 | 29/64 | 1/2-13 | 0.50 | 3536-924 | 1.78 | | |
| 3/8-24 | 29/64 | 1/2-13 | 0.50 | 3536-925 | 1.78 | | |
| 7/16-14 | 33/64 | 9/16-12 | 0.56 | 3536-928 | 2.34 | | |
| 7/16-20 | 33/64 | 9/16-12 | 0.56 | 3536-929 | 2.38 | | |
| 1/2-13 | 37/64 | 5/8-11 | 0.62 | 3536-932 | 2.73 | 3537-332 | 24.40 |
| 1/2-20 | 37/64 | 5/8-11 | 0.62 | 3536-933 | 2.73 | | |

## Removal



Drill out material between keys and internal thread with std. drill to spec. depth.

Deflect keys inward and break off.

Remove using an E-Z out or similar type tool.

Same size replacement insert may be installed in the original hole.

**Important Note:**
**Keyserts are not recommended for use in brittle materials, like cast iron or plastic**

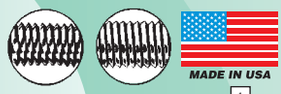
## Thin Wall Keyserts - Metric Sizes - Carbon Steel

| I.D. INTERNAL THREAD | TAP DRILL SIZE | O.D. EXT. THREAD | LENGTH | CARBON STEEL INSERT PART NO. | CARBON STEEL INSERT PRICE EACH | INSTALLATION TOOL PART NO. | INSTALLATION TOOL PRICE EACH |
|---|---|---|---|---|---|---|---|
| M5-0.8 | 6.9 | M8-1.25 | 6.90 | 3537-058 | $2.10 | 3537-310 | $20.36 |
| M6-1 | 8.8 | M10-1.25 | 8.80 | 3537-060 | 2.18 | 3537-316 | 18.64 |
| M8-1.25 | 10.8 | M12-1.25 | 10.80 | 3537-082 | 2.35 | 3537-320 | 22.40 |
| M8-1.00 | 10.8 | M12-1.25 | 10.80 | 3537-080 | 2.88 | | |
| M10-1.5 | 12.8 | M14-1.5 | 12.80 | 3537-105 | 2.92 | 3537-324 | 22.40 |
| M10-1.25 | 12.8 | M14-1.5 | 12.80 | 3537-102 | 3.74 | | |
| M12-1.75 | 14.75 | M16-1.5 | 14.75 | 3537-127 | 3.42 | 3537-332 | 24.40 |
| M12-1.25 | 14.75 | M16-1.5 | 14.75 | 3537-122 | 4.27 | | |

# Thread Restorers

## Thread Restorers
### Battered Bolt Or Pipe Threads Restored Quickly Without Changing Fit

A few easy passes with the appropriate THREAD RESTORER over damaged threads will restore the thread without reducing the diameter. Since only the displaced metal is removed the original fit is preserved. Any bolt or pipe of the corresponding thread regardless of diameter may be repaired instantly.




1

| FOR | TOOL NO. | THREAD SIZES ON EACH TOOL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| BOLTS | 1-NU | 11, 12, 13, 14, 16, 18, 20 & 24 | 2591-075 | $ 8.60 |
| | 2-NU | 9, 10, 12, 16, 20, 27, 28 & 32 | 2591-077 | 8.60 |
| PIPE - EXTERNAL | 5-NU | 8, 10, 11-1/2 & 14 | 2591-081 | 22.00 |
| | 7-NU | 8 & 11-1/2 | 2591-085 | 8.60 |
| PIPE - INTERNAL | 6-NU | 8, 10 | 2591-083 | 16.39 |
| METRIC | 8-NU | 0.75mm, 1.00mm, 1.25mm, 1.50mm 1.75mm, 2.00mm, 2.50mm, 3.00mm | 2591-087 | 8.60 |
| SINGLE PITCH EXTERNAL BOLTS AND PIPE | 10-NU | 10 | 2591-089 | 18.00 |
| | 11-NU | 11 | 2591-091 | 18.00 |
| | 12-NU | 12 | 2591-093 | 18.00 |
| | 13-NU | 13 | 2591-095 | 18.00 |
| | 14-NU | 14 | 2591-097 | 18.00 |
| | 16-NU | 16 | 2591-099 | 18.00 |
| | 18-NU | 18 | 2591-101 | 18.00 |
| | 20-NU | 20 | 2591-103 | 18.00 |
| | 24-NU | 24 | 2591-105 | 18.00 |
| | 27-NU | 27 | 2591-107 | 18.00 |
| | 28-NU | 28 | 2591-109 | 18.00 |
| | 32-NU | 32 | 2591-111 | 18.00 |

## Thread Restorer For Internal Pipe Threads

1

This No. 50 Tool Set will clean and restore all internal pipe threads from 3/4" thru 6". Includes 3 Pair Bits: 14TPI for 3/4" Dia. Pipe, 11-1/2 TPI for 1" to 2" Dia., 8TPI for 2-1/4" thru 6". Bits for other TPI available on request.

**Order No. 2591-120**
**Price Each $24.00**

## Buckingham Thread Restorers

Model 6103

Model 62070

Just one tool, with the standard set of die blades, handles SAE, USS, NPT or Metric type threads in any pitch from 6 to 28 threads to the inch - right or left hand threads - in any outside diameter within its specified limits, all without changing a die.

Model 6103 automatically adjusts to SAE, USS, NPT and metric threads with pitches of 6 to 28 per inch and right or left handed threading. Has an outside diameter capacity of 1/4" to 1".

Model 6203 - Outside diameter capacity of 1/4" to 1". Has maximum handle swing of 3 in. for work in closely confined areas. For such applications as cylinder head studs, "U" bolts, wheel lugs, etc.

Model 62070 has a plain guide die blade which allows dies to pass over key ways and milled flats on threaded parts. Outside diameter capacity of 4" to 6".

Model 62040 - Outside diameter capacity of 1" to 29/16". Same general design as 62070

Model 61060 - Outside diameter capacity of 1-3/4" to 4". Same general design as 62070

Model 63060 for sanitary (dairy & plumbing industry)

1

| MODEL | WEIGHT | OUTSIDE DIA. CAPACITY | MAX. HANDLE SWING | WORKING DIST. FROM SHLDRS. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 6103 | 1 lb., .50 kg | 1/4"-1" (6-25mm) | 7" (18cm) | 1/2" (13mm) | 2591-060 | $80.30 |
| 6203 | 1-1/4 lb., 52 kg | 1/4"-1" (6-25mm) | 3" (8cm) | 1/2" (13mm) | 2591-061 | 157.85 |
| 62040 | 2-3/4 lb., 1.24 kg | 1"-2-9/16" (25-62mm) | 5-1/4" (13cm) | 5/16" (8mm) | 2591-062 | 257.45 |
| 61060 | 3-3/4 lb., 1.69 kg | 1-3/4"-4" (44.5-102mm) | 7" (18cm) | 5/16" (8mm) | 2591-063 | 321.35 |
| 62070 | 4-1/2 lb., 2.02 kg | 4"-6" (102-152mm) | 8" (20cm) | 5/16" (8mm) | 2591-064 | 410.20 |
| 63060 | 3-3/4 lb., 1.69 kg | 1-3/4"-4" (44.5-102mm) | 7" (18cm) | 5/16" (8mm) | 2591-066 | 184.65 |

## Thread Restorer Sets
### For Internal & External Threads

1

## Super Set for Inch & Metric

Thread Restorer files No. 1 & 8 with plastic handles.
Rethread Dies: 1/4-20 & 28, 5/16-18 & 24, 3/8-16 & 24, 7/16-14 & 20, 1/2-13 & 20, 9/16-12 & 18, 5/8-11 & 18, 3/4-10, 16 & 20.
Rethread Taps:
1/4-20 & 28. 5/16-11 & 18, 3/8-16 & 24, 7/16-14 & 20, 1/2-13 & 20, 9/16-12 & 18.
Rethread Taps & Dies:
6mm x 1.00, 8mm x 1.25, 10mm x 1.50, 12mm x 1.25, 12mm x 1.50, 12mm x 1.75.
Additional Rethread Dies: 6mm x 1.25, 7mm x 1.00, 8mm x 1.00, 8mm x 1.50, 10mm x 1.00, 14mm x 1.25, 14mm x 1.50, 20mm x 1.50.

**Order No. 2591-118…Price Each $113.00**

## Standard Inch & Metric Set

Thread Restorer files No. 1 & 8 with plastic handles.
Rethread Dies: 1/4-20 & 28, 5/16-18 & 24, 3/8-16 & 24, 7/16-14 & 20, 1/2-13 & 20, 9/16-12 & 18, 5/8-11 & 18.
Rethread Taps:
1/4-20 & 28, 5/16-11 & 18, 3/8-16 & 24, 7/16-14 & 20, 1/2-13 & 20, 9/16-12 & 18.
Rethread Taps & Dies: 6mm x 1.00, 8mm x 1.25, 10mm x 1.50, 12mm x 1.25, 12mm x 1.50, 12mm x 1.75.

**Order No. 2591-117…Price Each $88.00**

## Metric Set

Thread Restorer file No. 8.
Rethread Taps & Dies: 6mm x 1.25, 7mm x 1.00, 8mm x 1.00, 8mm x 1.50, 10mm x 1.00, 12mm x 1.75, 12mm x 1.75.
Additional Rethread Dies: 6mm x 1.25, 7mm x 1.00, 8mm x 1.00, 8mm x 1.50, 10mm x 1.00, 14mm x 1.25, 14mm x 1.50, 20mm x 1.50.

**Order No. 2591-116…Price Each $57.00**

## Inch Set

Thread Restorer files No. 1 & 2.
Rethread Dies: 1/4-20 & 28, 5/16-18 & 24, 3/8-16 & 24, 7/16-14 & 20, 1/2-13 & 20, 9/16-12 & 18, 5/8-11 & 18, 3/4 x 10-16.

**Order No. 2591-114…Price Each $42.00**

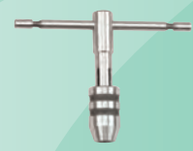
# Tap & Die Accessories

## T-Handle Tap Wrenches

Pittsburg® ALLEGHANY

3

| FRACTIONAL TAPS | MACHINE SCREW TAPS | STANDARD TYPE ORDER NO. | STANDARD TYPE PRICE EACH | PRECISION TYPE ORDER NO. | PRECISION TYPE PRICE EACH |
|---|---|---|---|---|---|
| **Slip Handle** | | | | | |
| 1/16 to 5/32 | 0 to 8 | 2591-168 | $2.95 | 2591-169 | $ 4.10 |
| 5/32 to 1/4 | 0 to 14 | 2591-172 | 3.45 | 2591-170 | 5.20 |
| 1/4 to 1/2 | 12 to 14 | 2591-173 | 4.50 | 2591-171 | 7.60 |
| **Ratchet Type** | | | | | |
| 1/16 to 5/32 | | – | – | 2591-167 | 10.30 |
| 5/32 to 1/4 | 0 to 14 | – | – | 2591-176 | 10.60 |
| 1/4 to 1/2 | 12 to 14 | – | – | 2591-177 | 13.15 |
| 5/32 to 1/4 (13" OAL) | | – | – | 2591-165 | 23.25 |
| 1/4 to 1/2 (13" OAL) | | – | – | 2591-166 | 26.15 |
| **Long Slip Handle** | | | | | |
| 5/32 to 1/4 (13" OAL) | 0 to 14 | – | – | 2591-174 | 21.20 |
| 1/4 to 1/2 (13" OAL) | 12 to 14 | – | – | 2591-175 | 22.35 |



GENERAL®

## PLAIN TAP WRENCHES

- No. 163 has rigid T-handle.
- Nos. 164 and 166 have sliding T-handle for fitting into tight spaces with greater leverage.

8

| MODEL | TAP CAPACITY (NOS. AND INCHES) | LENGTH | ORDER NO. | PRICE |
|---|---|---|---|---|
| **PLAIN TYPE** | | | | |
| 163 | No. 0 to No. 8 (1.6 to 4mm) | 2-1/4" | 6931-212 | $13.30 |
| 164 | No. 0 to 1/4" (1.6 to 6.3mm) | 2-3/4" | 6931-215 | 14.66 |
| 166 | No. 12 to 1/2" (6 to 12.5mm) | 3-3/4" | 6931-218 | 17.65 |
| **RATCHET TYPE** | | | | |
| 160R | No. 0 to No. 8 (1.6 to 4mm) | 2-3/4" | 6931-200 | $36.87 |
| 161R | No. 0 to No. 1/4" (1.6 to 6.3mm) | 3-1/2" | 6931-203 | 36.91 |
| 162R | No. 12 to 1/2" (6 to 12.5mm) | 4-1/4" | 6931-209 | 46.94 |

## REVERSIBLE RATCHET TAP WRENCHES

- Ratchet can be set for right or left hand operation or locked for non ratchet use.
- Self centering hardened tool steel jaws and knurled chuck sleeve provide positive grip on taps, reamers, and small tools.
- Replacement jaws available; specify tool number.
- No. 161R conforms to government specifications GGG-W-680a.

## Straight Tap Wrenches

Pittsburg® ALLEGHANY

3

| CAPACITY – (TAP SIZES) OLD NO. | CAPACITY HAND REAMERS | FRACTIONAL TAPS | MACHINE SCREW TAPS | PIPE REAMERS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 0 | 1/8 to 21/64 | 1/16 to 1/4 | 0 to 14 | – | 2591-151 | $4.00 |
| 14 | 1/8 to 25/64 | 1/16 to 3/8 | 0 to 14 | – | 2591-152 | 5.80 |
| 15 | 11/64 to 7/16 | 5/32 to 1/2 | 7 to 14 | 1/8 | 2591-153 | 6.25 |
| 13 | 11/64 to 41/64 | 5/32 to 3/4 | 7 to 14 | 1/8 to 1/4 | 2591-154 | 10.55 |
| 7 | 9/32 to 29/32 | 1/4 to 1-1/8 | – | 1/8 to 3/4 | 2591-155 | 17.75 |
| 8 | 37/64 to 1-11/32 | 3/4 to 1-5/8 | – | 3/8 to 1-1/4 | 2591-157 | 46.15 |
| 22 | 7/8 to 1-1/8 | 1 to 2-1/2 | – | 3/4 to 2 | 2591-159 | 94.90 |

## Hex & Round Die Adapters

Pittsburg® ALLEGHANY

3

| I.D. | ORDER NO. | PRICE EACH |
|---|---|---|
| 13/16 | 2591-011 | $6.50 |
| 1 | 2591-012 | 7.50 |
| 1-5/16 | 2591-013† | 7.50 |
| 1-1/2 | 2591-014 | 9.40 |
| 2 | 2591-015 | 11.10 |
| 2-1/2 | 2591-016 | 16.30 |
| 3 | 2591-017 | 24.80 |
| 3-1/2 | 2591-018† | 25.85 |
| 6 | 2591-021† | 58.35 |

† Limited Quantities

| ROUND FROM | ROUND TO | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 13/16 | 1-5/16 | 2591-001† | $ 8.70 |
| 1 | 1-5/16 | 2591-002† | 8.70 |
| 1 | 2 | 2591-004† | 9.80 |
| 1-1/2 | 2-1/2 | 2591-006† | 10.40 |
| 2-1/2 | 3 | 2591-007† | 12.30 |

## 3 Screw Type Die Stocks

Pittsburg® ALLEGHANY

3

| O.D. OF DIE | ORDER NUMBER | PRICE EACH |
|---|---|---|
| 5/8 | 2591-180 | $ 3.25 |
| 13/16 | 2591-181 | 3.25 |
| 1 | 2591-182 | 4.20 |
| 1-1/2 | 2591-185 | 5.90 |
| 2 | 2591-186 | 7.90 |
| 2-1/2 | 2591-188 | 15.75 |
| 3 | 2591-189 | 19.70 |
| 3-1/2 | 2591-190 | 33.85 |
| 4 | 2591-191 | 40.35 |
| 5 | 2591-192 | 93.60 |
| 6 | 2591-193 | 225.40 |

## Tap Extensions

Pittsburg® ALLEGHANY

3

| | ORDER NO. | PRICE EACH |
|---|---|---|
| 0 to 1/4 (7-3/4" OAL) | 2591-178 | $14.20 |
| 12 to 1/2 (10-3/4" OAL) | 2591-179 | 17.80 |

## Die Holder

Pittsburg® ALLEGHANY

3

| SIZE | SHANK DIAM. | BODY DIAM. | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 13/16 | 1/2 | 1-1/2 | 2591-145 | $13.60 |
| 1 | 1/2 | 1-1/2 | 2591-146 | 13.60 |
| 1-1/2 | 3/4 | 2 | 2591-147 | 17.40 |

## Piloted Spindle Tapper - Imported

3

Pittsburg® ALLEGHANY

| TAP SIZE CAPACITY | ORDER NO. | PRICE EACH |
|---|---|---|
| 1/16-1/4 | 3109-925 | $10.35 |
| 1/4-1/2 | 3109-930 | 13.05 |

# Plain Metal Slitting Saws

## Hollow Ground –High Speed Steel

Used for medium, deep cutting, and cut off operations.

2

| DIA. | THICK-NESS | HOLE | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1-1/4 | 1/32 | 1/2 | – | – | 2755-282 | $14.45 | – | – |
| 1-1/4 | 1/16 | 1/2 | – | – | 2755-284 | 14.45 | – | – |
| 1-1/2 | 1/32 | 1/2 | – | – | 2755-302 | 17.95 | 2750-302 | $ 8.13 |
| 1-1/2 | 1/16 | 1/2 | – | – | 2755-304 | 17.95 | – | – |
| 1-1/2 | 3/32 | 1/2 | – | – | 2755-306 | 19.06 | – | – |
| 1-3/4 | 1/64 | 1/2 | – | – | – | – | 2750-501 | 8.13 |
| 1-3/4 | 1/32 | 1/2 | 2750-502 | $12.43 | 2755-502 | 20.76 | – | – |
| 1-3/4 | 3/64 | 1/2 | – | – | – | – | 2750-503 | 8.13 |
| 1-3/4 | 1/16 | 1/2 | – | – | 2755-504 | 20.76 | 2750-504 | 8.13 |
| 1-3/4 | 3/32 | 1/2 | – | – | 2755-506 | 21.45 | 2750-506 | 8.13 |
| 1-3/4 | 7/64 | 1/2 | – | – | – | – | 2750-507 | 8.13 |
| 1-3/4 | 1/8 | 1/2 | – | – | 2755-508 | 22.53 | – | – |
| 1-3/4 | 1/64 | 5/8 | – | – | – | – | 2750-701 | 8.13 |
| 1-3/4 | 3/64 | 5/8 | – | – | – | – | 2750-703 | 8.13 |
| 1-3/4 | 1/16 | 5/8 | – | – | – | – | 2750-704 | 8.13 |
| 1-3/4 | 3/32 | 5/8 | – | – | – | – | 2750-706 | 8.13 |
| 1-3/4 | 7/64 | 5/8 | – | – | – | – | 2750-707 | 8.13 |
| 1-3/4 | 1/8 | 5/8 | – | – | – | – | 2750-708 | 8.13 |
| 1-3/4 | 5/32 | 5/8 | – | – | – | – | 2750-710 | 8.13 |
| 1-3/4 | 3/16 | 5/8 | – | – | – | – | 2750-712 | 8.13 |
| 1-3/4 | 1/64 | 3/4 | – | – | – | – | 2750-901 | 8.13 |
| 1-3/4 | 1/32 | 3/4 | – | – | – | – | 2750-902 | 8.13 |
| 1-3/4 | 3/64 | 3/4 | – | – | – | – | 2750-903 | 8.13 |
| 1-3/4 | 1/16 | 3/4 | – | – | – | – | 2750-904 | 8.13 |
| 1-3/4 | 3/32 | 3/4 | – | – | – | – | 2750-906 | 8.13 |
| 1-3/4 | 7/64 | 3/4 | – | – | – | – | 2750-907 | 8.13 |
| 1-3/4 | 1/8 | 3/4 | – | – | – | – | 2750-908 | 8.13 |
| 1-3/4 | 5/32 | 3/4 | – | – | – | – | 2750-910 | 8.13 |
| 1-3/4 | 3/16 | 3/4 | – | – | – | – | 2750-912 | 8.13 |
| 1-3/4 | 1/64 | 1 | – | – | – | – | 2751-101 | 8.13 |
| 1-3/4 | 1/32 | 1 | – | – | – | – | 2751-102 | 8.13 |
| 1-3/4 | 3/64 | 1 | – | – | – | – | 2751-103 | 8.13 |
| 1-3/4 | 1/16 | 1 | – | – | – | – | 2751-104 | 8.13 |
| 1-3/4 | 3/32 | 1 | – | – | – | – | 2751-106 | 8.13 |
| 1-3/4 | 7/64 | 1 | – | – | – | – | 2751-107 | 8.13 |
| 1-3/4 | 1/8 | 1 | – | – | – | – | 2751-108 | 8.13 |
| 1-3/4 | 5/32 | 1 | – | – | – | – | 2751-110 | 8.13 |
| 1-3/4 | 3/16 | 1 | – | – | – | – | 2751-112 | 8.13 |
| 2 | 1/32 | 1/2 | – | – | 2756-302 | 22.53 | – | – |
| 2 | 1/16 | 1/2 | 2751-304 | 12.43 | 2756-304 | 22.53 | – | – |
| 2 | 3/32 | 1/2 | 2751-306 | 12.43 | 2756-306 | 24.92 | – | – |
| 2 | 1/8 | 1/2 | 2751-308 | 12.43 | 2756-308 | 25.97 | – | – |
| 2-1/4 | 1/64 | 3/4 | – | – | – | – | 2751-501 | 8.13 |
| 2-1/4 | 1/32 | 3/4 | – | – | – | – | 2751-502 | 8.13 |
| 2-1/4 | 3/64 | 3/4 | – | – | – | – | 2751-503 | 8.13 |
| 2-1/4 | 1/16 | 3/4 | – | – | – | – | 2751-504 | 8.13 |
| 2-1/4 | 3/32 | 3/4 | – | – | – | – | 2751-506 | 8.13 |
| 2-1/4 | 7/64 | 3/4 | – | – | – | – | 2751-507 | 8.13 |
| 2-1/4 | 1/8 | 3/4 | – | – | – | – | 2751-508 | 8.13 |
| 2-1/4 | 5/32 | 3/4 | – | – | – | – | 2751-510 | 8.13 |
| 2-1/4 | 3/16 | 3/4 | – | – | – | – | 2751-512 | 8.13 |
| 2-1/4 | 1/64 | 1 | – | – | – | – | 2751-701 | 8.13 |
| 2-1/4 | 1/32 | 1 | – | – | – | – | 2751-702 | 8.13 |
| 2-1/4 | 3/64 | 1 | – | – | – | – | 2751-703 | 8.13 |
| 2-1/4 | 1/16 | 1 | – | – | – | – | 2751-704 | 8.13 |
| 2-1/4 | 3/32 | 1 | – | – | – | – | 2751-706 | 8.13 |
| 2-1/4 | 7/64 | 1 | – | – | – | – | 2751-707 | 8.13 |
| 2-1/4 | 1/8 | 1 | – | – | – | – | 2751-708 | 8.13 |
| 2-1/4 | 5/32 | 1 | – | – | – | – | 2751-710 | 8.13 |
| 2-1/4 | 3/16 | 1 | – | – | – | – | 2751-712 | 8.13 |
| 2-1/2 | 1/32 | 1/2 | – | – | – | – | 2751-802 | 8.13 |
| 2-1/2 | 1/32 | 7/8 | 2751-902 | 12.43 | 2756-902 | 28.97 | – | – |
| 2-1/2 | 3/64 | 7/8 | 2751-903 | 12.43 | 2756-903 | 28.97 | – | – |
| 2-1/2 | 1/16 | 7/8 | 2751-904 | 12.43 | 2756-904 | 28.97 | – | – |
| 2-1/2 | 3/32 | 7/8 | 2751-906 | 12.43 | 2756-907 | 30.32 | – | – |
| 2-1/2 | 1/8 | 7/8 | 2751-908 | 12.43 | 2756-908 | 31.39 | – | – |
| 3 | 1/64 | 1 | 2752-201 | 23.16 | – | – | – | – |
| 3 | 1/32 | 1 | 2752-202 | 13.92 | 2757-202 | 33.45 | – | – |
| 3 | 3/64 | 1 | 2752-203 | 13.92 | 2757-203 | 33.45 | – | – |
| 3 | 1/16 | 1 | 2752-204 | 14.41 | 2757-204 | 34.50 | – | – |
| 3 | 5/64 | 1 | 2752-205 | 14.41 | – | – | – | – |
| 3 | 3/32 | 1 | 2752-206 | 14.41 | 2757-206 | 37.15 | – | – |
| 3 | 7/64 | 1 | 2752-207 | 14.85 | – | – | – | – |
| 3 | 1/8 | 1 | 2752-208 | 14.85 | 2757-208 | 37.87 | – | – |
| 3 | 9/64 | 1 | 2752-209 | 15.68 | – | – | – | – |
| 3 | 5/32 | 1 | 2752-210 | 15.68 | 2757-210 | 45.68 | – | – |
| 3 | 11/64 | 1 | – | – | – | – | 2752-211 | $10.97 |
| 3 | 3/16 | 1 | 2752-212 | $16.89 | – | – | – | – |
| 3-1/2 | 1/32 | 1 | – | – | 2752-402 | $19.47 | – | – |
| 3-1/2 | 3/64 | 1 | 2752-403 | 20.08 | – | – | – | – |
| 3-1/2 | 1/16 | 1 | 2752-404 | 20.08 | – | – | – | – |
| 3-1/2 | 3/32 | 1 | 2752-406 | 21.18 | – | – | – | – |
| 3-1/2 | 5/32 | 1 | – | – | 2752-410 | 24.42 | – | – |
| 3-1/2 | 3/16 | 1 | – | – | 2752-412 | 24.42 | – | – |
| 4 | 1/64 | 1 | 2752-601 | 31.63 | – | – | – | – |
| 4 | 1/32 | 1 | 2752-602 | 19.47 | 2757-602 | 42.71 | – | – |
| 4 | 3/64 | 1 | 2752-603 | 20.08 | 2757-603 | 43.89 | – | – |
| 4 | 1/16 | 1 | 2752-604 | 20.08 | 2757-604 | 45.68 | – | – |
| 4 | 5/64 | 1 | 2752-605 | 21.18 | – | – | – | – |
| 4 | 3/32 | 1 | 2752-606 | 21.18 | 2757-606 | 49.66 | – | – |
| 4 | 7/64 | 1 | 2752-607 | 22.44 | – | – | – | – |
| 4 | 1/8 | 1 | 2752-608 | 22.44 | 2757-608 | 58.94 | – | – |
| 4 | 9/64 | 1 | 2752-609 | 23.16 | – | – | – | – |
| 4 | 5/32 | 1 | 2752-610 | 23.16 | 2757-610 | 74.94 | – | – |
| 4 | 11/64 | 1 | – | – | – | – | 2752-611 | 15.94 |
| 4 | 3/16 | 1 | 2752-612 | 24.42 | 2757-612 | 81.72 | – | – |
| 4-1/2 | 1/32 | 1 | – | – | 2752-902 | 31.63 | – | – |
| 4-1/2 | 3/64 | 1 | – | – | 2752-903 | 26.73 | – | – |
| 4-1/2 | 3/32 | 1 | 2752-906 | 29.21 | – | – | – | – |
| 4-1/2 | 1/8 | 1 | 2752-908 | 30.53 | – | – | – | – |
| 4-1/2 | 1/16 | 1 | – | – | 2752-904 | 26.73 | – | – |
| 4-1/2 | 5/32 | 1 | – | – | – | – | 2752-910 | 19.93 |
| 4-1/2 | 3/16 | 1 | – | – | – | – | 2752-912 | 19.93 |
| 5 | 3/64 | 1 | 2753-103 | 26.73 | – | – | – | – |
| 5 | 1/16 | 1 | 2753-104 | 26.73 | 2758-104 | 60.16 | – | – |
| 5 | 5/64 | 1 | 2753-105 | 26.73 | – | – | – | – |
| 5 | 3/32 | 1 | 2753-106 | 28.27 | 2758-106 | 70.41 | – | – |
| 5 | 7/64 | 1 | 2753-107 | 29.04 | – | – | – | – |
| 5 | 1/8 | 1 | 2753-108 | 29.04 | 2758-108 | 83.68 | – | – |
| 5 | 9/64 | 1 | 2753-109 | 29.04 | – | – | – | – |
| 5 | 5/32 | 1 | 2753-110 | 30.42 | 2758-110 | 105.23 | – | – |
| 5 | 3/16 | 1 | 2753-112 | 30.42 | 2758-112 | 109.99 | – | – |
| 5 | 1/16 | 1-1/4 | 2753-304 | 32.23 | – | – | – | – |
| 5 | 3/32 | 1-1/4 | 2753-306 | 32.23 | – | – | – | – |
| 5 | 1/8 | 1-1/4 | 2753-308 | 32.23 | 2758-308 | 83.68 | – | – |
| 5 | 5/32 | 1-1/4 | 2753-310 | 34.16 | – | – | – | – |
| 5 | 3/16 | 1-1/4 | 2753-312 | 34.16 | – | – | – | – |
| 6 | 3/64 | 1 | 2753-503 | 39.71 | – | – | – | – |
| 6 | 1/16 | 1 | 2753-504 | 34.93 | – | – | – | – |
| 6 | 5/64 | 1 | 2753-505 | 34.93 | – | – | – | – |
| 6 | 3/32 | 1 | 2753-506 | 37.13 | – | – | – | – |
| 6 | 7/64 | 1 | 2753-507 | 40.37 | – | – | – | – |
| 6 | 1/8 | 1 | 2753-508 | 40.26 | – | – | – | – |
| 6 | 9/64 | 1 | 2753-509 | 44.17 | – | – | – | – |
| 6 | 5/32 | 1 | 2753-510 | 41.80 | – | – | – | – |
| 6 | 3/16 | 1 | 2753-512 | 41.80 | – | – | – | – |
| 6 | 7/32 | 1 | – | – | – | – | 2753-514 | 32.70 |
| 6 | 5/16 | 1 | – | – | – | – | 2753-520 | 32.70 |
| 6 | 1/16 | 1-1/4 | 2753-704 | 41.86 | – | – | – | – |
| 6 | 3/32 | 1-1/4 | 2753-706 | 48.62 | – | – | – | – |
| 6 | 1/8 | 1-1/4 | 2753-708 | 48.35 | – | – | – | – |
| 6 | 5/32 | 1-1/4 | 2753-710 | 49.89 | – | – | – | – |
| 6 | 3/16 | 1-1/4 | 2753-712 | 49.89 | – | – | – | – |
| 6 | 7/32 | 1-1/4 | – | – | – | – | 2753-714 | 32.70 |
| 7 | 1/8 | 1 | – | – | – | – | 2754-008 | 27.37 |
| 8 | 1/8 | 1 | 2754-208 | 78.49 | – | – | – | – |
| 8 | 3/16 | 1 | 2754-212 | 87.45 | – | – | – | – |
| 8 | 5/64 | 1-1/4 | – | – | – | – | 2754-405 | 51.51 |
| 8 | 3/32 | 1-1/4 | 2754-406 | 87.45 | – | – | – | – |
| 8 | 1/8 | 1-1/4 | 2754-408 | 95.15 | – | – | – | – |
| 8 | 3/16 | 1-1/4 | 2754-412 | 98.40 | – | – | – | – |
| 8 | 7/32 | 1-1/4 | – | – | – | – | 2754-414 | 64.58 |
| 10 | 3/32 | 1-1/4 | 2754-906 | 129.64 | – | – | – | – |
| 10 | 1/8 | 1-1/4 | 2754-908 | 129.64 | – | – | – | – |
| 10 | 3/16 | 1-1/4 | 2754-912 | 156.20 | – | – | – | – |
| 10 | 1/4 | 1-1/4 | 2754-916 | 156.20 | – | – | – | – |
| 12 | 5/16 | 1-1/4 | – | – | – | – | 2755-220 | 102.50 |
| 12 | 3/8 | 1-1/4 | – | – | – | – | 2755-224 | 102.50 |

# Metal Slitting Saws

## Side Chip - High Speed Steel

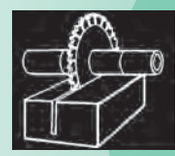
- For deep slotting & cut off operations

| DIAM. | THICK-NESS | HOLE | SIDE CHIP ORDER NO. | PRICE EACH | ST'GD. TOOTH ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 2-1/2 | 1/16 | 7/8 | 2781-041 | $38.80 | – | – |
| 2-1/2 | 3/32 | 7/8 | 2781-061 | 39.00 | – | – |
| 2-1/2 | 3/32 | 1 | 2781-062 | 39.00 | – | – |
| 2-1/2 | 1/8 | 7/8 | 2781-081 | 39.80 | – | – |
| 3 | 1/16 | 1 | 2782-041 | 44.30 | – | – |
| 3 | 5/64 | 1 | 2782-051 | 44.30 | – | – |
| 3 | 3/32 | 1 | 2782-061 | 44.10 | – | – |
| 3 | 7/64 | 1 | 2782-071 | 44.70 | – | – |
| 3 | 1/8 | 1 | 2782-081 | 44.90 | 2791-081 | $59.80 |
| 3 | 9/64 | 1 | 2782-091 | 46.10 | – | – |
| 3 | 5/32 | 1 | 2782-101 | 47.10 | 2791-101 | 61.90 |
| 3 | 11/64 | 1 | 2782-111† | 18.66 | – | – |
| 3 | 3/16 | 1 | 2782-121 | 50.20 | 2791-121 | 56.70 |
| 3 | 7/32 | 1 | – | – | 2791-141 | 58.30 |
| 3 | 1/4 | 1 | – | – | 2791-161 | 60.50 |
| 4 | 1/16 | 1 | 2783-041 | 69.10 | – | – |
| 4 | 5/64 | 1 | 2783-051 | 61.50 | – | – |
| 4 | 3/32 | 1 | 2783-061 | 63.00 | – | – |
| 4 | 7/64 | 1 | 2783-071 | 62.40 | 2792-051† | 31.64 |
| 4 | 1/8 | 1 | 2783-081 | 62.40 | 2792-081 | 79.00 |
| 4 | 9/64 | 1 | 2783-091 | 64.00 | 2792-091 | 80.90 |
| 4 | 9/64 | 1-1/4 | – | – | 2792-092† | 32.90 |
| 4 | 5/32 | 1 | 2783-101 | 66.60 | 2792-101 | 82.70 |
| 4 | 11/64 | 1 | 2783-111† | 26.06 | 2792-111 | 83.80 |
| 4 | 3/16 | 1 | 2783-121 | 70.40 | 2792-121 | 84.30 |
| 4 | 7/32 | 1 | 2783-141 | 71.60 | 2792-141 | 79.10 |
| 4 | 1/4 | 1 | 2783-161 | 75.30 | 2792-161 | 82.50 |
| 5 | 1/16 | 1 | 2784-041 | 82.80 | – | – |
| 5 | 3/32 | 1 | 2784-061 | 82.80 | – | – |
| 5 | 1/8 | 1 | 2784-081 | 84.70 | 2793-081 | 104.50 |
| 5 | 1/8 | 1-1/4 | 2784-082 | 87.80 | – | – |
| 5 | 5/32 | 1 | 2784-101 | 92.80 | – | – |
| 5 | 3/16 | 1 | 2784-121 | 96.60 | 2793-121 | 111.70 |
| 5 | 1/4 | 1 | 2784-161 | 103.90 | 2793-161 | 114.20 |
| 5 | 1/4 | 1-1/4 | – | – | 2793-162† | 44.85 |
| 5 | 9/32 | 1 | – | – | 2793-181† | 44.85 |
| 5 | 9/32 | 1-1/4 | – | – | 2793-182† | 44.85 |
| 5 | 5/16 | 1 | – | – | 2793-201† | 44.85 |

† Limited Quantities

## Staggered Tooth - High Speed Steel

Pittsburg® ALLEGHANY [2]



- For deep slotting & heavy duty cutting

| DIAM. | THICK-NESS | HOLE | SIDE CHIP ORDER NO. | PRICE EACH | ST'GD. TOOTH ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 6 | 1/16 | 1 | 2785-041 | $116.30 | – | – |
| 6 | 3/32 | 1 | 2785-061 | 108.60 | – | – |
| 6 | 3/32 | 1-1/4 | 2785-062† | 43.10 | – | – |
| 6 | 1/8 | 1 | 2785-081 | 112.20 | 2794-080 | $132.30 |
| 6 | 1/8 | 1-1/4 | 2785-082 | 112.30 | 2794-081 | 127.00 |
| 6 | 9/64 | 1-1/4 | 2785-092† | 51.06 | – | – |
| 6 | 5/32 | 1 | 2785-101 | 120.80 | 2794-101 | 135.40 |
| 6 | 5/32 | 1-1/4 | 2785-102† | 51.06 | – | – |
| 6 | 3/16 | 1 | 2785-121 | 123.70 | 2794-121 | 141.60 |
| 6 | 3/16 | 1-1/4 | 2785-122 | 123.70 | 2794-122 | 142.50 |
| 6 | 1/4 | 1 | 2785-161 | 134.00 | 2794-161 | 146.80 |
| 6 | 1/4 | 1-1/4 | 2785-162† | 60.02 | 2794-162 | 145.60 |
| 6 | 9/32 | 1 | – | – | 2794-181† | 60.79 |
| 6 | 9/32 | 1-1/4 | – | – | 2794-182† | 60.79 |
| 6 | 5/16 | 1 | – | – | 2794-201† | 60.79 |
| 6 | 5/16 | 1-1/4 | – | – | 2794-202† | 60.79 |
| 8 | 1/8 | 1 | 2786-081 | 226.70 | – | – |
| 8 | 1/8 | 1-1/4 | 2786-082 | 226.70 | – | – |
| 8 | 9/64 | 1-1/4 | – | – | 2795-091† | 111.13 |
| 8 | 3/16 | 1 | – | – | 2795-121 | 248.60 |
| 8 | 3/16 | 1-1/4 | 2786-122 | 226.70 | 2795-122 | 247.70 |
| 8 | 7/32 | 1-1/4 | 2786-142† | 103.24 | 2795-142† | 114.98 |
| 8 | 1/4 | 1-1/4 | 2786-162† | 103.24 | 2795-162 | 271.60 |
| 8 | 9/32 | 1-1/4 | – | – | 2795-182† | 114.98 |
| 8 | 11/32 | 1-1/4 | – | – | 2795-222† | 114.98 |
| 10 | 3/16 | 1-1/4 | – | – | 2796-121 | 426.80 |
| 10 | 7/32 | 1-1/4 | 2787-141† | 203.37 | – | – |
| 10 | 1/4 | 1-1/4 | – | – | 2796-161 | 421.50 |
| 10 | 5/16 | 1-1/4 | – | – | 2796-201† | 196.95 |
| 10 | 3/8 | 1-1/4 | 2787-241† | 203.37 | 2796-241† | 183.76 |
| 12 | 3/16 | 1-1/2 | 2788-122† | 651.38 | 2797-121† | 664.41 |
| 12 | 1/4 | 1-1/4 | 2788-161† | 821.50 | – | – |
| 12 | 5/16 | 1-1/4 | 2788-201† | 871.28 | – | – |
| 12 | 5/16 | 1-1/2 | 2788-202† | 871.28 | 2797-201† | 888.71 |
| 12 | 3/8 | 1-1/4 | 2788-241† | 989.11 | – | – |
| 12 | 3/8 | 1-1/2 | – | – | 2797-241† | 1008.90 |

# Carbide Tipped Slitting Saws

## Standard Tooth – General Purpose for Non-Ferrous Metals

Pittsburg® ALLEGHANY [2]

| DIAM. | THICK-NESS | HOLE | NO. OF TEETH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 3 | 5/32 | 1 | 12 | 3032-021† | $76.88 |
| 4 | 5/64 | 1 | 14 | 3032-611† | 85.38 |
| 4 | 5/32 | 1 | 14 | 3032-661† | 96.30 |
| 4 | 3/16 | 1 | 14 | 3032-681† | 100.50 |
| 5 | 3/32 | 1 | 16 | 3033-261† | 108.00 |
| 5 | 3/16 | 1 | 16 | 3033-321† | 127.88 |
| 5 | 3/16 | 1-1/4 | 16 | 3033-322† | 127.88 |
| 6 | 3/64 | 1 | 18 | 3033-831† | 89.90 |
| 6 | 1/16 | 1 | 18 | 3033-881† | 94.50 |
| 6 | 1/16 | 1-1/4 | 18 | 3033-882† | 94.50 |
| 6 | 3/32 | 1-1/4 | 18 | 3033-902† | 122.50 |
| 6 | 5/32 | 1 | 18 | 3033-941† | 139.86 |
| 6 | 3/16 | 1-1/4 | 18 | 3033-962† | 147.25 |

† Limited Quantities

## Coarse Tooth – For Stainless, Non-Ferrous, Cast Iron, Steel

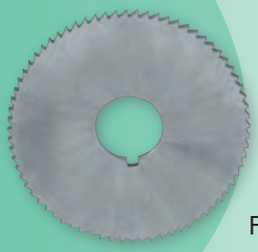
MADE IN USA

[2]

| | | | FOR STAINLESS STEEL | | | FOR NON-FERROUS | | | CAST IRON | | STEEL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAM. | FACE WIDTH | ARBOR HOLE | NO. OF TEETH | ORDER NO. | PRICE EACH | NO. OF TEETH | ORDER NO. | PRICE EACH | NO. OF TEETH | ORDER NO. | ORDER NO. | PRICE EACH |
| 3 | 3/32 | 1 | 8 | 3856-671 | $137.25 | – | – | – | – | – | – | – |
| 3 | 1/8 | 1 | 8 | 3856-672 | 142.50 | – | – | – | – | – | – | – |
| 3 | 3/16 | 1 | 8 | 3856-673 | 148.00 | – | – | – | – | – | – | – |
| 4 | 3/32 | 1 | 10 | 3856-674 | 197.50 | 6 | 3856-501 | $157.65 | – | – | – | – |
| 4 | 1/8 | 1 | 10 | 3856-675 | 200.00 | 6 | 3856-502 | 162.30 | 8 | 3856-026 | 192.00 | $192.00 |
| 4 | 3/16 | 1 | 10 | 3856-676 | 202.75 | 6 | 3856-503 | 164.75 | 8 | 3856-027 | 206.90 | 206.90 |
| 5 | 3/32 | 1 | 12 | 3856-677 | 268.50 | – | – | – | – | – | – | – |
| 5 | 1/8 | 1 | 12 | 3856-678 | 274.05 | – | – | – | – | – | – | – |
| 5 | 3/16 | 1 | 12 | 3856-679 | 285.00 | – | – | – | – | – | – | – |
| 6 | 1/8 | 1-1/4 | 14 | 3856-680 | 320.60 | 8 | 3856-504 | 232.25 | 12 | 3856-028 | 333.90 | 333.90 |
| 6 | 3/16 | 1-1/4 | 14 | 3856-681 | 328.85 | – | – | – | 12 | 3856-029 | 344.90 | 344.90 |
| 6 | 1/4 | 1-1/4 | 14 | 3856-682 | 334.25 | – | – | – | 12 | 3856-030 | 352.10 | 352.10 |
| 8 | 1/8 | 1-1/4 | – | – | – | 10 | 3856-505 | 296.90 | – | – | – | – |
| 8 | 3/16 | 1-1/4 | – | – | – | – | – | – | 16 | 3856-031 | 474.65 | 474.65 |
| 8 | 1/4 | 1-1/4 | – | – | – | – | – | – | 16 | 3856-032 | 492.80 | 492.80 |

# Screw Slotting Saws - High Speed Steel





For slotting screw heads and shallow cuts

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1-3/4 | .006 | 5/8 | 90 | – | – | 2763-110 | $ 19.53 | – | – |
| 1-3/4 | .006 | 5/8 | 132 | – | – | 2763-111 | 19.53 | – | – |
| 1-3/4 | .008 | 5/8 | 90 | – | – | 2763-114 | 18.15 | 2760-114 | $5.33 |
| 1-3/4 | .008 | 5/8 | 132 | – | – | 2763-115 | 18.15 | – | – |
| 1-3/4 | .010 | 5/8 | 90 | – | – | 2763-118 | 16.73 | 2760-118 | 5.00 |
| 1-3/4 | .010 | 5/8 | 132 | – | – | 2763-119 | 16.73 | – | – |
| 1-3/4 | .012 | 5/8 | 90 | – | – | 2763-120 | 16.21 | – | – |
| 1-3/4 | .012 | 5/8 | 132 | – | – | 2763-122 | 16.21 | – | – |
| 1-3/4 | .013 | 5/8 | 90 | – | – | – | – | 2760-124 | 4.51 |
| 1-3/4 | .014 | 5/8 | 90 | – | – | 2763-126 | 14.99 | 2760-126 | 3.67 |
| 1-3/4 | .014 | 5/8 | 132 | – | – | 2763-128 | 14.99 | – | – |
| 1-3/4 | .016 | 5/8 | 90 | – | – | 2763-130 | 14.99 | 2760-130 | 3.56 |
| 1-3/4 | .016 | 5/8 | 132 | – | – | 2763-132 | 14.99 | – | – |
| 1-3/4 | .018 | 5/8 | 90 | – | – | 2763-134 | 14.14 | 2760-134 | 3.46 |
| 1-3/4 | .018 | 5/8 | 132 | – | – | 2763-136 | 14.14 | – | – |
| 1-3/4 | .020 | 5/8 | 90 | 2760-138 | $ 6.22 | 2763-138 | 13.64 | – | – |
| 1-3/4 | .020 | 5/8 | 132 | – | – | 2763-140 | 13.64 | – | – |
| 1-3/4 | .023 | 5/8 | 90 | 2760-144 | 6.22 | 2763-144 | 13.64 | – | – |
| 1-3/4 | .023 | 5/8 | 132 | – | – | 2763-146 | 13.64 | – | – |
| 1-3/4 | .025 | 5/8 | 90 | 2760-148 | 6.22 | 2763-148 | 13.64 | – | – |
| 1-3/4 | .025 | 5/8 | 132 | – | – | 2763-150 | 13.64 | – | – |
| 1-3/4 | .028 | 5/8 | 60 | – | – | – | – | 2760-154 | 3.33 |
| 1-3/4 | .028 | 5/8 | 90 | 2760-156 | 6.22 | 2763-156 | 13.64 | – | – |
| 1-3/4 | .028 | 5/8 | 132 | – | – | 2763-158 | 13.64 | – | – |
| 1-3/4 | .032 | 5/8 | 90 | 2760-164 | 6.22 | 2763-164 | 13.81 | – | – |
| 1-3/4 | .032 | 5/8 | 132 | – | – | 2763-166 | 13.81 | – | – |
| 1-3/4 | .036 | 5/8 | 90 | 2760-172 | 6.51 | 2763-172 | 14.31 | – | – |
| 1-3/4 | .036 | 5/8 | 132 | – | – | 2763-174 | 14.31 | – | – |
| 1-3/4 | .040 | 5/8 | 90 | 2760-180 | 6.51 | 2763-180 | 14.31 | – | – |
| 1-3/4 | .040 | 5/8 | 132 | – | – | 2763-182 | 14.31 | – | – |
| 1-3/4 | .045 | 5/8 | 90 | 2760-190 | 6.51 | 2763-190 | 14.31 | – | – |
| 1-3/4 | .045 | 5/8 | 132 | – | – | 2763-192 | 14.31 | – | – |
| 1-3/4 | .051 | 5/8 | 90 | 2760-199 | 6.51 | 2763-199 | 14.31 | – | – |
| 1-3/4 | .051 | 5/8 | 132 | – | – | 2763-201 | 14.31 | – | – |
| 1-3/4 | .057 | 5/8 | 90 | 2760-211 | 6.94 | 2763-211 | 16.40 | – | – |
| 1-3/4 | .057 | 5/8 | 132 | – | – | 2763-213 | 16.40 | – | – |
| 1-3/4 | .064 | 5/8 | 90 | 2760-225 | 7.32 | 2763-225 | 16.73 | – | – |
| 1-3/4 | .064 | 5/8 | 132 | – | – | 2763-227 | 16.73 | – | – |
| 1-3/4 | .072 | 5/8 | 90 | 2760-232 | 7.32 | – | – | – | – |
| 2-1/4 | .006 | 5/8 | 60 | – | – | 2763-391 | 23.64 | 2760-391 | 5.56 |
| 2-1/4 | .006 | 5/8 | 132 | – | – | 2763-392 | 23.64 | – | – |
| 2-1/4 | .008 | 5/8 | 60 | – | – | 2763-395 | 20.92 | 2760-395 | 5.56 |
| 2-1/4 | .008 | 5/8 | 132 | – | – | 2763-397 | 20.92 | – | – |
| 2-1/4 | .010 | 5/8 | 60 | – | – | 2763-399 | 18.15 | 2760-399 | 7.38 |
| 2-1/4 | .010 | 5/8 | 132 | – | – | 2763-400 | 18.15 | – | – |
| 2-1/4 | .012 | 5/8 | 60 | – | – | 2763-402 | 17.42 | – | – |
| 2-1/4 | .012 | 5/8 | 132 | – | – | 2763-404 | 17.42 | – | – |
| 2-1/4 | .013 | 5/8 | 60 | – | – | – | – | 2760-405 | 5.30 |
| 2-1/4 | .014 | 5/8 | 60 | – | – | 2763-406 | 16.57 | 2760-406 | 5.30 |
| 2-1/4 | .014 | 5/8 | 132 | – | – | 2763-408 | 16.57 | – | – |
| 2-1/4 | .016 | 5/8 | 60 | – | – | 2763-410 | 16.04 | 2760-410 | 5.30 |
| 2-1/4 | .016 | 5/8 | 132 | – | – | 2763-412 | 16.04 | – | – |
| 2-1/4 | .018 | 5/8 | 60 | – | – | 2763-414 | 14.31 | 2760-414 | 4.39 |
| 2-1/4 | .018 | 5/8 | 132 | – | – | 2763-416 | 14.31 | – | – |
| 2-1/4 | .020 | 5/8 | 60 | 2760-418 | 6.84 | 2763-418 | 13.92 | – | – |
| 2-1/4 | .020 | 5/8 | 132 | – | – | 2763-420 | 13.92 | – | – |
| 2-1/4 | .023 | 5/8 | 60 | 2760-424 | 6.84 | 2763-424 | 13.92 | – | – |
| 2-1/4 | .023 | 5/8 | 132 | – | – | 2763-426 | 13.92 | – | – |
| 2-1/4 | .025 | 5/8 | 60 | 2760-428 | 6.84 | 2763-428 | 13.92 | – | – |
| 2-1/4 | .025 | 5/8 | 132 | – | – | 2763-430 | 13.92 | – | – |
| 2-1/4 | .028 | 5/8 | 60 | 2760-434 | 6.84 | 2763-434 | 13.92 | – | – |
| 2-1/4 | .028 | 5/8 | 132 | – | – | 2763-436 | 13.92 | – | – |
| 2-1/4 | .032 | 5/8 | 60 | 2760-438 | 7.79 | 2763-438 | 16.21 | – | – |
| 2-1/4 | .032 | 5/8 | 132 | – | – | 2763-440 | 16.21 | – | – |
| 2-1/4 | .036 | 5/8 | 60 | 2760-446 | 7.79 | 2763-446 | 16.21 | – | – |
| 2-1/4 | .036 | 5/8 | 132 | – | – | 2763-448 | 16.21 | – | – |

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2-1/4 | .040 | 5/8 | 60 | 2760-454 | $ 8.22 | 2763-454 | $ 16.21 | – | – |
| 2-1/4 | .040 | 5/8 | 132 | – | – | 2763-456 | 16.21 | – | – |
| 2-1/4 | .045 | 5/8 | 60 | 2760-464 | 8.69 | 2763-464 | 17.42 | – | – |
| 2-1/4 | .045 | 5/8 | 132 | – | – | 2763-466 | 17.42 | – | – |
| 2-1/4 | .051 | 5/8 | 60 | 2760-468 | 8.69 | 2763-468 | 17.42 | – | – |
| 2-1/4 | .051 | 5/8 | 90 | – | – | – | – | 2760-465 | $ 4.64 |
| 2-1/4 | .051 | 5/8 | 132 | – | – | 2763-470 | 17.42 | – | – |
| 2-1/4 | .057 | 5/8 | 60 | 2760-475 | 8.69 | 2763-475 | 18.67 | – | – |
| 2-1/4 | .057 | 5/8 | 132 | – | – | 2763-477 | 18.67 | – | – |
| 2-1/4 | .064 | 5/8 | 60 | 2760-485 | 8.69 | 2763-485 | 18.67 | – | – |
| 2-1/4 | .064 | 5/8 | 132 | – | – | 2763-487 | 18.67 | – | – |
| 2-1/4 | .072 | 5/8 | 60 | 2760-495 | 8.69 | 2763-495 | 21.65 | – | – |
| 2-1/4 | .081 | 5/8 | 60 | 2760-505 | 9.26 | 2763-505 | 22.63 | – | – |
| 2-1/4 | .091 | 5/8 | 60 | 2760-515 | 9.98 | 2763-515 | 24.41 | – | – |
| 2-1/4 | .102 | 5/8 | 60 | 2760-525 | 10.83 | 2763-525 | 26.11 | – | – |
| 2-1/4 | .035 | 3/4 | 44 | – | – | – | – | 2760-625 | 4.15 |
| 2-1/4 | .071 | 3/4 | 44 | – | – | – | – | – | – |
| 2-1/4 | .064 | 3/4 | 60 | – | – | – | – | 2760-655 | 4.64 |
| 2-1/4 | .081 | 3/4 | 44 | – | – | – | – | 2760-665 | 4.95 |
| 2-1/4 | .102 | 3/4 | 44 | – | – | – | – | 2760-675 | 5.80 |
| 2-1/4 | .128 | 3/4 | 44 | – | – | – | – | 2760-685 | 5.80 |
| 2-1/4 | .182 | 3/4 | 56 | – | – | – | – | 2760-695 | 5.80 |
| 2-1/4 | .016 | 1 | 44 | – | – | – | – | 2760-805 | 5.30 |
| 2-1/4 | .025 | 1 | 44 | – | – | – | – | 2760-821 | 4.39 |
| 2-1/4 | .144 | 1 | 44 | – | – | – | – | 2760-871 | 5.80 |
| 2-1/4 | .162 | 1 | 44 | – | – | – | – | 2760-881 | 5.80 |
| 2-1/4 | .182 | 1 | 44 | – | – | – | – | 2760-891 | 5.80 |
| 2-3/4 | .006 | 1/2 | 72 | – | – | – | – | 2760-991 | 8.92 |
| 2-3/4 | .008 | 1/2 | 72 | – | – | – | – | 2760-995 | 8.92 |
| 2-3/4 | .010 | 1/2 | 72 | – | – | – | – | 2760-999 | 8.92 |
| 2-3/4 | .013 | 1/2 | 72 | – | – | – | – | 2761-005 | 8.13 |
| 2-3/4 | .014 | 1/2 | 72 | – | – | – | – | 2761-007 | 7.63 |
| 2-3/4 | .018 | 1/2 | 72 | – | – | – | – | 2761-015 | 6.69 |
| 2-3/4 | .020 | 1/2 | 72 | – | – | – | – | 2761-019 | 4.64 |
| 2-3/4 | .023 | 1/2 | 72 | – | – | – | – | 2761-025 | 4.64 |
| 2-3/4 | .025 | 1/2 | 72 | – | – | – | – | 2761-029 | 4.64 |
| 2-3/4 | .028 | 1/2 | 72 | – | – | – | – | 2761-035 | 4.64 |
| 2-3/4 | .036 | 1/2 | 72 | – | – | – | – | 2761-051 | 4.64 |
| 2-3/4 | .040 | 1/2 | 72 | – | – | – | – | 2761-059 | 4.64 |
| 2-3/4 | .045 | 1/2 | 72 | – | – | – | – | 2761-069 | 5.56 |
| 2-3/4 | .051 | 1/2 | 72 | – | – | – | – | 2761-079 | 5.56 |
| 2-3/4 | .057 | 1/2 | 72 | – | – | – | – | 2761-089 | 5.56 |
| 2-3/4 | .064 | 1/2 | 72 | – | – | – | – | 2761-099 | 5.56 |
| 2-3/4 | .010 | 5/8 | 72 | – | – | – | – | 2761-199 | 8.92 |
| 2-3/4 | .013 | 5/8 | 72 | – | – | – | – | 2761-205 | 8.13 |
| 2-3/4 | .014 | 5/8 | 72 | – | – | – | – | 2761-207 | 7.63 |
| 2-3/4 | .018 | 5/8 | 72 | – | – | – | – | 2761-215 | 6.69 |
| 2-3/4 | .020 | 5/8 | 72 | – | – | – | – | 2761-219 | 4.64 |
| 2-3/4 | .023 | 5/8 | 72 | – | – | – | – | 2761-223 | 4.64 |
| 2-3/4 | .025 | 5/8 | 72 | – | – | – | – | 2761-225 | 4.64 |
| 2-3/4 | .028 | 5/8 | 72 | – | – | – | – | 2761-231 | 4.64 |
| 2-3/4 | .036 | 5/8 | 72 | – | – | – | – | 2761-247 | 4.64 |
| 2-3/4 | .040 | 5/8 | 72 | – | – | – | – | 2761-255 | 4.64 |
| 2-3/4 | .064 | 5/8 | 72 | – | – | – | – | 2761-285 | 5.56 |
| 2-3/4 | .006 | 3/4 | 72 | – | – | 2764-385 | 27.19 | 2761-385 | 8.92 |
| 2-3/4 | .008 | 3/4 | 72 | – | – | 2764-389 | 23.64 | 2761-389 | 8.92 |
| 2-3/4 | .010 | 3/4 | 72 | – | – | 2764-393 | 20.41 | 2761-393 | 8.92 |
| 2-3/4 | .012 | 3/4 | 72 | – | – | 2764-395 | 19.17 | – | – |
| 2-3/4 | .013 | 3/4 | 72 | – | – | – | – | 2761-399 | 7.63 |
| 2-3/4 | .014 | 3/4 | 72 | – | – | 2764-401 | 18.15 | 2761-401 | 7.63 |
| 2-3/4 | .016 | 3/4 | 72 | – | – | 2764-405 | 16.57 | 2761-405 | 7.08 |
| 2-3/4 | .018 | 3/4 | 72 | – | – | 2764-409 | 16.04 | 2761-409 | 6.69 |
| 2-3/4 | .020 | 3/4 | 72 | 2761-413 | 8.69 | 2764-413 | 14.31 | – | – |
| 2-3/4 | .023 | 3/4 | 72 | 2761-419 | 8.69 | 2764-419 | 14.31 | – | – |
| 2-3/4 | .025 | 3/4 | 72 | 2761-426 | 8.69 | 2764-426 | 14.31 | – | – |
| 2-3/4 | .028 | 3/4 | 56 | – | – | – | – | 2764-432 | 4.50 |
| 2-3/4 | .028 | 3/4 | 72 | 2761-436 | 8.69 | 2764-436 | 14.31 | – | – |
| 2-3/4 | .032 | 3/4 | 56 | – | – | – | – | 2761-444 | 4.64 |
| 2-3/4 | .032 | 3/4 | 72 | 2761-447 | 8.69 | 2764-447 | 16.73 | – | – |
| 2-3/4 | .036 | 3/4 | 56 | – | – | – | – | 2761-455 | 4.64 |
| 2-3/4 | .036 | 3/4 | 72 | 2761-458 | 8.69 | 2764-458 | 16.73 | – | – |

(cont'd)

# Screw Slotting Saws, (Continued)

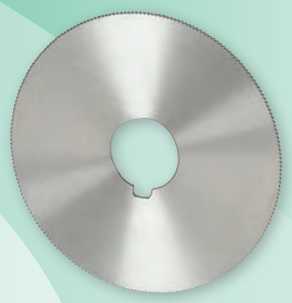
## High Speed Steel

**For slotting screw heads and shallow cuts**

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2-3/4 | .040 | 3/4 | 56 | – | – | – | – | 2764-466 | $ 5.27 |
| 2-3/4 | .040 | 3/4 | 72 | 2761-469 | $ 8.69 | 2764-469 | $16.73 | – | – |
| 2-3/4 | .045 | 3/4 | 56 | – | – | – | – | 2764-479 | 5.77 |
| 2-3/4 | .045 | 3/4 | 72 | 2761-482 | 10.40 | 2764-482 | 18.32 | – | – |
| 2-3/4 | .051 | 3/4 | 56 | – | – | – | – | 2761-492 | 5.56 |
| 2-3/4 | .051 | 3/4 | 72 | 2761-497 | 10.40 | 2764-497 | 19.36 | – | – |
| 2-3/4 | .057 | 3/4 | 56 | – | – | – | – | 2761-507 | 5.56 |
| 2-3/4 | .057 | 3/4 | 72 | 2761-510 | 10.40 | 2764-510 | 20.38 | – | – |
| 2-3/4 | .064 | 3/4 | 56 | – | – | – | – | 2761-520 | 5.56 |
| 2-3/4 | .064 | 3/4 | 72 | 2761-523 | 10.40 | 2764-523 | 20.92 | – | – |
| 2-3/4 | .072 | 3/4 | 72 | 2761-536 | 10.40 | 2764-536 | 22.53 | – | – |
| 2-3/4 | .081 | 3/4 | 56 | – | – | – | – | 2764-546 | 7.24 |
| 2-3/4 | .081 | 3/4 | 72 | 2761-549 | 12.07 | 2764-549 | 23.03 | – | – |
| 2-3/4 | .091 | 3/4 | 56 | – | – | – | – | 2764-559 | 7.75 |
| 2-3/4 | .091 | 3/4 | 72 | 2761-563 | 13.06 | 2764-563 | 24.62 | – | – |
| 2-3/4 | .102 | 3/4 | 56 | – | – | – | – | 2764-573 | 8.57 |
| 2-3/4 | .102 | 3/4 | 72 | 2761-576 | 13.63 | 2764-576 | 27.19 | – | – |
| 2-3/4 | .114 | 3/4 | 56 | – | – | – | – | 2764-586 | 10.44 |
| 2-3/4 | .114 | 3/4 | 72 | 2761-589 | 14.16 | 2764-589 | 33.17 | – | – |
| 2-3/4 | .128 | 3/4 | 72 | 2761-602 | 14.54 | 2764-602 | 35.56 | – | – |
| 2-3/4 | .162 | 3/4 | 56 | – | – | – | – | 2761-622 | 9.76 |
| 2-3/4 | .162 | 3/4 | 72 | 2761-625 | 18.24 | – | – | – | – |
| 2-3/4 | .182 | 3/4 | 72 | 2761-629 | 21.33 | – | – | – | – |
| 2-3/4 | .006 | 1 | 72 | – | – | 2764-725 | 27.19 | 2761-725 | 8.92 |
| 2-3/4 | .008 | 1 | 72 | – | – | 2764-729 | 23.64 | 2761-729 | 8.92 |
| 2-3/4 | .010 | 1 | 72 | – | – | 2764-733 | 20.41 | – | – |
| 2-3/4 | .013 | 1 | 72 | – | – | – | – | 2761-739 | 8.13 |
| 2-3/4 | .014 | 1 | 72 | – | – | 2764-744 | 18.15 | – | – |
| 2-3/4 | .016 | 1 | 72 | – | – | 2764-748 | 16.57 | 2761-748 | 7.08 |
| 2-3/4 | .018 | 1 | 72 | – | – | 2764-752 | 16.04 | – | – |
| 2-3/4 | .020 | 1 | 36 | – | – | – | – | 2761-754 | 4.64 |
| 2-3/4 | .020 | 1 | 56 | – | – | – | – | 2761-756 | 8.69 |
| 2-3/4 | .020 | 1 | 72 | 2761-759 | 8.69 | 2764-759 | 14.31 | – | – |
| 2-3/4 | .023 | 1 | 56 | 2761-765 | 8.69 | 2764-765 | 14.31 | – | – |
| 2-3/4 | .023 | 1 | 72 | 2761-769 | 8.69 | 2764-769 | 14.31 | – | – |
| 2-3/4 | .025 | 1 | 44 | – | – | – | – | 2761-775 | 4.64 |
| 2-3/4 | .025 | 1 | 56 | 2761-779 | 8.69 | 2764-779 | 14.31 | – | – |
| 2-3/4 | .025 | 1 | 72 | 2761-782 | 8.69 | 2764-782 | 14.31 | – | – |
| 2-3/4 | .028 | 1 | 56 | 2761-786 | 8.69 | 2764-786 | 14.31 | – | – |
| 2-3/4 | .028 | 1 | 72 | 2761-789 | 8.69 | 2764-789 | 14.31 | – | – |
| 2-3/4 | .032 | 1 | 56 | 2761-799 | 8.69 | 2764-799 | 16.73 | – | – |
| 2-3/4 | .032 | 1 | 72 | 2761-802 | 8.69 | 2764-802 | 16.73 | – | – |
| 2-3/4 | .036 | 1 | 56 | 2761-810 | 8.69 | 2764-810 | 16.73 | – | – |
| 2-3/4 | .036 | 1 | 72 | 2761-813 | 8.69 | 2764-813 | 16.73 | – | – |
| 2-3/4 | .040 | 1 | 56 | 2761-821 | 8.69 | 2764-821 | 16.73 | – | – |
| 2-3/4 | .040 | 1 | 72 | 2761-824 | 8.69 | 2764-824 | 16.73 | – | – |
| 2-3/4 | .045 | 1 | 56 | 2761-834 | 10.40 | 2764-834 | 18.32 | – | – |
| 2-3/4 | .045 | 1 | 72 | 2761-837 | 10.40 | 2764-837 | 18.32 | – | – |
| 2-3/4 | .051 | 1 | 56 | 2761-847 | 10.40 | 2764-847 | 19.36 | – | – |
| 2-3/4 | .051 | 1 | 72 | 2761-850 | 10.40 | 2764-850 | 19.36 | – | – |
| 2-3/4 | .057 | 1 | 56 | 2761-863 | 10.40 | 2764-863 | 20.38 | – | – |

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2-3/4 | .057 | 1 | 72 | 2761-869 | $10.40 | 2764-869 | $20.38 | – | – |
| 2-3/4 | .064 | 1 | 56 | 2761-879 | 10.40 | 2764-879 | 20.92 | – | – |
| 2-3/4 | .064 | 1 | 72 | 2761-882 | 10.40 | 2764-882 | 20.92 | – | – |
| 2-3/4 | .072 | 1 | 56 | 2761-892 | 10.40 | 2764-892 | 22.53 | – | – |
| 2-3/4 | .072 | 1 | 72 | 2761-896 | 10.40 | 2764-896 | 22.53 | – | – |
| 2-3/4 | .081 | 1 | 56 | 2761-996 | 12.07 | 2764-996 | 23.03 | – | – |
| 2-3/4 | .081 | 1 | 72 | 2761-999 | 12.07 | 2764-999 | 23.03 | – | – |
| 2-3/4 | .091 | 1 | 56 | 2762-009 | 13.06 | 2765-009 | 24.62 | – | – |
| 2-3/4 | .091 | 1 | 72 | 2762-012 | 13.06 | 2765-012 | 24.62 | – | – |
| 2-3/4 | .102 | 1 | 56 | 2762-022 | 13.63 | 2765-022 | 27.19 | – | – |
| 2-3/4 | .102 | 1 | 72 | 2762-025 | 13.63 | 2765-025 | 27.19 | – | – |
| 2-3/4 | .114 | 1 | 56 | 2762-035 | 14.16 | 2765-035 | 33.17 | – | – |
| 2-3/4 | .114 | 1 | 72 | 2762-038 | 14.16 | 2765-038 | 33.17 | – | – |
| 2-3/4 | .128 | 1 | 56 | 2762-048 | 14.54 | 2765-048 | 35.56 | – | – |
| 2-3/4 | .128 | 1 | 72 | 2762-051 | 14.54 | 2765-051 | 35.56 | – | – |
| 2-3/4 | .144 | 1 | 56 | 2762-061 | 16.67 | – | – | – | – |
| 2-3/4 | .144 | 1 | 72 | 2762-064 | 16.67 | 2765-064 | 39.91 | – | – |
| 2-3/4 | .162 | 1 | 56 | 2762-074 | 18.24 | – | – | – | – |
| 2-3/4 | .162 | 1 | 72 | 2762-077 | 18.24 | 2765-077 | 42.20 | – | – |
| 2-3/4 | .182 | 1 | 56 | – | – | – | – | 2762-087 | $11.43 |
| 2-3/4 | .182 | 1 | 72 | 2762-090 | 21.33 | 2765-090 | 47.93 | – | – |
| 3 | .128 | 1/2 | 56 | – | – | – | – | 2762-190 | 7.79 |
| 3 | .018 | 3/4 | 56 | – | – | – | – | 2762-200 | 6.69 |
| 3 | .020 | 3/4 | 72 | – | – | – | – | 2762-204 | 4.64 |
| 3 | .023 | 3/4 | 56 | – | – | – | – | 2762-210 | 4.64 |
| 3 | .023 | 3/4 | 72 | – | – | – | – | 2762-213 | 4.64 |
| 3 | .025 | 3/4 | 72 | – | – | – | – | 2762-217 | 4.64 |
| 3 | .035 | 3/4 | 56 | – | – | – | – | 2762-236 | 4.64 |
| 3 | .035 | 3/4 | 72 | – | – | – | – | 2762-239 | 4.64 |
| 3 | .036 | 3/4 | 56 | – | – | – | – | 2762-241 | 4.64 |
| 3 | .036 | 3/4 | 72 | – | – | – | – | 2762-244 | 4.64 |
| 3 | .040 | 3/4 | 56 | – | – | – | – | 2762-252 | 4.64 |
| 3 | .040 | 3/4 | 72 | – | – | – | – | 2762-255 | 4.64 |
| 3 | .045 | 3/4 | 56 | – | – | – | – | 2762-265 | 5.56 |
| 3 | .045 | 3/4 | 72 | – | – | – | – | 2762-268 | 5.56 |
| 3 | .072 | 3/4 | 56 | – | – | – | – | 2762-278 | 5.56 |
| 3 | .072 | 3/4 | 72 | – | – | – | – | 2762-281 | 5.56 |
| 3 | .081 | 3/4 | 56 | – | – | – | – | 2762-291 | 6.46 |
| 3 | .081 | 3/4 | 72 | – | – | – | – | 2762-294 | 6.46 |
| 3 | .091 | 3/4 | 56 | – | – | – | – | 2762-295 | 6.97 |
| 3 | .091 | 3/4 | 72 | – | – | – | – | 2762-298 | 6.97 |
| 3 | .023 | 1 | 72 | – | – | – | – | 2762-404 | 4.64 |
| 3 | .144 | 1 | 56 | – | – | – | – | 2762-542 | 8.94 |
| 3 | .144 | 1 | 72 | – | – | – | – | 2762-552 | 8.94 |
| 3 | .182 | 1 | 72 | – | – | – | – | 2762-572 | 11.43 |

# Jewelers Saws – High Speed Steel



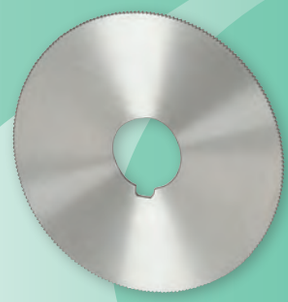
2

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .032 | 1/4 | 76 | 2770-010 | $5.17 | 2775-001 | $ 8.58 | – | – |
| 1 | .028 | 1/4 | 76 | 2770-020 | 5.17 | 2775-002 | 8.58 | – | – |
| 1 | .025 | 1/4 | 76 | 2770-030 | 4.02 | 2775-003 | 7.48 | – | – |
| 1 | .023 | 1/4 | 76 | 2770-040 | 4.02 | 2775-004 | 7.48 | – | – |
| 1 | .020 | 1/4 | 76 | 2770-050 | 4.73 | 2775-005 | 7.48 | – | – |
| 1 | .018 | 1/4 | 76 | 2770-060 | 4.73 | 2775-006 | 7.48 | – | – |
| 1 | .016 | 1/4 | 76 | 2770-070 | 5.17 | 2775-007 | 8.38 | – | – |
| 1 | .014 | 1/4 | 76 | 2770-080 | 5.34 | 2775-008 | 8.38 | – | – |
| 1 | .012 | 1/4 | 98 | 2770-090 | 5.83 | 2775-009 | 8.38 | – | – |
| 1 | .010 | 1/4 | 98 | 2770-100 | 5.83 | 2775-010 | 8.38 | – | – |
| 1 | .008 | 1/4 | 98 | 2770-110 | 6.77 | 2775-011 | 9.24 | – | – |
| 1 | .006 | 1/4 | 98 | – | – | 2775-012 | 10.97 | 2770-120 | $ 3.76 |
| 1 | .032 | 5/16 | 76 | – | – | – | – | 2770-130 | 2.57 |
| 1 | .028 | 5/16 | 76 | – | – | – | – | 2770-140 | 2.57 |
| 1 | .025 | 5/16 | 76 | – | – | – | – | 2770-150 | 2.10 |
| 1 | .023 | 5/16 | 76 | – | – | – | – | 2770-160 | 2.10 |
| 1 | .020 | 5/16 | 76 | – | – | – | – | 2770-170 | 2.30 |
| 1 | .018 | 5/16 | 76 | – | – | – | – | 2770-180 | 2.30 |
| 1 | .016 | 5/16 | 76 | – | – | – | – | 2770-190 | 2.57 |
| 1 | .014 | 5/16 | 76 | – | – | – | – | 2770-200 | 2.69 |
| 1 | .012 | 5/16 | 98 | – | – | – | – | 2770-210 | 2.92 |
| 1 | .010 | 5/16 | 98 | – | – | – | – | 2770-220 | 2.92 |
| 1 | .008 | 5/16 | 98 | – | – | – | – | 2770-230 | 3.76 |
| 1 | .006 | 5/16 | 98 | – | – | – | – | 2770-240 | 3.76 |
| 1 | .032 | 3/8 | 76 | 2770-250 | 5.17 | 2775-025 | 8.58 | | – |
| 1 | .028 | 3/8 | 76 | 2770-260 | 5.17 | 2775-026 | 8.58 | – | – |
| 1 | .025 | 3/8 | 76 | 2770-270 | 4.02 | 2775-027 | 7.48 | – | – |
| 1 | .023 | 3/8 | 76 | 2770-280 | 4.02 | 2775-028 | 7.48 | – | – |
| 1 | .020 | 3/8 | 76 | 2770-290 | 4.73 | 2775-029 | 7.48 | – | – |
| 1 | .018 | 3/8 | 76 | 2770-300 | 4.73 | 2775-030 | 7.48 | – | – |
| 1 | .016 | 3/8 | 76 | 2770-310 | 5.17 | 2775-031 | 8.38 | – | – |
| 1 | .014 | 3/8 | 76 | 2770-320 | 5.34 | 2775-032 | 8.38 | – | – |
| 1 | .012 | 3/8 | 98 | 2770-330 | 5.83 | 2775-033 | 8.38 | – | – |
| 1 | .010 | 3/8 | 98 | 2770-340 | 5.83 | 2775-034 | 8.38 | – | – |
| 1 | .008 | 3/8 | 98 | 2770-350 | 6.77 | 2775-035 | 9.24 | – | – |
| 1 | .006 | 3/8 | 98 | – | – | 2775-036 | 10.97 | – | – |
| 1 | .025 | 1/2 | 76 | – | – | – | – | 2770-390 | 2.10 |
| 1 | .023 | 1/2 | 76 | – | – | – | – | 2770-400 | 2.10 |
| 1 | .020 | 1/2 | 76 | – | – | – | – | 2770-410 | 2.30 |
| 1 | .018 | 1/2 | 76 | – | – | – | – | 2770-420 | 2.30 |
| 1 | .016 | 1/2 | 76 | – | – | – | – | 2770-430 | 2.57 |
| 1 | .014 | 1/2 | 76 | – | – | – | – | 2770-440 | 2.69 |
| 1 | .012 | 1/2 | 98 | – | – | – | – | 2770-450 | 2.92 |
| 1 | .010 | 1/2 | 98 | – | – | – | – | 2770-460 | 2.92 |
| 1 | .008 | 1/2 | 98 | – | – | – | – | 2770-470 | 3.76 |
| 1-1/4 | .032 | 5/16 | 98 | 2770-490 | 5.34 | 2775-049 | 9.07 | – | – |
| 1-1/4 | .028 | 5/16 | 98 | – | – | 2775-050 | 9.07 | 2770-500 | 5.34 |
| 1-1/4 | .025 | 5/16 | 98 | 2770-510 | 5.17 | 2775-051 | 8.38 | – | – |
| 1-1/4 | .023 | 5/16 | 98 | 2770-520 | 5.17 | 2775-052 | 8.38 | – | – |
| 1-1/4 | .020 | 5/16 | 98 | 2770-530 | 5.34 | 2775-053 | 8.58 | – | – |
| 1-1/4 | .018 | 5/16 | 98 | 2770-540 | 5.83 | 2775-054 | 9.07 | – | – |
| 1-1/4 | .016 | 5/16 | 98 | – | – | 2775-055 | 9.07 | 2770-550 | 5.83 |
| 1-1/4 | .014 | 5/16 | 98 | – | – | 2775-056 | 9.42 | 2770-560 | 6.33 |
| 1-1/4 | .012 | 5/16 | 120 | 2775-057 | 9.42 | – | – | 2770-570 | 6.49 |
| 1-1/4 | .010 | 5/16 | 120 | 2770-580 | 7.43 | 2775-058 | 10.14 | – | – |
| 1-1/4 | .008 | 5/16 | 120 | 2775-059 | 10.97 | – | – | 2770-590 | 8.09 |
| 1-1/4 | .006 | 5/16 | 120 | – | – | 2775-060 | 13.11 | 2770-600 | 4.45 |
| 1-1/4 | .032 | 3/8 | 98 | 2770-610 | 5.34 | 2775-061 | 9.07 | – | – |
| 1-1/4 | .028 | 3/8 | 98 | 2770-620 | 5.34 | 2775-062 | 9.07 | – | – |
| 1-1/4 | .025 | 3/8 | 98 | 2770-630 | 5.17 | 2775-063 | 8.38 | – | – |
| 1-1/4 | .023 | 3/8 | 98 | 2770-640 | 5.17 | 2775-064 | 8.38 | – | – |
| 1-1/4 | .020 | 3/8 | 98 | 2770-650 | 5.34 | 2775-065 | 8.58 | – | – |
| 1-1/4 | .018 | 3/8 | 98 | 2770-660 | 5.83 | 2775-066 | 9.07 | – | – |
| 1-1/4 | .016 | 3/8 | 98 | 2770-670 | 5.83 | 2775-067 | 9.07 | – | – |
| 1-1/4 | .014 | 3/8 | 98 | 2770-680 | 6.33 | 2775-068 | 9.42 | – | – |
| 1-1/4 | .012 | 3/8 | 120 | 2770-690 | 6.49 | 2775-069 | 9.42 | – | – |
| 1-1/4 | .010 | 3/8 | 120 | 2770-700 | 7.43 | 2775-070 | 10.14 | – | – |
| 1-1/4 | .008 | 3/8 | 120 | 2770-710 | 8.09 | 2775-071 | 10.97 | – | – |
| 1-1/4 | .006 | 3/8 | 120 | – | – | 2775-072 | 13.11 | – | – |
| 1-1/4 | .032 | 1/2 | 98 | 2770-730 | 5.34 | 2775-073 | 9.07 | – | – |
| 1-1/4 | .028 | 1/2 | 98 | 2770-740 | 5.34 | 2775-074 | 9.07 | – | – |
| 1-1/4 | .025 | 1/2 | 98 | 2775-075 | 8.38 | – | – | 2770-750 | 5.17 |
| 1-1/4 | .023 | 1/2 | 98 | 2775-076 | 8.38 | – | – | 2770-760 | 5.17 |
| 1-1/4 | .020 | 1/2 | 98 | 2770-770 | 5.34 | 2775-077 | 8.58 | – | – |
| 1-1/4 | .018 | 1/2 | 98 | 2770-780 | 5.83 | 2775-078 | 9.07 | – | – |

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1-1/4 | .016 | 1/2 | 98 | 2770-790 | $ 5.83 | 2775-079 | $ 9.07 | – | – |
| 1-1/4 | .014 | 1/2 | 98 | 2770-800 | 6.33 | 2775-080 | 9.42 | – | – |
| 1-1/4 | .012 | 1/2 | 120 | 2770-810 | 6.49 | 2775-081 | 9.42 | – | – |
| 1-1/4 | .010 | 1/2 | 120 | 2770-820 | 7.43 | 2775-082 | 10.14 | – | – |
| 1-1/4 | .008 | 1/2 | 120 | 2770-830 | 8.09 | 2775-083 | 10.97 | – | – |
| 1-1/4 | .006 | 1/2 | 120 | – | – | 2775-084 | 13.11 | 2770-840 | $ 4.45 |
| 1-1/2 | .032 | 3/8 | 110 | 2770-850 | 5.83 | 2775-085 | 9.42 | – | – |
| 1-1/2 | .028 | 3/8 | 110 | 2770-860 | 5.83 | 2775-086 | 9.42 | – | – |
| 1-1/2 | .025 | 3/8 | 110 | 2770-870 | 5.83 | 2775-087 | 9.24 | – | – |
| 1-1/2 | .023 | 3/8 | 110 | 2770-880 | 5.83 | 2775-088 | 9.24 | – | – |
| 1-1/2 | .020 | 3/8 | 110 | 2770-890 | 5.83 | 2775-089 | 9.24 | – | – |
| 1-1/2 | .018 | 3/8 | 110 | 2770-900 | 6.33 | 2775-090 | 9.24 | – | – |
| 1-1/2 | .016 | 3/8 | 110 | 2770-910 | 6.49 | 2775-091 | 10.14 | – | – |
| 1-1/2 | .014 | 3/8 | 110 | 2770-920 | 6.88 | 2775-092 | 10.82 | – | – |
| 1-1/2 | .012 | 3/8 | 140 | 2770-930 | 7.43 | 2775-093 | 11.16 | – | – |
| 1-1/2 | .010 | 3/8 | 140 | 2770-940 | 9.52 | 2775-094 | 13.11 | – | – |
| 1-1/2 | .008 | 3/8 | 140 | 2770-950 | 10.01 | 2775-095 | 13.92 | – | – |
| 1-1/2 | .006 | 3/8 | 140 | – | – | 2775-096 | 14.99 | 2770-960 | 5.51 |
| 1-1/2 | .032 | 1/2 | 110 | 2770-970 | 5.83 | 2775-097 | 9.42 | – | – |
| 1-1/2 | .028 | 1/2 | 110 | 2770-980 | 5.83 | 2775-098 | 9.42 | – | – |
| 1-1/2 | .025 | 1/2 | 110 | 2770-990 | 5.83 | 2775-099 | 9.24 | – | – |
| 1-1/2 | .023 | 1/2 | 110 | 2771-000 | 5.83 | 2775-100 | 9.24 | – | – |
| 1-1/2 | .020 | 1/2 | 110 | 2771-010 | 5.83 | 2775-101 | 9.24 | – | – |
| 1-1/2 | .018 | 1/2 | 110 | 2771-020 | 6.33 | 2775-102 | 9.24 | – | – |
| 1-1/2 | .016 | 1/2 | 110 | 2771-030 | 6.49 | 2775-103 | 10.14 | – | – |
| 1-1/2 | .014 | 1/2 | 110 | 2771-040 | 6.88 | 2775-104 | 10.82 | – | – |
| 1-1/2 | .012 | 1/2 | 140 | 2771-050 | 7.43 | 2775-105 | 11.16 | – | – |
| 1-1/2 | .010 | 1/2 | 140 | 2771-060 | 9.52 | 2775-106 | 13.11 | – | – |
| 1-1/2 | .008 | 1/2 | 140 | 2771-070 | 10.01 | 2775-107 | 13.92 | – | – |
| 1-1/2 | .006 | 1/2 | 140 | – | – | 2775-108 | 14.99 | 2771-080 | 5.51 |
| 1-3/4 | .032 | 3/8 | 132 | 2771-090 | 6.33 | 2775-109 | 10.14 | – | – |
| 1-3/4 | .028 | 3/8 | 132 | 2775-110 | 10.14 | – | – | 2771-100 | 6.33 |
| 1-3/4 | .025 | 3/8 | 132 | 2771-110 | 5.83 | 2775-111 | 9.96 | – | – |
| 1-3/4 | .023 | 3/8 | 132 | 2775-112 | 9.96 | – | – | 2771-120 | 5.83 |
| 1-3/4 | .020 | 3/8 | 132 | 2771-130 | 6.49 | 2775-113 | 10.82 | – | – |
| 1-3/4 | .018 | 3/8 | 132 | 2771-140 | 6.88 | 2775-114 | 10.97 | – | – |
| 1-3/4 | .016 | 3/8 | 132 | 2775-115 | 11.16 | – | – | 2771-150 | 7.43 |
| 1-3/4 | .014 | 3/8 | 132 | 2771-160 | 7.59 | 2775-116 | 11.16 | – | – |
| 1-3/4 | .012 | 3/8 | 160 | 2771-170 | 8.86 | 2775-117 | 11.89 | – | – |
| 1-3/4 | .010 | 3/8 | 160 | 2771-180 | 10.01 | 2775-118 | 13.64 | – | – |
| 1-3/4 | .008 | 3/8 | 160 | 2775-119 | 14.31 | – | – | 2771-190 | 10.62 |
| 1-3/4 | .006 | 3/8 | 160 | – | – | 2775-120 | 16.40 | 2771-200 | 5.92 |
| 1-3/4 | .032 | 1/2 | 132 | 2771-210 | 6.33 | 2775-121 | 10.14 | – | – |
| 1-3/4 | .028 | 1/2 | 132 | 2771-220 | 6.33 | 2775-122 | 10.14 | – | – |
| 1-3/4 | .025 | 1/2 | 132 | 2771-230 | 5.83 | 2775-123 | 9.96 | – | – |
| 1-3/4 | .023 | 1/2 | 132 | 2771-240 | 5.83 | 2775-124 | 9.96 | – | – |
| 1-3/4 | .020 | 1/2 | 132 | 2771-250 | 6.49 | 2775-125 | 10.82 | – | – |
| 1-3/4 | .018 | 1/2 | 132 | 2771-260 | 6.88 | 2775-126 | 10.97 | – | – |
| 1-3/4 | .016 | 1/2 | 132 | 2771-270 | 7.43 | 2775-127 | 11.16 | – | – |
| 1-3/4 | .014 | 1/2 | 132 | 2771-280 | 7.59 | 2775-128 | 11.16 | – | – |
| 1-3/4 | .012 | 1/2 | 160 | 2771-290 | 8.86 | 2775-129 | 11.89 | – | – |
| 1-3/4 | .010 | 1/2 | 160 | 2771-300 | 10.01 | 2775-130 | 13.64 | – | – |
| 1-3/4 | .008 | 1/2 | 160 | 2771-310 | 10.62 | 2775-131 | 14.31 | – | – |
| 1-3/4 | .006 | 1/2 | 160 | – | – | 2775-132 | 16.40 | 2771-320 | 5.92 |
| 2 | .057 | 3/8 | 110 | 2771-330 | 8.86 | 2775-133 | 14.31 | – | – |
| 2 | .051 | 3/8 | 110 | 2771-340 | 8.86 | 2775-134 | 14.31 | – | – |
| 2 | .045 | 3/8 | 110 | 2771-350 | 7.92 | 2775-135 | 13.92 | – | – |
| 2 | .040 | 3/8 | 110 | 2771-360 | 7.92 | 2775-136 | 13.92 | – | – |
| 2 | .035 | 3/8 | 110 | 2771-370 | 7.43 | 2775-137 | 13.44 | – | – |
| 2 | .032 | 3/8 | 110 | 2771-380 | 7.43 | 2775-138 | 13.44 | – | – |
| 2 | .028 | 3/8 | 152 | 2771-390 | 7.43 | 2775-139 | 11.89 | – | – |
| 2 | .025 | 3/8 | 152 | 2771-400 | 7.43 | 2775-140 | 11.89 | – | – |
| 2 | .023 | 3/8 | 152 | 2771-410 | 6.88 | 2775-141 | 11.89 | – | – |
| 2 | .020 | 3/8 | 152 | 2771-420 | 7.43 | 2775-142 | 11.89 | – | – |

(cont'd)

# Jewelers Saws – High Speed Steel (Continued)



2

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2 | .018 | 3/8 | 152 | 2771-430 | $ 7.92 | 2775-143 | $ 13.64 | – | – |
| 2 | .016 | 3/8 | 152 | 2771-440 | 8.86 | 2775-144 | 14.14 | – | – |
| 2 | .014 | 3/8 | 152 | 2771-450 | 9.52 | 2775-145 | 16.04 | – | – |
| 2 | .012 | 3/8 | 190 | 2771-460 | 10.89 | 2775-146 | 16.36 | – | – |
| 2 | .010 | 3/8 | 190 | 2771-470 | 11.77 | 2775-147 | 16.71 | – | – |
| 2 | .008 | 3/8 | 190 | 2771-480 | 12.32 | 2775-148 | 18.47 | – | – |
| 2 | .006 | 3/8 | 190 | – | – | 2775-149 | 19.75 | 2771-490 | $ 6.84 |
| 2 | .057 | 1/2 | 110 | 2771-500 | 8.86 | 2775-150 | 14.31 | – | – |
| 2 | .051 | 1/2 | 110 | 2771-510 | 8.86 | 2775-151 | 14.31 | – | – |
| 2 | .045 | 1/2 | 110 | 2771-520 | 7.92 | 2775-152 | 13.92 | – | – |
| 2 | .040 | 1/2 | 110 | 2771-530 | 7.92 | 2775-153 | 13.92 | – | – |
| 2 | .035 | 1/2 | 110 | 2771-540 | 7.43 | 2775-154 | 13.44 | – | – |
| 2 | .032 | 1/2 | 110 | 2771-550 | 7.43 | 2775-155 | 13.44 | – | – |
| 2 | .028 | 1/2 | 152 | 2771-560 | 7.43 | 2775-156 | 11.89 | – | – |
| 2 | .025 | 1/2 | 152 | 2771-570 | 7.43 | 2775-157 | 11.89 | – | – |
| 2 | .023 | 1/2 | 152 | 2771-580 | 6.88 | 2775-158 | 11.89 | – | – |
| 2 | .020 | 1/2 | 152 | 2771-590 | 7.43 | 2775-159 | 11.89 | – | – |
| 2 | .018 | 1/2 | 152 | 2771-600 | 7.92 | 2775-160 | 13.64 | – | – |
| 2 | .016 | 1/2 | 152 | 2771-610 | 8.86 | 2775-161 | 14.14 | – | – |
| 2 | .014 | 1/2 | 152 | 2771-620 | 9.52 | 2775-162 | 16.04 | – | – |
| 2 | .012 | 1/2 | 190 | 2771-630 | 10.89 | 2775-163 | 16.36 | – | – |
| 2 | .010 | 1/2 | 190 | 2771-640 | 11.77 | 2775-164 | 16.71 | – | – |
| 2 | .008 | 1/2 | 190 | 2771-650 | 12.32 | 2775-165 | 18.47 | – | – |
| 2 | .006 | 1/2 | 190 | – | – | 2775-166 | 19.75 | – | – |
| 2-1/4 | .032 | 1/2 | 168 | – | – | – | – | 2771-670 | 4.85 |
| 2-1/4 | .025 | 1/2 | 168 | – | – | – | – | 2771-680 | 4.85 |
| 2-1/4 | .018 | 1/2 | 168 | – | – | – | – | 2771-710 | 4.85 |
| 2-1/4 | .016 | 1/2 | 168 | – | – | – | – | 2771-720 | 4.85 |
| 2-1/4 | .014 | 1/2 | 168 | – | – | – | – | 2771-730 | 6.77 |
| 2-1/4 | .012 | 1/2 | 210 | – | – | – | – | 2771-740 | 6.77 |
| 2-1/4 | .010 | 1/2 | 210 | 2771-750 | 14.58 | – | – | – | – |
| 2-1/2 | .057 | 1/2 | 140 | 2771-760 | 10.62 | 2775-176 | 18.15 | – | – |
| 2-1/2 | .051 | 1/2 | 140 | 2771-770 | 10.62 | 2775-177 | 18.15 | – | – |
| 2-1/2 | .045 | 1/2 | 140 | 2771-780 | 10.01 | 2775-178 | 16.73 | – | – |
| 2-1/2 | .040 | 1/2 | 140 | 2771-790 | 10.01 | 2775-179 | 16.73 | – | – |
| 2-1/2 | .035 | 1/2 | 140 | 2771-800 | 9.52 | 2775-180 | 16.37 | – | – |
| 2-1/2 | .032 | 1/2 | 140 | 2771-810 | 8.86 | 2775-181 | 16.37 | – | – |
| 2-1/2 | .028 | 1/2 | 190 | 2771-820 | 8.86 | 2775-182 | 16.37 | – | – |
| 2-1/2 | .025 | 1/2 | 190 | 2771-830 | 7.92 | 2775-183 | 13.64 | – | – |
| 2-1/2 | .023 | 1/2 | 190 | 2771-840 | 7.92 | 2775-184 | 13.64 | – | – |
| 2-1/2 | .020 | 1/2 | 190 | 2771-850 | 8.64 | 2775-185 | 14.14 | – | – |
| 2-1/2 | .018 | 1/2 | 190 | 2771-860 | 9.08 | 2775-186 | 14.99 | – | – |
| 2-1/2 | .016 | 1/2 | 190 | 2771-870 | 10.62 | 2775-187 | 16.37 | – | – |
| 2-1/2 | .014 | 1/2 | 190 | 2771-880 | 11.77 | 2775-188 | 16.73 | – | – |
| 2-1/2 | .012 | 1/2 | 240 | 2771-890 | 12.82 | 2775-189 | 18.10 | – | – |
| 2-1/2 | .010 | 1/2 | 240 | 2771-900 | 14.80 | 2775-190 | 21.30 | – | – |
| 2-1/2 | .008 | 1/2 | 240 | – | – | 2775-191 | 25.93 | – | – |
| 2-1/2 | .006 | 1/2 | 240 | – | – | 2775-192 | 29.85 | – | – |
| 3 | .057 | 1/2 | 168 | 2771-930 | 12.54 | 2775-193 | 21.45 | – | – |
| 3 | .051 | 1/2 | 168 | 2771-940 | 12.54 | 2775-194 | 21.45 | – | – |
| 3 | .045 | 1/2 | 168 | 2771-950 | 11.77 | 2775-195 | 20.38 | – | – |
| 3 | .040 | 1/2 | 168 | 2771-960 | 11.77 | 2775-196 | 20.38 | – | – |
| 3 | .035 | 1/2 | 168 | 2771-970 | 11.77 | 2775-197 | 20.38 | – | – |
| 3 | .032 | 1/2 | 168 | 2771-980 | 10.62 | 2775-198 | 19.17 | – | – |
| 3 | .028 | 1/2 | 230 | 2771-990 | 10.62 | 2775-199 | 19.17 | – | – |
| 3 | .025 | 1/2 | 230 | 2772-000 | 9.52 | 2775-200 | 16.73 | – | – |
| 3 | .023 | 1/2 | 230 | 2772-010 | 9.52 | 2775-201 | 16.73 | – | – |
| 3 | .020 | 1/2 | 230 | 2772-020 | 10.40 | 2775-202 | 18.15 | – | – |
| 3 | .018 | 1/2 | 230 | 2772-030 | 12.32 | 2775-203 | 19.53 | – | – |
| 3 | .016 | 1/2 | 230 | 2772-040 | 13.70 | 2775-204 | 21.45 | – | – |
| 3 | .014 | 1/2 | 230 | 2772-050 | 14.58 | 2775-205 | 22.53 | – | – |
| 3 | .012 | 1/2 | 280 | 2772-060 | 15.73 | 2775-206 | 23.11 | – | – |
| 3 | .010 | 1/2 | 280 | 2772-070 | 17.82 | 2775-207 | 25.93 | – | – |
| 3 | .008 | 1/2 | 280 | – | – | 2775-208 | 33.76 | 2772-080 | 9.53 |
| 3 | .006 | 1/2 | 280 | – | – | 2775-209 | 38.71 | 2772-090 | 9.53 |
| 3 | .057 | 3/4 | 168 | – | – | – | – | 2772-100 | 6.41 |
| 3 | .051 | 3/4 | 168 | – | – | – | – | 2772-110 | 6.41 |
| 3 | .045 | 3/4 | 168 | – | – | – | – | 2772-120 | 6.03 |
| 3 | .040 | 3/4 | 168 | – | – | – | – | 2772-130 | 6.03 |
| 3 | .035 | 3/4 | 168 | – | – | – | – | 2772-140 | 6.03 |
| 3 | .032 | 3/4 | 168 | – | – | – | – | 2772-150 | 5.43 |
| 3 | .028 | 3/4 | 230 | – | – | – | – | 2772-160 | 5.43 |
| 3 | .025 | 3/4 | 230 | – | – | – | – | 2772-170 | 4.85 |
| 3 | .023 | 3/4 | 230 | – | – | – | – | 2772-180 | 4.85 |
| 3 | .020 | 3/4 | 230 | – | – | – | – | 2772-190 | 5.33 |
| 3 | .018 | 3/4 | 230 | – | – | – | – | 2772-200 | 6.31 |
| 3 | .016 | 3/4 | 230 | – | – | – | – | 2772-210 | 7.00 |
| 3 | .014 | 3/4 | 230 | – | – | – | – | 2772-220 | 8.48 |
| 3 | .012 | 3/4 | 280 | – | – | – | – | 2772-230 | 8.48 |
| 3 | .010 | 3/4 | 280 | – | – | – | – | 2772-240 | 9.53 |
| 3 | .008 | 3/4 | 280 | – | – | – | – | 2772-250 | 9.53 |

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 3 | .006 | 3/4 | 280 | – | – | – | – | 2772-260 | 9.53 |
| 3 | .057 | 1 | 168 | 2772-271 | $ 12.54 | 2775-227 | $ 21.45 | – | – |
| 3 | .051 | 1 | 168 | 2772-280 | 12.54 | 2775-228 | 21.45 | – | – |
| 3 | .045 | 1 | 168 | 2772-290 | 11.77 | 2775-229 | 20.38 | – | – |
| 3 | .043 | 1 | 168 | – | – | – | – | 2772-295 | 6.03 |
| 3 | .040 | 1 | 168 | 2772-300 | 11.77 | 2775-230 | 20.38 | – | – |
| 3 | .036 | 1 | 168 | – | – | – | – | 2772-305 | 6.03 |
| 3 | .035 | 1 | 168 | 2772-310 | 11.77 | 2775-231 | 20.38 | – | – |
| 3 | .032 | 1 | 168 | 2772-320 | 10.62 | 2775-232 | 19.17 | – | – |
| 3 | .028 | 1 | 230 | 2772-330 | 10.62 | 2775-233 | 19.17 | – | – |
| 3 | .025 | 1 | 230 | 2772-340 | 9.52 | 2775-234 | 16.73 | – | – |
| 3 | .023 | 1 | 230 | 2772-350 | 9.52 | 2775-235 | 16.73 | – | – |
| 3 | .020 | 1 | 230 | 2772-360 | 10.40 | 2775-236 | 18.15 | – | – |
| 3 | .018 | 1 | 230 | 2772-370 | 12.32 | 2775-237 | 19.53 | – | – |
| 3 | .017 | 1 | 168 | – | – | – | – | 2772-375 | 6.46 |
| 3 | .016 | 1 | 230 | 2772-380 | 13.70 | 2775-238 | 21.45 | – | – |
| 3 | .014 | 1 | 230 | 2772-390 | 14.58 | 2775-239 | 22.53 | – | – |
| 3 | .012 | 1 | 280 | 2772-400 | 15.73 | 2775-240 | 23.11 | – | – |
| 3 | .010 | 1 | 280 | 2772-410 | 17.82 | 2775-241 | 25.93 | – | – |
| 3 | .008 | 1 | 280 | – | – | 2775-242 | 33.76 | 2772-420 | 9.53 |
| 3 | .006 | 1 | 280 | – | – | 2775-243 | 38.71 | 2772-430 | 9.53 |
| 4 | .064 | 1/2 | 220 | 2772-440 | 20.19 | 2775-244 | 35.73 | – | – |
| 4 | .057 | 1/2 | 220 | 2772-450 | 20.19 | 2775-245 | 35.73 | – | – |
| 4 | .051 | 1/2 | 220 | 2772-460 | 19.53 | 2775-246 | 34.72 | – | – |
| 4 | .045 | 1/2 | 220 | – | – | 2775-247 | 34.72 | 2772-470 | 19.53 |
| 4 | .040 | 1/2 | 220 | 2772-480 | 17.82 | 2775-248 | 30.68 | – | – |
| 4 | .035 | 1/2 | 220 | 2772-490 | 17.82 | 2775-249 | 30.68 | – | – |
| 4 | .032 | 1/2 | 220 | 2772-500 | 17.11 | 2775-250 | 29.99 | – | – |
| 4 | .028 | 1/2 | 310 | 2772-510 | 15.73 | 2775-251 | 26.37 | – | – |
| 4 | .025 | 1/2 | 310 | 2772-520 | 15.73 | 2775-252 | 26.37 | – | – |
| 4 | .023 | 1/2 | 310 | 2772-530 | 17.05 | 2775-253 | 30.19 | – | – |
| 4 | .020 | 1/2 | 310 | 2772-540 | 20.35 | 2775-254 | 31.59 | – | – |
| 4 | .018 | 1/2 | 310 | 2772-550 | 21.51 | 2775-255 | 33.98 | – | – |
| 4 | .016 | 1/2 | 310 | 2772-560 | 22.83 | 2775-256 | 35.56 | – | – |
| 4 | .014 | 1/2 | 310 | – | – | 2775-257 | 37.15 | 2772-570 | 11.84 |
| 4 | .012 | 1/2 | 310 | – | – | 2775-258 | 41.50 | 2772-580 | 11.84 |
| 4 | .064 | 3/4 | 220 | – | – | – | – | 2772-590 | 10.35 |
| 4 | .057 | 3/4 | 220 | – | – | – | – | 2772-600 | 10.35 |
| 4 | .051 | 3/4 | 220 | – | – | – | – | 2772-610 | 10.12 |
| 4 | .045 | 3/4 | 220 | – | – | – | – | 2772-620 | 10.12 |
| 4 | .040 | 3/4 | 220 | – | – | – | – | 2772-630 | 9.15 |
| 4 | .035 | 3/4 | 220 | – | – | – | – | 2772-640 | 9.15 |
| 4 | .032 | 3/4 | 220 | – | – | – | – | 2772-650 | 8.82 |
| 4 | .028 | 3/4 | 310 | – | – | – | – | 2772-660 | 8.10 |
| 4 | .025 | 3/4 | 310 | – | – | – | – | 2772-670 | 8.10 |
| 4 | .023 | 3/4 | 310 | – | – | – | – | 2772-680 | 8.82 |
| 4 | .020 | 3/4 | 310 | – | – | – | – | 2772-690 | 11.02 |
| 4 | .018 | 3/4 | 310 | – | – | – | – | 2772-700 | 11.59 |
| 4 | .016 | 3/4 | 310 | – | – | – | – | 2772-710 | 12.40 |
| 4 | .014 | 3/4 | 310 | – | – | – | – | 2772-720 | 12.40 |
| 4 | .012 | 3/4 | 310 | – | – | – | – | 2772-730 | 12.40 |
| 4 | .064 | 1 | 220 | 2772-740 | 20.19 | 2775-274 | 35.73 | – | – |
| 4 | .057 | 1 | 220 | 2772-750 | 20.19 | 2775-275 | 35.73 | – | – |
| 4 | .051 | 1 | 220 | 2772-760 | 19.53 | 2775-276 | 34.72 | – | – |
| 4 | .045 | 1 | 220 | 2772-770 | 19.53 | 2775-277 | 34.72 | – | – |
| 4 | .040 | 1 | 220 | 2772-780 | 17.82 | 2775-278 | 30.68 | – | – |
| 4 | .035 | 1 | 220 | 2772-790 | 17.82 | 2775-279 | 30.68 | – | – |
| 4 | .032 | 1 | 220 | 2772-800 | 17.11 | 2775-280 | 29.99 | – | – |
| 4 | .028 | 1 | 310 | 2772-810 | 15.73 | 2775-281 | 26.37 | – | – |
| 4 | .025 | 1 | 310 | 2772-820 | 15.73 | 2775-282 | 26.37 | – | – |
| 4 | .023 | 1 | 310 | 2772-830 | 17.05 | 2775-283 | 30.19 | – | – |
| 4 | .020 | 1 | 310 | 2772-840 | 20.35 | 2775-284 | 31.59 | – | – |
| 4 | .018 | 1 | 310 | 2772-850 | 21.51 | 2775-285 | 33.98 | – | – |
| 4 | .016 | 1 | 310 | 2772-860 | 22.83 | 2775-286 | 35.56 | – | – |
| 4 | .014 | 1 | 310 | – | – | 2775-287 | 37.15 | 2772-870 | 12.40 |
| 4 | .012 | 1 | 310 | – | – | 2775-288 | 41.50 | 2772-880 | 12.40 |

† Limited Quantities

(cont'd)

# Jewelers Saws – High Speed Steel (Continued)

| DIA. | THICK-NESS | HOLE | TEETH | Pittsburg® ORDER NO. | PRICE EACH | USA ORDER NO. | PRICE EACH | CLOSEOUT ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 5 | .064 | 1/2 | 280 | 2772-890 | $ 27.72 | 2775-289 | $ 46.71 | – | – |
| 5 | .057 | 1/2 | 280 | 2772-900 | 27.72 | 2775-290 | 46.71 | – | – |
| 5 | .051 | 1/2 | 280 | 2772-910 | 26.95 | 2775-291 | 46.19 | – | – |
| 5 | .045 | 1/2 | 280 | 2772-920 | 26.95 | 2775-292 | 46.19 | – | – |
| 5 | .040 | 1/2 | 280 | 2772-930 | 24.04 | 2775-293 | 41.50 | – | – |
| 5 | .035 | 1/2 | 280 | 2772-940 | 24.04 | 2775-294 | 41.50 | – | – |
| 5 | .032 | 1/2 | 280 | 2772-950 | 24.04 | 2775-295 | 41.50 | – | – |
| 5 | .028 | 1/2 | 280 | 2772-960 | 27.56 | 2775-296 | 42.37 | – | – |
| 5 | .025 | 1/2 | 380 | 2772-970 | 27.56 | 2775-297 | 42.37 | – | – |
| 5 | .020 | 1/2 | 380 | – | – | 2775-298 | 46.71 | – | – |
| 5 | .018 | 1/2 | 380 | – | – | 2775-299 | 48.95 | – | – |
| 5 | .016 | 1/2 | 380 | – | – | 2775-300 | 50.86 | – | – |
| 5 | .064 | 3/4 | 280 | – | – | – | – | 2773-010 | $ 14.40 |
| 5 | .057 | 3/4 | 280 | – | – | – | – | 2773-020 | 14.40 |
| 5 | .051 | 3/4 | 280 | – | – | – | – | 2773-030 | 14.00 |
| 5 | .045 | 3/4 | 280 | – | – | – | – | 2773-040 | 14.00 |
| 5 | .040 | 3/4 | 280 | – | – | – | – | 2773-050 | 12.45 |
| 5 | .035 | 3/4 | 280 | – | – | – | – | 2773-060 | 12.45 |
| 5 | .032 | 3/4 | 280 | – | – | – | – | 2773-070 | 12.45 |
| 5 | .025 | 3/4 | 380 | – | – | – | – | 2773-090 | 14.77 |
| 5 | .020 | 3/4 | 380 | – | – | – | – | 2773-100 | 14.77 |
| 5 | .018 | 3/4 | 380 | – | – | – | – | 2773-110 | 14.77 |
| 5 | .016 | 3/4 | 380 | – | – | – | – | 2773-120 | 14.77 |
| 5 | .064 | 1 | 280 | 2773-130 | 27.72 | 2775-313 | 46.71 | – | – |
| 5 | .062 | 1 | 280 | – | – | – | – | – | – |
| 5 | .057 | 1 | 280 | 2773-140 | 27.72 | 2775-314 | 46.71 | – | – |
| 5 | .051 | 1 | 280 | 2773-150 | 26.95 | 2775-315 | 46.19 | – | – |
| 5 | .045 | 1 | 280 | 2773-160 | 26.95 | 2775-316 | 46.19 | – | – |
| 5 | .040 | 1 | 280 | 2773-170 | 24.04 | 2775-317 | 41.50 | – | – |
| 5 | .035 | 1 | 280 | 2773-180 | 24.04 | 2775-318 | 41.50 | – | – |
| 5 | .032 | 1 | 280 | 2773-190 | 24.04 | 2775-319 | 41.50 | – | – |
| 5 | .028 | 1 | 280 | 2773-200 | 27.56 | 2775-320 | 42.37 | – | – |
| 5 | .025 | 1 | 380 | 2773-220 | 27.56 | 2775-321 | 42.37 | – | – |
| 5 | .023 | 1 | 380 | – | – | 2775-322 | 44.83 | – | – |
| 5 | .020 | 1 | 380 | – | – | 2775-323 | 46.71 | – | – |
| 5 | .018 | 1 | 380 | – | – | 2775-324 | 48.95 | 2773-240 | 14.77 |
| 5 | .016 | 1 | 380 | – | – | 2775-325 | 50.86 | 2773-250 | 14.77 |
| 6 | .128 | 1/2 | 232 | 2773-260 | 39.98 | 2775-326 | 93.62 | – | – |
| 6 | .114 | 1/2 | 232 | – | – | 2775-327 | 93.62 | 2773-270 | 36.55 |
| 6 | .102 | 1/2 | 232 | 2773-280 | 25.27 | 2775-328 | 77.04 | – | – |
| 6 | .091 | 1/2 | 232 | 2773-290 | 22.65 | 2775-329 | 77.04 | – | – |
| 6 | .081 | 1/2 | 232 | 2773-300 | 20.81 | 2775-330 | 73.20 | – | – |
| 6 | .072 | 1/2 | 232 | 2773-310 | 20.81 | 2775-331 | 73.20 | – | – |
| 6 | .064 | 1/2 | 232 | 2773-320 | 38.89 | 2775-332 | 62.07 | – | – |
| 6 | .057 | 1/2 | 232 | – | – | 2775-333 | 62.07 | 2773-330 | 20.14 |
| 6 | .051 | 1/2 | 232 | 2773-340 | 38.89 | 2775-334 | 62.07 | – | – |
| 6 | .045 | 1/2 | 340 | 2773-350 | 35.20 | 2775-335 | 57.51 | – | – |
| 6 | .040 | 1/2 | 340 | 2773-360 | 38.89 | 2775-336 | 57.51 | – | – |
| 6 | .035 | 1/2 | 340 | – | – | 2775-337 | 57.36 | 2773-370 | 20.14 |
| 6 | .032 | 1/2 | 340 | – | – | 2775-338 | 57.51 | – | – |
| 6 | .028 | 1/2 | 340 | – | – | 2775-339 | 62.07 | – | – |
| 6 | .025 | 1/2 | 460 | – | – | 2775-340 | 67.27 | – | – |
| 6 | .023 | 1/2 | 460 | – | – | 2775-341 | 73.43 | 2773-410 | 20.14 |
| 6 | .020 | 1/2 | 460 | – | – | 2775-342 | 75.29 | – | – |
| 6 | .128 | 3/4 | 232 | – | – | – | – | 2773-430 | 39.98 |
| 6 | .114 | 3/4 | 232 | – | – | – | – | 2773-440 | 36.55 |
| 6 | .102 | 3/4 | 232 | – | – | – | – | 2773-450 | 25.27 |
| 6 | .091 | 3/4 | 232 | – | – | – | – | 2773-460 | 22.65 |
| 6 | .081 | 3/4 | 232 | – | – | – | – | 2773-470 | 20.81 |
| 6 | .072 | 3/4 | 232 | – | – | – | – | 2773-480 | 20.81 |
| 6 | .064 | 3/4 | 232 | – | – | – | – | 2773-490 | 20.14 |
| 6 | .057 | 3/4 | 232 | – | – | – | – | 2773-500 | 20.14 |
| 6 | .051 | 3/4 | 232 | – | – | – | – | 2773-510 | 20.14 |
| 6 | .045 | 3/4 | 340 | – | – | – | – | 2773-520 | 18.20 |
| 6 | .040 | 3/4 | 340 | – | – | – | – | 2773-530 | 20.14 |
| 6 | .035 | 3/4 | 340 | – | – | – | – | 2773-540 | 20.14 |
| 6 | .028 | 3/4 | 340 | – | – | – | – | 2773-560 | 20.14 |
| 6 | .023 | 3/4 | 460 | – | – | – | – | 2773-580 | 20.14 |
| 6 | .020 | 3/4 | 460 | – | – | – | – | 2773-590 | 20.14 |
| 6 | .128 | 1 | 232 | 2773-600 | 70.51 | 2775-360 | 93.62 | – | – |
| 6 | .114 | 1 | 232 | 2773-610 | 70.51 | 2775-361 | 93.62 | – | – |
| 6 | .102 | 1 | 232 | 2773-620 | 48.73 | 2775-362 | 77.04 | – | – |
| 6 | .091 | 1 | 232 | 2773-630 | 43.67 | 2775-363 | 77.04 | – | – |
| 6 | .081 | 1 | 232 | 2773-640 | 40.26 | 2775-364 | 73.20 | – | – |
| 6 | .072 | 1 | 232 | 2773-650 | 40.26 | 2775-365 | 73.20 | – | – |
| 6 | .064 | 1 | 232 | 2773-660 | 38.89 | 2775-366 | 62.07 | – | – |
| 6 | .057 | 1 | 232 | 2773-670 | 38.89 | 2775-367 | 62.07 | – | – |
| 6 | .051 | 1 | 232 | 2773-680 | 38.89 | 2775-368 | 62.07 | – | – |
| 6 | .045 | 1 | 340 | 2773-690 | 35.20 | 2775-369 | 57.51 | – | – |
| 6 | .040 | 1 | 340 | 2773-700 | 38.89 | 2775-370 | 57.51 | – | – |
| 6 | .035 | 1 | 340 | 2773-710 | 43.18 | 2775-371 | 57.36 | – | – |
| 6 | .032 | 1 | 340 | – | – | 2775-372 | 57.51 | – | – |
| 6 | .028 | 1 | 340 | – | – | 2775-373 | 62.07 | – | – |
| 6 | .025 | 1 | 460 | – | – | 2775-374 | 67.27 | – | – |
| 6 | .023 | 1 | 460 | – | – | 2775-375 | 73.43 | 2773-750 | 20.14 |
| 6 | .020 | 1 | 460 | – | – | 2775-376 | 75.29 | – | – |
| 8 | .093 | 1 | 460 | – | – | – | – | 2773-770 | 51.51 |
| 8 | .045 | 1 | 460 | – | – | – | – | 2773-780 | 51.51 |

# Solid Carbide Slotting Saws

Look for ALLEGIANCE® AMERICANMADE 1

**To Order:** Specify saw diameter, thickness and hole dia. **Example:** 1 x .020 x 5/16.
**Tolerances:** O.D. ±.005; Thickness ±.0005; I.D. +.001-.000

- These special order items are non-returnable. • A written confirmation is required.
- All orders subject to factory over and under allowances made.
- C-2 Micrograin Carbide 10% Cobalt • Side Clearance for maximum cutting performance & blade life
- Harder & more wear resistant than HSS • Rake angle 5° std. for 1-1/2" dia. and larger
- Rake angle 0° std. for smaller dias. • Special make sizes/tooth geometries available on request.

| DIAMETER | THICKNESS | HOLE DIAMETER | NUMBER OF TEETH | PRICE EACH |
|---|---|---|---|---|
| 5/16" | .005-.007" | 1/8" | 14 | $ 36.71 |
| | .008-.009" | | | 34.00 |
| | .010-.045" | | | 27.20 |
| 3/8" | .005-.007" | 1/8", 3/16" | 14 | 37.90 |
| | .008-.009" | | | 35.11 |
| | .010-.045" | | | 28.09 |
| 1/2" | .005-.007" | 1/8", 3/16" | 14 | 39.86 |
| | .008-.009" | | | 36.91 |
| | .010-.045" | | | 29.53 |
| 9/16" | .005-.007" | 1/4" | 16 | 33.89 |
| | .008-.009" | | | 31.39 |
| | .010-.045" | | | 25.10 |
| 5/8" | .005-.007" | 1/4" | 16 | 34.25 |
| | .008-.009" | | | 31.71 |
| | .010-.065" | | | 25.36 |
| 3/4" | .005-.007" | 1/4", 5/16" | 18 | 35.95 |
| | .008-.009" | | | 33.29 |
| | .010-.065" | | | 26.63 |
| 7/8" | .005-.007" | 5/16", 3/8" | 20 | 43.14 |
| | .008-.009" | | | 39.95 |
| | .010-.065" | | | 31.96 |
| 1" | .005-.007" | 1/4", 9/32", 5/16", 3/8" | 20 | 53.11 |
| | .008-.009" | | | 49.19 |
| | .010-.065" | | | 39.35 |
| 1-1/4" | .005-.007" | 5/16", 3/8", 1/2" | 24 | 64.85 |
| | .008-.009" | | | 60.05 |
| | .010-.065" | | | 48.04 |
| 1-1/2" | .010-.019" | 1/2" | 36 | 88.25 |
| | .020"-.030" | | | 72.58 |
| | .031"-.050" | | | 75.73 |
| | .051"-.070" | | | 78.91 |
| 1-3/4" | .010-.019" | 1/2" | 38 | 100.10 |
| | .020"-.030" | | | 83.66 |
| | .031"-.050" | | | 89.18 |
| | .051"-.070" | | | 94.66 |
| 2" | .010-.019" | 1/2", 1" | 40 | 118.30 |
| | .020"-.030" | | | 106.20 |
| | .031"-.050" | | | 112.70 |
| | .051"-.070" | | | 119.14 |
| 2-1/4" | .010-.019" | 5/8", 1" | 44 | 127.51 |
| | .020"-.030" | | | 111.95 |
| | .031"-.050" | | | 118.65 |
| | .051"-.070" | | | 125.35 |
| 2-1/2" | .010-.019" | 1" | 48 | 131.16 |
| | .020"-.030" | | | 116.64 |
| | .031"-.050" | | | 125.08 |
| | .051"-.070" | | | 133.54 |
| 2-3/4" | .010-.019" | 1" | 60 | 168.55 |
| | .020"-.030" | | | 157.73 |
| | .031"-.050" | | | 169.00 |
| | .051"-.070" | | | 180.30 |
| 3" | .010-.019" | 1" | 72 | 186.49 |
| | .020"-.030" | | | 182.11 |
| | .031"-.050" | | | 195.63 |
| | .051"-.070" | | | 203.25 |
| 3-1/4" | .010-.019" | 1" | 72 | 283.05 |
| | .020"-.030" | | | 226.35 |
| | .031"-.050" | | | 237.86 |
| | .051"-.070" | | | 248.83 |
| 3-1/2" | .010-.019" | 1" | 72 | 283.05 |
| | .020"-.030" | | | 226.35 |
| | .031"-.050" | | | 237.86 |
| | .051"-.070" | | | 248.83 |
| | .071"-.090" | | | 260.20 |
| 3-3/4" | .010-.019" | 1" | 84 | 283.05 |
| | .020"-.030" | | | 226.35 |
| | .031"-.050" | | | 237.86 |
| | .051"-.070" | | | 248.83 |
| | .071"-.090" | | | 260.20 |
| 4" | .020"-.030" | 1" | 80 | 205.78 |
| | .031"-.050" | | | 216.24 |
| | .051"-.070" | | | 226.20 |
| | .071"-.090" | | | 236.55 |
| 5" | .020"-.030" | 1" | 100 | 243.14 |
| | .031"-.050" | | | 265.18 |
| | .051"-.070" | | | 297.58 |
| | .071"-.090" | | | 330.48 |
| | .091"-.110" | | | 369.38 |
| | .111"-.130" | | | 401.63 |
| 6" | .031"-.050" | 1" | 120 | 331.46 |
| | .051"-.070" | | | 371.95 |
| | .071"-.090" | | | 413.11 |
| | .091"-.110" | | | 461.71 |
| | .111"-.130" | | | 502.03 |
| | .131"-.150" | | | 543.25 |
| | .151"-.170" | | | 583.70 |

# Brazed-Carbide Hole Saws RELTON

**Will cut:** •Carbon Steel •Cast Iron •Stainless Steel •Aluminum • Hard Rubber • Titanium • Formica

## Metal-Cutting HS Series

**1" Drilling Depth Standard**

**Complete Saw Includes:** • Hole Saw cutter-head • Shank (HS-S4 or HS-S6) • Pilot (High-Speed Steel) 2

| | COMPLETE W/SHANK & PILOT | | | | CUTTER-HEAD ONLY | | | | REPLACEMENT SHANKS | | | REPLACEMENT PILOTS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER | MODEL NO. | ORDER NO. | WT. (lbs.) | PRICE EACH | MODEL NO. | ORDER NO. | WT. (lbs.) | PRICE EACH | MODEL NO. | ORDER NO. | PRICE EACH | MODEL NO. | ORDER NO. | WT. (lbs.) | PRICE EACH |
| 3/4" | HS-12 | 3110-012 | 0.4 | $ 74.00 | HS-12HO | 3110-112 | 0.3 | $46.00 | S-12 | 3110-615 | $15.00 | | | | |
| 7/8" | HS-14 | 3110-014 | 0.4 | 76.00 | HS-14HO | 3110-114 | 0.3 | 48.00 | (See at right for specs) | | | | | | |
| 1" | HS-16 | 3110-016 | 0.6 | 77.00 | HS-16HO | 3110-116 | 0.3 | 49.00 | | | | | | | |
| 1-1/8" | HS-18 | 3110-018 | 0.7 | 78.00 | HS-18HO | 3110-118 | 0.4 | 50.00 | HS-S4 | 3110-616 | 15.00 | | | | |
| 1-1/4" | HS-20 | 3110-020 | 0.7 | 81.00 | HS-20HO | 3110-120 | 0.4 | 53.00 | (Supplied w/ complete saw) | | | | | | |
| 1-3/8" | HS-22 | 3110-022 | 0.8 | 83.00 | HS-22HO | 3110-122 | 0.4 | 55.00 | HS-S47 | 3110-614 | 20.00 | SP-41 | 3110-625 | 0.1 | $10.00 |
| 1-1/2" | HS-24 | 3110-024 | 0.9 | 85.00 | HS-24HO | 3110-124 | 0.4 | 57.00 | HS-S410 | 3110-613 | 27.00 | High Speed Steel 1/4" Diameter - 1" DD | | | |
| 1-5/8" | HS-26 | 3110-026 | 1.0 | 87.00 | HS-26HO | 3110-126 | 0.5 | 59.00 | (See at right for specs) | | | | | | |
| 1-3/4" | HS-28 | 3110-028 | 1.1 | 89.00 | HS-28HO | 3110-128 | 0.6 | 61.00 | | | | ES-41 | 3110-618 | | $ 3.00 |
| 1-7/8" | HS-30 | 3110-030 | 1.1 | 99.00 | HS-30HO | 3110-130 | 0.6 | 71.00 | | | | Ejector Spring | | | |
| 2" | HS-32 | 3110-032 | 1.1 | 100.00 | HS-32HO | 3110-132 | 0.6 | 72.00 | | | | | | | |
| 2-1/8" | HS-34 | 3110-034 | 1.3 | 102.00 | HS-34HO | 3110-134 | 0.7 | 74.00 | | | | | | | |
| 2-1/4" | HS-36 | 3110-036 | 1.4 | 104.00 | HS-36HO | 3110-136 | 0.8 | 76.00 | HS-S6 | 3110-617 | $15.00 | SP-61 | 3110-627 | 0.1 | $10.00 |
| 2-3/8" | HS-38 | 3110-038 | 1.4 | 108.00 | HS-38HO | 3110-138 | 0.8 | 80.00 | (Supplied w/ complete saw) | | | High Speed Steel 3/8" Diameter - 1" DD | | | |
| 2-1/2" | HS-40 | 3110-040 | 1.6 | 109.00 | HS-40HO | 3110-140 | 0.8 | 81.00 | | | | | | | |
| 2-3/4" | HS-44 | 3110-044 | 1.6 | 113.00 | HS-44HO | 3110-144 | 0.8 | 85.00 | HS-S67 | 3110-612 | 20.00 | | | | |
| 3" | HS-48 | 3110-048 | 1.7 | 123.00 | HS-48HO | 3110-148 | 1.7 | 95.00 | HS-S610 | 3110-611 | 27.00 | ES-41 | 3110-618 | | $ 3.00 |
| 3-1/4" | HS-52 | 3110-052 | 1.9 | 132.00 | HS-52HO | 3110-152 | 1.6 | 104.00 | (See at right for specs) | | | Ejector Spring | | | |
| 3-1/2" | HS-56 | 3110-056 | 2.3 | 139.00 | HS-56HO | 3110-156 | 1.9 | 111.00 | | | | | | | |
| 4" | HS-64 | 3110-064 | 2.6 | 160.00 | HS-64HO | 3110-164 | 2.2 | 132.00 | | | | | | | |

### Hole Saw Shank Specifications

**HS-S4 Series Shanks:**
- 3/4-10 threads
- 1/4" pilot hole
- 1/2" round shank w/3 flats

**HS-S4** - 3" OAL ..... Wt. 0.4
**HS-S47** - 7" OAL ..... Wt. 0.8
**HS-S410** - 10" OAL .... Wt. 1.2

**S-12 Shank:**
- 1/2-13 threads
- 1/4" pilot hole
- 3/8" round shank w/3 flats
- 3" OAL ..... Wt. 0.4

**HS-S6 Series Shanks**
- 3/4-10 threads
- 3/8" pilot hole
- 1/2" round shank w/3 flats
- **HS-S6** - 3" OAL ..... Wt. 0.5
- **HS-S67** - 7" OAL ..... Wt. 0.8
- **HS-S610** - 10" OAL . Wt. 1.2

# Brazed-Carbide Thin-Gauge Hole Cutters

| AVAILABLE SIZES | | | | |
|---|---|---|---|---|
| DIAM. | MODEL NO. | ORDER NO. | WT. (lbs.) | PRICE EACH |
| 3/4" | TG-12 | 3110-712 | 0.2 | $54.00 |
| 13/16" | TG-13 | 3110-713 | 0.2 | 55.00 |
| 7/8" | TG-14 | 3110-714 | 0.2 | 56.00 |
| 1" | TG-16 | 3110-716 | 0.3 | 58.00 |
| 1-1/16" | TG-17 | 3110-717 | 0.3 | 61.00 |
| 1-1/8" | TG-18 | 3110-718 | 0.3 | 63.00 |
| 1-7/32" | TG-19 | 3110-719 | 0.3 | 64.00 |
| 1-1/4" | TG-20 | 3110-720 | 0.3 | 66.00 |
| 1-5/16" | TG-21 | 3110-721 | 0.3 | 67.00 |
| 1-3/8" | TG-22 | 3110-722 | 0.3 | 68.00 |
| 1-7/16" | TG-23 | 3110-723 | 0.3 | 69.00 |
| 1-1/2" | TG-24 | 3110-724 | 0.3 | 74.00 |
| 1-5/8" | TG-26 | 3110-726 | 0.3 | 83.00 |
| 1-3/4" | TG-28 | 3110-728 | 0.4 | 86.00 |
| 2" | TG-32 | 3110-732 | 0.4 | 90.00 |
| 2-1/8" | TG-34 | 3110-734 | 0.4 | 102.00 |
| 2-1/4" | TG-36 | 3110-736 | 0.5 | 103.00 |
| 2-3/8" | TG-38 | 3110-738 | 0.5 | 104.00 |
| 2-1/2" | TG-40 | 3110-740 | 0.5 | 106.00 |

| REPLACEMENT PILOTS | | | | |
|---|---|---|---|---|
| DIAM. | MODEL NO. | ORDER NO. | WT. (lbs.) | PRICE EACH |
| 1/4" | TGP-4 | 3110-710 | 0.1 | $12.50 |

- For materials up to 1/4" thick
- Excellent for all materials:
  - •Sheet metal
  - •Stainless steel
  - •Thin plastics
- Smooth clean holes
- Easy plug removal
- Non-removable shank
- Special sizes on request!

# IRWIN Circular Saws For Wood

***10" 80T***
- #400 grit diamond ground teeth for a smooth finish
- Precision tensioned & balanced blade for an accurate cut
- Construction grade carbide teeth for longer life
- Thin kerf for fast cuts

***Order No. 3255-440 Price Each: $64.57***

***#25150***
- The best value for an economy blade
- Corrosion resistant coating helps prevent rusting
- Precision ground teeth for smooth, accurate cuts
- Slots for Straighter Cuts

***Order No. 3255-445 Price Each: $4.96***

# Annular Cutters

## Unibor Annular Cutters, Made in England

Annular cutters are very efficient at cutting a hole through steel. They remove only a narrow wall of material, leaving behind a slug which is ejected at the end of the cut. When compared to a twist drill, annular cutters use far less energy and time to do the same work.

Unibor M35 Cobalt cutters offer up to 30% longer life when compared with standard high speed steel. Cobalt cutters feature a heavier wall thickness of 0.265".

Unibor cutters are fully ground and resharpenable.

Cutters from 3/4" to 1-7/16" diameter are typically supplied with a 3/4" Weldon shank.

| UNIBOR® PINS | | | |
|---|---|---|---|
| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
| USP-1A | For 7/16"x 1" Cutters | 2854-891 | $4.20 |
| USP-1 | For 1" Cutters | 2854-890 | 4.20 |
| USP-2 | For 2" Cutters | 2854-894 | 4.80 |

| | HIGH SPEED STEEL | | | | M35 – 5% COBALT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1" LENGTH | | 2" LENGTH | | 1" LENGTH | | 2" LENGTH | | 3" LENGTH | |
| SIZE | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 7/16 | 2855-114 | $ 18.30 | 2855-214 | $ 27.80 | 2855-314 | $ 23.50 | 2855-414 | $ 32.60 | – | – |
| 1/2 | 2855-116 | 18.30 | 2855-216 | 27.80 | 2855-316 | 23.50 | 2855-416 | 32.60 | – | – |
| 9/16 | 2855-118 | 19.50 | 2855-218 | 27.80 | 2855-318 | 25.60 | 2855-418 | 36.10 | – | – |
| 5/8 | 2855-120 | 21.90 | 2855-220 | 30.10 | 2855-320 | 28.80 | 2855-420 | 38.60 | – | – |
| 11/16 | 2855-122 | 22.40 | 2855-222 | 33.30 | 2855-322 | 29.40 | 2855-422 | 43.60 | – | – |
| 3/4 | 2855-124 | 24.20 | 2855-224 | 35.80 | 2855-324 | 31.70 | 2855-424 | 47.00 | 2855-524 | $77.30 |
| 13/16 | 2855-126 | 25.60 | 2855-226 | 38.30 | 2855-326 | 33.60 | 2855-426 | 50.40 | 2855-526 | 83.90 |
| 7/8 | 2855-128 | 27.50 | 2855-228 | 41.00 | 2855-328 | 36.10 | 2855-428 | 53.80 | 2855-528 | 89.00 |
| 15/16 | 2855-130 | 30.00 | 2855-230 | 44.50 | 2855-330 | 39.40 | 2855-430 | 58.40 | 2855-530 | 95.30 |
| 1 | 2855-132 | 32.00 | 2855-232 | 48.00 | 2855-332 | 42.00 | 2855-432 | 63.00 | 2855-532 | 105.00 |
| 1-1/16 | 2855-134 | 32.80 | 2855-234 | 49.90 | 2855-334 | 43.00 | 2855-434 | 65.40 | 2855-534 | 113.50 |
| 1-1/8 | 2855-136 | 37.80 | 2855-236 | 57.00 | 2855-336 | 49.60 | 2855-436 | 74.80 | 2855-536 | 124.60 |
| 1-3/16 | 2855-138 | 39.60 | 2855-238 | 58.90 | 2855-338 | 52.00 | 2855-438 | 77.30 | 2855-538 | 127.00 |
| 1-1/4 | 2855-140 | 42.80 | 2855-240 | 61.40 | 2855-340 | 53.80 | 2855-440 | 80.60 | 2855-540 | 134.40 |
| 1-5/16 | 2855-142 | 44.70 | 2855-242 | 63.70 | 2855-342 | 56.70 | 2855-442 | 83.60 | 2855-542 | 136.50 |
| 1-3/8 | 2855-144 | 55.60 | 2855-244 | 68.80 | 2855-344 | 72.70 | 2855-444 | 89.00 | 2855-544 | 138.50 |
| 1-7/16 | 2855-146 | 62.60 | 2855-246 | 76.20 | 2855-346 | 82.20 | 2855-446 | 100.00 | 2855-546 | 146.20 |
| 1-1/2 | 2855-148 | 65.30 | 2855-248 | 81.90 | 2855-348 | 85.70 | 2855-448 | 107.50 | 2855-548 | 155.30 |
| 1-9/16 | 2855-150 | 73.60 | 2855-250 | 91.50 | 2855-350 | 96.60 | 2855-450 | 120.10 | 2855-550 | 173.40 |
| 1-5/8 | 2855-152 | 76.20 | 2855-252 | 98.60 | 2855-352 | 100.00 | 2855-452 | 129.40 | 2855-552 | 186.80 |
| 1-11/16 | 2855-154 | 80.60 | 2855-254 | 101.80 | 2855-354 | 105.80 | 2855-454 | 133.60 | 2855-554 | 192.90 |
| 1-3/4 | 2855-156 | 85.80 | 2855-256 | 108.20 | 2855-356 | 112.60 | 2855-456 | 142.00 | 2855-556 | 205.00 |
| 1-13/16 | 2855-158 | 89.00 | 2855-258 | 112.60 | 2855-358 | 116.80 | 2855-458 | 147.80 | 2855-558 | 213.50 |
| 1-7/8 | 2855-160 | 93.40 | 2855-260 | 121.00 | 2855-360 | 122.60 | 2855-460 | 158.80 | 2855-560 | 229.30 |
| 1-15/16 | 2855-162 | 99.80 | 2855-262 | 127.40 | 2855-362 | 131.00 | 2855-462 | 167.20 | 2855-562 | 241.40 |
| 2 | 2855-164 | 102.10 | 2855-264 | 133.80 | 2855-364 | 134.00 | 2855-464 | 175.60 | 2855-564 | 253.50 |
| 2-1/16 | – | – | – | – | 2855-366 | 186.40 | 2855-466 | 209.00 | 2855-566 | 263.30 |
| 2-1/8 | – | – | – | – | 2855-368 | 199.20 | 2855-468 | 217.20 | 2855-568 | 274.80 |
| 2-3/16 | – | – | – | – | 2855-370 | 205.50 | 2855-470 | 229.70 | 2855-570 | 279.90 |
| 2-1/4 | – | – | – | – | 2855-372 | 207.10 | 2855-472 | 235.80 | 2855-572 | 287.40 |
| 2-5/16 | – | – | – | – | 2855-374 | 213.70 | 2855-474 | 239.40 | 2855-574 | 293.90 |
| 2-3/8 | – | – | – | – | 2855-376 | 218.30 | 2855-476 | 242.80 | 2855-576 | 299.50 |
| 2-7/16 | – | – | – | – | 2855-378 | 223.00 | 2855-478 | 252.30 | 2855-578 | 307.90 |
| 2-1/2 | – | – | – | – | 2855-380 | 228.60 | 2855-480 | 264.10 | 2855-580 | 315.40 |
| 2-9/16 | – | – | – | – | 2855-382 | 233.30 | 2855-482 | 280.40 | 2855-582 | 328.40 |
| 2-5/8 | – | – | – | – | 2855-384 | 252.00 | 2855-484 | 285.90 | 2855-584 | 335.90 |
| 2-11/16 | – | – | – | – | 2855-386 | 254.60 | 2855-486 | 291.70 | 2855-586 | 342.40 |
| 2-3/4 | – | – | – | – | 2855-388 | 268.70 | 2855-488 | 297.60 | 2855-588 | 349.90 |
| 2-13/16 | – | – | – | – | 2855-390 | 283.20 | 2855-490 | 326.60 | 2855-590 | 353.60 |
| 2-7/8 | – | – | – | – | 2855-392 | 286.10 | 2855-492 | 331.70 | 2855-592 | 361.10 |
| 2-15/16 | – | – | – | – | 2855-394 | 290.30 | 2855-494 | 342.60 | 2855-594 | 367.60 |
| 3 | – | – | – | – | 2855-396 | 293.20 | 2855-496 | 346.80 | 2855-596 | 372.30 |

# Mag Drills

## Model EQ35N
### Portable Magnetic Drill

- High-Torque motor
- Safety interlocked controls
- Supplied coolant system
- Lightweight
- QuickHitch arbor
- Includes: Warranty, Carrying case, Allen keys, Safety strap & guard, Cutting oil

- POWER: 1.5 hp
- ELECTRIC MOTOR: 1100 watts, 120V, 10 amps
- SPEED: (no load) 450 rpm
- HEIGHT: 14" • WEIGHT: 25 lbs.
- MAGNETIC DIMENSIONS: 6-1/4" x 3-1/8" x 2"
- MAGNETIC ADHESION: 1300 lbs.
- STROKE: 4-3/4" • CUTTING THICKNESS: 1/2"- 2"

**Order No. 2854-800 Price Each: $821.40**

## Model EQ50
### Portable Magnetic Drill

- Integral arbor support
- Solid state electronic control panel
- Supplied coolant system
- Quick conversion to twist drilling
- Available with reverse

- POWER: 1.5 hp
- ELECTRIC MOTOR: 1100 watts, 110V, 9 amps
- SPEED: (no load) 280/500 rpm
- HEIGHT: 15-1/2" • WEIGHT: 40 lbs.
- MAGNETIC DIMENSIONS: 7-3/8" x 4" x 2-3/8"
- MAGNETIC ADHESION: 2000 lbs.
- STROKE: 6-5/8" • MORSE TAPER: 2
- CUTTING THICKNESS: 1/2"- 2"

**Order No. 2854-805 Price Each: $ 1339.30**

## Model EQ100
### Portable Magnetic Drill

- Integral arbor support
- Solid state electronic control panel
- Supplied coolant system
- Variable speed control
- Quick conversion to twist drilling
- Two gear ranges • Available swivel base
- 4" broaching capacity • QuickHitch arbor
- Available with reverse

- POWER: 2.4 hp
- ELECTRIC MOTOR: 1800 watts, 110V, 10.6 amps
- SPEED: (no load) 40-130 rpm, 145-430 rpm
- HEIGHT: 21" • WEIGHT: 58 lbs.
- MAGNETIC DIMENSIONS: 7-1/2" x 4" x 2-1/2"
- MAGNETIC ADHESION: 4000 lbs.
- STROKE: 4-3/4" • MORSE TAPER: 3
- CUTTING THICKNESS: 1/2"- 3"

**Order No. 2854-810 Price Each: $1517.90**

# Holesaws

BAHCO 2

| SIZE | USE ARBOR | BI-METAL ORDER NO. | BI-METAL PRICE EACH | CARBIDE TIPPED ORDER NO. | CARBIDE TIPPED PRICE EACH |
|---|---|---|---|---|---|
| 9/16 | | 3660-036 | $4.62 | 3660-409 | $ 9.54 |
| 5/8 | | 3660-040 | 4.62 | 3660-410 | 9.54 |
| 11/16 | | 3660-044 | 4.62 | 3660-411 | 9.54 |
| 3/4 | | 3660-048 | 4.62 | 3660-412 | 9.54 |
| 13/16 | 3661-313 | 3660-052 | 4.62 | 3660-413 | 10.05 |
| 7/8 | 3661-316 | 3660-056 | 4.77 | 3660-414 | 10.05 |
| 15/16 | 3661-319 | 3660-060 | 4.77 | 3660-415 | 10.05 |
| 1 | | 3660-064 | 4.86 | 3660-416 | 10.59 |
| 1-1/16 | | 3660-068 | 5.22 | 3660-417 | 10.59 |
| 1-1/8 | | 3660-072 | 5.22 | 3660-418 | 11.04 |
| 1-3/16 | | 3660-076 | 5.22 | 3660-419 | 11.91 |
| 1-1/4 | | 3660-080 | 5.22 | 3660-420 | 11.91 |
| 1-5/16 | | 3660-084 | 5.22 | 3660-421 | 11.91 |
| 1-3/8 | | 3660-088 | 5.22 | 3660-422 | 12.69 |
| 1-7/16 | | 3660-092 | 5.22 | 3660-423 | 12.69 |
| 1-1/2 | | 3660-096 | 5.22 | 3660-424 | 13.29 |
| 1-9/16 | | 3660-100 | 5.22 | 3660-425 | 13.83 |
| 1-5/8 | | 3660-104 | 5.22 | 3660-426 | 13.83 |
| 1-11/16 | 3661-314 | 3660-108 | 5.22 | 3660-427 | 13.83 |
| 1-3/4 | 3661-315 | 3660-112 | 6.72 | 3660-428 | 14.19 |
| 1-13/16 | 3661-317 | 3660-116 | 6.72 | 3660-429 | 14.19 |
| 1-7/8 | 3661-318 | 3660-120 | 6.72 | 3660-430 | 15.18 |
| 2 | | 3660-128 | 6.72 | 3660-432 | 16.11 |
| 2-1/16 | | 3660-132 | 6.72 | 3660-433 | 16.11 |
| 2-1/8 | | 3660-136 | 8.16 | 3660-434 | 16.62 |
| 2-1/4 | | 3660-144 | 8.16 | 3660-436 | 18.39 |
| 2-5/16 | | 3660-148 | $ 8.16 | 3660-437 | $18.39 |
| 2-3/8 | | 3660-152 | 8.16 | 3660-438 | 19.08 |
| 2-1/2 | | 3660-160 | 8.97 | 3660-440 | 19.71 |
| 2-9/16 | | 3660-164 | 8.97 | 3660-441 | 19.71 |
| 2-5/8 | | 3660-168 | 8.97 | 3660-442 | 20.70 |
| 2-3/4 | | 3660-176 | 8.97 | 3660-444 | 21.45 |
| 2-7/8 | | 3660-184 | 8.97 | 3660-446 | 21.45 |
| 3 | | 3660-192 | 9.99 | 3660-448 | 23.04 |
| 3-1/8 | 3661-314 | 3660-200 | 9.99 | 3660-450 | 23.04 |
| 3-1/4 | 3661-315 | 3660-208 | 9.99 | 3660-452 | 27.87 |
| 3-3/8 | 3661-317 | 3660-216 | 9.99 | 3660-454 | 28.89 |
| 3-1/2 | 3661-318 | 3660-224 | 9.99 | 3660-456 | 29.94 |
| 3-5/8 | | 3660-232 | 11.58 | 3660-458 | 30.96 |
| 3-3/4 | | 3660-240 | 12.66 | 3660-460 | 32.16 |
| 3-7/8 | | 3660-248 | 13.41 | 3660-462 | 32.16 |
| 4 | | 3660-256 | 14.10 | 3660-464 | 34.23 |
| 4-1/8 | | 3660-264 | 15.12 | 3660-466 | 36.90 |
| 4-1/4 | | 3660-272 | 17.70 | 3660-468 | 38.34 |
| 4-3/8 | | 3660-280 | 20.46 | 3660-470 | 43.50 |
| 4-1/2 | | 3660-288 | 22.71 | 3660-472 | 48.45 |
| 4-3/4 | | 3660-304 | 25.23 | 3660-476 | 53.64 |
| 5 | | 3660-320 | 27.78 | 3660-480 | 59.70 |
| 5-1/4 | | 3660-336 | 30.24 | 3660-484 | 64.86 |
| 5-1/2 | | 3660-352 | 32.61 | 3660-488 | 66.90 |
| 5-3/4 | | 3660-368 | 34.80 | 3660-492 | 71.94 |
| 6 | | 3660-384 | 37.32 | 3660-496 | 75.66 |

## Bi-Metal Holesaws

- Create clean, accurate holes in most machinable materials
- High speed cutting edge is electron-beam welded to tough alloy back
- Knockout holes allow for easy core removal
- Diameters from 9/16" to 6"
- Cutting depth for all diameters is 1-1/2"

## Carbide-Tipped Holesaws

- Carbide saws cut clean holes in ceramics, brick, slate, laminate,fiberglass, and hardwood
- Carbide tips are fusion welded to alloy back
- Knockout holes allow for easy core removal
- Diameters from 9/16" to 6"
- Cutting depth for all diameters is 1-1/2"

### 7-pc. Bi-Metal Professional Hole Saw Kit

Assortment of holesaws:
**7/8", 1", 1-1**/8", 1-1/4", 1-1/2"
Arbors: 3661-316
**Order No. 3661-995 Price Each……$33.51**

### 9-pc. Bi-Metal Plumber's HoleSaw Kit

Assortment of holesaws:
3/4", 7/8", 1", 1-1/8", 1-1/2", 1-3/4", 2-1/4"
Arbors: 3661-316, 3661-314
Extensions: 3661-120
**Order No. 3662-005 Price Each…$66.54**

### 9-pc. Bi-Metal Electrician's Hole Saw Kit

Assortment of holesaws:
7/8", 1-1/8", 1-3/8", 1-3/4", 2", 2-1/2"
Arbors: 3661-316, 3661-314
Extensions: 3661-120
**Order No. 3662-000 Price Each…$78.00**

### 13-piece Bi-Metal Professional Hole Saw Kit

Assortment of holesaws:
3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2"
Arbors: 3661-316, 3661-314
Adapter: 3661-642 Drills: 3661-576
**Order No. 3662-007 Price Each…$ 80.61**

### 17 Piece Bi-Metal General Maintenance Kit

Assortment of holesaws:
5/8", 3/4", 7/8", 1", 1-1/8",
1-1/4", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/2", 3"
Arbors: 3661-316, 3661-314
Adapter: 3661-642 Drills: 3661-576
**Order No. 3662-010 Price Each…$101.61**

### 21-pc. Bi-Metal Professional Hole Saw Kit

Assortment of holesaws: 3/4", 7/8",1",
1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2",
3", 3-1/4", 3-5/8", 3-3/4", 4-1/8", 4-3/4"
Arbors: 3661-316, 3661-314
Adapter: 3661-642 Drills: 3661-576
**Order No. 3662-012**
**Price Each…$ 196.53**

### 7-pc. Carbide-Tipped Professional Hole Saw Kit

Assortment of holesaws:
7/8",1", 1-1/8", 1-1/4", 1-1/4", 2",2-1/4", 2-1/2"
Arbors: 3661-316, Adapter: 3661-642
**Order No. 3662-014 Price Each…$ 64.44**

### 13-pc. Carbide-Tipped Professional Hole Saw Kit

Assortment of holesaws:
3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2",2-1/4", 2-1/2"
Arbors: 3661-316, 3661-314
Fits Holesaws 9/16"-1-3/16", 1-1/4"-6"
Carbide-Tipped Pilot Drills: 3661-620
**Order No. 3662-016**
**Price Each…$ 153.57**

## Arbors/Accessories

**7/16" Hex Shank**
**Order No. 3661-313 Price Each…$6.75**

**11/32" Hex Shank Quick Change**
**Order No. 3661-318 Price Each…$11.10**

**5/16" Hex**
**Order No. 3661-319 Price Each…$7.08**

**1/4" Triangular Shank**
**Order No. 3661-316 Price Each…$4.71**

**5/8" Hex Shank Quick Change**
**Order No. 3661-315 Price Each…$11.10**

**7/16" Hex Shank Quick Change**
**Order No. 3661-314 Price Each…$11.10**

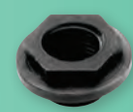
**7/16" Hex**
**Order No. 3661-317 Price Each…$12.30**

**Pilot Drills**

**1/4" diameter - Order No. 3661-576 Price Each...$2.46**

**1/4" diameter - Carbide Tipped**
**Order No. 3661-620 Price Each...$10.83**

**Adapter**



**Arbor Adapter–**
Adapts 1/2-20 holesaws (9/16" to 1-3/16") thread arbor to accommodate 5/8-18 thread holesaw (1-1/4" to 6")
**Order No. 3661-642 Price Each…$2.73**

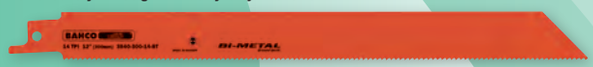
**12" Extension** for Arbors
**Order No. 3661-120 Price Each…$9.75**

# Reciprocating Saw Blades



***More strength, power and precision.***

Bahco by Snap-on reciprocating sawblades make it easier to cut precisely and safely through virtually any material.




## Bimetal Blade, Straight Type

For straight and quick cutting of metal, plastic, laminates, and wood with nails.

| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 4 | 6 | 5 | 3692-506 | $ 7.98 |
| 4 | 10 | 5 | 3692-510† | 7.46 |
| 4 | 14 | 5 | 3692-514 | 7.98 |
| 4 | 18 | 5 | 3692-518 | 7.98 |
| 4 | 24 | 5 | 3692-524 | 7.98 |
| 6 | 6 | 5 | 3692-536 | 10.65 |
| 6 | 8/12 | 5 | 3692-538 | 10.65 |
| 6 | 10 | 5 | 3692-540 | 10.65 |
| 6 | 14 | 5 | 3692-544 | 10.65 |
| 6 | 18 | 5 | 3692-548 | 10.65 |
| 6 | 24 | 5 | 3692-554 | 10.65 |
| 9 | 8/12 | 5 | 3692-568 | 13.65 |
| 9 | 10 | 5 | 3692-570 | 13.65 |
| 9 | 14 | 5 | 3692-574 | 13.65 |
| 9 | 18 | 5 | 3692-578 | 13.65 |
| 12 | 14 | 5 | 3692-584 | 17.46 |
| 12 | 18 | 5 | 3692-588 | 17.46 |

**† Limited Quantities**

## Carbide-Tipped Reciprocating Saw Blades

Blade with carbide tipped teeth for cutting bricks, porous concrete, fiberglass, plastic laminates, cement board, plywood, cast aluminum, rubber, & hardwoods.

**† Limited Quantities**

| Blade Length | TPI | Pack Qty | Order No. | Price Each |
|---|---|---|---|---|
| **Slope Type** | | | | |
| 6 | 6 | 1 | 3692-706 | $ 15.09 |
| **Straight Type** | | | | |
| 9 | 3 | 1 | 3692-723 | 14.64 |
| 9 | 6 | 1 | 3692-726† | 21.65 |
| 12 | 3 | 1 | 3692-733 | 19.14 |
| 12 | 6 | 1 | 3692-736† | 29.03 |

**† Limited Quantities**

## Carbide-Grit Reciprocating Saw Blades, Straight Type

Blade with carbide grit cutting edge designed for precision cutting of extremely hard materials: glass, glazed tiles, ceramics, fiberglass, cast iron, clay pipe,stone, bricks, plaster, and marble.

| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 4 | 0 | 2 | 3692-754 | $ 8.67 |
| 6 | 0 | 2 | 3692-756 | 8.10 |

## Sets

**Bi-Metal Reciprocating Saw Blade Sets**

### 5-piece Set

(Includes: 1 each: Bimetal-Straight Cut 14 TPI, Bimetal-Straight Cut 24 TPI, Bimetal-Scroll Cut, Bimetal-Slope Cut, Wood Cutting Blade

**Order No. 3692-770 $ 11.42**

### 10-piece Set

(Includes: 1 each: 4" Bimetal-Straight Cut 6 TPI, 4" Bimetal-Straight Cut 24 TPI, 6" Bimetal-Straight Cut 10 TPI, 6" Bimetal-Straight Cut 18 TPI, 6" Bimetal-Straight Cut 24 TPI, 4" Bimetal-Scroll Cut 10 TPI, 4" Bimetal-Scroll Cut 18 TPI, 6" Bimetal-Slope Cut 5/8 TPI, 6" Wood Cutting Blade 7 TPI

**Order No. 3692-775 $ 19.59**

## Bimetal Blade, Slope Type

For all-round cutting of metal, plastic, laminates, and wood with nails.

| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 6 | 5/8 | 5 | 3692-605 | $ 10.65 |
| 9 | 6 | 5 | 3692-610 | 13.65 |
| 12 | 6 | 5 | 3692-616 | 17.46 |
| 12 | 8/12 | 5 | 3692-618 | 17.46 |

## Bi-Metal Reciprocating Saw Blades, Scroll Type

For contour sawing of metal, plastic, laminates, and wood with nails.

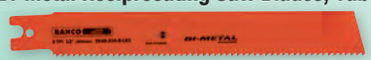
| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 4 | 14 | 5 | 3692-634 | $ 8.28 |
| 4 | 18 | 5 | 3692-638 | 8.28 |
| 6 | 4/6 | | 3692-644 | 10.65 |

## Bi-Metal Reciprocating Saw Blades, Demolition

Extra heavy-duty bi-metal blade with coarse teeth for building and demolition work. Blade thickness is increased 0.62" (1.6mm) for greater strength to cut any building material, even heavy wood with large dimension nails.

| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 6 | 5/8 | 5 | 3692-655 | $ 11.37 |
| 9 | 5/8 | 5 | 3692-660 | 14.70 |
| 12 | 5/8 | 5 | 3692-665 | 18.27 |

## Bi-Metal Reciprocating Saw Blades, Tube Cutting




Extra heavy-duty bi-metal blade with coarse teeth for cutting metal tubing and other demanding metal work. U-shaped fitting provides extra strength when secured to reciprocating saw.

| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 8 | 8 | 5 | 3692-675† | $ 22.28 |
| 12 | 8 | 5 | 3692-680† | 36.55 |

**† Limited Quantities**

## Wood Cutting Reciprocating Saw Blades, Slope Type

Blades with special teeth for general wood cutting. The teeth allow faster cross cutting and ripping compared to traditional blades. Blade coating minimizes friction to further increase cutting speed and ease.

| Blade Length | TPI | Pack Qty | Order No. | Price Per Pack |
|---|---|---|---|---|
| 6 | 7 | 5 | 3692-685 | $ 16.86 |
| 9 | 7 | 5 | 3692-690 | 20.55 |
| 12 | 7 | 5 | 3692-695 | 23.46 |

# Hacksaw Blades

## Power Hacksaw Blades

| SIZE | TEETH /INCH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 12 x 5/8 x .032 | 14T | 3811-200† | $2.25 |
| 12 x 5/8 x .032 | 18T | 3811-205† | 2.25 |
| 12 x 1 x .050 | 10T | 3811-210 | 4.90 |
| 12 x 1 x .050 | 14T | 3811-215 | 4.90 |
| 14 x 1 x .050 | 10T | 3811-400 | 5.70 |
| 14 x 1 x .050 | 14T | 3811-405 | 5.70 |
| 14 x 1-1/4 x 0.62 | 6T | 3811-410 | 9.05 |
| 14 x 1-1/4 x 0.62 | 10T | 3811-415 | 9.05 |
| 14 x 1-1/4 x 0.65 | 4T | 3811-435† | 5.81 |
| 14 x 1-1/2 x 0.75 | 6T | 3811-425 | 9.70 |
| 17 x 1 x .050 | 10T | 3811-700 | 9.80 |
| 17 x 1 x .050 | 14T | 3811-705 | 9.80 |
| 17 x 1-1/4 x 0.62 | 4T | 3811-720† | 6.84 |
| 17 x 1-1/4 x 0.62 | 6T | 3811-710 | 10.65 |
| 17 x 1-1/4 x 0.62 | 10T | 3811-715 | 10.65 |
| 17 x 1-1/4 x 0.65 | 10T | 3811-725† | 6.84 |

† Limited Quantities

| SIZE | TEETH /INCH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 18 x 1-1/4 x 0.62 | 6T | 3811-800 | $ 11.55 |
| 18 x 1-1/4 x 0.62 | 10T | 3811-805 | 11.55 |
| 18 x 1-1/4 x 0.65 | 4T | 3811-835† | 7.36 |
| 18 x 1-1/4 x 0.65 | 10T | 3811-840† | 7.36 |
| 18 x 1-1/2 x .075 | 4T | 3811-810 | 16.05 |
| 18 x 1-1/2 x .075 | 6T | 3811-815 | 16.05 |
| 18 x 1-3/4 x .088 | 4T | 3811-860 | 20.90 |
| 18 x 1-3/4 x .088 | 6T | 3811-865 | 20.90 |
| 21 x 1-3/4 x .088 | 4T | 3812-120 | 25.05 |
| 21 x 1-3/4 x .088 | 6T | 3812-125 | 25.05 |
| 21 x 2 x .072 | 6T | 3812-115† | 17.10 |
| 24 x 1-3/4 x .088 | 4T | 3812-415 | 29.05 |
| 24 x 1-3/4 x .088 | 6T | 3812-420 | 29.05 |
| 24 x 1-7/8 x .050 | 4T | 3812-405† | 20.82 |
| 24 x 1-7/8 x .075 | 4T | 3812-410† | 20.82 |
| 24 x 2 x 1.00 | 4T | 3812-430 | 36.35 |
| 24 x 2 x 1.00 | 6T | 3812-435 | 36.35 |

† Limited Quantities

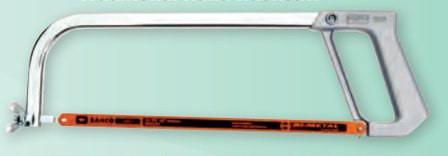
## Hand Hacksaw Blades

| SIZE | TEETH/ INCH | HIGH SPEED STEEL ORDER NO. | HIGH SPEED STEEL PRICE P/10 | HIGH SPEED STEEL ORDER NO. | HIGH SPEED STEEL PRICE EACH | BI-METAL ORDER NO. | BI-METAL PRICE P/10 | BI-METAL ORDER NO. | BI-METAL PRICE EACH | CARBON STEEL ORDER NO. | CARBON STEEL PRICE P/10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 x 1/2 x .025 | 18 | 3671-018† | $ 7.84 | – | – | 3672-018 | $15.30 | – | – | 3681-018† | $2.96 |
| 10 x 1/2 x .025 | 24 | 3671-024† | 7.84 | 3821-024† | $0.49 | 3672-024 | 15.30 | – | – | 3681-024† | 2.96 |
| 10 x 1/2 x .025 | 32 | 3671-032† | 7.84 | – | – | 3672-032 | 15.30 | – | – | 3681-032† | 2.96 |
| 12 x 1/2 x .025 | 14 | 3671-214† | 10.59 | 3821-214 | 0.90 | 3672-214 | 15.30 | – | – | 3681-214† | 2.96 |
| 12 x 1/2 x .025 | 18 | 3671-218† | 10.59 | 3821-218 | 0.90 | 3672-218 | 15.00 | 3821-318 | $0.85 | 3681-218† | 2.96 |
| 12 x 1/2 x .025 | 24 | – | – | 3821-224 | 0.90 | 3672-224 | 15.00 | 3821-324 | 0.85 | 3681-224† | 2.96 |
| 12 x 1/2 x .025 | 32 | 3671-232† | 10.59 | 3821-232 | 0.90 | 3672-232 | 15.00 | 3821-332 | 0.85 | – | – |

† Limited Quantities

## Hacksaws

### Traditional Hand Hacksaw



Allows very high blade tension for accurate and fast cuts. Strong rectangular back section for blade storage with easy-to-handle retaining screws. Can also be used as a compass saw. Alternative 55° blade mounting for flush cutting. Supplied with a reliable and shatterproof 12" SANDFLEX® bi-metal blade, 24 TPI.

**Order No. 3671-004**
**Price Ea..... $31.11**

### Mini Hacksaw

Simple and quick, twist-action, blade-tensioning handle, made of beech wood and orange lacquered. Complete with 6", 32 TPI blade for metal cutting.

**Order No. 3671-003**
**Price Ea..... $10.02**

### Professional Hacksaw – Import

Professional all metal hacksaw frame. Fits 10" and 12" blades. Comes with 12" Bi-Metal blade. Import

**Order No. 3671-010**
**Price Ea..... $10.80**

### Mini Extendable Hacksaw

A mini hacksaw frame that is ideal for hard-to-reach areas. Shipped complete with a 10" "Sandflex" bi-metal blade, 24 TPI. Blade position adjusts for maximum versatility.

**Order No. 3671-002**
**Price Ea. ..... $13.23**

# Bandsaw Blades

## 3851 Sandflex Cobra

- For cutting various types of material from Aluminum to stainless steels.
- Works well on solids and interrupted shapes
- M42 high speed steel tooth tips offer heat and wear resistance for long blade life.
- New stronger tooth design gives maximum cutting performance.
- Wide range of tooth styles available to suit many different applications.

2

| LENGTH | WIDTH | THICK | TEETH | T/TYPE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 5' | 1/2 | .020 | 10-14 | Combo | 3656-100 | $28.55 |
| 5' 4-1/2" | 1/2 | .020 | 10-14 | Combo | 3656-103 | 30.32 |
| 5' 8" | 1/2 | .020 | 10-14 | Combo | 3656-105 | 32.08 |
| 6' 9" | 1/2 | .020 | 10-14 | Combo | 3656-106 | 35.61 |
| 7' 9" | 1/2 | .020 | 10-14 | Combo | 3656-108 | 39.14 |
| 7' 9" | 3/4 | .035 | 4-6 | Combo | 3656-111 | 45.01 |
| 7' 9" | 3/4 | .035 | 5-8 | Combo | 3656-112 | 45.01 |
| 7' 9" | 3/4 | .035 | 6-10 | Combo | 3656-113 | 45.01 |
| 7' 9" | 3/4 | .035 | 8-12 | Combo | 3656-114 | 45.01 |
| 7' 9" | 3/4 | .035 | 10-14 | Combo | 3656-115 | 45.01 |
| 8' 5" | 3/4 | .035 | 10-14 | Combo | 3656-116 | 47.14 |
| 8' 10-1/2" | 3/4 | .035 | 10-14 | Combo | 3656-117 | 49.27 |
| 9' | 3/4 | .035 | 5-8 | Combo | 3656-118 | 49.27 |
| 9' | 3/4 | .035 | 6-10 | Combo | 3656-119 | 49.27 |
| 9' | 3/4 | .035 | 10-14 | Combo | 3656-120 | 49.27 |
| 10' 5" | 3/4 | .035 | 8-12 | Combo | 3656-123 | 55.67 |
| 10' 5" | 3/4 | .035 | 10-14 | Combo | 3656-124 | 55.67 |
| 10' 9" | 3/4 | .035 | 4-6 | Combo | 3656-125 | 57.80 |
| 10' 9" | 3/4 | .035 | 6-10 | Combo | 3656-126 | 57.80 |
| 10' 10-1/2" | 3/4 | .035 | 5-8 | Combo | 3656-128 | 57.80 |
| 10' 10-1/2" | 3/4 | .035 | 6-10 | Combo | 3656-129 | 57.80 |
| 10' 10-1/2" | 3/4 | .035 | 8-12 | Combo | 3656-130 | 57.80 |
| 10' 10-1/2" | 3/4 | .035 | 10-14 | Combo | 3656-131 | 57.80 |
| 10' 10-1/2" | 1 | .035 | 4-6 | Combo | 3656-134 | 62.58 |
| 10' 10-1/2" | 1 | .035 | 5-8 | Combo | 3656-135 | 62.58 |
| 10' 10-1/2" | 1 | .035 | 6-10 | Combo | 3656-136 | 62.58 |
| 10' 10-1/2" | 1 | .035 | 8-12 | Combo | 3656-137 | 62.58 |
| 10' 10-1/2" | 1 | .035 | 10-14 | Combo | 3656-138 | 62.58 |
| 11' | 1 | .035 | 4-6 | Combo | 3656-140 | 62.58 |
| 11' | 1 | .035 | 5-8 | Combo | 3656-141 | 62.58 |
| 11' | 1 | .035 | 6-10 | Combo | 3656-142 | 62.58 |
| 11' | 1 | .035 | 8-12 | Combo | 3656-143 | 62.58 |

| LENGTH | WIDTH | THICK | TEETH | T/TYPE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 11' 6" | 3/4 | .035 | 4-6 | Combo | 3656-146 | $59.93 |
| 11' 6" | 3/4 | .035 | 5-8 | Combo | 3656-147 | 59.93 |
| 11' 6" | 3/4 | .035 | 6-10 | Combo | 3656-148 | 59.93 |
| 11' 6" | 3/4 | .035 | 8-12 | Combo | 3656-149 | 59.93 |
| 11' 6" | 3/4 | .035 | 10-14 | Combo | 3656-150 | 59.93 |
| 11' 6" | 1 | .035 | 5-8 | Combo | 3656-153 | 64.84 |
| 11' 6" | 1 | .035 | 6-10 | Combo | 3656-154 | 64.84 |
| 11' 6" | 1 | .035 | 8-12 | Combo | 3656-155 | 64.84 |
| 11' 6" | 1 | .035 | 10-14 | Combo | 3656-156 | 64.84 |
| 12' | 1 | .035 | 3-4 | Combo | 3656-158 | 67.10 |
| 12' | 1 | .035 | 4-6 | Combo | 3656-159 | 67.10 |
| 12' | 1 | .035 | 5-8 | Combo | 3656-160 | 67.10 |
| 12' | 1 | .035 | 6-10 | Combo | 3656-161 | 67.10 |
| 12' | 1 | .035 | 8-12 | Combo | 3656-162 | 67.10 |
| 12' | 1 | .035 | 10-14 | Combo | 3656-163 | 67.10 |
| 12' | 1-1/4 | .042 | 3-4 | Combo | 3656-164 | 79.37 |
| 12' | 1-1/4 | .042 | 4-6 | Combo | 3656-165 | 79.37 |
| 12' | 1-1/4 | .042 | 5-8 | Combo | 3656-166 | 79.37 |
| 12' 6" | 1/2 | .020 | 10-14 | Combo | 3656-168 | 55.03 |
| 12' 6" | 1 | .035 | 4-6 | Combo | 3656-169 | 69.35 |
| 12' 6" | 1 | .035 | 5-8 | Combo | 3656-170 | 69.35 |
| 12' 6" | 1 | .035 | 6-10 | Combo | 3656-171 | 69.35 |
| 12' 6" | 1 | .035 | 8-12 | Combo | 3656-172 | 69.35 |
| 12' 6" | 1 | .035 | 10-14 | Combo | 3656-173 | 69.35 |
| 13' 6" | 1 | .035 | 4-6 | Combo | 3656-174 | 73.87 |
| 13' 6" | 1 | .035 | 5-8 | Combo | 3656-175 | 73.87 |
| 13' 6" | 1 | .035 | 6-10 | Combo | 3656-176 | 73.87 |
| 13' 6" | 1 | .035 | 8-12 | Combo | 3656-177 | 73.87 |
| 13' 6" | 1-1/4 | .042 | 4-6 | Combo | 3656-178 | 87.49 |
| 13' 6" | 1-1/4 | .042 | 5-8 | Combo | 3656-179 | 87.49 |
| 13' 11" | 1 | .035 | 5-8 | Combo | 3656-182 | 76.13 |
| 13' 11" | 1 | .035 | 6-10 | Combo | 3656-183 | 76.13 |
| 13' 11" | 1 | .035 | 8-12 | Combo | 3656-184 | 76.13 |
| 13' 11" | 1 | .035 | 10-14 | Combo | 3656-185 | 76.13 |
| 14' 6" | 3/4 | .035 | 5-8 | Combo | 3656-186 | 72.72 |
| 14' 6" | 3/4 | .035 | 6-10 | Combo | 3656-187 | 72.72 |
| 14' 6" | 3/4 | .035 | 10-14 | Combo | 3656-188 | 72.72 |

| LENGTH | WIDTH | THICK | TEETH | T/TYPE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 14' 6" | 1 | .035 | 3-4 | Combo | 3656-190 | $78.39 |
| 14' 6" | 1 | .035 | 4-6 | Combo | 3656-191 | 78.39 |
| 14' 6" | 1 | .035 | 5-8 | Combo | 3656-192 | 78.39 |
| 14' 6" | 1 | .035 | 6-10 | Combo | 3656-193 | 78.39 |
| 14' 6" | 1 | .035 | 8-12 | Combo | 3656-194 | 78.39 |
| 14' 6" | 1 | .035 | 10-14 | Combo | 3656-195 | 78.39 |
| 14' 6" | 1-1/4 | .042 | 3-4 | Combo | 3656-196 | 92.91 |
| 14' 6" | 1-1/4 | .042 | 4-6 | Combo | 3656-197 | 92.91 |
| 14' 6" | 1-1/4 | .042 | 5-8 | Combo | 3656-198 | 92.91 |
| 14' 8" | 3/4 | .035 | 5-8 | Combo | 3656-202 | 74.85 |
| 14' 8" | 3/4 | .035 | 6-10 | Combo | 3656-203 | 74.85 |
| 14' 8" | 3/4 | .035 | 8-12 | Combo | 3656-204 | 74.85 |
| 14' 8" | 3/4 | .035 | 10-14 | Combo | 3656-205 | 74.85 |
| 15' | 1-1/4 | .042 | 3-4 | Combo | 3656-206 | 95.62 |
| 15' | 1-1/4 | .042 | 4-6 | Combo | 3656-207 | 95.62 |
| 15' | 1-1/4 | .042 | 5-8 | Combo | 3656-208 | 95.62 |
| 15' 6" | 1 | .035 | 3-4 | Combo | 3656-209 | 82.91 |
| 15' 6" | 1-1/4 | .042 | 4-6 | Combo | 3656-210 | 98.33 |
| 15' 8" | 1-1/4 | .042 | 4-6 | Combo | 3656-211 | 101.04 |
| 16' | 1-1/4 | .042 | 4-6 | Combo | 3656-213 | 101.04 |
| 17' 6" | 1-1/2 | .050 | 3-4 | Combo | 3656-215 | 131.39 |
| 18' | 1-1/2 | .050 | 4-6 | Combo | 3656-216 | 134.69 |

Other Bandsaw Blade grades available on request
Sandvik 100' & 250' coils available on request

# Portable Bandsaw Blades

## *Super Cobalt - Bimetal*

- Multi-Purpose / Jobshop Cutting for Portable Hand Held Machines
- Multi purpose tooth shape provides excellent cuts in a wide variety of applications.
- M42 tooth tips offer heat and wear resistance for long blade life.
- Tough impact-resistant teeth delivers long life an exceptionally clean cuts with a range of materials, including thin wall tubes.
- Pre-welded loops supplied in 5 pack sleeves.

2

| LENGTH | WIDTH | THICK | TEETH | T/TYPE | PKG. QTY. | ORDER NO. | PKG. PRICE |
|---|---|---|---|---|---|---|---|
| 3' 8⅞" | 1/2" | .020 | 10 | Regular | 5 | 3659-031 | $29.70 |
| 3' 8⅞" | 1/2" | .020 | 14 | Regular | 5 | 3659-032 | 29.70 |
| 3' 8⅞" | 1/2" | .020 | 18 | Regular | 5 | 3659-033 | 29.70 |
| 3' 8⅞" | 1/2" | .020 | 24 | Regular | 5 | 3659-034 | 29.70 |
| 3' 8⅞" | 1/2" | .020 | 10-14 | Combo | 5 | 3659-035 | 29.70 |
| 3' 8⅞" | 1/2" | .020 | 14-18 | Combo | 5 | 3659-036 | 29.70 |

# Easy Cut Bandsaw Blades

## *Milford's exclusive one blade for maintenance and general purpose bandsawing.*

- **Easy Cut blades cut almost anything - without changing blades!**
- Tool Steel, Mild Steel, Stainless Steel, Aluminum, Copper, Brass, Wood, Plastic, Sheet Metal, Tubing, Solids
- Reduce Inventory! Reduce Expensive blade changes! Reduce machine down time!
- Ordering is easy:
  1. Tell us the width of your blade.
  2. Tell us the length of your blade.

  Blades for small and large work pieces available on request

| AVAILABLE SIZES WIDTH/THICKNESS | MEDIUM WORKPIECE SIZE RANGE | PRICE |
|---|---|---|
| 1/2" x .025"<br>3/4" x .035"<br>1" x .035"<br>1-1/4" x .042" | .08" - 1-1/2"<br>.08" - 3"<br>1/8" - 5"<br>3-1/8" - 6" | PRICED TO YOUR SPECIFICATIONS |

# Side Milling Cutters- Straight Tooth

## High Speed Steel

† Limited Quantities

| DIAM. | FACE WIDTH | HOLE | [2] Pittsburg® ALLEGHANY ORDER NO. | [2] Pittsburg® ALLEGHANY PRICE EACH | [1] F&D ORDER NO. | [1] F&D PRICE EACH |
|---|---|---|---|---|---|---|
| 2 | 3/16 | 1/2 | 2810-010 | $21.55 | 2814-010 | $39.65 |
| 2 | 1/4 | 1/2 | 2810-020 | 21.55 | 2814-020 | 41.12 |
| 2 | 3/8 | 1/2 | 2810-030 | 24.95 | 2814-030 | 45.02 |
| 2 | 3/16 | 5/8 | 2810-040 | 18.15 | 2814-040 | 39.65 |
| 2 | 1/4 | 5/8 | 2810-050 | 19.35 | 2814-050 | 41.12 |
| 2 | 3/8 | 5/8 | 2810-060 | 18.15 | 2814-060 | 45.02 |
| 2 | 1/4 | 7/8 | 2810-070 | 21.55 | – | – |
| 2 | 5/16 | 7/8 | 2810-080 | 23.20 | – | – |
| 2 | 3/8 | 7/8 | 2810-090 | 24.95 | – | – |
| 2 | 7/16 | 7/8 | 2810-100 | 26.50 | – | – |
| 2-1/2 | 1/4 | 7/8 | 2810-120 | 24.35 | 2814-120 | 47.32 |
| 2-1/2 | 5/16 | 7/8 | 2810-130 | 25.25 | 2814-130 | 49.74 |
| 2-1/2 | 3/8 | 7/8 | 2810-140 | 27.20 | 2814-140 | 53.28 |
| 2-1/2 | 1/2 | 7/8 | 2810-160 | 27.70 | 2814-160 | 53.93 |
| 2-1/2 | 3/16 | 1 | 2810-170 | 28.85 | – | – |
| 2-1/2 | 1/4 | 1 | 2810-180 | 28.85 | 2814-180 | 65.25 |
| 2-1/2 | 5/16 | 1 | 2810-190 | 30.00 | 2814-190 | 68.32 |
| 2-1/2 | 3/8 | 1 | 2810-200 | 32.30 | 2814-200 | 71.74 |
| 2-1/2 | 7/16 | 1 | 2810-210 | 32.80 | 2814-210 | 74.64 |
| 2-1/2 | 1/2 | 1 | 2810-220 | 32.80 | 2814-220 | 77.05 |
| 2-1/2 | 5/8 | 1 | 2810-230 | 33.65 | 2814-230 | 88.68 |
| 3 | 3/16 | 1 | 2810-240 | 33.45 | 2814-240 | 51.80 |
| 3 | 7/32 | 1 | 2810-250 | 31.35 | 2814-250 | 65.49 |
| 3 | 1/4 | 1 | 2810-260 | 28.15 | 2814-260 | 48.85 |
| 3 | 9/32 | 1 | 2810-270 | 34.20 | 2814-270 | 69.97 |
| 3 | 5/16 | 1 | 2810-280 | 31.45 | 2814-280 | 56.58 |
| 3 | 11/32 | 1 | 2810-290 | 36.10 | 2814-290 | 79.36 |
| 3 | 3/8 | 1 | 2810-300 | 31.45 | 2814-300 | 61.42 |
| 3 | 13/32 | 1 | 2810-310 | 38.40 | 2814-310 | 80.48 |
| 3 | 7/16 | 1 | 2810-320 | 33.30 | 2814-320 | 65.08 |
| 3 | 1/2 | 1 | 2810-330 | 34.20 | 2814-330 | 62.30 |
| 3 | 9/16 | 1 | 2810-340 | 42.15 | 2814-340 | 77.29 |
| 3 | 5/8 | 1 | 2810-350 | 44.15 | 2814-350 | 81.07 |
| 3 | 11/16 | 1 | 2810-360 | 46.40 | 2814-360 | 80.42 |
| 3 | 3/4 | 1 | 2810-370 | 48.75 | 2814-370 | 85.49 |
| 3 | 13/16 | 1 | 2810-380 | 53.30 | 2814-380 | 93.40 |
| 3 | 7/8 | 1 | 2810-390 | 60.00 | 2814-390 | 102.54 |
| 3 | 15/16 | 1 | 2810-400† | 29.65 | 2814-400 | 106.26 |
| 3 | 1 | 1 | 2810-410 | 68.85 | 2814-410 | 108.32 |
| 3 | 1/4 | 1-1/4 | 2810-420 | 33.45 | 2814-420 | 48.85 |
| 3 | 5/16 | 1-1/4 | – | – | 2814-430 | 56.58 |
| 3 | 3/8 | 1-1/4 | 2810-440 | 37.25 | 2814-440 | 61.42 |
| 3 | 7/16 | 1-1/4 | 2810-450† | 17.80 | 2814-450 | 65.08 |
| 3 | 1/2 | 1-1/4 | 2810-460 | 40.10 | 2814-460 | 62.30 |
| 3 | 5/8 | 1-1/4 | 2810-470† | 21.25 | 2814-470 | 81.07 |
| 3 | 3/4 | 1-1/4 | 2810-480 | 48.75 | 2814-480 | 85.49 |
| 3 | 7/8 | 1-1/4 | – | – | 2814-490 | 102.54 |
| 3 | 1 | 1-1/4 | – | – | 2814-500 | 112.22 |
| 3-1/2 | 3/16 | 1 | – | – | 2814-510 | 61.83 |
| 3-1/2 | 1/4 | 1 | – | – | 2814-520 | 75.87 |
| 3-1/2 | 5/16 | 1 | 2810-530† | 22.65 | 2814-530 | 87.14 |
| 3-1/2 | 3/8 | 1 | – | – | 2814-540 | 88.56 |
| 3-1/2 | 7/16 | 1 | 2810-550† | 26.80 | 2814-550 | 91.92 |
| 3-1/2 | 1/2 | 1 | – | – | 2814-560 | 92.28 |
| 3-1/2 | 5/8 | 1 | 2810-570† | 31.10 | 2814-570 | 100.95 |
| 3-1/2 | 3/4 | 1 | 2810-580† | 31.10 | 2814-580 | 104.49 |
| 3-1/2 | 7/8 | 1 | 2810-590† | 34.95 | 2814-590 | 112.34 |
| 3-1/2 | 1 | 1 | 2810-600† | 34.95 | 2814-600 | 116.41 |
| 3-1/2 | 7/16 | 1-1/4 | – | – | 2814-610 | 91.92 |
| 3-1/2 | 1/2 | 1-1/4 | – | – | 2814-620 | 92.28 |
| 4 | 3/16 | 1 | 2810-630 | 45.05 | – | – |
| 4 | 7/32 | 1 | 2810-640 | 45.05 | – | – |
| 4 | 1/4 | 1 | 2810-650 | 43.55 | 2814-650 | 69.86 |
| 4 | 9/32 | 1 | 2810-660 | 45.10 | – | – |
| 4 | 5/16 | 1 | 2810-670 | 43.55 | 2814-670 | 87.56 |
| 4 | 11/32 | 1 | 2810-680 | 50.00 | 2814-680 | 93.57 |
| 4 | 3/8 | 1 | 2810-690 | 44.40 | 2814-690 | 78.47 |
| 4 | 13/32 | 1 | – | – | 2814-710 | 102.84 |
| 4 | 7/16 | 1 | – | – | 2814-700 | 98.41 |
| 4 | 1/2 | 1 | 2810-720 | 60.00 | 2814-720 | 88.09 |
| 4 | 9/16 | 1 | – | – | 2814-730 | 106.61 |
| 4 | 5/8 | 1 | 2810-740 | 68.85 | 2814-740 | 101.01 |
| 4 | 11/16 | 1 | 2810-750† | 31.10 | 2814-750 | 117.00 |
| 4 | 3/4 | 1 | 2810-760 | 77.75 | 2814-760 | 109.33 |
| 4 | 13/16 | 1 | 2810-770† | 34.95 | 2814-770 | 123.55 |

| DIAM. | FACE WIDTH | HOLE | [2] Pittsburg® ALLEGHANY ORDER NO. | [2] Pittsburg® ALLEGHANY PRICE EACH | [1] F&D ORDER NO. | [1] F&D PRICE EACH |
|---|---|---|---|---|---|---|
| 4 | 7/8 | 1 | 2810-780 | $92.20 | 2814-780 | $120.07 |
| 4 | 15/16 | 1 | 2810-790† | 40.75 | 2814-790 | 143.84 |
| 4 | 1 | 1 | 2810-800 | 104.80 | 2814-800 | 151.34 |
| 4 | 3/16 | 1-1/4 | 2810-810 | 45.05 | – | – |
| 4 | 7/32 | 1-1/4 | 2810-820 | 45.05 | – | – |
| 4 | 1/4 | 1-1/4 | 2810-830 | 45.05 | – | – |
| 4 | 9/32 | 1-1/4 | – | – | 2814-840 | 92.04 |
| 4 | 5/16 | 1-1/4 | 2810-850 | 48.35 | 2814-850 | 87.56 |
| 4 | 11/32 | 1-1/4 | 2810-860 | 50.05 | 2814-860 | 93.57 |
| 4 | 3/8 | 1-1/4 | 2810-870 | 51.70 | 2814-870 | 96.64 |
| 4 | 7/16 | 1-1/4 | 2810-880 | 54.70 | 2814-880 | 98.41 |
| 4 | 13/32 | 1-1/4 | 2810-890† | 26.80 | 2814-890 | 102.84 |
| 4 | 1/2 | 1-1/4 | 2810-900 | 60.00 | – | – |
| 4 | 9/16 | 1-1/4 | 2810-910 | 64.40 | 2814-910 | 106.61 |
| 4 | 5/8 | 1-1/4 | 2810-920 | 68.85 | 2814-920 | 101.01 |
| 4 | 11/16 | 1-1/4 | 2810-930 | 73.30 | – | – |
| 4 | 3/4 | 1-1/4 | 2810-940 | 77.75 | 2814-940 | 109.33 |
| 4 | 13/16 | 1-1/4 | 2810-950† | 34.95 | – | – |
| 4 | 7/8 | 1-1/4 | 2810-960 | 92.20 | 2814-960 | 120.07 |
| 4 | 15/16 | 1-1/4 | 2810-970† | 40.75 | 2814-970 | 143.84 |
| 4 | 1 | 1-1/4 | 2810-980 | 104.80 | 2814-980 | 151.34 |
| 4 | 1-1/8 | 1-1/4 | 2810-990 | 117.75 | – | – |
| 4 | 1-1/4 | 1-1/4 | 2811-000 | 131.10 | – | – |
| 4-1/2 | 3/8 | 1-1/4 | – | – | 2815-020 | 103.60 |
| 4-1/2 | 1/2 | 1-1/4 | 2811-030† | 36.25 | 2815-030 | 114.70 |
| 5 | 1/4 | 1 | 2811-040 | 62.60 | 2815-040 | 114.46 |
| 5 | 9/32 | 1 | 2811-050 | 64.10 | 2815-050 | 123.43 |
| 5 | 5/16 | 1 | 2811-060 | 65.70 | 2815-060 | 116.53 |
| 5 | 11/32 | 1 | 2811-070† | 36.25 | 2815-070 | 123.96 |
| 5 | 3/8 | 1 | 2811-080 | 73.30 | 2815-080 | 124.67 |
| 5 | 13/32 | 1 | 2811-090 | 77.75 | 2815-090 | 132.40 |
| 5 | 7/16 | 1 | 2811-100 | 80.00 | 2815-100 | 134.17 |
| 5 | 1/2 | 1 | 2811-110 | 88.85 | 2815-110 | 120.18 |
| 5 | 9/16 | 1 | 2811-120† | 40.10 | 2815-120 | 148.86 |
| 5 | 5/8 | 1 | 2811-130 | 111.10 | 2815-130 | 132.99 |
| 5 | 11/16 | 1 | 2811-140 | 115.55 | 2815-140 | 157.88 |
| 5 | 3/4 | 1 | 2811-150 | 124.80 | 2815-150 | 151.04 |
| 5 | 13/16 | 1 | 2811-160† | 46.75 | 2815-160 | 169.39 |
| 5 | 7/8 | 1 | 2811-170† | 53.95 | 2815-170 | 198.06 |
| 5 | 15/16 | 1 | 2811-180† | 53.95 | 2815-180 | 179.71 |
| 5 | 1 | 1 | 2811-190† | 53.95 | 2815-190 | 188.98 |
| 5 | 1/4 | 1-1/4 | 2811-200 | 62.60 | 2815-200 | 114.46 |
| 5 | 9/32 | 1-1/4 | 2811-210 | 70.60 | 2815-210 | 123.43 |
| 5 | 5/16 | 1-1/4 | 2811-220 | 65.70 | 2815-220 | 116.53 |
| 5 | 11/32 | 1-1/4 | 2811-230† | 34.95 | 2815-230 | 123.96 |
| 5 | 3/8 | 1-1/4 | 2811-240 | 73.30 | 2815-240 | 124.67 |
| 5 | 13/32 | 1-1/4 | 2811-250† | 36.25 | 2815-250 | 132.40 |
| 5 | 7/16 | 1-1/4 | 2811-260 | 80.00 | 2815-260 | 134.17 |
| 5 | 1/2 | 1-1/4 | 2811-270 | 88.85 | 2815-270 | 120.18 |
| 5 | 9/16 | 1-1/4 | 2811-280 | 100.00 | 2815-280 | 148.86 |
| 5 | 5/8 | 1-1/4 | 2811-290 | 111.10 | 2815-290 | 132.99 |
| 5 | 11/16 | 1-1/4 | 2811-300† | 45.85 | 2815-300 | 157.88 |
| 5 | 3/4 | 1-1/4 | 2811-310 | 124.80 | 2815-310 | 151.04 |
| 5 | 13/16 | 1-1/4 | 2811-320† | 46.75 | 2815-320 | 169.39 |
| 5 | 7/8 | 1-1/4 | 2811-330† | 53.95 | 2815-330 | 198.06 |
| 5 | 15/16 | 1-1/4 | 2811-340† | 53.95 | – | – |
| 5 | 1 | 1-1/4 | 2811-350 | 162.55 | 2815-350 | 180.72 |
| 5 | 1-1/8 | 1-1/4 | 2811-360† | 65.95 | – | – |
| 5 | 1-1/4 | 1-1/4 | 2811-370† | 65.95 | – | – |
| 5 | 1-1/2 | 1-1/4 | 2811-380† | 65.95 | – | – |
| 6 | 3/16 | 1 | – | – | – | – |
| 6 | 1/4 | 1 | 2811-400 | 80.75 | 2815-400 | 140.66 |
| 6 | 5/16 | 1 | 2811-410 | 95.55 | 2815-410 | 155.23 |
| 6 | 3/8 | 1 | 2811-420 | 111.10 | 2815-420 | 166.20 |
| 6 | 7/16 | 1 | 2811-430 | 115.55 | 2815-430 | 171.75 |
| 6 | 1/2 | 1 | 2811-440 | 131.10 | 2815-440 | 154.70 |
| 6 | 9/16 | 1 | 2811-450 | 146.65 | 2815-450 | 190.98 |
| 6 | 5/8 | 1 | – | – | 2815-460 | 200.84 |
| 6 | 11/16 | 1 | 2811-470† | 56.55 | 2815-470 | 210.69 |
| 6 | 3/4 | 1 | 2811-480 | 177.75 | 2815-480 | 199.48 |
| 6 | 13/16 | 1 | 2811-490† | 65.95 | 2815-490 | 228.92 |
| 6 | 7/8 | 1 | 2811-500† | 73.40 | 2815-500 | 237.65 |
| 6 | 15/16 | 1 | 2811-510† | 90.30 | 2815-510 | 247.39 |
| 6 | 1 | 1 | 2811-520† | 73.40 | 2815-520 | 256.83 |
| 6 | 1-1/4 | 1 | 2811-530† | 83.45 | – | – |
| 6 | 3/16 | 1-1/4 | 2811-540† | 46.75 | – | – |
| 6 | 1/4 | 1-1/4 | 2811-550 | 80.75 | 2815-550 | 140.66 |
| 6 | 9/32 | 1-1/4 | 2811-560 | 86.65 | 2815-560 | 156.76 |
| 6 | 5/16 | 1-1/4 | 2811-570 | 95.55 | 2815-570 | 161.42 |
| 6 | 11/32 | 1-1/4 | 2811-580 | 102.20 | 2815-580 | 172.22 |
| 6 | 3/8 | 1-1/4 | 2811-590 | 111.10 | 2815-590 | 172.81 |
| 6 | 13/32 | 1-1/4 | – | – | 2815-600 | 182.31 |
| 6 | 7/16 | 1-1/4 | 2811-610 | 115.55 | 2815-610 | 175.53 |
| 6 | 1/2 | 1-1/4 | 2811-620 | 131.10 | 2815-620 | 154.70 |
| 6 | 9/16 | 1-1/4 | 2811-630 | 146.65 | 2815-630 | 187.50 |
| 6 | 5/8 | 1-1/4 | 2811-640 | 155.55 | 2815-640 | 169.92 |
| 6 | 11/16 | 1-1/4 | 2811-650† | 56.55 | 2815-650 | 205.32 |
| 6 | 3/4 | 1-1/4 | 2811-660 | 177.75 | 2815-660 | 199.48 |
| 6 | 13/16 | 1-1/4 | 2811-670† | 65.95 | 2815-670 | 220.72 |

| DIAM. | FACE WIDTH | HOLE | [2] Pittsburg® ALLEGHANY ORDER NO. | [2] Pittsburg® ALLEGHANY PRICE EACH | [1] F&D ORDER NO. | [1] F&D PRICE EACH |
|---|---|---|---|---|---|---|
| 6 | 7/8 | 1-1/4 | 2811-680† | $73.40 | 2815-680 | $227.98 |
| 6 | 15/16 | 1-1/4 | 2811-690† | 73.40 | 2815-690 | 241.84 |
| 6 | 1 | 1-1/4 | 2811-700 | 231.10 | 2815-700 | 235.23 |
| 6 | 1-1/8 | 1-1/4 | 2811-710 | 90.20 | – | – |
| 7 | 3/4 | 1 | 2811-740† | 96.55 | – | – |
| 7 | 1 | 1 | 2811-750† | 112.70 | – | – |
| 7 | 1/4 | 1-1/4 | – | – | 2815-760 | 222.90 |
| 7 | 5/16 | 1-1/4 | 2811-770† | 81.25 | 2815-770 | 234.70 |
| 7 | 3/8 | 1-1/4 | 2811-780† | 84.30 | 2815-780 | 256.53 |
| 7 | 7/16 | 1-1/4 | 2811-790† | 86.50 | 2815-790 | 269.22 |
| 7 | 1/2 | 1-1/4 | – | – | 2815-800 | 288.39 |
| 7 | 9/16 | 1-1/4 | 2811-810† | 88.65 | 2815-810 | 299.96 |
| 7 | 5/8 | 1-1/4 | 2811-820† | 92.60 | 2815-820 | 310.10 |
| 7 | 11/16 | 1-1/4 | 2811-830† | 116.65 | 2815-830 | 321.90 |
| 7 | 3/4 | 1-1/4 | 2811-840† | 96.55 | 2815-840 | 299.72 |
| 7 | 13/16 | 1-1/4 | – | – | 2815-850 | 343.91 |
| 7 | 7/8 | 1-1/4 | 2811-860† | 112.70 | 2815-860 | 363.20 |
| 7 | 15/16 | 1-1/4 | 2811-870† | 138.70 | 2815-870 | 375.18 |
| 7 | 1 | 1-1/4 | 2811-880† | 112.70 | 2815-880 | 385.03 |
| 7 | 1-1/4 | 1-1/4 | 2811-890† | 112.70 | – | – |
| 8 | 1/4 | 1 | 2811-900 | 171.60 | – | – |
| 8 | 5/16 | 1 | 2811-910 | 175.80 | – | – |
| 8 | 3/8 | 1 | 2811-920 | 191.10 | – | – |
| 8 | 7/16 | 1 | 2811-930† | 165.05 | – | – |
| 8 | 1/2 | 1 | 2811-940 | 237.75 | – | – |
| 8 | 1/4 | 1-1/4 | 2811-960 | 171.60 | 2815-960 | 338.25 |
| 8 | 5/16 | 1-1/4 | – | – | 2815-970 | 374.35 |
| 8 | 3/8 | 1-1/4 | 2811-980 | 191.10 | 2815-980 | 373.55 |
| 8 | 7/16 | 1-1/4 | 2811-990† | 134.10 | 2815-990 | 392.00 |
| 8 | 1/2 | 1-1/4 | 2812-000 | 237.75 | 2816-000 | 394.65 |
| 8 | 9/16 | 1-1/4 | 2812-010† | 135.85 | 2816-010 | 418.55 |
| 8 | 5/8 | 1-1/4 | 2812-020 | 273.30 | 2816-020 | 439.50 |
| 8 | 11/16 | 1-1/4 | 2812-030† | 200.80 | 2816-030 | 473.95 |
| 8 | 3/4 | 1-1/4 | 2812-040 | 311.10 | 2816-040 | 389.00 |
| 8 | 13/16 | 1-1/4 | 2812-050† | 155.05 | 2816-050 | 495.05 |
| 8 | 7/8 | 1-1/4 | 2812-060† | 157.25 | 2816-060 | 516.25 |
| 8 | 15/16 | 1-1/4 | 2812-070† | 193.55 | 2816-070 | 534.40 |
| 8 | 1 | 1-1/4 | 2812-080 | 396.15 | 2816-080 | 484.20 |
| 8 | 1-1/8 | 1-1/4 | 2812-090† | 155.95 | – | – |
| 8 | 1-1/4 | 1-1/4 | 2812-100† | 155.95 | – | – |
| 8 | 1-1/2 | 1-1/4 | 2812-110† | 155.95 | – | – |
| 8 | 1/4 | 1-1/2 | 2812-120† | 115.75 | – | – |
| 8 | 5/16 | 1-1/2 | 2812-130† | 115.75 | – | – |
| 9 | 1/4 | 1-1/4 | 2812-140† | 151.15 | 2816-140 | 434.00 |
| 9 | 5/16 | 1-1/4 | 2812-150† | 172.55 | 2816-150 | 482.45 |
| 9 | 3/8 | 1-1/4 | 2812-160† | 172.55 | 2816-160 | 487.55 |
| 9 | 7/16 | 1-1/4 | 2812-170† | 191.75 | 2816-170 | 545.30 |
| 9 | 1/2 | 1-1/4 | 2812-180† | 191.75 | 2816-180 | 547.65 |
| 9 | 9/16 | 1-1/4 | 2812-190† | 202.25 | 2816-190 | 594.75 |
| 9 | 5/8 | 1-1/4 | – | – | 2816-200 | 602.80 |
| 9 | 11/16 | 1-1/4 | 2812-210† | 214.45 | 2816-210 | 623.80 |
| 9 | 3/4 | 1-1/4 | – | – | 2816-220 | 644.50 |
| 9 | 13/16 | 1-1/4 | 2812-230† | 239.35 | 2816-230 | 659.45 |
| 9 | 7/8 | 1-1/4 | 2812-240† | 239.35 | 2816-240 | 665.90 |
| 9 | 15/16 | 1-1/4 | 2812-250† | 239.35 | 2816-250 | 699.30 |
| 9 | 1 | 1-1/4 | 2812-260† | 239.35 | 2816-260 | 677.80 |
| 10 | 5/16 | 1-1/4 | 2812-290† | 221.00 | – | – |
| 10 | 3/8 | 1-1/4 | 2812-300† | 234.10 | – | – |
| 10 | 5/8 | 1-1/4 | 2812-330† | 284.35 | – | – |
| 10 | 3/4 | 1-1/4 | 2812-340† | 300.95 | – | – |
| 10 | 1/4 | 1-1/2 | – | – | 2816-350 | 586.50 |
| 10 | 5/16 | 1-1/2 | 2812-360† | 221.00 | 2816-360 | 640.30 |
| 10 | 3/8 | 1-1/2 | 2812-370† | 234.10 | 2816-370 | 692.05 |
| 10 | 7/16 | 1-1/2 | 2812-380† | 257.70 | 2816-380 | 730.65 |
| 10 | 1/2 | 1-1/2 | 2812-390† | 267.30 | 2816-390 | 764.05 |
| 10 | 9/16 | 1-1/2 | 2812-400† | 273.85 | 2816-400 | 801.45 |
| 10 | 5/8 | 1-1/2 | 2812-410† | 284.35 | 2816-410 | 675.95 |
| 10 | 11/16 | 1-1/2 | 2812-420† | 293.95 | 2816-420 | 855.45 |
| 10 | 3/4 | 1-1/2 | 2812-430† | 300.95 | 2816-430 | 871.60 |
| 10 | 13/16 | 1-1/2 | 2812-440† | 314.05 | 2816-440 | 895.80 |
| 10 | 7/8 | 1-1/2 | 2812-450† | 327.15 | 2816-450 | 922.75 |
| 10 | 15/16 | 1-1/2 | 2812-460† | 341.15 | 2816-460 | 1011.55 |
| 10 | 1 | 1-1/2 | – | – | 2816-470 | 986.85 |
| 10 | 1-1/8 | 1-1/2 | 2812-480† | 368.25 | – | – |
| 10 | 1-1/4 | 1-1/2 | 2812-490† | 413.50 | – | – |
| 10 | 1-1/2 | 1-1/2 | 2812-500† | 433.75 | – | – |
| 12 | 1/4 | 1-1/2 | – | – | 2816-510 | 769.80 |
| 12 | 5/16 | 1-1/2 | – | – | 2816-520 | 822.40 |
| 12 | 3/8 | 1-1/2 | – | – | 2816-530 | 875.00 |
| 12 | 7/16 | 1-1/2 | – | – | 2816-540 | 924.80 |
| 12 | 1/2 | 1-1/2 | – | – | 2816-550 | 966.05 |
| 12 | 9/16 | 1-1/2 | – | – | 2816-560 | 1024.15 |
| 12 | 5/8 | 1-1/2 | – | – | 2816-570 | 1025.45 |
| 12 | 11/16 | 1-1/2 | – | – | 2816-580 | 1068.45 |
| 12 | 3/4 | 1-1/2 | – | – | 2816-590 | 1087.90 |
| 12 | 13/16 | 1-1/2 | – | – | 2816-600 | 1123.70 |
| 12 | 7/8 | 1-1/2 | – | – | 2816-610 | 1154.10 |
| 12 | 15/16 | 1-1/2 | – | – | 2816-620 | 1226.00 |
| 12 | 1 | 1-1/2 | – | – | 2816-630 | 1234.20 |

# Side Milling Cutters - Staggered Tooth

## High Speed Steel

| DIAM. | FACE WIDTH | HOLE | Pittsburg® ALLEGHANY [2] ORDER NO. | PRICE EACH | F&D [1] ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 2-1/2 | 3/16 | 7/8 | 2820-010 | $32.45 | – | – |
| 2-1/2 | 1/4 | 7/8 | 2820-020 | 25.95 | 2824-020 | $60.06 |
| 2-1/2 | 5/16 | 7/8 | 2820-030 | 27.40 | 2824-030 | 59.35 |
| 2-1/2 | 3/8 | 7/8 | 2820-040 | 29.95 | 2824-040 | 68.15 |
| 2-1/2 | 7/16 | 7/8 | 2820-050† | 18.15 | – | – |
| 2-1/2 | 1/2 | 7/8 | 2820-060 | 31.85 | 2824-060 | 71.57 |
| 2-1/2 | 1/4 | 1 | – | – | 2824-070 | 74.52 |
| 2-1/2 | 7/16 | 1 | – | – | 2824-080 | 86.20 |
| 2-1/2 | 1/2 | 1 | – | – | 2824-090 | 88.74 |
| 3 | 3/16 | 1 | 2820-100 | 28.25 | 2824-100 | 58.29 |
| 3 | 7/32 | 1 | 2820-110 | 31.20 | 2824-110 | 77.59 |
| 3 | 1/4 | 1 | 2820-120 | 31.20 | 2824-120 | 62.54 |
| 3 | 9/32 | 1 | 2820-130 | 33.30 | 2824-130 | 78.88 |
| 3 | 5/16 | 1 | 2820-140 | 33.30 | 2824-140 | 69.86 |
| 3 | 11/32 | 1 | 2820-150† | 20.15 | 2824-150 | 79.24 |
| 3 | 3/8 | 1 | 2820-160 | 34.30 | 2824-160 | 71.10 |
| 3 | 13/32 | 1 | 2820-165† | 21.50 | 2824-165 | 85.49 |
| 3 | 7/16 | 1 | 2820-170 | 38.30 | 2824-170 | 85.37 |
| 3 | 1/2 | 1 | 2820-180 | 40.00 | 2824-180 | 85.96 |
| 3 | 9/16 | 1 | 2820-190 | 43.15 | 2824-190 | 91.69 |
| 3 | 5/8 | 1 | 2820-200 | 44.40 | 2824-200 | 99.89 |
| 3 | 11/16 | 1 | 2820-210† | 25.75 | 2824-210 | 103.01 |
| 3 | 3/4 | 1 | 2820-220 | 51.10 | 2824-220 | 106.50 |
| 3 | 13/16 | 1 | 2820-230† | 30.75 | 2824-230 | 109.50 |
| 3 | 7/8 | 1 | 2820-240† | 30.75 | 2824-240 | 113.46 |
| 3 | 15/16 | 1 | 2820-250† | 38.95 | 2824-250 | 121.72 |
| 3 | 1 | 1 | 2820-260 | 73.00 | 2824-260 | 119.18 |
| 3 | 3/16 | 1-1/4 | 2820-270 | 37.25 | 2824-270 | 69.86 |
| 3 | 7/32 | 1-1/4 | 2820-280† | 18.15 | 2824-280 | 77.59 |
| 3 | 1/4 | 1-1/4 | 2820-290 | 41.10 | 2824-290 | 72.16 |
| 3 | 9/32 | 1-1/4 | 2820-300† | 19.25 | 2824-300 | 78.88 |
| 3 | 5/16 | 1-1/4 | 2820-310† | 19.25 | 2824-310 | 78.23 |
| 3 | 11/32 | 1-1/4 | 2820-320† | 20.15 | 2824-320 | 79.24 |
| 3 | 3/8 | 1-1/4 | 2820-330 | 45.35 | 2824-330 | 81.07 |
| 3 | 13/32 | 1-1/4 | 2820-340† | 21.50 | 2824-340 | 85.49 |
| 3 | 7/16 | 1-1/4 | 2820-350† | 21.50 | 2824-350 | 85.37 |
| 3 | 1/2 | 1-1/4 | 2820-360 | 40.00 | 2824-360 | 75.99 |
| 3 | 9/16 | 1-1/4 | 2820-370† | 24.00 | 2824-370 | 91.69 |
| 3 | 5/8 | 1-1/4 | 2820-380 | 44.40 | 2824-380 | 87.91 |
| 3 | 11/16 | 1-1/4 | 2820-390† | 25.75 | 2824-390 | 103.01 |
| 3 | 3/4 | 1-1/4 | 2820-400 | 51.10 | 2824-400 | 95.29 |
| 3 | 13/16 | 1-1/4 | 2820-410 | 60.10 | 2824-410 | 109.50 |
| 3 | 7/8 | 1-1/4 | 2820-420† | 30.75 | 2824-420 | 113.46 |
| 3 | 15/16 | 1-1/4 | 2820-430† | 38.95 | 2824-430 | 121.72 |
| 3 | 1 | 1-1/4 | 2820-440 | 73.00 | 2824-440 | 119.18 |
| 3 | 1-1/8 | 1-1/4 | 2820-450† | 40.10 | – | – |
| 3 | 1-1/4 | 1-1/4 | 2820-460† | 40.10 | – | – |
| 3-1/2 | 1/4 | 1 | 2820-480 | 55.10 | 2824-480 | 107.09 |
| 3-1/2 | 5/16 | 1 | 2820-500 | 58.40 | 2824-500 | 113.34 |
| 3-1/2 | 11/32 | 1 | 2820-510† | 29.65 | – | – |
| 3-1/2 | 3/8 | 1 | 2820-520 | 64.70 | 2824-520 | 107.91 |
| 3-1/2 | 7/16 | 1 | 2820-540† | 34.05 | – | – |
| 3-1/2 | 1/2 | 1 | 2820-550 | 70.20 | 2824-550 | 115.52 |
| 3-1/2 | 5/8 | 1 | 2820-570 | 77.70 | 2824-570 | 127.03 |
| 3-1/2 | 11/16 | 1 | 2820-580† | 40.10 | 2824-580 | 135.76 |
| 3-1/2 | 3/4 | 1 | – | – | 2824-590 | 177.06 |
| 3-1/2 | 1/4 | 1-1/4 | – | – | 2824-600 | 107.09 |
| 3-1/2 | 5/16 | 1-1/4 | 2820-610† | 29.65 | 2824-610 | 113.34 |
| 3-1/2 | 3/8 | 1-1/4 | 2820-620† | 29.65 | 2824-620 | 107.91 |
| 3-1/2 | 7/16 | 1-1/4 | 2820-630† | 34.05 | 2824-630 | 113.01 |
| 3-1/2 | 1/2 | 1-1/4 | – | – | 2824-640 | 127.91 |
| 3-1/2 | 9/16 | 1-1/4 | – | – | 2824-650 | 130.63 |
| 3-1/2 | 5/8 | 1-1/4 | – | – | 2824-660 | 130.63 |
| 3-1/2 | 11/16 | 1-1/4 | – | – | 2824-670 | 138.59 |
| 3-1/2 | 3/4 | 1-1/4 | – | – | 2824-680 | 141.60 |
| 3-1/2 | 13/16 | 1-1/4 | – | – | 2824-690 | 145.91 |
| 3-1/2 | 7/8 | 1-1/4 | 2820-700† | 34.05 | 2824-700 | 151.10 |
| 3-1/2 | 15/16 | 1-1/4 | – | – | 2824-710 | 167.62 |
| 3-1/2 | 1 | 1-1/4 | 2820-720† | 19.15 | 2824-720 | 175.76 |
| 4 | 3/16 | 1 | 2820-730 | 53.30 | 2824-730 | 95.64 |
| 4 | 7/32 | 1 | 2820-740 | 58.25 | 2824-740 | 105.02 |
| 4 | 1/4 | 1 | 2820-750 | 47.60 | 2824-750 | 103.19 |
| 4 | 9/32 | 1 | 2820-760 | 62.85 | 2824-760 | 106.97 |
| 4 | 5/16 | 1 | 2820-770 | 51.10 | 2824-770 | 107.32 |
| 4 | 11/32 | 1 | 2820-780 | 64.50 | 2824-780 | 116.23 |
| 4 | 3/8 | 1 | 2820-790 | 55.55 | 2824-790 | 112.45 |
| 4 | 13/32 | 1 | – | – | 2824-800 | 119.36 |
| 4 | 7/16 | 1 | 2820-810 | 60.00 | 2824-810 | 120.71 |
| 4 | 1/2 | 1 | 2820-820 | 62.20 | 2824-820 | 123.84 |
| 4 | 9/16 | 1 | 2820-830 | 76.30 | 2824-830 | 133.22 |
| 4 | 5/8 | 1 | 2820-840 | 71.10 | 2824-840 | 137.82 |
| 4 | 11/16 | 1 | 2820-850† | 40.10 | 2824-850 | 148.39 |
| 4 | 3/4 | 1 | 2820-860 | $77.75 | 2824-860 | $151.98 |
| 4 | 13/16 | 1 | 2820-870 | 92.55 | 2824-870 | 158.12 |
| 4 | 7/8 | 1 | 2820-880† | 43.05 | 2824-880 | 158.24 |
| 4 | 15/16 | 1 | 2820-890† | 46.75 | 2824-890 | 178.00 |
| 4 | 1 | 1 | 2820-900 | 109.30 | 2824-900 | 186.38 |
| 4 | 3/16 | 1-1/4 | 2820-910 | 56.75 | 2824-910 | 95.64 |
| 4 | 7/32 | 1-1/4 | 2820-920 | 47.60 | 2824-920 | 105.02 |
| 4 | 1/4 | 1-1/4 | 2820-930 | 48.00 | 2824-930 | 90.98 |
| 4 | 9/32 | 1-1/4 | 2820-940 | 48.25 | 2824-940 | 106.97 |
| 4 | 5/16 | 1-1/4 | 2820-950 | 51.10 | 2824-950 | 92.45 |
| 4 | 11/32 | 1-1/4 | – | – | 2824-960 | 116.23 |
| 4 | 3/8 | 1-1/4 | 2820-970 | 55.55 | 2824-970 | 94.40 |
| 4 | 13/32 | 1-1/4 | 2820-980 | 55.55 | 2824-980 | 119.36 |
| 4 | 7/16 | 1-1/4 | 2820-990 | 60.00 | 2824-990 | 102.42 |
| 4 | 1/2 | 1-1/4 | 2821-000 | 62.20 | 2825-000 | 106.85 |
| 4 | 9/16 | 1-1/4 | 2821-010 | 66.65 | 2825-010 | 133.22 |
| 4 | 5/8 | 1-1/4 | 2821-020 | 71.10 | 2825-020 | 123.07 |
| 4 | 11/16 | 1-1/4 | 2821-030† | 40.10 | 2825-030 | 148.39 |
| 4 | 3/4 | 1-1/4 | 2821-040 | 77.75 | 2825-040 | 131.28 |
| 4 | 13/16 | 1-1/4 | 2821-050† | 43.05 | 2825-050 | 158.12 |
| 4 | 7/8 | 1-1/4 | – | – | 2825-060 | 158.24 |
| 4 | 15/16 | 1-1/4 | 2821-070† | 46.75 | 2825-070 | 178.00 |
| 4 | 1 | 1-1/4 | 2821-080 | 110.15 | 2825-080 | 186.38 |
| 4 | 1-1/8 | 1-1/4 | – | – | 2825-090 | 201.31 |
| 4 | 1-3/16 | 1-1/4 | 2821-100† | 58.30 | 2825-100 | 201.31 |
| 4 | 1-1/4 | 1-1/4 | 2821-110† | 64.00 | 2825-110 | 207.80 |
| 4 | 1-1/2 | 1-1/4 | – | – | 2825-120 | 241.19 |
| 4-1/2 | 1/4 | 1-1/4 | 2821-150† | 43.05 | – | – |
| 4-1/2 | 5/16 | 1-1/4 | 2821-160† | 45.65 | – | – |
| 4-1/2 | 7/8 | 1-1/4 | 2821-220† | 63.10 | – | – |
| 4-1/2 | 1 | 1-1/4 | 2821-230† | 70.30 | – | – |
| 5 | 7/32 | 1 | – | – | 2825-250 | 150.33 |
| 5 | 1/4 | 1 | 2821-260 | 71.10 | 2825-260 | 143.25 |
| 5 | 9/32 | 1 | – | – | 2825-270 | 160.95 |
| 5 | 5/16 | 1 | 2821-280 | 83.45 | 2825-280 | 157.12 |
| 5 | 11/32 | 1 | 2821-290† | 45.65 | 2825-290 | 169.92 |
| 5 | 3/8 | 1 | 2821-300 | 87.90 | 2825-300 | 167.56 |
| 5 | 13/32 | 1 | – | – | 2825-310 | 181.31 |
| 5 | 7/16 | 1 | 2821-320 | 88.85 | 2825-320 | 183.73 |
| 5 | 1/2 | 1 | 2821-330 | 97.75 | 2825-330 | 184.97 |
| 5 | 9/16 | 1 | – | – | 2825-340 | 188.51 |
| 5 | 5/8 | 1 | 2821-350 | 115.55 | 2825-350 | 163.02 |
| 5 | 11/16 | 1 | 2821-360† | 81.05 | 2825-360 | 202.37 |
| 5 | 3/4 | 1 | 2821-370 | 128.85 | 2825-370 | 179.18 |
| 5 | 13/16 | 1 | 2821-380† | 63.10 | 2825-380 | 221.72 |
| 5 | 7/8 | 1 | 2821-390 | 148.85 | 2825-390 | 229.39 |
| 5 | 7/32 | 1-1/4 | – | – | 2825-410 | 150.33 |
| 5 | 1/4 | 1-1/4 | 2821-420 | 70.95 | 2825-420 | 143.25 |
| 5 | 9/32 | 1-1/4 | – | – | 2825-430 | 160.95 |
| 5 | 5/16 | 1-1/4 | 2821-440 | 77.75 | 2825-440 | 157.12 |
| 5 | 11/32 | 1-1/4 | 2821-450† | 45.65 | 2825-450 | 169.92 |
| 5 | 3/8 | 1-1/4 | 2821-460 | 82.20 | 2825-460 | 167.56 |
| 5 | 13/32 | 1-1/4 | – | – | 2825-470 | 181.31 |
| 5 | 7/16 | 1-1/4 | 2821-480 | 92.50 | 2825-480 | 183.73 |
| 5 | 1/2 | 1-1/4 | 2821-490 | 97.75 | 2825-490 | 147.50 |
| 5 | 9/16 | 1-1/4 | 2821-500† | 49.15 | 2825-500 | 188.51 |
| 5 | 5/8 | 1-1/4 | 2821-510 | 115.55 | 2825-510 | 163.02 |
| 5 | 11/16 | 1-1/4 | – | – | 2825-520 | 202.37 |
| 5 | 3/4 | 1-1/4 | 2821-530 | 128.85 | 2825-530 | 179.18 |
| 5 | 13/16 | 1-1/4 | – | – | 2825-540 | 221.72 |
| 5 | 7/8 | 1-1/4 | 2821-550† | 63.10 | 2825-550 | 229.39 |
| 5 | 15/16 | 1-1/4 | 2821-560† | 70.30 | 2825-560 | 246.15 |
| 5 | 1 | 1-1/4 | 2821-570 | 166.65 | 2825-570 | 246.15 |
| 6 | 3/16 | 1 | 2821-580† | 55.45 | – | – |
| 6 | 1/4 | 1 | 2821-590 | 86.65 | 2825-590 | 193.64 |
| 6 | 9/32 | 1 | – | – | 2825-600 | 216.53 |
| 6 | 5/16 | 1 | 2821-610 | 105.15 | 2825-610 | 201.84 |
| 6 | 11/32 | 1 | 2821-620† | 59.75 | 2825-620 | 227.15 |
| 6 | 3/8 | 1 | 2821-630 | 113.30 | 2825-630 | 213.93 |
| 6 | 7/16 | 1 | 2821-640 | 124.80 | 2825-640 | 225.20 |
| 6 | 1/2 | 1 | 2821-650 | 144.40 | 2825-650 | 223.32 |
| 6 | 9/16 | 1 | – | – | 2825-660 | 240.37 |
| 6 | 5/8 | 1 | – | – | 2825-670 | 219.36 |
| 6 | 11/16 | 1 | – | – | 2825-680 | 273.64 |
| 6 | 3/4 | 1 | 2821-690 | 186.65 | 2825-690 | 241.61 |
| 6 | 13/16 | 1 | 2821-700† | 92.60 | 2825-700 | 293.23 |
| 6 | 7/8 | 1 | 2821-710 | 215.90 | 2825-710 | 282.02 |
| 6 | 15/16 | 1 | 2821-720† | 99.60 | – | – |
| 6 | 1 | 1 | 2821-730† | 122.60 | – | – |
| 6 | 7/32 | 1-1/4 | – | – | 2825-745 | 202.37 |
| 6 | 1/4 | 1-1/4 | 2821-750 | 85.25 | 2825-750 | 189.04 |
| 6 | 9/32 | 1-1/4 | 2821-760 | 92.20 | 2825-760 | 216.53 |
| 6 | 5/16 | 1-1/4 | 2821-770 | 100.00 | 2825-770 | 201.84 |
| 6 | 11/32 | 1-1/4 | – | – | 2825-780 | 227.15 |
| 6 | 3/8 | 1-1/4 | 2821-790 | 113.30 | 2825-790 | 167.32 |
| 6 | 13/32 | 1-1/4 | – | – | 2825-800 | 229.39 |
| 6 | 7/16 | 1-1/4 | 2821-810 | 124.80 | 2825-810 | 225.20 |
| 6 | 1/2 | 1-1/4 | 2821-820 | 144.40 | 2825-820 | 187.09 |
| 6 | 9/16 | 1-1/4 | 2821-830 | 157.75 | 2825-830 | 240.37 |
| 6 | 5/8 | 1-1/4 | 2821-840 | 162.55 | 2825-840 | 219.36 |
| 6 | 11/16 | 1-1/4 | – | – | 2825-850 | 273.64 |
| 6 | 3/4 | 1-1/4 | 2821-860 | 186.65 | 2825-860 | 241.61 |
| 6 | 13/16 | 1-1/4 | 2821-870† | 92.60 | 2825-870 | 293.23 |
| 6 | 7/8 | 1-1/4 | 2821-880 | 215.90 | 2825-880 | 282.02 |
| 6 | 15/16 | 1-1/4 | 2821-890† | 99.60 | 2825-890 | 358.13 |
| 6 | 1 | 1-1/4 | 2821-900 | 242.20 | 2825-900 | 302.38 |
| 6 | 1-1/8 | 1-1/4 | 2821-910† | 120.95 | 2825-910 | 381.14 |
| 6 | 1-3/16 | 1-1/4 | 2821-920† | 108.75 | 2825-920 | 391.17 |
| 6 | 1-1/4 | 1-1/4 | 2821-930 | 242.20 | 2825-930 | 381.14 |
| 6 | 1-1/2 | 1-1/4 | 2821-940 | 129.30 | – | – |
| 6 | 1 | 1-1/2 | 2821-960† | 168.55 | – | – |
| 7 | 1/4 | 1-1/4 | – | – | 2825-970 | $289.16 |
| 7 | 5/16 | 1-1/4 | 2821-980† | 95.65 | 2825-980 | 306.33 |
| 7 | 3/8 | 1-1/4 | 2821-990† | 103.95 | 2825-990 | 314.59 |
| 7 | 7/16 | 1-1/4 | 2822-000† | 109.65 | 2826-000 | 326.27 |
| 7 | 1/2 | 1-1/4 | 2822-010† | 121.85 | 2826-010 | 340.61 |
| 7 | 9/16 | 1-1/4 | 2822-020† | 117.05 | 2826-020 | 354.89 |
| 7 | 5/8 | 1-1/4 | – | – | 2826-030 | 366.51 |
| 7 | 11/16 | 1-1/4 | – | – | 2826-040 | 392.17 |
| 7 | 3/4 | 1-1/4 | 2822-050† | 134.10 | 2826-050 | 407.16 |
| 7 | 13/16 | 1-1/4 | 2822-060† | 150.70 | 2826-060 | 426.69 |
| 7 | 7/8 | 1-1/4 | 2822-070† | 150.70 | 2826-070 | 443.21 |
| 7 | 15/16 | 1-1/4 | 2822-080† | 164.65 | 2826-080 | 455.30 |
| 7 | 1 | 1-1/4 | – | – | 2826-090 | 467.46 |
| 7 | 3/8 | 1-1/2 | 2822-100† | 103.95 | – | – |
| 7 | 7/16 | 1-1/2 | 2822-110† | 113.15 | – | – |
| 7 | 1/2 | 1-1/2 | 2822-120 | 113.15 | – | – |
| 7 | 5/8 | 1-1/2 | 2822-130† | 121.45 | – | – |
| 7 | 3/4 | 1-1/2 | 2822-140† | 134.10 | – | – |
| 7 | 7/8 | 1-1/2 | 2822-150† | 149.85 | – | – |
| 7 | 1 | 1-1/2 | 2822-160† | 162.05 | – | – |
| 8 | 1/4 | 1 | 2822-170 | 113.15 | – | – |
| 8 | 1/2 | 1 | 2822-190 | 132.35 | – | – |
| 8 | 1/4 | 1-1/4 | 2822-220 | 177.75 | 2826-220 | 379.85 |
| 8 | 5/16 | 1-1/4 | 2822-240 | 226.05 | 2826-240 | 416.10 |
| 8 | 11/32 | 1-1/4 | 2822-250† | 125.35 | – | – |
| 8 | 3/8 | 1-1/4 | 2822-260 | 237.95 | 2826-260 | 437.40 |
| 8 | 7/16 | 1-1/4 | – | – | 2826-270 | 471.55 |
| 8 | 1/2 | 1-1/4 | 2822-280 | 253.35 | 2826-280 | 483.05 |
| 8 | 9/16 | 1-1/4 | – | – | 2826-290 | 521.90 |
| 8 | 5/8 | 1-1/4 | 2822-300† | 153.30 | 2826-300 | 524.55 |
| 8 | 11/16 | 1-1/4 | 2822-310† | 205.35 | 2826-310 | 550.85 |
| 8 | 3/4 | 1-1/4 | 2822-320† | 166.85 | 2826-320 | 570.30 |
| 8 | 13/16 | 1-1/4 | – | – | 2826-330 | 606.05 |
| 8 | 7/8 | 1-1/4 | 2822-340† | 185.20 | 2826-340 | 619.40 |
| 8 | 15/16 | 1-1/4 | – | – | 2826-350 | 634.65 |
| 8 | 1 | 1-1/4 | 2822-360† | 198.75 | 2826-360 | 654.70 |
| 8 | 1/4 | 1-1/2 | – | – | 2826-370 | 392.50 |
| 8 | 5/16 | 1-1/2 | 2822-380† | 118.80 | 2826-380 | 416.10 |
| 8 | 3/8 | 1-1/2 | 2822-390 | 211.45 | 2826-390 | 397.90 |
| 8 | 7/16 | 1-1/2 | 2822-400† | 132.35 | 2826-400 | 471.55 |
| 8 | 1/2 | 1-1/2 | 2822-410† | 132.35 | 2826-410 | 450.00 |
| 8 | 9/16 | 1-1/2 | 2822-420† | 153.30 | 2826-420 | 521.90 |
| 8 | 5/8 | 1-1/2 | 2822-430† | 153.30 | 2826-430 | 482.70 |
| 8 | 11/16 | 1-1/2 | 2822-440† | 166.85 | 2826-440 | 550.85 |
| 8 | 3/4 | 1-1/2 | – | – | 2826-450 | 521.70 |
| 8 | 13/16 | 1-1/2 | 2822-460† | 185.20 | 2826-460 | 606.05 |
| 8 | 7/8 | 1-1/2 | 2822-470† | 185.20 | 2826-470 | 594.95 |
| 8 | 15/16 | 1-1/2 | 2822-480† | 198.75 | 2826-480 | 634.65 |
| 8 | 1 | 1-1/2 | 2822-490† | 198.75 | 2826-490 | 643.65 |
| 8 | 1-1/8 | 1-1/2 | 2822-500† | 211.85 | – | – |
| 8 | 1-1/4 | 1-1/2 | – | – | 2826-510 | 875.65 |
| 8 | 1-1/2 | 1-1/2 | 2822-520† | 254.65 | – | – |
| 9 | 1/4 | 1-1/4 | – | – | 2826-530 | 487.90 |
| 9 | 3/8 | 1-1/4 | – | – | 2826-540 | 550.75 |
| 9 | 1/2 | 1-1/4 | 2822-550† | 198.75 | 2826-550 | 628.95 |
| 9 | 5/8 | 1-1/4 | – | – | 2826-560 | 691.55 |
| 9 | 3/4 | 1-1/4 | – | – | 2826-570 | 746.70 |
| 9 | 1 | 1-1/4 | 2822-580† | 248.55 | 2826-580 | 837.30 |
| 9 | 1/4 | 1-1/2 | 2822-590† | 157.25 | 2826-590 | 487.90 |
| 9 | 3/8 | 1-1/2 | 2822-600† | 176.90 | 2826-600 | 550.75 |
| 9 | 1/2 | 1-1/2 | 2822-610† | 198.75 | 2826-610 | 628.95 |
| 9 | 5/8 | 1-1/2 | – | – | 2826-620 | 691.55 |
| 9 | 3/4 | 1-1/2 | 2822-630† | 226.70 | 2826-630 | 746.70 |
| 9 | 1 | 1-1/2 | 2822-640† | 248.55 | – | – |
| 10 | 3/8 | 1-1/4 | 2822-660† | 247.65 | – | – |
| 10 | 13/16 | 1-1/4 | 2822-670† | 327.15 | – | – |
| 10 | 3/16 | 1-1/2 | 2822-690† | 214.05 | – | – |
| 10 | 1/4 | 1-1/2 | – | – | 2826-700 | 632.70 |
| 10 | 5/16 | 1-1/2 | – | – | 2826-710 | 632.70 |
| 10 | 3/8 | 1-1/2 | – | – | 2826-720 | 756.40 |
| 10 | 7/16 | 1-1/2 | 2822-730† | 271.25 | 2826-730 | 817.20 |
| 10 | 1/2 | 1-1/2 | 2822-740† | 280.85 | 2826-740 | 843.05 |
| 10 | 9/16 | 1-1/2 | – | – | 2826-750 | 881.85 |
| 10 | 5/8 | 1-1/2 | – | – | 2826-760 | 917.40 |
| 10 | 11/16 | 1-1/2 | 2822-770† | 307.50 | 2826-770 | 946.30 |
| 10 | 3/4 | 1-1/2 | – | – | 2826-780 | 949.90 |
| 10 | 13/16 | 1-1/2 | 2822-790† | 327.15 | 2826-790 | 1023.95 |
| 10 | 7/8 | 1-1/2 | 2822-800† | 341.15 | 2826-800 | 1121.95 |
| 10 | 15/16 | 1-1/2 | 2822-810† | 356.85 | 2826-810 | 1210.55 |
| 10 | 1 | 1-1/2 | – | – | 2826-820 | 1146.15 |
| 10 | 1-1/8 | 1-1/2 | 2822-830† | 394.00 | – | – |
| 10 | 1-1/4 | 1-1/2 | 2822-840† | 417.15 | – | – |
| 10 | 1-1/2 | 1-1/2 | 2822-850† | 457.75 | – | – |
| 12 | 5/16 | 1-1/2 | – | – | 2826-858 | 937.85 |
| 12 | 3/8 | 1-1/2 | – | – | 2826-860 | 956.75 |
| 12 | 7/16 | 1-1/2 | – | – | 2826-870 | 1032.25 |
| 12 | 1/2 | 1-1/2 | – | – | 2826-880 | 1016.15 |
| 12 | 9/16 | 1-1/2 | – | – | 2826-890 | 1103.50 |
| 12 | 5/8 | 1-1/2 | 2822-900† | 647.40 | 2826-900 | 1127.20 |
| 12 | 11/16 | 1-1/2 | – | – | 2826-910 | 1135.20 |
| 12 | 3/4 | 1-1/2 | – | – | 2826-920 | 1174.10 |
| 12 | 13/16 | 1-1/2 | – | – | 2826-930 | 1266.90 |
| 12 | 7/8 | 1-1/2 | – | – | 2826-940 | 1277.35 |
| 12 | 15/16 | 1-1/2 | – | – | 2826-950 | 1322.45 |
| 12 | 1 | 1-1/2 | – | – | 2826-960 | 1341.25 |

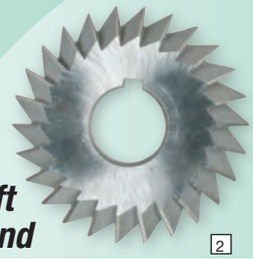


† Limited Quantities

# Cutters

## Single Angle

*Right Hand*



*Left Hand*

2

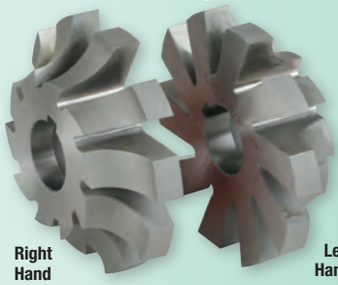
| DIAM. | FACE WIDTH | ARBOR HOLE | 45° R.H. ORDER NO. | 45° L.H. ORDER NO. | 60° R.H. ORDER NO. | 60° L.H. ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 2-1/2 | 1/2 | 7/8 | – | 2831-210 | 2831-410 | 2831-610 | $ 16.05 |
| 2-3/4 | 1/2 | 1 | – | – | – | 2831-620 | 16.60 |
| 3 | 1/2 | 1 | – | – | – | 2831-625 | 33.65 |
| 3 | 3/4 | 1 | – | – | – | 2831-640 | 36.85 |
| 3 | 1/2 | 1-1/4 | – | 2831-250 | – | 2831-650 | 18.45 |
| 3 | 5/8 | 1-1/4 | – | 2831-260 | 2831-460 | 2831-660 | 33.65 |
| 3 | 3/4 | 1-1/4 | – | – | 2831-470 | 2831-670 | 36.85 |
| 4 | 1/2 | 1-1/4 | – | 2831-280 | – | 2831-680 | 47.40 |
| 4 | 3/4 | 1-1/4 | – | 2831-290 | 2831-490 | 2831-690 | 56.30 |
| 4 | 1 | 1-1/4 | – | – | – | 2831-700 | 62.15 |
| 4-1/2 | 1/2 | 1-1/4 | – | 2831-305 | – | – | 62.15 |
| 5 | 3/4 | 1-1/4 | – | 2831-310 | 2831-510 | – | 68.20 |
| 5 | 1 | 1-1/4 | 2831-120 | 2831-320 | 2831-520 | 2831-720 | 81.75 |
| 6 | 3/4 | 1-1/4 | – | 2831-330 | 2831-530 | 2831-730 | 97.65 |
| 6 | 1 | 1-1/4 | – | 2831-340 | – | 2831-740 | 122.40 |
| 6 | 1-1/4 | 1-1/4 | – | – | – | 2831-750 | 206.35 |

## Double Angle

2

| DIAM. | FACE WIDTH | ARBOR HOLE | 45° ORDER NO. | 60° ORDER NO. | 90° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 3 | 3/4 | 1-1/4 | – | 2835-245 | 2835-445 | $38.05 |
| 4 | 1/2 | 1 | 2835-035 | – | – | 49.05 |
| 6 | 3/4 | 1-1/4 | 2835-100 | – | – | 101.80 |
| 6 | 1-1/4 | 1-1/4 | 2835-115 | 2835-315 | 2835-515 | 126.15 |
| 6 | 1-1/2 | 1-1/4 | 2835-120 | – | – | 155.60 |

## Corner Rounding –Arbor Type



Right Hand

Left Hand

2

| CIRCLE RADIUS | CUT. DIAM. | ARBOR HOLE | R.H. ORDER NO. | PRICE EACH | L.H. ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/8 | 2 | 7/8 | 2834-010 | $ 16.80 | 2834-310 | $ 16.80 |
| 1/8 | 2-1/2 | 1 | 2834-020 | 20.35 | 2834-320 | 20.35 |
| 1/4 | 2-1/4 | 7/8 | 2834-050 | 21.75 | – | – |
| 5/16 | 2-3/4 | 1 | – | – | 2834-370 | 49.30 |
| 5/16 | 3 | 1 | 2834-080 | 55.60 | 2834-380 | 55.60 |
| 3/8 | 3 | 1 | 2834-090 | 35.60 | 2834-390 | 35.60 |
| 3/8 | 3-3/4 | 1-1/4 | 2834-100 | 39.85 | 2834-400 | 39.85 |
| 7/16 | 3-1/4 | 1 | 2834-110 | 68.00 | 2834-410 | 68.00 |
| 1/2 | 3-1/4 | 1 | – | – | 2834-420 | 48.60 |
| 1/2 | 4-1/2 | 1-1/4 | 2834-130 | 54.90 | 2834-430 | 54.90 |
| 9/16 | 3-1/2 | 1 | – | – | 2834-440 | 69.15 |
| 5/8 | 3-1/2 | 1 | 2834-150 | 55.60 | 2834-450 | 55.60 |
| 5/8 | 4-1/4 | 1-1/4 | – | – | 2834-460 | 61.65 |
| 7/8 | 4-1/2 | 1-1/4 | 2834-180 | 129.40 | 2834-480 | 129.40 |
| 1 | 4-1/2 | 1-1/4 | – | – | 2834-490 | 150.00 |

## Carbide Tipped Milling Cutters

*Closeout!*

2

| DIA. | FACE WIDTH | ARBOR HOLE | NO. OF TEETH | FOR CAST IRON ORDER NO. | FOR CAST IRON PRICE EACH | FOR STEEL ORDER NO. | FOR STEEL PRICE EACH |
|---|---|---|---|---|---|---|---|
| 4 | 3/8 | 1 | 6 | 3856-908* | $183.15 | – | – |
| 4 | 5/8 | 1-1/4 | 10 | 3035-302 | 110.50 | 3035-324 | $121.10 |
| 4 | 3/4 | 1-1/4 | 10 | 3035-304 | 110.50 | 3035-336 | 122.60 |
| 5 | 9/16 | 1-1/4 | 12 | – | – | 3035-348 | 129.95 |
| 5 | 5/8 | 1-1/4 | 12 | 3035-308 | 135.75 | 3035-360 | 152.55 |
| 5 | 3/4 | 1-1/4 | 12 | 3035-310 | 153.75 | 3035-372 | 168.80 |
| 6 | 5/8 | 1-1/4 | 12 | – | – | 3035-392 | 170.95 |
| 6 | 3/4 | 1-1/4 | 12 | 3035-316 | 188.00 | 3035-408 | 194.70 |
| 6 | 1 | 1-1/4 | 12 | 3035-320 | 205.65 | 3035-432 | 213.05 |

# Involute Gear Cutters

## High Speed Steel

**RANGE OF CUTTERS:**
Finishing Gear Milling Cutters are made with eight cutters for each pitch and are adapted to cut from a pinion of 12 teeth to a rack. The individual cutters for each pitch have a range as follows:

**No. 1**
will cut gears from
135 teeth to a rack

**No. 2**
will cut gears from
55 teeth to 134 teeth

**No. 3**
will cut gears from
35 teeth to 54 teeth

**No. 4**
will cut gears from
26 teeth to 34 teeth

**No. 5**
will cut gears from
21 teeth to 25 teeth

**No. 6**
will cut gears from
17 teeth to 20 teeth

**No. 7**
will cut gears from
14 teeth to 16 teeth

**No. 8**
will cut gears from
12 teeth to 13 teeth

[2]

| | DIAM. PITCH | CUT. DIAM. | ARBOR HOLE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14-1/2° PRESSURE ANGLE | 1 | 8-1/2 | 2 | 2840-010 | 2840-020 | 2840-030 | 2840-040 | 2840-050 | 2840-060 | 2840-070 | 2840-080 | $969.25 |
| | 1-1/4 | 7-3/4 | 2 | 2840-090 | 2840-100 | 2840-110 | 2840-120 | 2840-130 | 2840-140 | 2840-150 | 2840-160 | 662.50 |
| | 1-1/2 | 7 | 1-3/4 | 2840-170 | 2840-180 | 2840-190 | 2840-200 | 2840-210 | 2840-220 | 2840-230 | 2840-240 | 486.00 |
| | 1-3/4 | 6-1/2 | 1-3/4 | 2840-250 | 2840-260 | 2840-270 | 2840-280 | 2840-290 | 2840-300 | 2840-310 | 2840-320 | 404.70 |
| | 2 | 5-3/4 | 1-1/2 | 2840-330 | 2840-340 | 2840-350 | 2840-360 | 2840-370 | 2840-380 | 2840-390 | 2840-400 | 152.95 |
| | 2-1/2 | 5-3/4 | 1-1/2 | 2840-410 | – | 2840-430 | 2840-440 | 2840-450 | – | – | 2840-480 | 120.35 |
| | 3 | 5-1/4 | 1-1/2 | 2840-490 | 2840-500 | 2840-510 | 2840-520 | 2840-530 | 2840-540 | 2840-550 | 2840-560 | 89.30 |
| | 3 | 4-3/4 | 1-1/4 | 2840-570 | – | 2840-590 | 2840-600 | 2840-610 | – | – | 2840-640 | 83.45 |
| | 4 | 4-1/2 | 1-1/2 | 2840-650 | 2840-660 | 2840-670 | 2840-680 | 2840-690 | 2840-700 | 2840-710 | 2840-720 | 62.55 |
| | 4 | 4-1/4 | 1-1/4 | 2840-730 | 2840-740 | 2840-750 | 2840-760 | 2840-770 | 2840-780 | 2840-790 | 2840-800 | 59.10 |
| | 4 | 3-5/8 | 1 | 2840-810 | 2840-820 | 2840-830 | 2840-840 | 2840-850 | 2840-860 | – | 2840-880 | 51.50 |
| | 5 | 3-3/4 | 1-1/4 | – | 2840-900 | 2840-910 | 2840-920 | 2840-930 | – | 2840-950 | 2840-960 | 46.25 |
| | 5 | 3-3/8 | 1 | 2840-970 | 2840-980 | 2840-990 | 2841-000 | 2841-010 | 2841-020 | 2841-030 | 2841-040 | 44.60 |
| | 6 | 3-1/2 | 1-1/4 | 2841-050 | 2841-060 | 2841-070 | 2841-080 | 2841-090 | 2841-100 | 2841-110 | 2841-120 | 41.80 |
| | 6 | 3-1/8 | 1 | 2841-130 | – | – | 2841-160 | 2841-170 | – | – | 2841-200 | 36.80 |
| | 7 | 3-3/8 | 1-1/4 | 2841-210 | 2841-220 | 2841-230 | 2841-240 | 2841-250 | 2841-260 | 2841-270 | 2841-280 | 41.80 |
| | 7 | 2-7/8 | 1 | 2841-290 | 2841-300 | 2841-310 | – | 2841-330 | 2841-340 | 2841-350 | 2841-360 | 36.80 |
| | 8 | 3-1/4 | 1-1/4 | 2841-370 | 2841-380 | 2841-390 | 2841-400 | – | 2841-420 | 2841-430 | 2841-440 | 34.80 |
| | 9 | 2-3/4 | 1 | 2841-530 | 2841-540 | 2841-550 | 2841-560 | 2841-570 | 2841-580 | 2841-590 | 2841-600 | 30.00 |
| | 10 | 3 | 1-1/4 | – | – | – | – | 2841-650 | 2841-660 | 2841-670 | 2841-680 | 31.35 |
| | 10 | 2-3/4 | 1 | – | – | – | – | – | – | 2841-750 | 2841-760 | 27.05 |
| | 10 | 2-3/8 | 7/8 | – | – | – | – | – | – | – | 2841-840 | 24.30 |
| | 11 | 2-3/8 | 7/8 | 2841-850 | 2841-860 | 2841-870 | 2841-880 | 2841-890 | 2841-900 | – | 2841-920 | 24.30 |
| | 12 | 2-7/8 | 1-1/4 | – | 2841-940 | – | – | 2841-970 | 2841-980 | 2841-990 | 2842-000 | 28.45 |
| | 12 | 2-5/8 | 1 | 2842-010 | – | – | – | – | – | – | – | 24.00 |
| | 12 | 2-1/4 | 7/8 | 2842-090 | – | 2842-110 | – | – | – | – | – | 21.25 |
| | 14 | 2-1/2 | 1 | 2842-170 | – | – | 2842-200 | 2842-210 | 2842-220 | – | 2842-240 | 24.30 |
| | 14 | 2-1/8 | 7/8 | 2842-250 | – | 2842-270 | – | 2842-290 | – | 2842-310 | – | 20.55 |
| | 16 | 2-1/2 | 1 | – | – | – | – | 2842-370 | – | – | 2842-400 | 24.30 |
| | 16 | 2-1/8 | 7/8 | 2842-410 | – | – | – | – | – | – | 2842-470 | 20.55 |
| | 18 | 2-3/8 | 1 | 2842-480 | – | 2842-500 | – | – | 2842-530 | 2842-540 | – | 21.80 |
| | 18 | 2 | 7/8 | 2842-560 | 2842-570 | 2842-580 | – | 2842-600 | 2842-610 | 2842-620 | 2842-630 | 18.45 |
| | 20 | 2-3/8 | 1 | – | 2842-650 | – | – | 2842-680 | – | 2842-700 | – | 21.80 |
| | 20 | 2 | 7/8 | 2842-720 | 2842-730 | 2842-740 | – | 2842-760 | 2842-770 | 2842-780 | – | 18.45 |
| | 22 | 2 | 7/8 | – | 2842-810 | 2842-820 | 2842-830 | 2842-840 | 2842-850 | 2842-860 | 2842-870 | 18.45 |
| | 24 | 2-1/4 | 1 | 2842-880 | – | – | – | – | 2842-930 | 2842-940 | 2842-950 | 20.90 |
| | 24 | 1-3/4 | 7/8 | 2842-960 | – | 2842-980 | 2842-990 | 2843-000 | 2843-010 | 2843-020 | 2843-030 | 18.25 |
| | 266 | 1-3/4 | 7/8 | 2843-040 | 2843-050 | 2843-060 | 2843-070 | 2843-080 | 2843-090 | 2843-100 | 2843-200 | 18.25 |
| | 28 | 1-3/4 | 7/8 | 2843-220 | 2843-230 | 2843-240 | 2843-250 | 2843-260 | 2843-270 | 2843-280 | 2843-290 | 18.25 |
| | 30 | 1-3/4 | 7/8 | 2843-300 | 2843-310 | 2843-320 | 2843-330 | 2843-340 | 2843-350 | 2843-360 | 2843-370 | 18.25 |
| | 32 | 1-3/4 | 7/8 | 2843-380 | 2843-390 | – | 2843-410 | 2843-420 | – | 2843-440 | 2843-450 | 17.35 |
| | 36 | 1-3/4 | 7/8 | 2843-460 | 2843-470 | 2843-480 | 2843-490 | 2843-500 | 2843-510 | 2843-520 | 2843-530 | 17.35 |
| | 40 | 1-3/4 | 7/8 | 2843-540 | 2843-550 | 2843-560 | 2843-570 | 2843-580 | 2843-590 | 2843-600 | 2843-610 | 17.35 |
| | 48 | 1-3/4 | 7/8 | 2843-620 | 2843-630 | – | 2843-650 | 2843-660 | 2843-670 | 2843-680 | 2843-690 | 17.35 |
| SPECIAL 20° PRESSURE ANGLE | 1 | 8-1/2 | 2 | 2850-010 | 2850-020 | – | 2850-040 | – | 2850-060 | 2850-070 | 2850-080 | 975.20 |
| | 1-1/4 | 7-3/4 | 2 | 2850-090 | 2850-100 | – | 2850-120 | 2850-130 | – | – | – | 759.00 |
| | 1-3/4 | 6-1/2 | 1-3/4 | – | – | 2850-270 | 2850-280 | 2850-290 | – | 2850-310 | 2850-320 | 463.75 |
| | 2 | 5-3/4 | 1-1/2 | – | – | – | 2850-360 | – | – | – | – | 206.85 |
| | 2-1/2 | 5-3/4 | 1-1/2 | 2850-410 | – | – | 2850-440 | 2850-450 | – | – | – | 162.60 |
| | 3 | 5-1/4 | 1-1/2 | 2850-490 | – | 2850-510 | – | 2850-530 | 2850-540 | 2850-550 | 2850-560 | 121.00 |
| | 3 | 4-3/4 | 1-1/4 | 2850-570 | – | – | – | 2850-610 | – | – | 2850-640 | 112.65 |
| | 4 | 4-1/4 | 1-1/4 | 2850-650 | – | – | 2850-680 | – | – | 2850-710 | – | 79.80 |
| | 4 | 3-5/8 | 1 | – | – | – | 2850-760 | – | 2850-780 | – | – | 69.95 |
| | 5 | 3-3/4 | 1-1/4 | 2850-810 | – | – | – | – | 2850-860 | 2850-870 | 2850-880 | 62.75 |
| | 5 | 3-3/8 | 1 | – | 2850-900 | 2850-910 | – | 2850-930 | 2850-940 | 2850-950 | 2850-960 | 60.50 |
| | 6 | 3-1/2 | 1-1/4 | 2850-970 | – | – | – | 2851-010 | – | 2851-030 | 2851-040 | 57.00 |
| | 7 | 2-7/8 | 1 | 2851-130 | – | – | 2851-160 | 2851-170 | 2851-180 | 2851-190 | – | 49.90 |
| | 8 | 3-1/4 | 1-1/4 | – | – | – | – | – | – | 2851-270 | 2851-280 | 47.25 |
| | 9 | 2-3/4 | 1 | 2851-370 | 2851-380 | 2851-390 | – | 2851-410 | 2851-420 | 2851-430 | 2851-440 | 40.65 |
| | 10 | 3 | 1-1/4 | 2851-450 | – | 2851-470 | 2851-480 | – | 2851-500 | 2851-510 | 2851-520 | 73.15 |
| | 10 | 2-3/4 | 1 | – | – | – | – | – | – | 2851-590 | 2851-600 | 36.65 |
| | 10 | 2-3/8 | 7/8 | 2851-610 | 2851-620 | 2851-630 | 2851-640 | 2851-650 | 2851-660 | 2851-670 | 2851-680 | 32.90 |
| | 11 | 2-5/8 | 1 | 2851-690 | 2851-700 | 2851-710 | 2851-720 | 2851-730 | 2851-740 | 2851-750 | 2851-760 | 35.55 |
| | 11 | 2-3/8 | 7/8 | 2851-770 | 2851-780 | 2851-790 | 2851-800 | 2851-810 | 2851-820 | 2851-830 | 2851-840 | 32.90 |
| | 12 | 2-7/8 | 1-1/4 | 2851-850 | – | – | 2851-880 | 2851-890 | – | 2851-910 | – | 52.05 |
| | 12 | 2-5/8 | 1 | 2851-930 | – | – | – | – | – | – | – | 32.55 |
| | 12 | 2-1/4 | 7/8 | 2852-010 | 2852-020 | – | 2852-040 | – | 2852-060 | 2852-070 | 2852-080 | 28.75 |
| | 14 | 2-1/2 | 1 | 2852-090 | 2852-100 | 2852-110 | 2852-120 | 2852-130 | 2852-140 | 2852-150 | 2852-160 | 32.90 |
| | 14 | 2-1/8 | 7/8 | 2852-170 | 2852-180 | 2852-190 | 2852-200 | 2852-210 | 2852-220 | 2852-230 | 2852-240 | 27.70 |
| | 16 | 2-1/2 | 1 | – | – | – | – | – | 2852-300 | – | – | 32.90 |
| | 16 | 2-1/8 | 7/8 | 2852-330 | 2852-340 | – | 2852-360 | 2852-370 | 2852-380 | 2852-390 | 2852-400 | 27.70 |
| | 18 | 2-3/8 | 1 | 2852-410 | 2852-420 | 2852-430 | 2852-440 | 2852-450 | 2852-460 | 2852-470 | 2852-480 | 29.50 |
| | 18 | 2 | 7/8 | 2852-490 | 2852-500 | 2852-510 | 2852-520 | 2852-530 | 2852-540 | 2852-550 | 2852-560 | 24.95 |
| | 20 | 2-3/8 | 1 | – | – | – | – | – | 2852-620 | 2852-630 | 2852-640 | 59.05 |
| | 20 | 2 | 7/8 | 2852-650 | 2852-660 | – | 2852-680 | – | – | 2852-710 | 2852-720 | 24.95 |
| | 22 | 2-1/4 | 1 | 2852-730 | – | – | 2852-760 | 2852-770 | 2852-780 | 2852-790 | 2852-800 | 28.75 |
| | 22 | 2 | 7/8 | 2852-810 | 2852-820 | 2852-830 | 2852-840 | 2852-850 | 2852-860 | 2852-870 | 2852-880 | 24.95 |
| | 24 | 2-1/4 | 1 | – | 2852-900 | – | 2852-920 | 2852-930 | – | 2852-950 | 2852-960 | 28.35 |
| | 24 | 1-3/4 | 7/8 | 2852-970 | 2852-980 | – | 2853-000 | 2853-010 | 2853-020 | 2853-030 | 2853-040 | 24.60 |
| | 26 | 2-1/4 | 1 | 2853-050 | 2853-060 | 2853-070 | 2853-080 | 2853-090 | 2853-100 | 2853-110 | 2853-120 | 28.35 |
| | 26 | 1-3/4 | 7/8 | 2853-130 | 2853-140 | 2853-150 | 2853-160 | 2853-170 | 2853-180 | 2853-190 | 2853-200 | 24.60 |
| | 28 | 2-1/4 | 1 | 2853-210 | – | 2853-230 | – | 2853-250 | 2853-260 | 2853-270 | 2853-280 | 28.35 |
| | 28 | 1-3/4 | 7/8 | 2853-290 | 2853-300 | 2853-310 | – | – | 2853-340 | 2853-350 | 2853-360 | 24.60 |
| | 30 | 2-1/4 | 1 | 2853-370 | 2853-380 | 2853-390 | 2853-400 | 2853-410 | 2853-420 | 2853-430 | 2853-440 | 28.35 |
| | 30 | 1-3/4 | 7/8 | 2853-450 | 2853-460 | 2853-470 | 2853-480 | 2853-490 | 2853-500 | 2853-510 | 2853-520 | 24.60 |
| | 32 | 2-1/4 | 1 | – | – | – | 2853-560 | 2853-570 | 2853-580 | 2853-590 | 2853-600 | 56.70 |
| | 32 | 1-3/4 | 7/8 | 2853-610 | 2853-620 | 2853-630 | 2853-640 | – | 2853-660 | 2853-670 | 2853-680 | 23.40 |
| | 36 | 2-1/4 | 1 | 2853-690 | 2853-700 | 2853-710 | 2853-720 | 2853-730 | 2853-740 | 2853-750 | 2853-760 | 27.20 |
| | 36 | 1-3/4 | 7/8 | 2853-770 | 2853-780 | 2853-790 | 2853-800 | 2853-810 | 2853-820 | 2853-830 | 2853-840 | 23.40 |
| | 40 | 2-1/4 | 1 | 2853-850 | 2853-860 | 2853-870 | 2853-880 | 2853-890 | 2853-900 | 2853-910 | 2853-920 | 27.20 |
| | 40 | 1-3/4 | 7/8 | 2853-930 | 2853-940 | 2853-950 | 2853-960 | 2853-970 | 2853-980 | 2853-990 | 2854-000 | 23.40 |
| | 48 | 2-1/4 | 1 | 2854-010 | – | 2854-030 | 2854-040 | 2854-050 | 2854-060 | 2854-070 | 2854-080 | 27.20 |
| | 48 | 1-3/4 | 7/8 | – | 2854-100 | 2854-110 | 2854-120 | 2854-130 | 2854-140 | 2854-150 | 2854-160 | 23.40 |

# Shell End Mills & Arbors

## High Speed Steel

*Right Hand*

*Left Hand*

[2]

| DIAM. | WIDTH | ARBOR HOLE | NO. OF TEETH | RIGHT HAND ORDER NO. | RIGHT HAND PRICE EACH | LEFT HAND ORDER NO. | LEFT HAND PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1-1/4 | 1 | 1/2 | 8 | 2727-080 | $ 30.33 | 2731-080† | $ 10.70 |
| 1-1/2 | 1-1/8 | 1/2 | 8 | 2727-096 | 30.89 | 2731-096† | 12.10 |
| 1-3/4 | 1-1/4 | 3/4 | 8 | 2727-112 | 43.67 | 2731-112† | 14.75 |
| 2 | 1-3/6 | 3/4 | 8 | 2727-128 | 47.69 | 2731-128† | 16.80 |
| 2-1/4 | 1-1/2 | 1 | 10 | 2727-144 | 53.97 | 2731-144† | 19.40 |
| 2-1/2 | 1-5/8 | 1 | 10 | 2727-160 | 63.98 | 2731-160† | 23.40 |
| 2-3/4 | 1-5/8 | 1 | 10 | 2727-176 | 82.84 | 2731-176† | 28.80 |
| 3 | 1-3/4 | 1-1/4 | 10 | 2727-192 | 95.49 | 2731-192† | 32.75 |
| 3-1/2 | 1-7/8 | 1-1/4 | 12 | 2727-224 | 118.36 | 2731-224† | 43.25 |
| 4 | 2-1/4 | 1-1/2 | 12 | 2727-256 | 187.48 | 2731-256† | 55.95 |
| 4-1/2 | 2-1/4 | 1-1/2 | 14 | – | – | 2731-288† | 78.25 |
| 5 | 2-1/4 | 1-1/2 | 14 | 2727-320 | 255.47 | 2731-320† | 98.25 |
| 5-1/2 | | | | 2727-352 | 339.52 | 2731-352† | 128.15 |
| 6 | 2-1/4 | 2 | 16 | 2727-384 | 436.62 | 2731-384† | 147.25 |

† Limited Quantities

## For Aluminum –High Speed Steel

Closeout!

[2]

| DIAM. | WIDTH | ARBOR HOLE | NO, OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1-1/2 | 1-1/8 | 1/2 | 4 | 2727-596 | 14.55 |
| 3 | 1-3/4 | 1-1/4 | 6 | 2727-692 | 39.30 |
| 4 | 2-1/4 | 1-1/2 | 6 | 2727-756 | 67.15 |
| 5 | 2-1/4 | 1-1/2 | 8 | 2727-820 | 98.25 |
| 5-1/2 | 2-1/4 | 2 | 8 | 2727-852† | 153.80 |
| 6 | 2-1/4 | 2 | 8 | 2727-884 | 176.70 |

† Limited Quantities

## Carbide Tipped

Closeout!

### For Cast Iron

[2]

| DIAM. | NO. OF TEETH | OVERALL LENGTH | WIDTH | DEPTH | DIAM. OF HOLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1-1/2 | 6 | 1-1/8 | 1/4 | 5/32 | 1/2 | 3035-512 | $88.30 |
| 2 | 4 | 1-3/8 | 5/16 | 3/16 | 3/4 | 3035-524 | 122.95 |
| 2-1/4 | 4 | 1-1/2 | 5/16 | 7/32 | 1 | 3035-530 | 133.10 |
| 2-1/2 | 8 | 1-5/8 | 3/8 | 7/32 | 1 | 3035-536 | 145.10 |
| 2-3/4 | 6 | 1-5/8 | 3/8 | 7/32 | 1 | 3035-542 | 152.20 |
| 3 | 6 | 1-3/4 | 1/2 | 9/32 | 1-1/4 | 3035-548 | 165.55 |
| 4 | 10 | 2-1/4 | 5/8 | 3/8 | 1-1/2 | 3035-560 | 240.85 |
| 5 | 10 | 2-1/4 | | | 1-1/2 | 3035-572 | 301.05 |
| 6 | 12 | 2-1/4 | | | 2 | 3035-584 | 361.30 |

### For Steel

[2]

| DIAM. | NO. OF TEETH | OVERALL LENGTH | WIDTH | DEPTH | DIAM. OF HOLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1-1/2 | 6 | 1-1/8 | 1/4 | 5/32 | 1/2 | 3035-612 | $91.85 |
| 2-1/2 | 6 | 1-5/8 | 3/8 | 7/32 | 1 | 3035-636 | 145.10 |
| 4 | 10 | 2-1/4 | 5/8 | 3/8 | 1-1/2 | 3035-660 | 255.60 |
| 5 | 10 | 2-1/4 | | | 1-1/2 | 3035-672 | 319.50 |
| 6 | 12 | 2-1/4 | | | 2 | 3035-684 | 383.45 |

# Broaches- High Speed Steel



Hassay Savage

MADE IN USA

## Hexagon

| HEX SIZE | TOLERANCE | DIAGONAL DIMENSION | PILOT DIAM. | DRILL SIZE | BROACH LENGTH | MINIMUM LENGTH OF CUT | MAXIMUM LENGTH OF CUT | PRESSURE FOR MAX. L/C | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | .1255 - .1260 | .1450 - .1470 | .1245 | 1/8 | 4-5/8 | 3/16 | 3/8 | 120 lbs. | 2900-008 | $ 127.95 |
| 5/32 | .1565 - .1570 | .1800 - .1820 | .1557 | 5/32 | 5-1/2 | 1/4 | 1/2 | 340 lbs. | 2900-010 | 145.05 |
| 3/16 | .1880 - .1890 | .2145 - .2155 | .1870 | 3/16 | 5-9/16 | 1/4 | 5/8 | 520 lbs. | 2900-012 | 134.65 |
| 7/32 | .2190 - .2200 | .2500 - .2520 | .2182 | 7/32 | 6 | 1/4 | 3/4 | 890 lbs. | 2900-014 | 159.85 |
| 1/4 | .2505 - .2515 | .2865 - .2875 | .2495 | 1/4 | 6-1/2 | 1/4 | 3/4 | 1,250 lbs. | 2900-016 | 134.65 |
| 9/32 | .2815 - .2825 | .3220 - .3240 | .2807 | 9/32 | 7-3/4 | 3/8 | 1 | 1,650 lbs. | 2900-018 | 166.60 |
| 5/16 | .3130 - .3140 | .3580 - .3590 | .3120 | 5/16 | 8-1/4 | 3/8 | 1 | 2,175 lbs. | 2900-020 | 140.80 |
| 11/32 | .3440 - .3450 | .3950 - .3970 | .3432 | 11/32 | 8-1/4 | 3/8 | 1-1/4 | 3,500 lbs. | 2900-022 | 204.99 |
| 3/8 | .3755 - .3765 | .4300 - .4310 | .3745 | 3/8 | 9 | 3/8 | 1-1/4 | 3,700 lbs. | 2900-024 | 164.70 |
| 13/32 | .4065 - .4075 | .4670 - .4690 | .4057 | 13/32 | 10 | 1/2 | 1-3/8 | 4,100 lbs. | 2900-026 | 245.25 |
| 7/16 | .4385 - .4395 | .5020 - .5030 | .4370 | 7/16 | 10-3/4 | 1/2 | 1-3/8 | 4,575 lbs. | 2900-028 | 208.25 |
| 15/32 | .4690 - .4700 | .5390 - .5410 | .4682 | 15/32 | 12-3/8 | 1/2 | 1-3/8 | 4,700 lbs. | 2900-030 | 293.95 |
| 1/2 | .5005 - .5015 | .5740 - .5750 | .4995 | 1/2 | 12-1/2 | 1/2 | 1-3/8 | 5,300 lbs. | 2900-032 | 243.65 |
| 9/16 | .5630 - .5640 | .6480 - .6500 | .5620 | 9/16 | 14-1/4 | 1/2 | 1-1/2 | 6,700 lbs. | 2900-036 | 292.35 |
| 5/8 | .6260 - .6270 | .7170 - .7185 | .6245 | 5/8 | 16-7/8 | 5/8 | 1-5/8 | 7,250 lbs. | 2900-040 | 336.65 |
| 11/16 | .6880 - .6890 | .7930 - .7950 | .6870 | 11/16 | 17 | 5/8 | 1-5/8 | 9,300 lbs. | 2900-044 | 370.95 |
| 3/4 | .7510 - .7520 | .8610 - .8625 | .7495 | 3/4 | 17-7/8 | 5/8 | 1-5/8 | 13,500 lbs. | 2900-048 | 390.99 |
| 7/8 | .8755 - .8765 | 1.0060 - .10075 | .8745 | 7/8 | 18-7/8 | 5/8 | 1-5/8 | 18,500 lbs. | 2900-056 | 616.25 |
| 1 | 1.0020 - 1.0030 | 1.1520 - 1.1530 | .9995 | 1 | 19-7/8 | 5/8 | 1-5/8 | 22,050 lbs. | 2900-064 | 645.70 |

## Standard Inch Square

| SIZE SQUARE | TOLERANCE | DIMENSION ACROSS CORNERS | PILOT DIAM. | DRILL SIZE | BROACH LENGTH | MINIMUM LENGTH OF CUT | MAXIMUM LENGTH OF CUT | PRESSURE FOR MAX. L/C | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/8 | .1250 - .1260 | .1750 - .1770 | .1280 | #30 | 4-5/8 | 3/16 | 1/2 | 700 lbs. | 2901-008 | $112.25 |
| 5/32 | .1565 - .1575 | .2180 - .2200 | .1585 | #21 | 5-5/8 | 1/4 | 1/2 | 800 lbs. | 2901-010 | 126.80 |
| 3/16 | .1880 - .1890 | .2620 - .2640 | .1930 | #10 | 5-11/16 | 1/4 | 5/8 | 1,120 lbs. | 2901-012 | 115.50 |
| 7/32 | .2190 - .2200 | .3050 - .3070 | .2275 | #1 | 6-7/8 | 1/4 | 3/4 | 1,580 lbs. | 2901-014 | 126.80 |
| 1/4 | .2505 - .2515 | .3500 - .3520 | .2651 | 17/64 | 7 | 1/4 | 3/4 | 1,740 lbs. | 2901-016 | 112.25 |
| 9/32 | .2815 - .2825 | .3930 - .3950 | .2964 | 19/64 | 7-1/4 | 3/8 | 1 | 2,300 lbs. | 2901-018 | 140.45 |
| 5/16 | .3130 - .3140 | .4370 - .4390 | .3276 | 21/64 | 8-1/8 | 3/8 | 1 | 2,630 lbs. | 2901-020 | 114.90 |
| 11/32 | .3440 - .3450 | .4810 - .4830 | .3589 | 23/64 | 9-5/8 | 3/8 | 1-1/4 | 3,050 lbs. | 2901-022 | 182.25 |
| 3/8 | .3755 - .3765 | .5230 - .5250 | .3901 | 25/64 | 9-7/8 | 3/8 | 1-1/4 | 3,625 lbs. | 2901-024 | 146.25 |
| 13/32 | .4065 - .4075 | .5680 - .5700 | .4214 | 27/64 | 10-7/8 | 1/2 | 1-3/8 | 5,200 lbs. | 2901-026 | 217.05 |
| 7/16 | .4385 - .4395 | .6110 - .6130 | .4526 | 29/64 | 11-3/8 | 1/2 | 1-3/8 | 5,700 lbs. | 2901-028 | 185.95 |
| 15/32 | .4690 - .4700 | .6560 - .6580 | .4995 | 1/2 | 12-1/2 | 1/2 | 1-3/8 | 5,900 lbs. | 2901-030 | 283.95 |
| 1/2 | .5005 - .5015 | .6970 - .6990 | .5307 | 17/32 | 12-5/8 | 1/2 | 1-3/8 | 6,000 lbs. | 2901-032 | 215.00 |
| 9/16 | .5630 - .5640 | .7860 - .7880 | .5932 | 19/32 | 14-7/8 | 1/2 | 1-1/2 | 6,200 lbs. | 2901-036 | 272.35 |
| 5/8 | .6260 - .6270 | .8710 - .8730 | .6557 | 21/32 | 16-13/16 | 5/8 | 1-5/8 | 7,100 lbs. | 2901-040 | 319.60 |
| 11/16 | .6885 - .6895 | .9610 - .9630 | .7495 | 3/4 | 18-1/2 | 5/8 | 1-5/8 | 7,300 lbs. | 2901-044 | 372.00 |
| 3/4 | .7510 - .7520 | 1.0450 - 1.0470 | .8120 | 13/16 | 18-7/8 | 5/8 | 1-5/8 | 8,600 lbs. | 2901-048 | 431.75 |
| 7/8 | .8765 - .8775 | 1.2280 - 1.0300 | .9370 | 15/16 | 22-3/4 | 1/2 | 2 | 12,000 lbs. | 2901-056 | 621.45 |
| 1 | 1.0020 - 1.0030 | 1.4030 - 1.4050 | 1.0932 | 1-3/32 | 24-1/2 | 1/2 | 2 | 12,500 lbs. | 2901-064 | 646.30 |

## Standard Full Square

| SIZE SQUARE | TOLERANCES | DIMENSIONS ACROSS CORNERS | PILOT DIAM. | DRILL SIZE | BROACH LENGTH | MINIMUM LENGTH OF CUT | MAXIMUM LENGTH OF CUT | PRESSURE FOR MAX. L/C | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 3/16 | .1880 - .1890 | .2628 - .2632 | .1870 | 3/16 | 6-1/4 | 3/16 | 1/2 | 1,200 lbs. | 2902-012 | $ 123.90 |
| 1/4 | .2505 - .2515 | .3513 - .3517 | .2495 | 1/4 | 8-5/8 | 1/4 | 5/8 | 1,600 lbs. | 2902-016 | 123.90 |
| 5/16 | .3120 - .3140 | .4375 - .4380 | .3120 | 5/16 | 10-1/4 | 1/4 | 3/4 | 2,300 lbs. | 2902-020 | 126.85 |
| 3/8 | .3755 - .3765 | .5243 - .5247 | .3745 | 3/8 | 12-1/4 | 3/8 | 1 | 3,750 lbs. | 2902-024 | 157.95 |
| 1/2 | .5005 - .5015 | .6980 - .6990 | .4995 | 1/2 | 14-7/16 | 3/8 | 1 | 5,000 lbs. | 2902-032 | 229.30 |

# Broaches– High Speed Steel

6 MADE IN USA

## Keyway

| BROACH | KEYWAY WIDTH TOL. | DIMENSIONS IN INCHES | NO. OF SHIMS | MINIMUM LENGTH OF CUT | MAXIMUM LENGTH OF CUT | PRESSURE REQUIRED FOR MAX. l/c | MADE IN U.S.A. ORDER NO. | MADE IN U.S.A. PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/16-I | .0625 - .0635 | 1/8 x 5-1/4 | 0 | 13/64 | 1-1/8 | 270 lbs. | 2880-041 | $ 51.65 |
| 3/32-I | .0937 - .0947 | 1/8 x 5-1/4 | 0 | 13/64 | 1-1/8 | 810 lbs. | 2880-061 | 51.65 |
| 1/8-I | .1252 - .1262 | 1/8 x 5-1/4 | 1 | 13/64 | 1-1/8 | 720 lbs. | 2880-081 | 51.65 |
| 3/32-II | .0937 - .0947 | 3/16 x 7 | 0 | 19/64 | 1-11-16 | 990 lbs. | 2880-062 | 61.15 |
| 1/8-II | .1252 - .1262 | 3/16 x 7 | 1 | 19/64 | 1-11-16 | 780 lbs. | 2880-082 | 61.15 |
| 5/32-II | .1564 - .1574 | 3/16 x 7 | 1 | 19/64 | 1-11-16 | 1,560 lbs. | 2880-102 | 61.15 |
| 3/16-II | .1877 - .1887 | 3/16 x 7 | 1 | 19/64 | 1-11-16 | 2,100 lbs. | 2880-122 | 61.15 |
| 3/16-III | .1877 - .1887 | 3/8 x 11-7/8 | 1 | 13/32 | 2-1/2 | 1,440 lbs. | 2880-123 | 75.20 |
| 1/4-III | .2502 - .2512 | 3/8 x 11-7/8 | 1 | 13/32 | 2-1/2 | 2,580 lbs. | 2880-163 | 75.20 |
| 5/16-III | .3127 - .3137 | 3/8 x 11-7/8 | 1 | 13/32 | 2-1/2 | 4,200 lbs. | 2880-203 | 75.20 |
| 3/8-III | .3755 - .3765 | 3/8 x 11-7/8 | 2 | 13/32 | 2-1/2 | 3,600 lbs. | 2880-243 | 75.20 |
| 5/16-IV | .3127 - .3137 | 9/16 x 13-7/8 | 1 | 3/4 | 6 | 9,250 lbs. | 2880-204 | 114.90 |
| 3/8-IV | .3755 - .3765 | 9/16 x 13-7/8 | 2 | 3/4 | 6 | 8,000 lbs. | 2880-244 | 114.90 |
| 7/16-IV | .4380 - .4390 | 9/16 x 13-7/8 | 2 | 3/4 | 6 | 11,750 lbs. | 2880-284 | 114.90 |
| 1/2-IV | .5006 - .5016 | 9/16 x 13-7/8 | 3 | 3/4 | 6 | 11,000 lbs. | 2880-324 | 114.90 |
| 5/8-V | .6260 - .6270 | 3/4 x 15-1/4 | 4 | 3/4 | 6 | 11,500 lbs. | 2880-405 | 187.45 |
| 3/4-V | .7515 - .7525 | 3/4 x 15-1/4 | 5 | 3/4 | 6 | 13,500 lbs. | 2880-485 | 187.45 |
| 7/8-VI | .8765 - .8775 | 1 x 19-1/4 | 6 | 3/4 | 6 | 11,000 lbs. | 2880-566 | 347.50 |
| 1-VI | 1.0015 - 1.0025 | 1 x 19-1/4 | 7 | 3/4 | 6 | 14,000 lbs. | 2880-646 | 347.50 |

**NOTICE!**

If your application cannot be handled with the broaches listed, we can supply special broaches.
Send us your print for quotation.

## Metric Keyway

| BROACH | J-9 KEYWAY WIDTH TOL. IN INCHES | FOR STANDARD MILLIMETER KEYS | DIMENSION OF BROACH IN INCHES | NO. OF SHIMS | MINIMUM LENGTH OF CUT IN INCHES | MAXIMUM LENGTH OF CUT IN INCHES | PRESSURE REQUIRED FOR MAX. L/C | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 2 mm-I | .0787 - .0792 | 2 mm x 2 mm | 1/8 x 5-1/4 | 0 | 13/64 | 1-1/8 | 510 lbs. | 2890-021 | $ 52.50 |
| 3 mm-I | .1181 - .1186 | 3 mm x 3 mm | 1/8 x 5-1/4 | 1 | 13/64 | 1-1/8 | 720 lbs. | 2890-031 | 52.50 |
| 4 mm-II | .1575 - .1580 | 4 mm x 4 mm | 1/4 x 7 | 1 | 19/64 | 1-11/16 | 1,140 lbs. | 2890-042 | 67.65 |
| 5 mm-II | .1968 - .1973 | 5 mm x 5 mm | 1/4 x 7 | 1 | 19/64 | 1-11/16 | 2,040 lbs. | 2890-052 | 67.65 |
| 5 mm-III | .1968 - .1973 | 5 mm x 5 mm | 3/8 x 11-7/8 | 1 | 13/32 | 2-1/2 | 1,680 lbs. | 2890-053 | 75.70 |
| 6 mm-III | .2362 - .2367 | 6 mm x 6 mm | 3/8 x 11-7/8 | 1 | 13/32 | 2-1/2 | 1,890 lbs. | 2890-063 | 75.70 |
| 8 mm-III | .3150 - .3155 | 8 mm x 7 mm | 3/8 x 11-7/8 | 1 | 13/32 | 2-1/2 | 3,995 lbs. | 2890-083 | 75.70 |
| 10 mm-IV | .3937 - .3942 | 10 mm x 8 mm | 9/16 x 13-7/8 | 2 | 3/4 | 6 | 8,100 lbs. | 2890-104 | 114.90 |
| 12 mm-IV | .4724 - .4730 | 12 mm x 8 mm | 9/16 x 13-7/8 | 2 | 3/4 | 6 | 10,550 lbs. | 2890-124 | 114.90 |
| 14 mm-IV | .5512 - .5519 | 14 mm x 9 mm | 9/16 x 13-7/8 | 2 | 3/4 | 6 | 11,090 lbs. | 2890-144 | 114.90 |
| 16 mm-V | .6299 - .6306 | 16 mm x 10 mm | 3/4 x 15-1/4 | 3 | 3/4 | 6 | 11,375 lbs. | 2890-165 | 187.70 |
| 18 mm-V | .7087 - .7093 | 18 mm x 11 mm | 3/4 x 15-1/4 | 3 | 3/4 | 6 | 12,000 lbs. | 2890-185 | 187.70 |
| 20 mm-VI | .7874 - .7883 | 20 mm x 12 mm | 1 x 19-1/4 | 3 | 3/4 | 6 | 11,000 lbs. | 2890-206 | 346.95 |
| 22 mm-VI | .8661 - .8669 | 22 mm x 14 mm | 1 x 19-1/4 | 4 | 3/4 | 6 | 11,200 lbs. | 2890-226 | 346.95 |
| 24 mm-VI | .9449 - .9458 | 24 mm x 14 mm | 1 x 19-1/4 | 4 | 3/4 | 6 | 13,075 lbs. | 2890-246 | 346.95 |
| 25 mm-VI | .9842 - .9851 | 25 mm x 14 mm | 1 x 19-1/4 | 4 | 3/4 | 6 | 13,275 lbs. | 2890-256 | 346.95 |

**NOTICE!**

Pressures listed are for max length of cut. If these lengths must be exceeded a special broach should be ordered.

## Keyway Bushings

| DIAM. | LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| **I BUSHINGS FOR I BROACHES** | | | |
| 1/4 | 1-1/8 | 2884-016 | $12.45 |
| 5/16 | 1-1/8 | 2884-020 | 12.45 |
| 3/8 | 1-1/8 | 2884-024 | 12.45 |
| 7/16 | 1-1/8 | 2884-028 | 12.45 |
| 1/2 | 1-1/8 | 2884-032 | 12.45 |
| **II BUSHINGS FOR II BROACHES** | | | |
| 1/2 | 1-11/16 | 2884-132 | $10.95 |
| 9/16 | 1-11/16 | 2884-136 | 10.95 |
| 5/8 | 1-11/16 | 2884-140 | 10.95 |
| 11/16 | 1-11/16 | 2884-144 | 10.95 |
| 3/4 | 1-11/16 | 2884-148 | 10.95 |
| 13/16 | 1-11/16 | 2884-152 | 10.95 |
| 7/8 | 1-11/16 | 2884-156 | 10.95 |
| **III BUSHINGS FOR III BROACHES** | | | |
| 3/4 | 2-1/2 | 2884-348 | $14.60 |
| 13/16 | 2-1/2 | 2884-352 | 14.60 |
| 7/8 | 2-1/2 | 2884-356 | 14.60 |
| 15/16 | 2-1/2 | 2884-360 | 14.60 |
| 1 | 2-1/2 | 2884-364 | 14.60 |

| DIAM. | LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1-1/16 | 2-1/2 | 2884-368 | $ 14.60 |
| 1-1/8 | 2-1/2 | 2884-372 | 14.60 |
| 1-3/16 | 2-1/2 | 2884-376 | 17.65 |
| 1-1/4 | 2-1/2 | 2884-380 | 17.65 |
| 1-5/16 | 2-1/2 | 2884-384 | 17.65 |
| 1-3/8 | 2-1/2 | 2884-388 | 17.65 |
| 1-7/16 | 2-1/2 | 2884-392 | 17.65 |
| 1-1/2 | 2-1/2 | 2884-396 | 17.65 |
| 1-9/16 | 2-1/2 | 2884-400 | 17.65 |
| **IV PLAIN BUSHINGS FOR IV BROACHES** | | | |
| 1-7/16 | 4 | 2884-592 | $17.65 |
| 1-1/2 | 4 | 2884-596 | 17.65 |
| 1-9/16 | 4 | 2884-600 | 17.65 |
| 1-5/8 | 4 | 2884-604 | 17.65 |
| 1-11/16 | 4 | 2884-608 | 24.70 |
| 1-3/4 | 4 | 2884-612 | 24.70 |
| 1-13/16 | 5 | 2884-616 | 24.70 |
| 1-7/8 | 5 | 2884-620 | 24.70 |
| 1-15/16 | 5 | 2884-624 | 27.00 |
| 2 | 5 | 2884-628 | 27.00 |

| DIAM. | LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 2-1/16 | 5 | 2884-632 | $27.00 |
| 2-1/8 | 5 | 2884-636 | 27.00 |
| 2-3/16 | 5 | 2884-640 | 27.00 |
| 2-1/4 | 5 | 2884-644 | 36.05 |
| 2-5/16 | 5 | 2884-648 | 36.05 |
| 2-3/8 | 6 | 2884-652 | 36.05 |
| 2-7/16 | 6 | 2884-656 | 36.05 |
| 2-1/2 | 6 | 2884-660 | 45.85 |
| 2-9/16 | 6 | 2884-664 | 45.85 |
| 2-5/8 | 6 | 2884-668 | 45.85 |
| 2-11/16 | 6 | 2884-672 | 45.85 |
| 2-3/4 | 6 | 2884-676 | 45.85 |
| 2-13/16 | 6 | 2884-680 | 45.85 |
| 2-7/8 | 6 | 2884-684 | 45.85 |
| 2-15/16 | 6 | 2884-688 | 45.85 |
| 3 | 6 | 2884-692 | 45.85 |
| **V PLAIN BUSHINGS FOR V BROACHES** | | | |
| 2-5/16 | 6 | 2884-748 | $39.90 |
| 2-3/8 | 6 | 2884-752 | 39.90 |
| 2-7/16 | 6 | 2884-756 | 39.90 |

| DIAM. | LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 2-13/16 | 6 | 2884-780 | $49.25 |
| 2-7/8 | 6 | 2884-784 | 49.25 |
| 2-15/16 | 6 | 2884-788 | 49.25 |
| 3 | 6 | 2884-792 | 49.25 |

| X-TRA SHIMS FOR KEYWAY BUSHINGS | | | |
|---|---|---|---|
| SIZE. | THICK-NESS | ORDER NO. | PRICE EACH |
| 1/8-I | .031 | 2882-081 | $3.25 |
| 1/8-II | .031 | 2882-082 | 3.25 |
| 5/32-II | .042 | 2882-102 | 3.25 |
| 3/16-II | .050 | 2882-122 | 3.25 |
| 3/16-III | .050 | 2882-123 | 3.25 |
| 1/4-III | .062 | 2882-163 | 3.25 |
| 5/16-III | .078 | 2882-203 | 3.25 |
| 3/8-III | .062 | 2882-243 | 3.25 |
| 5/16-IV | .078 | 2882-204 | 4.45 |
| 3/8-IV | .062 | 2882-244 | 4.45 |
| 7/16-IV | .075 | 2882-284 | 4.45 |
| 1/2-IV | .062 | 2882-324 | 4.45 |
| 5/8-V | .062 | 2882-405 | 4.45 |
| 7/8-VI | .062 | 2882-566 | 4.45 |
| 1-VI | .062 | 2882-646 | 4.45 |

# Keyway – Broach Sets

Hassay Savage

6

| Standard Set C-1 – 4 Broaches & 9 Collared Bushings • 18 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8<br>3/16 | II<br>II | 1/2, 5/8, 3/4, 7/8 | 2903-030 | $343.15 |
| 1/4<br>3/8 | III<br>III | 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2 | | |

| Precision Set 1 – 3 Broaches & 5 Collared Bushings • 15 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/16<br>3/32<br>1/8 | I<br>I<br>I | 1/4, 5/16, 3/8, 7/16, 1/2 | 2903-050 | $196.30 |

| Standard Set C-1A – 4 Broaches & 9 Collared Bushings • 18 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8<br>3/16 | II<br>II | 9/16, 11/16, 13/16 | 2903-040 | $343.15 |
| 1/4<br>3/8 | III<br>III | 15/16, 1-1/16, 1-3/16, 1-5/16, 1-7/16, 1-9/16 | | |

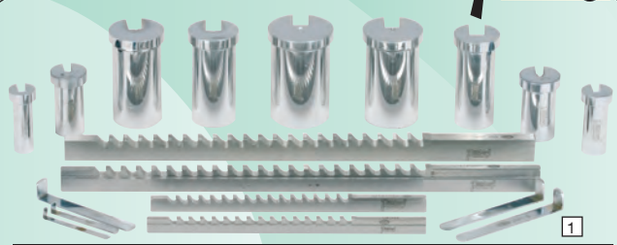
| Standard Set C-2 – 3 Broaches & 9 Collared Bushings • 15 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8 | II | 9/16, 11/16, 13/16 | 2903-100 | $290.90 |
| 3/16<br>1/4 | III<br>III | 15/16, 1-1/16, 1-3/16, 1-5/16, 1-7/16, 1-9/16 | | |

| Standard Set C-2A – 3 Broaches & 9 Collared Bushings • 14 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8 | II | 1/2, 5/8, 3/4, 7/8 | 2903-110 | $290.90 |
| 3/16<br>1/4 | III<br>III | 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2 | | |

| Standard Set C-10 – 3 Broaches & 18 Collared Bushings • 36 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8<br>3/16 | II<br>II | 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8 | 2903-010 | $439.25 |
| 1/4<br>3/8 | III<br>III | 15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16 | | |

| Standard Set C-10A – 3 Broaches & 18 Collared Bushings • 30 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8 | II | 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8 | 2903-020 | $415.30 |
| 3/16<br>1/4 | III<br>III | 15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16 | | |

Pittsburg® ALLEGHANY



1

| 4 Broaches & 9 Collared Bushings • 18 Keyway Combinations • In Wood Case | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/8<br>3/16 | II<br>II | 1/2, 5/8, 3/4, 7/8 | 3790-001 | $ 245.60 |
| 1/4<br>3/8 | III<br>III | 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2 | | |

| Standard Set 3-D – 4 Broaches & 8 Plain Bushings • 32 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 5/16<br>3/8 | IV<br>IV | 1-1/2, 1-5/8, 1-3/4, 1-7/8, | 2903-060 | $713.15 |
| 7/16<br>1/2 | IV<br>IV | 2, 2-1/8, 2-1/4, 2-1/2 | | |

| Standard Set 3-DA – 4 Broaches & 8 Plain Bushings • 32 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 5/16<br>3/8 | IV<br>IV | 1-7/16, 1-9/16, 1-11/16, 1-13/16, | 2903-070 | $713.15 |
| 7/16<br>1/2 | IV<br>IV | 1-15/16, 2-3/16, 2-7/16, 2-15/16 | | |

| Heavy Duty Set 4-E – 2 Broaches & 6 Plain Bushings • 12 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 5/8 | V | 2-3/8, 2-1/2, 2-5/8, | 2903-080 | $728.50 |
| 3/4 | V | 2-3/4, 2-7/8, 3 | | |

| Heavy Duty Set 5 – 3 Broaches & 17 Plain Bushings • 26 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) | ORDER NO. | PRICE EACH |
| 1/2 | IV | 2, 2-1/16, 2-1/8, 2-3/16, 2-1/4, 2-5/16, 2-3/8, 2-7/16 | 2903-090 | $1316.80 |
| 5/8<br>3/4 | V<br>V | 2-1/2, 2-9/16, 2-5/8, 2-11/16, 2-3/4, 2-13/16, 2-7/8, 2-15/16, 3 | | |

| Metric Set #18 – 4 Broaches & 9 Collared Bushings • 18 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) (mm) | ORDER NO. | PRICE EACH |
| 4mm<br>5mm | II<br>II | 12, 14, 16, 18 | 2903-140 | $401.15 |
| 6mm<br>8mm | III<br>III | 20, 22, 24, 26, 28 | | |

| Metric Set #24 – 3 Broaches & 8 Plain Bushings • 24 Keyway Combinations | | | | |
|---|---|---|---|---|
| KEYWAY SIZES | BROACH STYLE | BUSHING DIAMETERS (HOLE SIZES) (mm) | ORDER NO. | PRICE EACH |
| 10mm<br>12mm<br>14mm | IV<br>IV<br>IV | 34, 36, 38, 40, 42, 44, 46, 48 | 2903-160 | $658.90 |

# T-Slot Cutters

## High Speed Steel, Cobalt, Carbide Tipped, Roughing

High Speed Steel

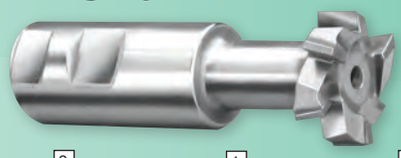
Roughing

| | | | | | | [1] Allegiance American Made | | [2] Pittsburg Allegheny | | [2] Pittsburg Allegheny | | [1] Allegiance American Made | | [1] Pittsburg Allegheny Roughing - Cobalt | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bolt Size | Cutter Diam. | Face Width | Neck Diam. | Shank Diam. | Overall Length | HSS Order Number | Price Each | HSS Order Number | Price Each | Cobalt Order Number | Price Each | Carbide Tipped Order Number | Price Each | Cobalt Order Number | Price Each |
| 1/4 | 9/16 | 15/64 | 17/64 | 1/2 | 2-19/32 | 2741-016 | $ 50.00 | 2730-416 | $ 18.97 | 2730-616 | $ 35.44 | 2730-716 | $106.45 | – | – |
| 5/16 | 21/32 | 17/64 | 21/64 | 1/2 | 2-11/16 | 2741-020 | 53.45 | 2730-420 | 21.03 | 2730-620 | 38.16 | 2730-720 | 110.95 | – | – |
| 3/8 | 25/32 | 21/64 | 13/32 | 3/4 | 3-1/4 | 2741-024 | 78.25 | 2730-424 | 29.85 | 2730-624 | 54.31 | 2730-724 | 139.55 | – | – |
| 1/2 | 31/32 | 25/64 | 17/32 | 3/4 | 3-7/16 | 2741-032 | 88.75 | 2730-432 | 34.20 | 2730-632 | 61.31 | 2730-732 | 152.05 | 2730-532 | $ 79.43 |
| 5/8 | 1-1/4 | 31/64 | 21/32 | 1 | 3-15/16 | 2741-040 | 121.00 | 2730-440 | 46.08 | 2730-640 | 83.51 | 2730-740 | 201.05 | 2730-540 | 108.34 |
| 3/4 | 1-15/32 | 5/8 | 25/32 | 1 | 4-7/16 | 2741-048 | 141.60 | 2730-448 | 49.92 | 2730-648 | 94.34 | 2730-748 | 225.45 | 2730-548 | 116.23 |
| 1 | 1-27/32 | 53/64 | 1-1/32 | 1-1/4 | 4-13/16 | 2741-064 | 228.85 | 2730-464 | 86.22 | 2730-664 | 190.56 | 2730-764 | 296.65 | 2730-564 | 199.43 |
| 1-1/4 | 2-7/32 | 1-3/32 | 1-9/32 | 1-1/4 | 5-3/8 | 2741-080 | 293.75 | 2730-480 | 124.40 | 2730-680 | 238.73 | 2730-780 | 402.85 | 2730-580 | 250.64 |
| 1-1/2 | 2-21/32 | 1-11/32 | 1-17/32 | 1-1/4 | 5-29/32 | 2741-096 | 378.85 | 2730-496 | 158.96 | 2730-696 | 313.50 | 2730-796 | 469.65 | 2730-596 | 288.76 |

# Long Shank T-Slot Milling Cutters

## Staggered Tooth – Weldon Shank – High Speed Steel – or M42 Cobalt

| Tolerance of Cutting Dia. (in) | | Tolerance of Cutting Width (in) |
|---|---|---|
| 1 | -.002 to -.007 | -0., +.004 |
| 1-1/4 | -.003 to -.007 | |
| 1-1/2 | -.003 to -.007 | |
| 2 | -.004 to -.009 | |



| | | | | | [2] Pittsburg Allegheny | | [1] Allegiance American Made | | [1] Allegiance American Made | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cutting Dia. (in.) | Cutting Width (in.) | Shank Dia. (in.) | No. of Teeth | Overall Length (in.) | Cobalt Order No. | Cobalt Price Each | Cobalt Order No. | Cobalt Price Each | High Speed Steel Order No. | High Speed Steel Price Each |
| 1 | 1/8 | 5/8 | 8 | 4-15/16 | 2735-002 | $ 103.53 | 2735-502 | $139.15 | 2735-602 | $ 107.75 |
| 1 | 3/16 | 5/8 | 8 | 4-15/16 | 2735-003 | 107.00 | 2735-503 | 139.15 | 2735-603 | 107.75 |
| 1 | 1/4 | 5/8 | 8 | 4-15/16 | 2735-004 | 107.00 | 2735-504 | 139.15 | 2735-604 | 107.75 |
| 1 | 5/16 | 5/8 | 8 | 4-15/16 | 2735-005 | 107.00 | 2735-505 | 139.15 | 2735-605 | 107.75 |
| 1 | 3/8 | 5/8 | 8 | 4-15/16 | 2735-006 | 107.00 | 2735-506 | 139.15 | 2735-606 | 107.75 |
| 1 | 1/2 | 5/8 | 8 | 4-15/16 | 2735-008 | 107.00 | 2735-508 | 139.15 | 2735-608 | 107.75 |
| 1 | 5/8 | 5/8 | 8 | 4-15/16 | 2735-010 | 107.00 | 2735-510 | 139.15 | 2735-610 | 107.75 |
| 1-1/4 | 1/8 | 3/4 | 8 | 5-1/8 | 2735-012 | 126.42 | 2735-512 | 174.00 | 2735-612 | 143.55 |
| 1-1/4 | 3/16 | 3/4 | 8 | 5-1/8 | 2735-013 | 126.42 | 2735-513 | 174.00 | 2735-613 | 143.55 |
| 1-1/4 | 1/4 | 3/4 | 8 | 5-1/8 | 2735-014 | 126.42 | 2735-514 | 174.00 | 2735-614 | 143.55 |
| 1-1/4 | 5/16 | 3/4 | 8 | 5-1/8 | 2735-015 | 135.83 | 2735-515 | 174.00 | 2735-615 | 143.55 |
| 1-1/4 | 3/8 | 3/4 | 8 | 5-1/8 | 2735-016 | 135.83 | 2735-516 | 174.00 | 2735-616 | 143.55 |
| 1-1/4 | 1/2 | 3/4 | 8 | 5-1/8 | 2735-018 | 141.59 | 2735-518 | 174.00 | 2735-618 | 143.55 |
| 1-1/4 | 5/8 | 3/4 | 8 | 5-1/8 | 2735-020 | 126.03 | 2735-520 | 174.00 | 2735-620 | 143.55 |
| 1-1/2 | 1/8 | 1 | 8 | 5-5/16 | 2735-022 | 173.48 | 2735-522 | 214.00 | 2735-622 | 166.60 |
| 1-1/2 | 3/16 | 1 | 8 | 5-5/16 | 2735-023 | 173.48 | 2735-523 | 214.00 | 2735-623 | 166.60 |
| 1-1/2 | 1/4 | 1 | 8 | 5-5/16 | 2735-024 | 173.48 | 2735-524 | 214.00 | 2735-624 | 166.60 |
| 1-1/2 | 5/16 | 1 | 8 | 5-5/16 | 2735-025 | 145.61 | 2735-525 | 214.00 | 2735-625 | 166.60 |
| 1-1/2 | 3/8 | 1 | 8 | 5-5/16 | 2735-026 | 145.61 | 2735-526 | 214.00 | 2735-626 | 166.60 |
| 1-1/2 | 1/2 | 1 | 8 | 5-5/16 | 2735-028 | 173.48 | 2735-528 | 214.00 | 2735-628 | 166.60 |
| 1-1/2 | 5/8 | 1 | 8 | 5-5/16 | 2735-030 | 173.48 | 2735-530 | 214.00 | 2735-630 | 166.60 |
| 2 | 3/16 | 1 | 10 | 5-11/16 | 2735-033 | 235.06 | 2735-533 | 331.80 | 2735-633 | 281.75 |
| 2 | 1/4 | 1 | 10 | 5-11/16 | 2735-034 | 235.06 | 2735-534 | 331.80 | 2735-634 | 281.75 |
| 2 | 5/16 | 1 | 10 | 5-11/16 | 2735-035 | 235.06 | 2735-535 | 331.80 | 2735-635 | 281.75 |
| 2 | 3/8 | 1 | 10 | 5-11/16 | 2735-036 | 186.18 | 2735-536 | 331.80 | 2735-636 | 281.75 |
| 2 | 1/2 | 1 | 10 | 5-11/16 | 2735-038 | 235.06 | 2735-538 | 331.80 | 2735-638 | 281.75 |
| 2 | 5/8 | 1 | 10 | 5-11/16 | 2735-040 | 235.06 | 2735-540 | 331.80 | 2735-640 | 281.75 |
| 2 | 3/4 | 1 | 10 | 5-11/16 | 2735-042 | 235.06 | 2735-542 | 331.80 | 2735-642 | 281.75 |
| 2-1/2 | 1/4 | 1 | 12 | 6-5/8 | 2735-044 | 282.08 | – | – | – | – |
| 2-1/2 | 5/16 | 1 | 12 | 6-5/8 | 2735-045 | 282.08 | – | – | – | – |
| 2-1/2 | 3/8 | 1 | 12 | 6-5/8 | 2735-046 | 282.08 | – | – | – | – |
| 2-1/2 | 1/2 | 1 | 12 | 6-5/8 | 2735-048 | 299.02 | – | – | – | – |
| 2-1/2 | 5/8 | 1 | 12 | 6-5/8 | 2735-050 | 299.02 | – | – | – | – |
| 2-1/2 | 3/4 | 1 | 12 | 6-5/8 | 2735-052 | 299.02 | – | – | – | – |
| 2-1/2 | 7/8 | 1 | 12 | 6-5/8 | 2735-054 | 313.96 | – | – | – | – |
| 2-1/2 | 1 | 1 | 12 | 6-5/8 | 2735-056 | 313.96 | – | – | – | – |

# Woodruff Keyseat Cutters

## Shank Type

Straight Tooth

Staggered Tooth

| | | | | | STRAIGHT TOOTH [2] | | | | | | STAGGERED TOOTH [2] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Pittsburg® | | Allegiance® American Made [1] | | KEO | M42 [3] | Pittsburg® | | Allegiance® American Made [1] | | KEO | M42 [3] |
| SIZE | HEAD DIA. | HEAD WIDTH | SHK. DIA. | SHK. LG'TH. | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 202 | 1/4 | 1/16 | 1/2 | 2 | 2730-801 | $11.37 | 2740-401 | $17.75 | 2740-601 | $32.14 | – | – | 2740-501 | $20.65 | 2740-701 | $39.95 |
| 202-1/2 | 5/16 | 1/16 | 1/2 | 2 | 2730-802 | 11.37 | 2740-402 | 17.75 | 2740-602 | 32.14 | 2730-902† | $14.40 | 2740-502 | 20.65 | 2740-702 | 39.95 |
| 302-1/2 | 5/16 | 3/32 | 1/2 | 2 | 2730-803 | 11.37 | 2740-403 | 17.75 | 2740-603 | 32.14 | 2730-903† | 14.40 | 2740-503 | 20.65 | 2740-703 | 39.95 |
| 203 | 3/8 | 1/16 | 1/2 | 2 | 2730-804 | 11.37 | 2740-404 | 17.75 | 2740-604 | 32.14 | – | – | 2740-504 | 20.65 | 2740-704 | 39.95 |
| 303 | 3/8 | 3/32 | 1/2 | 2 | 2730-805 | 11.37 | 2740-405 | 17.75 | 2740-605 | 32.14 | 2730-905† | 14.40 | 2740-505 | 20.65 | 2740-705 | 39.95 |
| 403 | 3/8 | 1/8 | 1/2 | 2 | 2730-806 | 11.37 | 2740-406 | 17.75 | 2740-606 | 32.14 | – | – | 2740-506 | 20.65 | 2740-706 | 39.95 |
| 204 | 1/2 | 1/16 | 1/2 | 2 | 2730-807 | 11.37 | 2740-407 | 17.75 | 2740-607 | 32.14 | – | – | 2740-507 | 20.65 | 2740-707 | 39.95 |
| 304 | 1/2 | 3/32 | 1/2 | 2 | 2730-808 | 11.37 | 2740-408 | 17.75 | 2740-608 | 32.14 | – | – | 2740-508 | 20.65 | 2740-708 | 39.95 |
| 404 | 1/2 | 1/8 | 1/2 | 2 | 2730-810 | 11.37 | 2740-409 | 17.75 | 2740-609 | 32.14 | – | – | 2740-509 | 20.65 | 2740-709 | 40.24 |
| 305 | 5/8 | 3/32 | 1/2 | 2 | 2730-809 | 11.37 | 2740-410 | 17.75 | 2740-610 | 32.47 | – | – | 2740-510 | 20.65 | 2740-710 | 40.24 |
| 405 | 5/8 | 1/8 | 1/2 | 2 | 2730-811 | 11.37 | 2740-411 | 17.75 | 2740-611 | 32.47 | 2730-911† | 13.10 | 2740-511 | 20.65 | 2740-711 | 40.24 |
| 505 | 5/8 | 5/32 | 1/2 | 2 | 2730-813 | 11.37 | 2740-412 | 17.75 | 2740-612 | 32.47 | – | – | 2740-512 | 20.65 | 2740-712 | 40.24 |
| 605 | 5/8 | 3/16 | 1/2 | 2 | 2730-814 | 11.37 | 2740-413 | 17.75 | 2740-613 | 32.47 | 2730-914† | 13.10 | 2740-513 | 20.65 | 2740-713 | 40.24 |
| 406 | 3/4 | 1/8 | 1/2 | 2 | 2730-812 | 11.37 | 2740-414 | 18.50 | 2740-614 | 34.02 | – | – | 2740-514 | 21.90 | 2740-714 | 41.61 |
| 506 | 3/4 | 5/32 | 1/2 | 2 | 2730-815 | 12.68 | 2740-415 | 18.50 | 2740-615 | 34.02 | 2730-915† | 14.40 | 2740-515 | 21.90 | 2740-715 | 41.61 |
| 606 | 3/4 | 3/16 | 1/2 | 2 | 2730-818 | 12.68 | 2740-416 | 18.50 | 2740-616 | 34.02 | – | – | 2740-516 | 21.90 | 2740-716 | 41.61 |
| 806 | 3/4 | 1/4 | 1/2 | 2 | 2730-816 | 12.68 | 2740-417 | 18.50 | 2740-617 | 34.02 | – | – | 2740-517 | 21.90 | 2740-717 | 41.61 |
| 507 | 7/8 | 5/32 | 1/2 | 2 | 2730-817 | 12.97 | 2740-418 | 20.65 | 2740-618 | 37.11 | – | – | 2740-518 | 24.30 | 2740-718 | 45.54 |
| 607 | 7/8 | 3/16 | 1/2 | 2 | 2730-819 | 13.59 | 2740-419 | 20.65 | 2740-619 | 37.11 | – | – | 2740-519 | 24.30 | 2740-719 | 45.54 |
| 707 | 7/8 | 7/32 | 1/2 | 2 | 2730-820 | 14.17 | 2740-420 | 20.65 | 2740-620 | 37.80 | 2730-920† | 17.40 | 2740-520 | 24.30 | 2740-720 | 45.67 |
| 807 | 7/8 | 1/4 | 1/2 | 2 | 2730-825 | 14.17 | 2740-421 | 20.65 | 2740-621 | 37.80 | – | – | 2740-521 | 24.30 | 2740-721 | 41.73 |
| 608 | 1 | 3/16 | 1/2 | 2 | 2730-821 | 14.25 | 2740-422 | 23.65 | 2740-622 | 40.63 | – | – | 2740-522 | 27.80 | 2740-722 | 50.77 |
| 708 | 1 | 7/32 | 1/2 | 2 | 2730-822 | 15.86 | 2740-423 | 23.65 | 2740-623 | 41.01 | 2730-922† | 19.55 | 2740-523 | 27.80 | 2740-723 | 51.14 |
| 808 | 1 | 1/4 | 1/2 | 2 | 2730-826 | 15.86 | 2740-424 | 23.65 | 2740-624 | 41.01 | – | – | 2740-524 | 27.80 | 2740-724 | 51.14 |
| 1008 | 1 | 5/16 | 1/2 | 2 | 2730-834 | 16.76 | 2740-425 | 23.65 | 2740-625 | 42.14 | – | – | 2740-525 | 27.80 | 2740-725 | 51.98 |
| 1208 | 1 | 3/8 | 1/2 | 2 | 2730-823 | 17.26 | 2740-426 | 23.65 | 2740-626 | 42.14 | – | – | 2740-526 | 27.80 | 2740-726 | 51.98 |
| 609 | 1-1/8 | 3/16 | 1/2 | 2 | 2730-824 | 17.26 | 2740-427 | 26.00 | 2740-627 | 45.67 | 2730-924† | 21.50 | 2740-527 | 30.75 | 2740-727 | 58.58 |
| 709 | 1-1/8 | 7/32 | 1/2 | 2 | 2730-827 | 17.26 | 2740-428 | 26.00 | 2740-628 | 45.67 | 2730-927† | 24.10 | 2740-528 | 30.75 | 2740-728 | 58.58 |
| 809 | 1-1/8 | 1/4 | 1/2 | 2 | 2730-828 | 17.26 | 2740-429 | 26.00 | 2740-629 | 46.54 | – | – | 2740-529 | 30.75 | 2740-729 | 58.74 |
| 1009 | 1-1/8 | 5/16 | 1/2 | 2 | 2730-835 | 19.67 | 2740-430 | 26.00 | 2740-630 | 48.81 | – | – | 2740-530 | 32.70 | 2740-730 | 60.04 |
| 610 | 1-1/4 | 3/16 | 1/2 | 2 | 2730-829 | 17.26 | 2740-431 | 28.60 | 2740-631 | 50.98 | 2730-929† | 23.45 | 2740-531 | 33.70 | 2740-731 | 61.54 |
| 710 | 1-1/4 | 7/32 | 1/2 | 2 | 2730-830 | 18.99 | 2740-432 | 28.60 | 2740-632 | 50.98 | 2730-930† | 23.45 | 2740-532 | 33.70 | 2740-732 | 61.54 |
| 810 | 1-1/4 | 1/4 | 1/2 | 2 | 2730-831 | 18.99 | 2740-433 | 28.60 | 2740-633 | 52.66 | – | – | 2740-533 | 33.70 | 2740-733 | 64.77 |
| 1010 | 1-1/4 | 5/16 | 1/2 | 2 | 2730-836 | 20.55 | 2740-434 | 30.35 | 2740-634 | 54.78 | – | – | 2740-534 | 35.80 | 2740-734 | 66.52 |
| 1210 | 1-1/4 | 3/8 | 1/2 | 2 | 2730-839 | 20.55 | 2740-435 | 30.35 | 2740-635 | 54.78 | – | – | 2740-535 | 35.80 | 2740-735 | 66.52 |
| 811 | 1-3/8 | 1/4 | 1/2 | 2 | 2730-832 | 18.66 | 2740-436 | 31.30 | 2740-636 | 59.04 | – | – | 2740-536 | 36.70 | 2740-736 | 72.20 |
| 1011 | 1-3/8 | 5/16 | 1/2 | 2 | 2730-837 | 24.11 | 2740-437 | 33.70 | 2740-637 | 59.04 | 2730-937† | 28.75 | 2740-537 | 39.70 | 2740-737 | 72.20 |
| 1211 | 1-3/8 | 3/8 | 1/2 | 2 | 2730-840 | 21.99 | 2740-438 | 33.70 | 2740-638 | 60.09 | – | – | 2740-538 | 39.70 | 2740-738 | 73.22 |
| 812 | 1-1/2 | 1/4 | 1/2 | 2 | 2730-833 | 20.20 | 2740-439 | 33.95 | 2740-639 | 61.11 | – | – | 2740-539 | 40.25 | 2740-739 | 76.85 |
| 1012 | 1-1/2 | 5/16 | 1/2 | 2 | 2730-838 | 22.89 | 2740-440 | 34.65 | 2740-640 | 63.24 | – | – | 2740-540 | 41.10 | 2740-740 | 77.21 |
| 1212 | 1-1/2 | 3/8 | 1/2 | 2 | 2730-841 | 24.27 | 2740-441 | 35.50 | 2740-641 | 65.34 | – | – | 2740-541 | 41.70 | 2740-741 | 81.10 |

† Limited Quantities

# Narrow Width Keyseat Cutters

## Straight Tooth – RHC – High Speed Steel [1]

Look for Allegiance® American Made

| CUT DIA. | WIDTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1/4 | 1/64 | 2742-020 | $25.30 |
| 1/4 | 1/32 | 2742-025 | 25.30 |
| 1/4 | 3/64 | 2742-030 | 25.30 |
| 5/16 | 1/64 | 2742-050 | 25.30 |
| 5/16 | 1/32 | 2742-055 | 25.30 |
| 5/16 | 3/64 | 2742-060 | 25.30 |
| 3/8 | 1/64 | 2742-080 | 25.30 |
| 3/8 | 1/32 | 2742-085 | 25.30 |
| 3/8 | 3/64 | 2742-090 | 25.30 |
| 1/2 | 1/64 | 2742-110 | 25.30 |
| 1/2 | .020 | 2742-115 | 25.30 |
| 1/2 | 1/32 | 2742-120 | 25.30 |
| 1/2 | 3/64 | 2742-125 | 25.30 |
| 5/8 | 1/64 | 2742-145 | 25.30 |
| 5/8 | .020 | 2742-150 | 25.30 |
| 5/8 | 1/32 | 2742-155 | 25.30 |
| 5/8 | 3/64 | 2742-160 | 25.30 |
| 5/8 | 1/16 | 2742-165 | 25.30 |
| 5/8 | 5/64 | 2742-170 | 25.30 |
| 3/4 | 1/32 | 2742-190 | 27.25 |

| CUT DIA. | WIDTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 3/4 | 3/64 | 2742-195 | $27.25 |
| 3/4 | 1/16 | 2742-200 | 27.25 |
| 3/4 | 5/64 | 2742-205 | 27.25 |
| 3/4 | 3/32 | 2742-210 | 27.25 |
| 3/4 | 7/64 | 2742-215 | 27.25 |
| 7/8 | 3/64 | 2742-235 | 30.10 |
| 7/8 | 1/16 | 2742-240 | 30.10 |
| 7/8 | 5/64 | 2742-245 | 30.10 |
| 7/8 | 3/32 | 2742-250 | 30.10 |
| 7/8 | 7/64 | 2742-255 | 30.10 |
| 7/8 | 1/8 | 2742-260 | 30.10 |
| 7/8 | 9/64 | 2742-265 | 30.10 |
| 1 | 3/64 | 2742-285 | 33.60 |
| 1 | 1/16 | 2742-290 | 33.60 |
| 1 | 5/64 | 2742-295 | 33.60 |
| 1 | 3/32 | 2742-300 | 33.60 |
| 1 | 7/64 | 2742-305 | 33.60 |
| 1 | 1/8 | 2742-310 | 33.60 |
| 1 | 9/64 | 2742-315 | 33.60 |
| 1 | 5/32 | 2742-320 | 33.60 |

| CUT DIA. | WIDTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1 | 11/64 | 2742-325 | $33.60 |
| 1-1/8 | 3/64 | 2742-345 | 40.05 |
| 1-1/8 | 1/16 | 2742-350 | 40.05 |
| 1-1/8 | 5/64 | 2742-355 | 40.05 |
| 1-1/8 | 3/32 | 2742-360 | 40.05 |
| 1-1/8 | 7/64 | 2742-365 | 40.05 |
| 1-1/8 | 1/8 | 2742-370 | 40.05 |
| 1-1/8 | 9/64 | 2742-375 | 40.05 |
| 1-1/8 | 5/32 | 2742-380 | 40.05 |
| 1-1/8 | 11/64 | 2742-385 | 40.05 |
| 1-1/4 | 3/64 | 2742-405 | 43.25 |
| 1-1/4 | 1/16 | 2742-410 | 43.25 |
| 1-1/4 | 5/64 | 2742-415 | 43.25 |
| 1-1/4 | 3/32 | 2742-420 | 43.25 |
| 1-1/4 | 7/64 | 2742-425 | 43.25 |
| 1-1/4 | 1/8 | 2742-430 | 43.25 |
| 1-1/4 | 9/64 | 2742-435 | 43.25 |
| 1-1/4 | 5/32 | 2742-440 | 43.25 |
| 1-1/4 | 11/64 | 2742-445 | 43.25 |
| 1-3/8 | 1/16 | 2742-465 | 47.40 |

| CUT DIA. | WIDTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1-3/8 | 5/64 | 2742-470 | $47.40 |
| 1-3/8 | 3/32 | 2742-475 | 47.40 |
| 1-3/8 | 7/64 | 2742-480 | 47.40 |
| 1-3/8 | 1/8 | 2742-485 | 47.40 |
| 1-3/8 | 9/64 | 2742-490 | 47.40 |
| 1-3/8 | 5/32 | 2742-495 | 47.40 |
| 1-3/8 | 11/64 | 2742-500 | 47.40 |
| 1-3/8 | 3/16 | 2742-505 | 47.40 |
| 1-3/8 | 7/32 | 2742-510 | 47.40 |
| 1-1/2 | 1/16 | 2742-530 | 49.95 |
| 1-1/2 | 5/64 | 2742-535 | 49.95 |
| 1-1/2 | 3/32 | 2742-540 | 49.95 |
| 1-1/2 | 7/64 | 2742-545 | 49.95 |
| 1-1/2 | 1/8 | 2742-550 | 49.95 |
| 1-1/2 | 9/64 | 2742-555 | 49.95 |
| 1-1/2 | 5/32 | 2742-560 | 49.95 |
| 1-1/2 | 11/64 | 2742-565 | 49.95 |
| 1-1/2 | 3/16 | 2742-570 | 49.95 |
| 1-1/2 | 7/32 | 2742-575 | 49.95 |

# Woodruff Keyseat Cutters

## Complete Sets
**Straight Tooth – High Speed Steel**

[3]

### 41 pc. Set

The 41-piece set includes one piece each of all the American Standard Woodruff Keyseat Cutter sizes with straight or staggered teeth.

**Order No. 2740-851** **Price……$1526.62**

### 10 pc. Set

**Includes one each:**
**204, 305, 403, 404, 406, 505, 606, 608, 806, 808**

**Order No. 2740-850** **Price……$ 310.75**

**Order No. 2730-845** **Price……$ 105.09**

## Carbide Tipped Face
**Shank Type**
**Standard Width Tolerance .0005**

Look for ALLEGIANCE® AMERICANMADE

Straight Tooth

Staggered Tooth

[2]

| U.S. STD. | OLD STD. | DIAM. | FACE WIDTH | OVERALL WIDTH | STRAIGHT TOOTH ORDER NO. | STRAIGHT TOOTH PRICE EACH | STAGGERED TOOTH ORDER NO. | STAGGERED TOOTH PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 204 | 1 | 1/2 | 1/16 | 2-1/16 | 3046-005 | $ 73.45 | 3046-205 | $ 85.90 |
| 304 | 2 | 1/2 | 3/32 | 2-3/32 | 3046-010 | 73.45 | 3046-210 | 85.90 |
| 404 | 3 | 1/2 | 1/8 | 2-1/8 | 3046-015 | 73.45 | 3046-215 | 85.90 |
| 305 | 4 | 5/8 | 3/32 | 2-3/32 | 3046-020 | 76.00 | 3046-220 | 89.00 |
| 405 | 5 | 5/8 | 1/8 | 2-1/8 | 3046-025 | 76.00 | 3046-225 | 89.00 |
| 505 | 6 | 5/8 | 5/32 | 2-5/32 | 3046-030 | 76.00 | 3046-230 | 89.00 |
| 605 | 61 | 5/8 | 3/16 | 2-3/16 | 3046-035 | 76.00 | 3046-235 | 89.00 |
| 406 | 7 | 3/4 | 1/8 | 2-1/8 | 3046-040 | 79.40 | 3046-240 | 92.95 |
| 506 | 8 | 3/4 | 5/32 | 2-5/32 | 3046-045 | 79.40 | 3046-245 | 92.95 |
| 606 | 9 | 3/4 | 3/16 | 2-3/16 | 3046-050 | 79.40 | 3046-250 | 92.95 |
| 806 | 91 | 3/4 | 1/4 | 2-1/4 | 3046-055 | 79.40 | 3046-255 | 92.95 |
| 507 | 10 | 7/8 | 5/32 | 2-5/32 | 3046-060 | 83.20 | 3046-260 | 97.25 |
| 607 | 11 | 7/8 | 3/16 | 2-3/16 | 3046-065 | 83.20 | 3046-265 | 97.25 |
| 707 | 12 | 7/8 | 7/32 | 2-7/32 | 3046-070 | 83.20 | 3046-270 | 97.25 |
| 807 | A | 7/8 | 1/4 | 2-1/4 | 3046-075 | 83.20 | 3046-275 | 97.25 |
| 608 | 13 | 1 | 3/16 | 2-3/16 | 3046-080 | 95.60 | 3046-280 | 111.40 |
| 708 | 14 | 1 | 7/32 | 2-7/32 | 3046-085 | 95.60 | 3046-285 | 111.40 |
| 808 | 15 | 1 | 1/4 | 2-1/4 | 3046-090 | 95.60 | 3046-290 | 111.40 |
| 1008 | B | 1 | 5/16 | 2-5/16 | 3046-095 | 95.60 | 3046-295 | 111.40 |
| 1208 | 152 | 1 | 3/8 | 2-3/8 | 3046-100 | 95.60 | 3046-300 | 111.40 |
| 609 | 16 | 1-1/8 | 3/16 | 2-3/16 | 3046-105 | 100.40 | 3046-305 | 116.90 |
| 709 | 17 | 1-1/8 | 7/32 | 2-7/32 | 3046-110 | 100.40 | 3046-310 | 116.90 |
| 809 | 18 | 1-1/8 | 1/4 | 2-1/4 | 3046-115 | 100.40 | 3046-315 | 116.90 |
| 1009 | C | 1-1/8 | 5/16 | 2-5/16 | 3046-120 | 100.40 | 3046-320 | 116.90 |
| 610 | 19 | 1-1/4 | 3/16 | 2-3/16 | 3046-125 | 105.50 | 3046-325 | 123.55 |
| 710 | 20 | 1-1/4 | 7/32 | 2-1/32 | 3046-130 | 105.50 | 3046-330 | 123.55 |
| 810 | 21 | 1-1/4 | 1/4 | 2-1/4 | 3046-135 | 105.50 | 3046-335 | 123.55 |
| 1010 | D | 1-1/4 | 5/16 | 2-5/16 | 3046-140 | 105.50 | 3046-340 | 123.55 |
| 1210 | E | 1-1/4 | 3/8 | 2-3/8 | 3046-145 | 105.50 | 3046-345 | 123.55 |
| 811 | 22 | 1-3/8 | 1/4 | 2-1/4 | 3046-150 | 110.65 | 3046-350 | 129.70 |
| 1011 | 23 | 1-3/8 | 5/16 | 2-5/16 | 3046-155 | 110.65 | 3046-355 | 129.70 |
| 1211 | F | 1-3/8 | 3/8 | 2-3/8 | 3046-160 | 110.65 | 3046-360 | 129.70 |
| 812 | 24 | 1-1/2 | 1/4 | 2-1/4 | 3046-165 | 116.25 | 3046-365 | 135.95 |
| 1012 | 25 | 1-1/2 | 5/16 | 2-5/16 | 3046-170 | 116.25 | 3046-370 | 135.95 |
| 1212 | G | 1-1/2 | 3/8 | 2-3/8 | 3046-175 | 116.25 | 3046-375 | 135.95 |

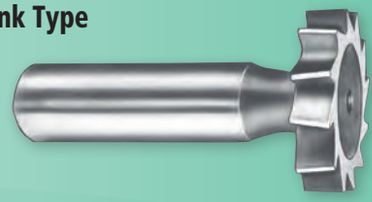
## Arbor Type
**High Speed Steel**

[2]

| AMER. STD. | OLD STD. | DIAM. | FACE WIDTH | ARBOR HOLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 617 | 26 | 2-1/8 | 3/16 | 3/4 | 2830-005 | $14.35 |
| 1217 | 29 | 2-1/8 | 3/8 | 3/4 | 2830-020 | 18.15 |
| 1222 | T | 2-3/4 | 3/8 | 1 | 2830-035 | 24.85 |
| 1422 | U | 2-3/4 | 7/16 | 1 | 2830-040 | 25.15 |
| 1228 | 30 | 3-1/2 | 3/8 | 1 | 2830-050 | 31.95 |
| 1428 | 31 | 3-1/2 | 7/16 | 1 | 2830-055 | 33.60 |
| 1628 | 32 | 3-1/2 | 1/2 | 1 | 2830-060 | 34.80 |
| 1828 | 33 | 3-1/2 | 9/16 | 1 | 2830-065 | 38.45 |
| 2028 | 34 | 3-1/2 | 5/8 | 1 | 2830-070 | 38.05 |
| 2228 | 35 | 3-1/2 | 11/16 | 1 | 2830-075 | 40.65 |
| 2428 | 36 | 3-1/2 | 3/4 | 1 | 2830-080 | 40.75 |

## Solid Carbide Face
**Straight Tooth**
**Shank Type**

Look for ALLEGIANCE® AMERICANMADE



[1]

| AMER. STD. | NOM. CUTTER DIAM. | FACE WIDTH | OVER-ALL LG'TH | NO. OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 303 | 3/8 | 3/32 | 2-3/32 | 8 | 2969-005 | $43.50 |
| 403 | 3/8 | 1/8 | 2-1/8 | 8 | 2969-010 | 43.50 |
| 304 | 1/2 | 3/32 | 2-3/32 | 10 | 2969-015 | 50.00 |
| 404 | 1/2 | 1/8 | 2-1/8 | 10 | 2969-020 | 50.50 |
| 305 | 5/8 | 3/32 | 2-3/32 | 10 | 2969-025 | 51.10 |
| 405 | 5/8 | 1/8 | 2-1/8 | 10 | 2969-030 | 55.90 |
| 505 | 5/8 | 5/32 | 2-5/32 | 10 | 2969-035 | 54.55 |
| 605 | 5/8 | 3/16 | 2-3/16 | 10 | 2969-040 | 59.00 |
| 406 | 3/4 | 1/8 | 2-1/8 | 10 | 2969-045 | 69.80 |
| 506 | 3/4 | 5/32 | 2-5/32 | 10 | 2969-050 | 71.00 |
| 606 | 3/4 | 3/16 | 2-3/16 | 10 | 2969-055 | 74.90 |
| 806 | 3/4 | 1/4 | 2-1/4 | 10 | 2969-060 | 75.65 |
| 507 | 7/8 | 5/32 | 2-5/32 | 12 | 2969-065 | 84.25 |
| 607 | 7/8 | 3/16 | 2-3/16 | 12 | 2969-070 | 84.60 |
| 707 | 7/8 | 7/32 | 2-7/32 | 12 | 2969-075 | 88.30 |
| 807 | 7/8 | 1/4 | 2-1/4 | 12 | 2969-080 | 89.95 |
| 608 | 1 | 3/16 | 2-3/16 | 12 | 2969-085 | 93.35 |
| 708 | 1 | 7/32 | 2-7/32 | 12 | 2969-090 | 102.00 |
| 808 | 1 | 1/4 | 2-1/4 | 12 | 2969-095 | 104.10 |
| 609 | 1-1/8 | 3/16 | 2-3/16 | 14 | 2969-100 | 126.65 |
| 709 | 1-1/8 | 7/32 | 2-7/32 | 14 | 2969-105 | 129.85 |
| 809 | 1-1/8 | 1/4 | 2-1/4 | 14 | 2969-110 | 130.75 |
| 610 | 1-1/4 | 3/16 | 2-3/16 | 14 | 2969-115 | 128.40 |
| 710 | 1-1/4 | 7/32 | 2-7/32 | 14 | 2969-120 | 132.00 |
| 810 | 1-1/4 | 1/4 | 2-1/4 | 14 | 2969-125 | 134.70 |
| 812 | 1-1/2 | 1/4 | 2-1/4 | 16 | 2969-130 | 160.00 |
| 1012 | 1-1/2 | 5/16 | 2-5/16 | 16 | 2969-135 | 164.90 |
| 1212 | 1-1/2 | 3/8 | 2-3/8 | 16 | 2969-140 | 170.05 |

# Shank Type Cutters



## Dovetail Cutters
### High Speed Steel & Cobalt

Look for ALLEGIANCE® AMERICANMADE

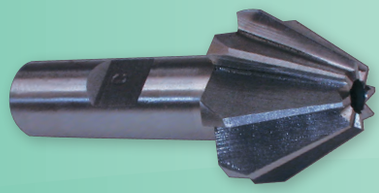
| | | | Pittsburg® | | | | | | Allegiance® American Made | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 45° HSS | 60° HSS | | 45° COBALT | 60° COBALT | | 45° HSS | 60° HSS | |
| CUTTER DIAM. | SHANK DIAM. | OVERALL LENGTH | ORDER NUMBER | ORDER NUMBER | PRICE EACH | ORDER NUMBER | ORDER NUMBER | PRICE EACH | ORDER NUMBER | ORDER NUMBER | PRICE EACH |
| 3/8 | 3/8 | 2-1/8 | 2730-224 | 2730-024 | $16.82 | 2740-024 | 2740-224 | $23.91 | 2741-424 | 2741-224 | $40.75 |
| 1/2 | 3/8 | 2-1/8 | 2730-232 | 2730-032 | 17.28 | 2740-032 | 2740-232 | 23.91 | 2741-432 | 2741-232 | 40.75 |
| 3/4 | 3/8 | 2-1/8 | 2730-248 | 2730-048 | 18.47 | 2740-048 | 2740-248 | 26.24 | 2741-448 | 2741-248 | 40.75 |
| 1 | 1/2 | 2-1/2 | – | – | – | – | – | – | 2741-464 | 2741-264 | 47.40 |
| 1-3/8 | 5/8 | 2-7/8 | 2730-288 | 2730-088 | 32.41 | 2740-088 | 2740-288 | 68.20 | 2741-488 | 2741-288 | 66.60 |
| 1-7/8 | 7/8 | 3-1/4 | 2730-320 | 2730-120 | 60.62 | 2740-120 | 2740-320 | 113.24 | 2741-520 | 2741-320 | 145.75 |
| 2-1/4 | 1 | 3-3/4 | 2730-344 | 2730-144 | 76.38 | 2740-144 | 2740-344 | 129.91 | 2741-544 | 2741-344 | 176.75 |
| 2-1/2 | 1 | 3-3/4 | 2730-360 | 2730-160 | 138.59 | 2740-160 | 2740-360 | 219.23 | 2741-560 | 2741-360 | 226.20 |

## Carbide Tipped
### Dovetail Cutters

| | | | | | 45° ANGLE | | | 60° ANGLE | | |
|---|---|---|---|---|---|---|---|---|---|---|
| CUTTER DIAM. | SHANK DIAM. | OVER'LL LENGTH | NECK DIAM. | NO. OF TEETH | CUTTER WIDTH | ORDER NO. | PRICE EACH | CUTTER WIDTH | ORDER NO. | PRICE EACH |
| 1/2 | 3/8 | 2-1/8 | 3/16 | 3 | 5/32 | 2837-010 | $76.50 | 7/32 | 2837-110 | $76.50 |
| 3/4 | 3/8 | 2-1/4 | 3/16 | 3 | 1/4 | 2837-020 | 85.25 | 1/4 | 2837-120 | 85.25 |
| 1 | 1/2 | 2-1/2 | 3/8 | 4 | 5/16 | 2837-030 | 94.15 | 3/8 | 2837-130 | 94.15 |
| 1-1/4 | 5/8 | 2-3/4 | 1/2 | 4 | 5/16 | 2837-040 | 104.30 | 1/2 | 2837-140 | 104.30 |
| 1-1/2 | 3/4 | 3-1/4 | 1/2 | 4 | 1/2 | 2837-050 | 131.85 | 5/8 | 2837-150 | 131.85 |
| 2 | 1 | 4-1/4 | 3/4 | 6 | 5/8 | 2837-060 | 200.00 | 3/4 | 2837-160 | 200.00 |
| 2-1/2 | 1 | 4-3/8 | 1 | 6 | 3/4 | 2837-070 | 290.60 | 7/8 | 2837-170 | 290.60 |
| 3 | 1-1/4 | 4-1/2 | 1 | 6 | 1 | 2837-080 | 337.55 | 1-1/8 | 2837-180 | 337.55 |

## 60° & 90° Face Angle Shank Type Cutters

### End Cutting Weldon Shank – High Speed Steel or M42 Cobalt



### 60° Included Angle

| | | | | | Pittsburg® | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | COBALT | | HSS | |
| LARGE CUTTING DIA. (IN) | SMALL CUTTING DIA. (IN) | FACE WIDTH (IN) | SHANK DIA. (IN) | OVERALL LENGTH (IN) | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 3/4 | 5/16 | 17/32 | 3/8 | 2-3/32 | 2735-106 | $ 62.73 | 2735-306 | $ 51.24 |
| 1 | 3/8 | 11/16 | 1/2 | 2-13/32 | 2735-108 | 79.70 | 2735-308 | 67.01 |
| 1-1/4 | 1/2 | 25/32 | 5/8 | 2-21/32 | 2735-110 | 98.27 | 2735-310 | 82.33 |
| 1-5/8 | 5/8 | 1-1/16 | 3/4 | 3-1/16 | 2735-113 | 168.48 | 2735-313 | 139.78 |

### 90° Included Angle

| | | | | | Pittsburg® | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | COBALT | | HSS | |
| LARGE CUTTING DIA. (IN) | SMALL CUTTING DIA. (IN) | FACE WIDTH (IN) | SHANK DIA. (IN) | OVERALL LENGTH (IN) | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 3/4 | 5/16 | 3/8 | 3/8 | 1-15/16 | 2735-206 | $ 62.73 | 2735-406 | $51.24 |
| 1 | 3/8 | 7/16 | 1/2 | 2-3/16 | 2735-208 | 79.70 | 2735-408 | 67.01 |
| 1-1/4 | 1/2 | 17/32 | 5/8 | 2-13/32 | 2735-210 | 98.27 | 2735-410 | 82.33 |
| 1-5/8 | 5/8 | 11/16 | 3/4 | 2-11/16 | 2735-213 | 168.48 | 2735-413 | 139.78 |

## Corner Rounding End Mills
### High Speed Steel

Pittsburg® ALLEGHANY

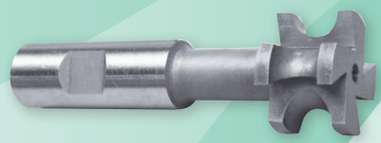
| RADIUS | SHANK DIAM. | LARGEST DIAM. | SMALLEST DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/32 | 3/8 | 3/8 | 1/4 | 2-1/2 | 2729-021 | $19.48 |
| 1/16 | 3/8 | 7/16 | 1/4 | 2-1/2 | 2729-041 | 13.49 |
| 3/32 | 3/8 | 1/2 | 5/16 | 2-1/2 | 2729-061 | 14.45 |
| 1/8 | 1/2 | 5/8 | 5/16 | 3 | 2729-081 | 16.73 |
| 5/32 | 1/2 | 3/4 | 3/8 | 3 | 2729-101 | 18.24 |
| 3/16 | 3/4 | 7/8 | 3/8 | 3-1/8 | 2729-121 | 20.34 |
| 3/16 | 1/2 | 7/8 | 3/8 | 3 | 2729-122 | 20.34 |
| 7/32 | 1/2 | 7/8 | 3/8 | 3-1/4 | 2729-141 | 22.44 |
| 1/4 | 3/4 | 1 | 3/8 | 3-1/4 | 2729-161 | 20.40 |
| 1/4 | 1/2 | 1 | 3/8 | 3-1/8 | 2729-162 | 20.40 |
| 9/32 | 5/8 | 1 | 3/8 | 3 | 2729-181 | 34.29 |
| 5/16 | 7/8 | 1-1/8 | 3/8 | 3-1/2 | 2729-201 | 25.19 |
| 5/16 | 1/2 | 1-1/8 | 3/8 | 3-1/4 | 2729-202 | 25.19 |
| 5/16 | 3/4 | 1-1/8 | 3/8 | 3-1/4 | 2729-203 | 25.19 |
| 11/32 | 1/2 | 1-1/8 | 3/8 | 3-1/2 | 2729-221 | 29.41 |
| 3/8 | 7/8 | 1-1/4 | 3/8 | 3-3/4 | 2729-241 | 26.74 |
| 3/8 | 1/2 | 1-1/4 | 3/8 | 3-1/2 | 2729-242 | 26.74 |
| 3/8 | 3/4 | 1-1/4 | 3/8 | 3-1/2 | 2729-243 | 26.74 |
| 13/32 | 1/2 | 1-1/4 | 3/8 | 3-3/4 | 2729-261 | 39.33 |
| 7/16 | 1 | 1-3/8 | 3/8 | 4 | 2729-281 | 35.75 |
| 7/16 | 1/2 | 1-3/8 | 3/8 | 4 | 2729-282 | 35.75 |
| 15/32 | 1/2 | 1-3/8 | 3/8 | 4 | 2729-301 | 45.82 |
| 1/2 | 1 | 1-1/2 | 3/8 | 4-1/8 | 2729-321 | 41.65 |
| 1/2 | 3/4 | 1-1/2 | 3/8 | 3-7/8 | 2729-322 | 41.65 |
| 5/8 | 1 | 1-15/16 | 9/16 | 4-1/4 | 2729-401 | 69.81 |
| 5/8 | 3/4 | 1-15/16 | 9/16 | 4 | 2729-402 | 69.81 |
| 3/4 | 1 | 2-1/4 | 5/8 | 4-5/16 | 2729-481 | 80.37 |
| 3/4 | 3/4 | 2-1/4 | 5/8 | 4-1/8 | 2729-482 | 80.37 |
| 1 | 1 | 2-5/8 | 7/8 | 4-3/4 | 2729-641 | 157.64 |
| 1 | 3/4 | 2-5/8 | 7/8 | 4-1/2 | 2729-642 | 157.64 |

# Shank Type Cutters



## Concave, Shank Type Cutter

### High Speed Steel



| RADIUS | SHANK DIAM. | OVERALL LENGTH | CUTTER DIAM. | NUMBER OF TEETH | Pittsburg® ALLEGHANY ORDER NUMBER | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NUMBER | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/32 | 1/2 | 3 | 3/4 | 6 | 2732-302 | $30.36 | 2732-502 | $66.75 |
| 1/16 | 1/2 | 3 | 3/4 | 6 | 2732-304 | 30.36 | 2732-504 | 66.75 |
| 3/32 | 1/2 | 3 | 3/4 | 6 | 2732-306 | 30.36 | 2732-506 | 71.30 |
| 1/8 | 3/4 | 3-1/2 | 1 | 6 | 2732-308 | 38.17 | 2732-508 | 78.00 |
| 5/32 | 3/4 | 3-1/2 | 1 | 6 | 2732-310 | 38.17 | 2732-510 | 88.05 |
| 3/16 | 3/4 | 3-1/2 | 16 | | 2732-312 | 38.17 | 2732-512 | 99.65 |
| 1/4 | 3/4 | 4 | 1-1/4 | 4 | 2732-316 | 45.26 | 2732-516 | 106.35 |
| 5/16 | 3/4 | 4 | 1-1/4 | 4 | 2732-320 | 48.31 | 2732-520 | 132.75 |
| 3/8 | 3/4 | 4-3/16 | 1-1/2 | 4 | 2732-324 | 63.14 | 2732-524 | 159.40 |

### Carbide Tipped

| RADIUS | SHANK DIAM. | OVERALL LENGTH | CUTTER DIAM. | NUMBER OF TEETH | ALLEGIANCE® AMERICAN MADE ORDER NUMBER | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|
| 1/32 | 1/2 | 3 | 3/4 | 6 | 3045-802 | $131.35 |
| 1/16 | 1/2 | 3 | 3/4 | 6 | 3045-804 | 131.35 |
| 3/32 | 1/2 | 3 | 7/8 | 6 | 3045-806 | 157.40 |
| 1/8 | 3/4 | 3-1/2 | 1-1/4 | 6 | 3045-808 | 175.10 |
| 5/32 | 3/4 | 3-1/2 | 1-5/16 | 6 | 3045-810 | 191.60 |
| 3/16 | 3/4 | 3-1/2 | 1-3/8 | 6 | 3045-812 | 220.85 |
| 1/4 | 3/4 | 4 | 1-1/2 | 6 | 3045-816 | 251.30 |
| 5/16 | 3/4 | 4 | 1-3/4 | 6 | 3045-820 | 284.30 |
| 3/8 | 3/4 | 4 | 1-7/8 | 6 | 3045-824 | 317.25 |

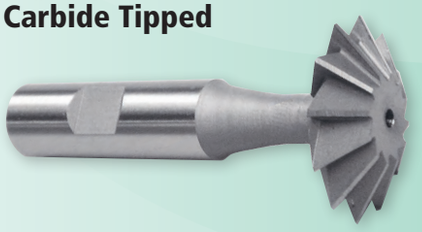
## Convex, Shank Type Cutter

### High Speed Steel & Carbide Tipped

| RADIUS | SHANK DIAM. | OVERALL LENGTH | CUTTER DIAM. | NUMBER FLUTES | Pittsburg® ALLEGHANY ORDER NUMBER | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NUMBER | ALLEGIANCE® AMERICAN MADE PRICE EACH | ALLEGIANCE® AMERICAN MADE CARBIDE TIPPED ORDER NUMBER | ALLEGIANCE® AMERICAN MADE CARBIDE TIPPED PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/32 | 1/2 | 3 | 3/4 | 6 | 2732-402 | $30.36 | 2732-602 | $66.75 | 3045-902 | $158.30 |
| 1/16 | 1/2 | 3 | 3/4 | 6 | 2732-404 | 30.36 | 2732-604 | 66.75 | 3045-904 | 158.30 |
| 3/32 | 1/2 | 3 | 7/8 | 6 | 2732-406 | 35.06 | 2732-606 | 71.35 | 3045-906 | 173.50 |
| 1/8 | 3/4 | 3-1/2 | 1-1/4 | 6 | 2732-408 | 39.13 | 2732-608 | 73.20 | 3045-908 | 188.35 |
| 5/32 | 3/4 | 3-1/2 | 1-5/16 | 6 | 2732-410 | 42.11 | 2732-610 | 73.20 | 3045-910 | 211.15 |
| 3/16 | 3/4 | 3-1/2 | 1-3/8 | 6 | 2732-412 | 45.03 | 2732-612 | 86.00 | 3045-912 | 226.10 |
| 1/4 | 3/4 | 4 | 1-1/2 | 6 | 2732-416 | 49.92 | 2732-616 | 90.50 | 3045-916 | 248.65 |
| 5/16 | 3/4 | 4 | 1-5/8 | 6 | 2732-420 | 54.81 | 2732-620 | 132.75 | 3045-920 | 284.30 |
| 3/8 | 3/4 | 4 | 1-3/4 | 6 | 2732-424 | 65.33 | 2732-624 | 159.40 | 3045-924 | 317.25 |

## Double Angle Shank Type Cutter

### Right Hand Cut, High Speed Steel & Carbide Tipped



| INCLUDED ANGLE | CUTTER DIAM. | SHANK DIAM. | OVERALL LENGTH | CUTTER THICKNESS | Pittsburg® ALLEGHANY ORDER NUMBER | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NUMBER | ALLEGIANCE® AMERICAN MADE PRICE EACH | ALLEGIANCE® AMERICAN MADE CARBIDE TIPPED ORDER NUMBER | ALLEGIANCE® AMERICAN MADE CARBIDE TIPPED PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 60° | 3/4 | 3/8 | 2-3/8 | 3/16 | 2733-121 | $25.10 | 2734-406 | $31.20 | 3045-606 | $109.85 |
| 60° | 1 | 1/2 | 2-27/32 | 5/16 | 2733-161 | 33.60 | 2734-408 | 48.65 | 3045-608 | 119.50 |
| 60° | 1-3/8 | 5/8 | 3-7/32 | 7/16 | 2733-221 | 46.86 | 2734-411 | 65.45 | 3045-611 | 130.75 |
| 60° | 1-1/2 | 5/8 | 3-3/8 | 1/2 | 2733-241 | 53.85 | 2734-412 | 85.10 | 3045-612 | 145.00 |
| 60° | 1-7/8 | 3/4 | 3-25/32 | 5/8 | 2733-301 | 66.31 | 2734-415 | 98.60 | 3045-615 | 235.95 |
| 60° | 2-1/4 | 3/4 | 3-1/8 | 1/2 | 2733-361 | 89.71 | – | – | – | – |
| 60° | 2-1/4 | 7/8 | 4-5/32 | 3/4 | 2733-362 | 89.71 | 2734-418 | 144.80 | 3045-618 | 335.70 |
| 90° | 3/4 | 3/8 | 2-7/16 | 1/4 | 2734-121 | 25.10 | 2734-436 | 31.20 | 3045-636 | 109.85 |
| 90° | 1 | 1/2 | 2-29/32 | 3/8 | 2734-161 | 33.60 | 2734-438 | 48.65 | 3045-638 | 119.50 |
| 90° | 1-3/8 | 5/8 | 3-9/32 | 1/2 | 2734-221 | 46.86 | 2734-441 | 65.45 | 3045-641 | 130.75 |
| 90° | 1-1/2 | 5/8 | 3-7/16 | 9/16 | 2734-241 | 53.85 | 2734-442 | 85.10 | 3045-642 | 145.00 |
| 90° | 1-7/8 | 3/4 | 3-25/32 | 5/8 | 2734-301 | 66.31 | 2734-445 | 98.60 | 3045-645 | 235.95 |
| 90° | 2-1/4 | 3/4 | 3-1/8 | 1/2 | 2734-361 | 89.71 | – | – | – | – |
| 90° | 2-1/4 | 7/8 | 4-5/32 | 3/4 | 2734-362 | 89.71 | 2734-456 | 144.80 | 3045-656 | 335.70 |

## Single Angle Chamfering Cutters

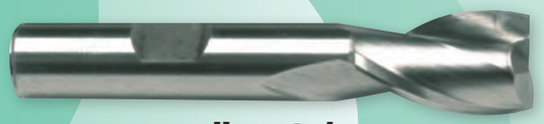
### Right Hand Cut/Weldon Shank High Speed Steel & Carbide Tipped

| CUTTER DIAM. | CUTTER WIDTH | SHANK DIAM. | OVERALL LENGTH | ANGLE | Pittsburg® ALLEGHANY ORDER NUMBER | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NUMBER | ALLEGIANCE® AMERICAN MADE PRICE EACH | ALLEGIANCE® AMERICAN MADE CARBIDE TIPPED ORDER NUMBER | ALLEGIANCE® AMERICAN MADE CARBIDE TIPPED PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1/8 | 3/8 | 2-1/8 | 45 | 2732-032 | $23.68 | 2732-208 | $33.05 | 3045-708 | $98.35 |
| 3/4 | 3/16 | 3/8 | 2-1/8 | 45 | 2732-048 | 30.68 | 2732-212 | 41.10 | 3045-712 | 121.35 |
| 1 | 5/16 | 1/2 | 2-1/2 | 45 | 2732-064 | 35.48 | 2732-216 | 51.05 | 3045-716 | 142.10 |
| 1-1/2 | 1/2 | 3/4 | 2-3/4 | 45 | 2732-096 | 44.94 | 2732-224 | 65.90 | 3045-724 | 189.00 |
| 1/2 | 7/32 | 3/8 | 2-1/8 | 60 | 2732-132 | 23.68 | 2732-258 | 33.05 | 3045-758 | 98.35 |
| 3/4 | 5/16 | 3/8 | 2-1/8 | 60 | 2732-148 | 30.68 | 2732-262 | 41.10 | 3045-762 | 121.35 |
| 1 | 7/16 | 1/2 | 2-1/2 | 60 | 2732-164 | 35.48 | 2732-266 | 51.05 | 3045-766 | 142.10 |
| 1-1/2 | 5/8 | 3/4 | 2-3/4 | 60 | 2732-196 | 44.94 | 2732-274 | 65.90 | 3045-774 | 189.00 |

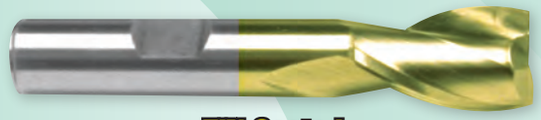
# Two Flute, Single End, End Mills

## Regular Length – R. H. Cut - R.H. Spiral - High Speed Steel





Uncoated



TiN Coated

| SIZE | | | | UNCOATED Pittsburg® ALLEGHANY | | TiN COATED Pittsburg® ALLEGHANY | | UNCOATED ALLEGIANCE® AMERICAN MADE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
| 1/8 | 3/8 | 3/8 | 2-5/16 | 2612-081 | $ 3.97 | 2613-708 | $6.37 | 3/8 | 2-5/16 | 2593-081 | $ 7.41 |
| 9/64 | 3/8 | 3/8 | 2-5/16 | 2612-091† | 5.16 | – | – | – | – | – | – |
| 5/32 | 3/8 | 3/8 | 2-5/16 | 2612-101 | 4.61 | – | – | 3/8 | 2-5/16 | 2593-101 | 10.51 |
| 11/64 | 3/8 | 3/8 | 2-5/16 | 2612-111† | 5.16 | – | – | – | – | – | – |
| 3/16 | 3/8 | 3/8 | 2-5/16 | 2612-121 | 3.97 | 2613-712 | 6.37 | 7/16 | 2-3/8 | 2593-121 | 7.41 |
| 7/32 | 3/8 | 3/8 | 2-5/16 | 2612-141 | 4.61 | – | – | 1/2 | 2-7/16 | 2593-141 | 8.42 |
| 15/64 | 3/8 | 3/8 | 2-5/16 | 2612-151† | 5.16 | – | – | – | – | – | – |
| 1/4 | 3/8 | 1/2 | 2-5/16 | 2612-161 | 3.97 | 2613-716 | 6.37 | 1/2 | 2-7/16 | 2593-161 | 7.41 |
| 17/64 | 3/8 | 1/2 | 2-5/16 | 2612-171† | 5.16 | – | – | – | – | – | – |
| 9/32 | 3/8 | 1/2 | 2-5/16 | 2612-181 | 5.15 | – | – | 9/16 | 2-1/2 | 2593-181 | 8.42 |
| 19/64 | 3/8 | 9/16 | 2-5/16 | 2612-191† | 5.16 | – | – | – | – | – | – |
| 5/16 | 3/8 | 9/16 | 2-5/16 | 2612-201 | 3.97 | 2613-720 | 6.37 | 9/16 | 2-1/2 | 2593-201 | 7.41 |
| 21/64 | 3/8 | 9/16 | 2-5/16 | 2612-211† | 5.16 | – | – | – | – | – | – |
| 11/32 | 3/8 | 9/16 | 2-5/16 | 2612-221 | 5.15 | – | – | – | – | – | – |
| 23/64 | 3/8 | 9/16 | 2-5/16 | 2612-231† | 5.16 | – | – | – | – | – | – |
| 3/8 | 3/8 | 9/16 | 2-5/16 | 2612-241 | 3.97 | 2613-724 | 6.37 | 9/16 | 2-1/2 | 2593-241 | 7.41 |
| 25/64 | 3/8 | 13/16 | 2-1/2 | 2612-251† | 6.50 | – | – | – | – | – | – |
| 13/32 | 3/8 | 13/16 | 2-1/2 | 2612-261 | 6.42 | – | – | – | – | – | – |
| 27/64 | 3/8 | 13/16 | 2-1/2 | 2612-271† | 6.50 | – | – | – | – | – | – |
| 7/16 | 3/8 | 13/16 | 2-1/2 | 2612-281 | 5.00 | 2613-728 | 7.45 | 13/16 | 2-11/16 | 2593-281 | 10.47 |
| 29/64 | 3/8 | 13/16 | 2-1/2 | 2612-291† | 6.50 | – | – | – | – | – | – |
| 29/64 | 1/2 | 13/16 | 2-1/2 | 2612-292† | 7.06 | – | – | – | – | – | – |
| 15/32 | 3/8 | 13/16 | 2-1/2 | 2612-301 | 6.42 | – | – | – | – | – | – |
| 15/32 | 1/2 | 13/16 | 2-1/2 | 2612-302† | 6.42 | – | – | – | – | – | – |
| 31/64 | 3/8 | 13/16 | 2-1/2 | 2612-311† | 6.50 | – | – | – | – | – | – |
| 1/2 | 3/8 | 13/16 | 2-1/2 | 2612-322 | 5.00 | – | – | 13/16 | 2-11/16 | 2593-321 | 10.86 |
| 1/2 | 1/2 | 1 | 3 | 2612-321 | 5.43 | 2613-732 | 10.34 | 1 | 3-1/4 | 2593-322 | 10.57 |
| 9/16 | 1/2 | 1-1/8 | 3-1/8 | 2612-361 | 7.35 | – | – | 1-1/8 | 3-3/8 | 2593-361 | 13.09 |
| 19/32 | 1/2 | 1-1/8 | 3-1/8 | 2612-381† | 10.57 | – | – | – | – | – | – |
| 5/8 | 1/2 | 1-1/8 | 3-1/8 | 2612-401 | 8.13 | – | – | 1-1/8 | 3-3/8 | 2593-401 | 15.23 |
| 5/8 | 5/8 | 1-5/16 | 3-7/16 | 2612-402 | 8.55 | 2613-740 | 12.25 | 1-5/16 | 3-3/4 | 2593-402 | 14.61 |
| 11/16 | 1/2 | 1-5/16 | 3-5/16 | 2612-441 | 10.83 | – | – | 1-5/16 | 3-5/8 | 2593-441 | 15.73 |
| 11/16 | 5/8 | 1-5/16 | 3-7/16 | 2612-442 | 11.32 | – | – | 1-5/16 | 3-3/4 | 2593-442 | 15.73 |
| 23/32 | 1/2 | 1-5/16 | 3-5/16 | 2612-461† | 13.13 | – | – | – | – | – | – |
| 3/4 | 1/2 | 1-5/16 | 3-5/16 | 2612-481 | 10.10 | – | – | 1-5/16 | 3-5/8 | 2593-481 | 17.16 |
| 3/4 | 5/8 | 1-5/16 | 3-7/16 | 2612-482 | 10.34 | 2613-747 | 15.19 | 1-5/16 | 3-3/4 | 2593-482 | 17.16 |
| 3/4 | 3/4 | 1-5/16 | 3-9/16 | 2612-483 | 10.34 | 2613-748 | 15.19 | 1-5/16 | 3-7/8 | 2593-483 | 17.16 |
| 13/16 | 1/2 | 1-1/2 | 3-5/8 | 2612-520 | 13.77 | – | – | – | – | – | – |
| 13/16 | 5/8 | 1-1/2 | 3-5/8 | 2612-521 | 13.77 | – | – | 1-1/2 | 4 | 2593-521 | 20.70 |
| 13/16 | 3/4 | 1-1/2 | 3-3/4 | 2612-522 | 13.77 | – | – | 1-7/8 | 4-1/8 | 2593-522 | 20.97 |

† Limited Quantities

# Two Flute, Single End, End Mills

## Regular Length – R. H. Cut - R.H. Spiral - High Speed Steel

Uncoated

TiN Coated

| SIZE | | | | UNCOATED Pittsburg® ALLEGHANY | | TiN COATED Pittsburg® ALLEGHANY | | UNCOATED ALLEGIANCE® AMERICAN MADE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
| 7/8 | 1/2 | 1-1/2 | 3-1/2 | 2612-561 | $13.77 | – | – | – | – | – | – |
| 7/8 | 5/8 | 1-1/2 | 3-5/8 | 2612-562 | 13.77 | | | 1-1/2 | 4 | 2593-561 | $21.62 |
| 7/8 | 3/4 | 1-1/2 | 3-3/4 | 2612-563 | 13.77 | – | – | 1-1/2 | 4-1/8 | 2593-563 | 21.62 |
| 7/8 | 7/8 | 1-1/2 | 3-3/4 | 2612-564 | 13.77 | – | – | 1-1/2 | 4-1/8 | 2593-562 | 20.70 |
| 29/32 | 1/2 | 1-1/2 | 3-5/8 | 2612-581† | 21.35 | – | – | – | – | – | – |
| 15/16 | 5/8 | 1-1/2 | 3-5/8 | 2612-601 | 16.42 | | | 1-1/2 | 4 | 2593-601 | 23.24 |
| 15/16 | 3/4 | 1-1/2 | 3-3/4 | 2612-602 | 16.42 | – | – | 1-1/2 | 4-1/8 | 2593-603 | 23.24 |
| 15/16 | 7/8 | 1-1/2 | 3-3/4 | 2612-603 | 16.42 | – | – | 1-1/2 | 4-1/8 | 2593-602 | 23.24 |
| 31/32 | 1/2 | 1-1/2 | 3-1/2 | 2612-621† | 21.35 | – | – | – | – | – | – |
| 1 | 1/2 | 1-1/2 | 3-1/2 | 2612-641 | 16.42 | – | – | – | – | – | – |
| 1 | 5/8 | 1-1/2 | 3-5/8 | 2612-642 | 16.42 | – | – | 1-1/2 | 4 | 2593-641 | 23.96 |
| 1 | 3/4 | 1-1/2 | 3-3/4 | 2612-643 | 16.42 | 2613-763 | $21.61 | 1-1/2 | 4-1/8 | 2593-642 | 27.01 |
| 1 | 7/8 | 1-1/2 | 3-3/4 | 2612-644 | 16.42 | – | – | 1-1/2 | 4-1/8 | 2593-643 | 26.59 |
| 1 | 1 | 1-5/8 | 4-1/8 | 2612-645 | 18.16 | 2613-764 | 21.61 | 1-5/8 | 4-1/2 | 2593-644 | 28.21 |
| 1-1/16 | 3/4 | 1-5/8 | 3-7/8 | 2612-680 | 26.26 | – | – | – | – | – | – |
| 1-1/8 | 3/4 | 1-5/8 | 3-7/8 | 2612-721 | 26.26 | – | – | 1-5/8 | 4-1/4 | 2593-720 | 42.55 |
| 1-1/8 | 7/8 | 1-5/8 | 3-7/8 | 2612-722 | 26.26 | – | – | 1-5/8 | 4-1/4 | 2593-721 | 37.96 |
| 1-1/8 | 1 | 1-5/8 | 4-1/8 | 2612-723 | 29.01 | – | – | 1-5/8 | 4-1/2 | 2593-722 | 39.58 |
| 1-3/16 | 3/4 | 1-5/8 | 3-7/8 | 2612-761 | 29.01 | – | – | – | – | – | – |
| 1-3/16 | 1 | 1-5/8 | 4-1/8 | 2612-762 | 31.91 | – | – | – | – | – | – |
| 1-1/4 | 3/4 | 1-5/8 | 3-7/8 | 2612-801 | 29.74 | – | – | 1-5/8 | 4-1/2 | 2593-800 | 49.13 |
| 1-1/4 | 7/8 | 1-5/8 | 3-7/8 | 2612-802 | 29.74 | – | – | 1-5/8 | 4-1/2 | 2593-801 | 38.18 |
| 1-1/4 | 1 | 1-5/8 | 4-1/8 | 2612-803 | 29.74 | – | – | 1-5/8 | 4-1/2 | 2593-802 | 43.35 |
| 1-1/4 | 1-1/4 | 1-5/8 | 4-1/8 | 2612-804 | 29.74 | – | – | 1-5/8 | 4-1/2 | 2593-803 | 43.35 |
| 1-5/16 | 3/4 | 1-5/8 | 3-7/8 | 2612-841 | 32.83 | – | – | – | – | – | – |
| 1-3/8 | 3/4 | 1-5/8 | 3-7/8 | 2612-881 | 32.83 | – | – | 1-5/8 | 4-1/4 | 2593-880 | 51.26 |
| 1-3/8 | 1 | 1-5/8 | 4-1/8 | 2612-882 | 33.79 | – | – | 1-5/8 | 4-1/2 | 2593-881 | 50.63 |
| 1-7/16 | 3/4 | 1-5/8 | 3-7/8 | 2612-921 | 33.79 | – | – | – | – | – | – |
| 1-7/16 | 1 | 1-5/8 | 4-1/8 | 2612-922 | 36.40 | – | – | – | – | – | – |
| 1-1/2 | 3/4 | 1-5/8 | 3-7/8 | 2612-961 | 41.40 | – | – | 1-5/8 | 4-1/4 | 2593-960 | 60.69 |
| 1-1/2 | 1 | 1-5/8 | 4-1/8 | 2612-962 | 37.83 | – | – | 1-5/8 | 4-1/2 | 2593-961 | 55.49 |
| 1-1/2 | 1-1/4 | 1-5/8 | 4-1/8 | 2612-963 | 37.83 | – | – | 1-5/8 | 4-1/2 | 2593-962 | 55.49 |
| 1-5/8 | 3/4 | 1-5/8 | 4-1/8 | 2613-041 | 45.21 | – | – | – | – | – | – |
| 1-5/8 | 1-1/4 | 1-5/8 | 4-1/8 | 2613-042 | 45.21 | – | – | 1-5/8 | 4-1/2 | 2594-041 | 58.99 |
| 1-3/4 | 3/4 | 1-5/8 | 3-7/8 | 2613-121 | 47.60 | – | – | 1-5/8 | 4-1/4 | 2594-120 | 68.10 |
| 1-3/4 | 1-1/4 | 1-5/8 | 4-1/8 | 2613-122 | 47.60 | – | – | 1-5/8 | 4-1/2 | 2594-121 | 68.10 |
| 1-7/8 | 3/4 | 1-5/8 | 4-1/8 | 2613-200 | 47.60 | – | – | – | – | – | – |
| 1-7/8 | 1-1/4 | 1-5/8 | 4-1/8 | 2613-201 | 47.60 | – | – | 1-5/8 | 4-1/2 | 2594-201 | 71.07 |
| 2 | 3/4 | 1-5/8 | 4-1/8 | 2613-281 | 59.50 | – | – | 1-5/8 | 4-1/4 | 2594-280 | 80.60 |
| 2 | 1-1/4 | 1-5/8 | 4-1/8 | 2613-282 | 59.50 | – | – | 1-5/8 | 4-1/2 | 2594-281 | 86.21 |
| 2 | 1-1/4 | 2-1/2 | 5 | 2613-283 | 65.21 | – | – | – | – | – | – |
| 2 | 2 | 4 | 7-3/4 | 2613-284 | 192.03 | – | – | – | – | – | – |
| 2-1/4 | 1-1/4 | 1-5/8 | 4-1/8 | 2613-441 | 130.45 | – | – | – | – | – | – |
| 2-1/2 | 1-1/4 | 2 | 4-1/2 | 2613-602 | 142.85 | – | – | – | – | – | – |

† Limited Quantities

# Two Flute, Single End, End Mills

## High Speed Steel - R.H.C. - R.H.S.



### Metric Single End

| MILL. DIAM. (mm.) | SHANK DIAM. | Pittsburg® ALLEGHANY FLUTE LG'TH | Pittsburg® ALLEGHANY OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® American Made FLUTE LG'TH | Allegiance® American Made OVER. LG'TH | Allegiance® American Made ORDER NO. | Allegiance® American Made PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 3/8 | 3/8 | 2-5/16 | 2626-230 | $ 5.29 | 3/8 | 2-5/16 | 2620-230 | $8.67 |
| 3.5 | 3/8 | – | – | – | – | 7/16 | 2-3/8 | 2620-235 | 8.67 |
| 4.0 | 3/8 | 7/16 | 2-5/16 | 2626-240 | 5.29 | 7/16 | 2-3/8 | 2620-240 | 8.67 |
| 4.5 | 3/8 | – | – | – | – | 7/16 | 2-3/8 | 2620-245 | 8.84 |
| 5.0 | 3/8 | 1/2 | 2-5/16 | 2626-250 | 5.29 | 7/16 | 2-7/16 | 2620-250 | 8.84 |
| 5.5 | 3/8 | – | – | – | – | 1/2 | 2-7/16 | 2620-255 | 8.84 |
| 6.0 | 3/8 | 1/2 | 2-5/16 | 2626-260 | 5.29 | 1/2 | 2-7/16 | 2620-260 | 8.84 |
| 6.5 | 3/8 | – | – | – | – | 1/2 | 2-7/16 | 2620-265 | 8.84 |
| 7.0 | 3/8 | 9/16 | 2-5/16 | 2626-270 | 5.88 | 9/16 | 2-1/2 | 2620-270 | 8.84 |
| 7.5 | 3/8 | – | – | – | – | 9/16 | 2-1/2 | 2620-275 | 8.84 |
| 8.0 | 3/8 | 9/16 | 2-5/16 | 2626-280 | 5.88 | 9/16 | 2-1/2 | 2620-280 | 8.84 |
| 8.5 | 3/8 | – | – | – | – | 9/16 | 2-1/2 | 2620-285 | 8.84 |
| 9.0 | 3/8 | 9/16 | 2-5/16 | 2626-290 | 5.88 | 9/16 | 2-1/2 | 2620-290 | 8.84 |
| 9.5 | 3/8 | – | – | – | – | 3/4 | 2-1/2 | 2620-295 | 8.84 |
| 10.0 | 3/8 | 13/16 | 2-1/2 | 2626-300 | 5.88 | 3/4 | 2-1/2 | 2620-300 | 12.59 |
| 10.5 | 3/8 | – | – | – | – | 1 | 2-11/16 | 2620-305 | 12.80 |
| 11.0 | 3/8 | 13/16 | 2-1/2 | 2626-310 | 7.50 | 1 | 2-11/16 | 2620-310 | 12.80 |
| 11.5 | 3/8 | – | – | – | – | 1 | 2-11/16 | 2620-315 | 12.99 |
| 12.0 | 1/2 | 1 | 3 | 2626-321 | 7.50 | 1 | 3-1/4 | 2620-320 | 13.50 |
| 12.5 | 1/2 | – | – | – | – | 1-1/4 | 3-1/4 | 2620-325 | 13.50 |
| 13.0 | 1/2 | 1-1/8 | 3-1/8 | 2626-330 | 7.84 | 1-1/8 | 3-1/8 | 2620-330 | 15.73 |
| 13.5 | 1/2 | – | – | – | – | 1-1/8 | 3-1/8 | 2620-335 | 15.73 |
| 14.0 | 1/2 | 1-1/8 | 3-1/8 | 2626-340 | 7.84 | 1-1/8 | 3-1/8 | 2620-340 | 15.73 |
| 14.5 | 1/2 | – | – | – | – | 1-1/8 | 3-1/8 | 2620-345 | 16.74 |
| 15.0 | 1/2 | 1-1/8 | 3-1/8 | 2626-350 | 8.29 | 1-1/8 | 3-1/8 | 2620-350 | 16.74 |
| 16.0 | 5/8 | 1-3/8 | 3-3/4 | 2626-360 | 12.96 | 1-3/8 | 3-3/4 | 2620-360 | 17.87 |
| 17.0 | 5/8 | – | – | – | – | 1-5/8 | 3-3/4 | 2620-370 | 19.09 |
| 18.0 | 5/8 | 1-5/8 | 3-3/4 | 2626-380 | 12.96 | 1-5/8 | 3-3/4 | 2620-380 | 19.90 |
| 19.0 | 3/4 | – | – | – | – | 1-5/8 | 3-7/8 | 2620-390 | 20.51 |
| 20.0 | 5/8 | 1-1/2 | 3-3/4 | 2626-400 | 16.76 | 1-1/2 | 3-5/8 | 2620-400 | 23.85 |
| 21.0 | 5/8 | – | – | – | – | 1-7/8 | 4-1/8 | 2620-410 | 23.85 |
| 22.0 | 3/4 | 1-1/2 | 3-3/4 | 2626-420 | 17.54 | – | – | – | – |
| 22.0 | 7/8 | – | – | – | – | 1-7/8 | 4-1/8 | 2620-420 | 25.38 |
| 23.0 | 7/8 | – | – | – | – | 1-7/8 | 4-1/8 | 2620-430 | 29.44 |
| 24.0 | 3/4 | 1-1/2 | 3-3/4 | 2626-440 | 20.19 | – | – | – | – |
| 24.0 | 1 | – | – | – | – | 2 | 4-1/2 | 2620-440 | 30.46 |
| 25.0 | 3/4 | 2 | 4-1/8 | 2626-448 | 20.92 | – | – | – | – |
| 25.0 | 1 | – | – | – | – | 2 | 4-1/2 | 2620-450 | 30.46 |
| 30.0 | 1 | 2-1/8 | 4-1/2 | 2626-500 | 33.96 | – | – | – | – |
| 34.0 | 1 | 1-5/8 | 4-1/8 | 2626-540† | 47.10 | – | – | – | – |

† Limited Quantities

### Long, Extra Long & Long Flute

| MILL DIAM. | SHANK DIAM. | Pittsburg® ALLEGHANY FLUTE LG'TH | Pittsburg® ALLEGHANY OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® American Made ORDER NO. | Allegiance® American Made PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 1 | 3-1/16 | 2614-161 | $ 5.29 | – | – |
| 1/4 | 3/8 | 1-1/4 | 3-1/8 | – | – | 2595-161 | $11.36 |
| 5/16 | 3/8 | 1-1/4 | 3 | – | – | 2595-201 | 11.67 |
| 5/16 | 3/8 | 1-1/4 | 3-5/16 | 2614-201 | 5.29 | – | – |
| 3/8 | 3/8 | 1 | 2-3/4 | 2614-241 | 5.03 | – | – |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 2614-242 | 5.29 | 2595-241 | 11.45 |
| 1/2 | 1/2 | 1-1/2 | 3-1/2 | 2614-321 | 6.99 | 2595-320 | 12.80 |
| 1/2 | 1/2 | 2 | 4 | 2614-322 | 7.99 | 2595-321 | 14.31 |
| 5/8 | 1/2 | 2-3/8 | 4-1/2 | 2614-400† | 12.25 | – | – |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 2614-401 | 11.64 | – | – |
| 5/8 | 5/8 | 2 | 4-1/8 | 2614-402 | 12.25 | 2595-401 | 18.98 |
| 3/4 | 1/2 | 3-1/8 | 5-1/8 | 2614-480† | 20.89 | – | – |
| 3/4 | 3/4 | 2-1/4 | 4-1/2 | 2614-483 | 15.09 | 2595-481 | 17.97 |
| 3/4 | 3/4 | 2-1/2 | 4-3/4 | 2614-484† | 15.09 | – | – |
| 3/4 | 3/4 | 3 | 5-1/4 | 2614-485 | 21.21 | – | – |
| 7/8 | 7/8 | 2 | 4-1/4 | 2614-565† | 17.01 | – | – |
| 7/8 | 7/8 | 2-1/2 | 4-3/4 | 2614-566 | 19.01 | – | – |
| 7/8 | 7/8 | 3 | 5-1/4 | 2614-568† | 21.01 | – | – |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 2614-569 | 23.01 | – | – |
| 1 | 1 | 2 | 4-1/2 | 2614-647† | 19.85 | – | – |
| 1 | 1 | 2-1/2 | 5 | 2614-649 | 22.05 | – | – |
| 1 | 1 | 3 | 5-1/2 | 2614-650 | 24.26 | 2595-641 | 34.41 |
| 1-1/8 | 1 | 3 | 5-1/2 | 2614-727 | 34.06 | 2595-721 | 60.30 |
| 1-1/4 | 1 | 3 | 5-1/2 | 2614-804 | 39.45 | 2595-801 | 60.59 |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 2614-806 | 48.30 | 2595-802 | 57.55 |
| 1-1/4 | 1-1/4 | 3-1/2 | 6 | 2614-807† | 52.94 | – | – |
| 1-1/4 | 1-1/4 | 4-3/4 | 7-1/4 | 2614-809† | 54.08 | – | – |
| 1-3/8 | 1 | 3 | 5-1/2 | 2614-882 | 46.47 | – | – |
| 1-1/2 | 1-1/4 | 2-1/4 | 4-3/4 | 2614-961† | 44.84 | – | – |
| 1-1/2 | 1-1/4 | 3 | 5-1/2 | 2614-962 | 51.92 | 2595-961 | 71.70 |
| 1-5/8 | 1-1/4 | 2-1/4 | 4-3/4 | 2615-041† | 58.38 | – | – |
| 1-5/8 | 1-1/4 | 3 | 5-1/2 | 2615-042 | 67.60 | – | – |
| 1-3/4 | 1-1/4 | 3 | 5-1/2 | 2615-122 | 73.79 | 2596-121 | 87.80 |
| 1-7/8 | 1-1/4 | 2-1/4 | 4-3/4 | 2615-201† | 73.37 | – | – |
| 1-7/8 | 1-1/4 | 3 | 5-1/2 | 2615-202 | 84.95 | 2596-201 | 89.29 |
| 2 | 1-1/4 | 3 | 5-1/2 | 2615-282 | 95.21 | 2596-281 | 109.50 |

† Limited Quantities

### Long Reach (Extension Type)

| MILL DIAM. | SHANK DIAM. | LG'TH BELOW SHANK | CUT. EDGE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® American Made ORDER NO. | Allegiance® American Made PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 13/16 | 3/8 | 2-9/16 | 2618-081 | $7.33 | – | – |
| 3/16 | 3/8 | 1-1/8 | 1/2 | 2-7/8 | 2618-121 | 7.33 | – | – |
| 3/16 | 3/8 | 1-1/8 | 1/2 | 2-11/16 | – | – | 2597-121 | $15.07 |
| 1/4 | 3/8 | 1-1/2 | 5/8 | 3-1/16 | 2618-161 | 5.64 | 2597-161 | 15.56 |
| 5/16 | 3/8 | 1-3/4 | 3/4 | 3-5/16 | 2618-202 | 6.13 | 2597-201 | 16.04 |
| 3/8 | 3/8 | 1-3/4 | 3/4 | 3-5/16 | 2618-241 | 6.13 | 2597-241 | 16.55 |
| 1/2 | 1/2 | 2-1/4 | 1 | 4 | 2618-321 | 9.36 | 2597-321 | 17.50 |

† Limited Quantities

| MILL DIAM. | SHANK DIAM. | LG'TH BELOW SHANK | CUT. EDGE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® American Made ORDER NO. | Allegiance® American Made PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 5/8 | 1/2 | 2-3/4 | 1-3/8 | 4-5/8 | 2618-401 | $13.08 | – | – |
| 5/8 | 5/8 | 2-3/4 | 1-3/8 | 4-5/8 | 2618-402 | 13.08 | 2597-401 | $24.36 |
| 3/4 | 1/2 | 3-3/8 | 1-5/8 | 5-3/8 | 2618-481 | 16.91 | – | – |
| 3/4 | 3/4 | 3-3/8 | 1-5/8 | 5-3/8 | 2618-482 | 16.91 | 2597-481 | 30.76 |
| 7/8 | 7/8 | 4 | 2 | 6 | 2618-561 | 22.15 | – | – |
| 1 | 1 | 5 | 2-1/2 | 7-1/4 | 2618-641 | 29.74 | 2597-641 | 54.00 |
| 1-1/4 | 1-1/4 | 5 | 3 | 7-1/4 | 2618-801 | 45.43 | 2597-801 | 74.10 |

# M42 8% Cobalt – Two Flute End Mills

## Regular Length– Single End

3

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 2690-008 | $6.02 | 3/8 | 2-5/16 | 2604-008 | $8.39 |
| 5/32 | 3/8 | 7/16 | 2-5/16 | 2690-010 | 6.02 | – | – | – | – |
| 3/16 | 3/8 | 7/16 | 2-5/16 | 2690-012 | 6.02 | 7/16 | 2-3/8 | 2604-012 | 8.39 |
| 7/32 | 3/8 | 1/2 | 2-5/16 | 2690-014 | 6.02 | – | – | – | – |
| 1/4 | 3/8 | 1/2 | 2-5/16 | 2690-016 | 6.02 | 1/2 | 2-7/16 | 2604-016 | 8.39 |
| 9/32 | 3/8 | 9/16 | 2-5/16 | 2690-018 | 6.02 | – | – | – | – |
| 5/16 | 3/8 | 9/16 | 2-5/16 | 2690-020 | 6.02 | 9/16 | 2-1/2 | 2604-020 | 8.39 |
| 11/32 | 3/8 | 9/16 | 2-5/16 | 2690-022 | 6.02 | – | – | – | – |
| 3/8 | 3/8 | 9/16 | 2-5/16 | 2690-024 | 6.02 | 9/16 | 2-1/2 | 2604-024 | 8.39 |
| 13/32 | 3/8 | 13/16 | 2-1/2 | 2690-026 | 9.90 | – | – | – | – |
| 7/16 | 3/8 | 13/16 | 2-1/2 | 2690-028 | 8.55 | 13/16 | 2-11/16 | 2604-028 | 12.66 |
| 15/32 | 3/8 | 13/16 | 2-1/2 | 2690-030 | 9.90 | – | – | – | – |
| 1/2 | 3/8 | 13/16 | 2-1/2 | 2690-032 | 9.50 | – | – | – | – |
| 1/2 | 1/2 | 1 | 3 | 2690-033 | 9.50 | 1 | 3-1/4 | 2604-032 | 13.59 |
| 9/16 | 1/2 | 1-1/8 | 3-1/8 | 2690-036 | 11.96 | – | – | – | – |
| 5/8 | 1/2 | 1-1/8 | 3-1/8 | 2690-040 | 13.55 | – | – | – | – |
| 5/8 | 5/8 | 1-5/16 | 3-7/16 | 2690-041 | 13.55 | 1-5/16 | 3-3/4 | 2604-040 | 17.47 |
| 11/16 | 5/8 | 1-5/16 | 3-7/16 | 2690-044 | 19.01 | – | – | – | – |
| 3/4 | 1/2 | 1-5/16 | 3-5/16 | 2690-048 | 19.62 | – | – | – | – |
| 3/4 | 5/8 | 1-5/16 | 3-7/16 | 2690-049 | 19.62 | 1-5/16 | 3-7/16 | 2604-047 | 19.95 |
| 3/4 | 3/4 | 1-5/16 | 3-9/16 | 2690-050 | 19.62 | 1-5/16 | 3-7/8 | 2604-048 | 19.95 |
| 13/16 | 3/4 | 1-1/2 | 3-3/4 | 2690-052 | 26.22 | – | – | – | – |

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1/2 | 1-1/2 | 3-5/8 | 2690-056 | $23.28 | – | – | – | – |
| 7/8 | 5/8 | 1-1/2 | 3-5/8 | 2690-057 | 23.28 | – | – | – | – |
| 7/8 | 3/4 | 1-1/2 | 3-3/4 | 2690-058 | 23.28 | 1-1/2 | 3-3/4 | 2604-058 | $27.66 |
| 7/8 | 7/8 | 1-1/2 | 3-3/4 | 2690-059 | 23.28 | – | – | – | – |
| 15/16 | 3/4 | 1-1/2 | 3-3/4 | 2690-060 | 32.24 | – | – | – | – |
| 1 | 1/2 | 1-1/2 | 3-5/8 | 2690-064 | 28.93 | – | – | – | – |
| 1 | 5/8 | 1-1/2 | 3-5/8 | 2690-065 | 28.93 | – | – | – | – |
| 1 | 3/4 | 1-1/2 | 3-3/4 | 2690-066 | 28.93 | 1-1/2 | 3-3/4 | 2604-063 | 34.04 |
| 1 | 1 | 1-5/8 | 4-1/8 | 2690-067 | 28.93 | 1-5/8 | 4-1/2 | 2604-064 | 33.79 |
| 1-1/8 | 3/4 | 1-5/8 | 3-7/8 | 2690-068 | 41.30 | – | – | – | – |
| 1-1/8 | 1 | 1-5/8 | 4-1/8 | 2690-069 | 41.30 | – | – | – | – |
| 1-1/4 | 3/4 | 1-5/8 | 3-7/8 | 2690-078 | 45.50 | – | – | – | – |
| 1-1/4 | 1 | 1-5/8 | 4-1/8 | 2690-079 | 45.50 | – | – | – | – |
| 1-1/4 | 1-1/4 | 1-5/8 | 4-1/8 | 2690-080 | 45.50 | 1-5/8 | 4-1/8 | 2604-080 | 53.20 |
| 1-3/8 | 1 | 1-5/8 | 4-1/8 | 2690-084 | 66.30 | – | – | – | – |
| 1-1/2 | 3/4 | 1-5/8 | 4-1/8 | 2690-094 | 59.98 | – | – | – | – |
| 1-1/2 | 1 | 1-5/8 | 4-1/8 | 2690-095 | 59.98 | – | – | – | – |
| 1-1/2 | 1-1/4 | 1-5/8 | 4-1/8 | 2690-096 | 59.98 | 1-5/8 | 4-1/8 | 2604-096 | 71.17 |
| 1-3/4 | 1-1/4 | 1-5/8 | 4-1/8 | 2690-112 | 90.94 | – | – | – | – |
| 2 | 1-1/4 | 1-5/8 | 4-1/8 | 2690-128 | 104.71 | – | – | – | – |

## Double End

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3-1/16 | 2700-008 | $ 9.10 | 3/8 | 3-1/16 | 2604-208 | $11.90 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 2700-010 | 9.10 | 7/16 | 3-1/8 | 2604-210 | 13.73 |
| 3/16 | 3/8 | 7/16 | 3-1/8 | 2700-012 | 9.10 | 7/16 | 3-1/4 | 2604-212 | 11.90 |
| 7/32 | 3/8 | 1/2 | 3-1/8 | 2700-014 | 9.10 | 1/2 | 3-1/4 | 2604-214 | 13.73 |
| 1/4 | 3/8 | 1/2 | 3-1/8 | 2700-016 | 9.10 | 1/2 | 3-3/8 | 2604-216 | 12.21 |
| 9/32 | 3/8 | 9/16 | 3-1/8 | 2700-018 | 9.10 | 9/16 | 3-3/8 | 2604-218 | 13.73 |
| 5/16 | 3/8 | 9/16 | 3-1/8 | 2700-020 | 9.10 | 9/16 | 3-1/2 | 2604-220 | 11.90 |
| 11/32 | 3/8 | 9/16 | 3-1/8 | 2700-022 | 9.10 | – | – | – | – |
| 3/8 | 3/8 | 9/16 | 3-1/8 | 2700-024 | 9.10 | 9/16 | 3-1/2 | 2604-224 | 12.08 |
| 13/32 | 1/2 | 13/16 | 3-3/4 | 2700-026 | 14.27 | 13/16 | 3-3/4 | 2604-226 | 21.05 |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 2700-028 | 14.27 | 13/16 | 3-3/4 | 2604-228 | 18.11 |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 2700-032 | 14.27 | 13/16 | 4-1/8 | 2604-232 | 18.17 |
| 9/16 | 5/8 | – | – | – | – | 1-1/8 | 4-1/2 | 2604-236 | 25.25 |
| 5/8 | 5/8 | 1-1/8 | 4-1/2 | 2700-040 | 19.03 | 1-1/8 | 5 | 2604-240 | 25.96 |
| 3/4 | 3/4 | 1-5/16 | 5 | 2700-048 | 24.74 | 1-5/16 | 5-5/8 | 2604-248 | 32.51 |
| 7/8 | 7/8 | 1-9/16 | 5-1/2 | 2700-056 | 34.94 | 1-9/16 | 5-1/2 | 2604-256 | 40.85 |
| 1 | 1 | 1-5/8 | 5-7/8 | 2700-064 | 40.55 | 1-5/8 | 5-7/8 | 2604-264 | 47.59 |

† Limited Quantities

## Ball End Single End

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 2690-208 | $13.67 |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 2690-212 | 14.60 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 2690-216 | 14.60 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 2690-220 | 16.02 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 2690-224 | 16.02 |
| 1/2 | 1/2 | 1 | 3 | 2690-232 | 19.75 |
| 5/8 | 5/8 | 1-3/8 | 3-1/2 | 2690-240 | 29.06 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 2690-248 | 33.61 |
| 1 | 1 | 2-1/4 | 4-3/4 | 2690-264 | 53.46 |
| 1-1/4 | 1-1/4 | 2-1/2 | 5 | 2690-280 | 63.01 |
| 1-1/2 | 1-1/4 | 2-1/2 | 5 | 2690-296 | 90.41 |

# Two Flute, Single End, End Mills

## High Speed Steel

### Miniature End Mills - Two Flute - Single End - R.H.C. R.H.S.

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| **STUB LENGTH** | | | | | |
| 1/32 | 3/16 | 3/64 | 1 | 2610-002 | $4.48 |
| 3/64 | 3/16 | 1/16 | 1 | 2610-003 | 4.48 |
| 1/16 | 3/16 | 3/32 | 1 | 2610-004 | 4.48 |
| 5/64 | 3/16 | 5/32 | 1 | 2610-005 | 4.48 |
| 3/32 | 3/16 | 5/32 | 1 | 2610-006 | 4.34 |
| 7/64 | 3/16 | 3/16 | 1-1/8 | 2610-007 | 4.34 |
| 1/8 | 3/16 | 3/16 | 1-1/8 | 2610-008 | 4.34 |
| 9/64 | 3/16 | 7/32 | 1-1/4 | 2610-009 | 4.34 |
| 5/32 | 3/16 | 1/4 | 1-1/4 | 2610-010 | 4.34 |
| 11/64 | 3/16 | 9/32 | 1-1/2 | 2610-011 | 4.34 |
| 3/16 | 3/16 | 9/32 | 1-1/2 | 2610-012 | 4.34 |
| **REGULAR LENGTH** | | | | | |
| 1/32 | 3/16 | 3/32 | 1-1/8 | 2610-022 | 4.48 |
| 3/64 | 3/16 | 5/32 | 1-1/8 | 2610-023 | 4.48 |
| 1/16 | 3/16 | 7/32 | 1-1/8 | 2610-024 | 4.48 |
| 5/64 | 3/16 | 1/4 | 1-1/8 | 2610-025 | 4.48 |
| 3/32 | 3/16 | 5/16 | 1-1/8 | 2610-026 | 4.34 |
| 7/64 | 3/16 | 11/32 | 1-5/16 | 2610-027 | 4.34 |
| 1/8 | 3/16 | 3/8 | 1-5/16 | 2610-028 | 4.34 |
| 9/64 | 3/16 | 13/32 | 1-7/16 | 2610-029 | 4.34 |
| 5/32 | 3/16 | 7/16 | 1-7/16 | 2610-030 | 4.34 |
| 11/64 | 3/16 | 15/32 | 1-11/16 | 2610-031 | 4.34 |
| 3/16 | 3/16 | 1/2 | 1-11/16 | 2610-032 | 4.34 |
| **LONG LENGTH** | | | | | |
| 1/32 | 3/16 | 3/32 | 1-11/16 | 2610-042† | 4.48 |
| 1/8 | 3/16 | 3/8 | 1-11/16 | 2610-048† | 4.48 |
| 5/32 | 3/16 | 7/16 | 1-5/8 | 2610-050† | 4.48 |

† Limited Quantities

### Left Hand - Two Flute - L.H.C. L.H.S.

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-3/8 | 2620-008† | $5.43 |
| 3/16 | 3/8 | 3/8 | 2-3/8 | 2620-012† | 5.43 |
| 1/4 | 3/8 | 1/2 | 2-3/8 | 2620-016† | 5.43 |
| 5/16 | 3/8 | 9/16 | 2-3/8 | 2620-020† | 5.43 |
| 3/8 | 3/8 | 9/16 | 2-3/8 | 2620-024† | 5.43 |
| 7/16 | 3/8 | 13/16 | 2-1/2 | 2620-028† | 7.05 |
| 1/2 | 1/2 | 1 | 3 | 2620-033† | 7.05 |
| 9/16 | 1/2 | 1-1/8 | 3-1/8 | 2620-036† | 11.22 |
| 5/8 | 1/2 | 1-1/8 | 3-1/8 | 2620-040† | 11.22 |
| 5/8 | 5/8 | 1-5/16 | 3-7/16 | 2620-041† | 11.22 |
| 3/4 | 1/2 | 1-5/16 | 3-5/16 | 2620-048† | 12.75 |
| 3/4 | 5/8 | 1-1/2 | 3-7/16 | 2620-049† | 12.75 |
| 7/8 | 5/8 | 1-1/2 | 3-5/8 | 2620-056† | 16.17 |
| 7/8 | 7/8 | 1-1/2 | 3-3/4 | 2620-057† | 16.17 |
| 1 | 5/8 | 1-1/2 | 3-5/8 | 2620-064† | 18.96 |
| 1 | 1 | 1-5/16 | 3-5/16 | 2620-065† | 18.96 |
| 1-1/8 | 7/8 | 1-5/8 | 3-7/8 | 2620-072† | 28.89 |
| 1-1/8 | 1 | 1-5/8 | 4-1/8 | 2620-073† | 31.91 |
| 1-1/4 | 1 | 1-5/8 | 4-1/8 | 2620-080† | 32.71 |
| 1-3/8 | 1 | 1-5/8 | 4-1/8 | 2620-088† | 37.17 |
| 1-1/2 | 1 | 1-5/8 | 4-1/8 | 2620-096† | 41.61 |
| 1-1/2 | 1-1/4 | 1-5/8 | 4-1/8 | 2620-097† | 41.61 |
| 1-5/8 | 1-1/4 | 1-5/8 | 4-1/8 | 2620-104† | 49.73 |
| 1-3/4 | 1-1/4 | 1-5/8 | 4-1/8 | 2620-112† | 52.36 |
| 1-7/8 | 1-1/4 | 1-5/8 | 4-1/8 | 2620-120† | 52.36 |
| 2 | 1-1/4 | 1-5/8 | 4-1/8 | 2620-128† | 65.45 |

† Limited Quantities

# Stub Flute

## Vertical Mill and Bridgeport

| MILL DIA. | SHANK DIA. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/2 | 1/2 | 3/4 | 2-1/8 | 2713-321† | $8.58 |
| 3/4 | 1/2 | 5/8 | 2-5/8 | – | – |
| 7/8 | 1/2 | 5/8 | 2-5/8 | 2713-561† | 10.83 |
| 1 | 1/2 | 3/4 | 2-3/4 | 2713-641† | 12.63 |
| 1 | 5/8 | 3/4 | 2-7/8 | 2713-642† | 12.93 |
| 1 | 3/4 | 3/4 | 3 | 2713-643† | 12.93 |
| 1-1/8 | 1/2 | 3/4 | 2-3/4 | 2713-721† | 19.44 |
| 1-1/8 | 5/8 | 3/4 | 2-7/8 | 2713-722† | 19.44 |
| 1-1/8 | 3/4 | 3/4 | 3 | 2713-723† | 19.44 |
| 1-1/4 | 1/2 | 3/4 | 2-3/4 | 2713-801† | 20.49 |
| 1-1/4 | 5/8 | 3/4 | 2-7/8 | – | – |
| 1-1/4 | 3/4 | 3/4 | 3 | 2713-803† | 20.49 |
| 1-3/8 | 5/8 | 3/4 | 2-7/8 | 2713-881† | 21.18 |
| 1-3/8 | 3/4 | 3/4 | 3 | 2713-882† | 21.18 |
| 1-1/2 | 5/8 | 3/4 | 2-7/8 | 2713-961† | 22.98 |
| 1-1/2 | 3/4 | 3/4 | 3 | 2713-962† | 22.98 |

† Limited Quantities

# Miniature, Two Flute, End Mills

## 3/16" Shank – Double End – R.H.S. – R.H.C.

### High Speed Steel - Stub Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | SQUARE END ORDER NO. | SQUARE END PRICE EACH | BALL END ORDER NO. | BALL END PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/32 | 3/16 | 3/64 | 2 | 2610-082 | $6.45 | 2610-142 | $10.07 |
| 3/64 | 3/16 | 1/16 | 2 | 2610-083 | 6.45 | 2610-143 | 10.07 |
| 1/16 | 3/16 | 3/32 | 2 | 2610-084 | 6.45 | 2610-144 | 10.07 |
| 5/64 | 3/16 | 1/8 | 2 | 2610-085 | 6.45 | 2610-145 | 10.07 |
| 3/32 | 3/16 | 9/64 | 2 | 2610-086 | 6.45 | 2610-146 | 9.51 |
| 7/64 | 3/16 | 5/32 | 2 | 2610-087 | 6.45 | 2610-147 | 9.51 |
| 1/8 | 3/16 | 3/16 | 2 | 2610-088 | 6.45 | 2610-148 | 9.51 |
| 9/64 | 3/16 | 7/32 | 2 | 2610-089 | 6.45 | 2610-149 | 9.51 |
| 5/32 | 3/16 | 15/64 | 2 | 2610-090 | 6.45 | 2610-150 | 9.51 |
| 11/64 | 3/16 | 1/4 | 2 | 2610-091 | 6.45 | 2610-151 | 9.51 |
| 3/16 | 3/16 | 9/32 | 2 | 2610-092 | 6.45 | 2610-152 | 9.51 |

### M42 8% Cobalt - Stub Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/32 | 3/16 | 3/64 | 2 | 2701-142 | $7.75 |
| 3/64 | 3/16 | 1/16 | 2 | 2701-143 | 7.75 |
| 1/16 | 3/16 | 3/32 | 2 | 2701-144 | 7.75 |
| 5/64 | 3/16 | 1/8 | 2 | 2701-145 | 7.75 |
| 3/32 | 3/16 | 9/64 | 2 | 2701-146 | 7.75 |
| 7/64 | 3/16 | 5/32 | 2 | 2701-147 | 7.75 |
| 1/8 | 3/16 | 3/16 | 2 | 2701-148 | 7.75 |
| 9/64 | 3/16 | 7/32 | 2 | 2701-149 | 7.75 |
| 5/32 | 3/16 | 15/64 | 2 | 2701-150 | 7.75 |
| 11/64 | 3/16 | 1/4 | 2 | 2701-151 | 7.75 |
| 3/16 | 3/16 | 9/32 | 2 | 2701-152 | 7.75 |

### High Speed Steel - Regular Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | SQUARE END ORDER NO. | SQUARE END PRICE EACH | BALL END ORDER NO. | BALL END PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/32 | 3/16 | 3/32 | 2-1/4 | 2610-102 | $5.80 | 2610-162 | $10.07 |
| 3/64 | 3/16 | 9/64 | 2-1/4 | 2610-103 | 5.80 | 2610-163 | 10.07 |
| 1/16 | 3/16 | 3/16 | 2-1/4 | 2610-104 | 5.80 | 2610-164 | 9.51 |
| 5/64 | 3/16 | 15/64 | 2-1/4 | 2610-105 | 5.80 | 2610-165 | 9.51 |
| 3/32 | 3/16 | 9/32 | 2-1/4 | 2610-106 | 5.80 | 2610-166 | 9.51 |
| 7/64 | 3/16 | 21/64 | 2-1/4 | 2610-107 | 5.80 | 2610-167 | 9.51 |
| 1/8 | 3/16 | 3/8 | 2-1/4 | 2610-108 | 5.80 | 2610-168 | 9.51 |
| 9/64 | 3/16 | 13/32 | 2-1/4 | 2610-109 | 5.80 | 2610-169 | 9.51 |
| 5/32 | 3/16 | 7/16 | 2-1/4 | 2610-110 | 5.80 | 2610-170 | 9.51 |
| 11/64 | 3/16 | 1/2 | 2-1/4 | 2610-111 | 5.80 | 2610-171 | 9.51 |
| 3/16 | 3/16 | 1/2 | 2-1/4 | 2610-112 | 5.80 | 2610-172 | 9.51 |

### M42 8% Cobalt - Regular Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/32 | 3/16 | 3/32 | 2-1/4 | 2701-162 | $9.00 |
| 3/64 | 3/16 | 9/64 | 2-1/4 | 2701-163 | 9.00 |
| 1/16 | 3/16 | 3/16 | 2-1/4 | 2701-164 | 8.30 |
| 5/64 | 3/16 | 15/64 | 2-1/4 | 2701-165 | 8.30 |
| 3/32 | 3/16 | 9/32 | 2-1/4 | 2701-166 | 8.30 |
| 7/64 | 3/16 | 21/64 | 2-1/4 | 2701-167 | 8.30 |
| 1/8 | 3/16 | 3/8 | 2-1/4 | 2701-168 | 8.30 |
| 9/64 | 3/16 | 13/32 | 2-1/4 | 2701-169 | 8.30 |
| 5/32 | 3/16 | 7/16 | 2-1/4 | 2701-170 | 8.30 |
| 11/64 | 3/16 | 1/2 | 2-1/4 | 2701-171 | 8.30 |
| 3/16 | 3/16 | 1/2 | 2-1/4 | 2701-172 | 8.30 |

### High Speed Steel - Long Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | SQUARE END ORDER NO. | SQUARE END PRICE EACH | BALL END ORDER NO. | BALL END PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/32 | 3/16 | 7/32 | 2-1/2 | – | – | 2610-182 | $12.41 |
| 1/16 | 3/16 | 7/32 | 2-1/2 | 2610-124 | $7.60 | 2610-184 | 12.41 |
| 5/64 | 3/16 | 1/4 | 2-1/2 | 2610-125 | 7.60 | – | – |
| 3/32 | 3/16 | 9/32 | 2-5/8 | 2610-126 | 7.60 | 2610-186 | 12.41 |
| 7/64 | 3/16 | 9/32 | 2-5/8 | 2610-127 | 7.60 | – | – |
| 1/8 | 3/16 | 3/4 | 3-1/8 | 2610-128 | 7.60 | 2610-188 | 12.41 |
| 9/64 | 3/16 | 3/4 | 3-1/8 | 2610-129 | 7.60 | – | – |
| 5/32 | 3/16 | 7/8 | 3-1/4 | 2610-130 | 7.60 | 2610-190 | 12.41 |
| 11/64 | 3/16 | 7/8 | 3-1/4 | 2610-131 | 7.60 | – | – |
| 3/16 | 3/16 | 1 | 3-3/8 | 2610-132 | 7.60 | 2610-192 | 12.41 |

### M42 8% Cobalt - Long Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 7/32 | 2-1/2 | 2701-184 | $11.70 |
| 5/64 | 3/16 | 1/4 | 2-1/2 | 2701-185 | 11.70 |
| 3/32 | 3/16 | 9/32 | 2-5/8 | 2701-186 | 11.70 |
| 7/64 | 3/16 | 9/32 | 2-5/8 | 2701-187 | 11.70 |
| 1/8 | 3/16 | 3/4 | 3-1/8 | 2701-188 | 11.70 |
| 9/64 | 3/16 | 3/4 | 3-1/8 | 2701-189 | 11.70 |
| 5/32 | 3/16 | 7/8 | 3-1/4 | 2701-190 | 11.70 |
| 11/64 | 3/16 | 7/8 | 3-1/4 | 2701-191 | 11.70 |
| 3/16 | 3/16 | 1 | 3-3/8 | 2701-192 | 11.70 |

# Two Flute, Double End, End Mills

## High Speed Steel – R.H.C. – R.H.S.

Uncoated

TiN Coated

| SIZE | | | | UNCOATED Pittsburg® ALLEGHANY | | TiN COATED Pittsburg® ALLEGHANY | | UNCOATED ALLEGIANCE® AMERICAN MADE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
| 1/8 | 3/8 | 3/8 | 3-1/16 | 2636-108 | $ 5.38 | 2636-408 | $ 9.70 | 3/8 | 3-1/16 | 2592-708 | $10.35 |
| 9/64 | 3/8 | 7/16 | 3-1/8 | 2636-109 | 6.27 | – | – | – | – | – | – |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 2636-110 | 5.38 | – | – | 7/16 | 3-1/8 | 2592-710 | 11.08 |
| 11/64 | 3/8 | 7/16 | 3-1/8 | 2636-111 | 6.27 | – | – | – | – | – | – |
| 3/16 | 3/8 | 7/16 | 3-1/8 | 2636-112 | 5.38 | 2636-412 | 9.70 | 7/16 | 3-1/4 | 2592-712 | 10.35 |
| 13/64 | 3/8 | 1/2 | 3-1/8 | 2636-113 | 6.38 | – | – | – | – | – | – |
| 7/32 | 3/8 | 1/2 | 3-1/8 | 2636-114 | 5.38 | – | – | 1/2 | 3-1/4 | 2592-714 | 11.08 |
| 15/64 | 3/8 | 1/2 | 3-1/8 | 2636-115 | 7.51 | – | – | – | – | – | – |
| 1/4 | 3/8 | 1/2 | 3-1/8 | 2636-116 | 5.38 | 2636-416 | 9.70 | 1/2 | 3-3/8 | 2592-716 | 10.55 |
| 17/64 | 3/8 | 9/16 | 3-1/8 | 2636-117 | 7.51 | – | – | – | – | – | – |
| 9/32 | 3/8 | 9/16 | 3-1/8 | 2636-118 | 5.55 | – | – | 9/16 | 3-3/8 | 2592-718 | 11.17 |
| 19/64 | 3/8 | 9/16 | 3-1/8 | 2636-119 | 7.51 | – | – | – | – | – | – |
| 5/16 | 3/8 | 9/16 | 3-1/8 | 2636-120 | 5.55 | 2636-420 | 9.70 | 9/16 | 3-1/2 | 2592-720 | 10.35 |
| 21/64 | 3/8 | 9/16 | 3-1/8 | 2636-121 | 7.51 | – | – | – | – | – | – |
| 11/32 | 3/8 | 9/16 | 3-1/8 | 2636-122 | 5.55 | – | – | 9/16 | 3-1/2 | 2592-722 | 11.08 |
| 23/64 | 3/8 | 9/16 | 3-1/8 | 2636-123 | 7.51 | – | – | – | – | – | – |
| 3/8 | 3/8 | 9/16 | 3-1/8 | 2636-124 | 5.55 | 2636-424 | 9.70 | 9/16 | 3-1/2 | 2592-724 | 10.55 |
| 25/64 | 1/2 | 13/16 | 3-3/4 | 2636-125 | 9.56 | – | – | 13/16 | 4-1/8 | 2592-725† | 18.60 |
| 13/32 | 1/2 | 13/16 | 3-3/4 | 2636-126 | 9.22 | – | – | 13/16 | 4-1/8 | 2592-726 | 16.74 |
| 27/64 | 1/2 | 13/16 | 3-3/4 | 2636-127 | 9.43 | – | – | – | – | – | – |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 2636-128 | 9.22 | 2636-428 | 14.12 | 13/16 | 4-1/8 | 2592-728 | 15.93 |
| 29/64 | 1/2 | 13/16 | 3-3/4 | 2636-129 | 9.43 | – | – | – | – | – | – |
| 15/32 | 1/2 | 13/16 | 3-3/4 | 2636-130 | 9.22 | – | – | 13/16 | 4-1/8 | 2592-730 | 17.70 |
| 31/64 | 1/2 | 13/16 | 3-3/4 | 2636-131 | 9.43 | – | – | – | – | – | – |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 2636-132 | 9.22 | 2636-432 | 14.23 | 13/16 | 4-1/8 | 2592-732 | 15.93 |
| 17/32 | 5/8 | 1-1/8 | 4-1/2 | 2636-134 | 14.71 | – | – | – | – | – | – |
| 9/16 | 5/8 | 1-1/8 | 4-1/2 | 2636-136 | 12.31 | – | – | 1-1/8 | 5 | 2592-736 | 22.53 |
| 19/32 | 5/8 | 1-1/8 | 4-1/2 | 2636-138 | 14.71 | – | – | – | – | – | – |
| 5/8 | 5/8 | 1-1/8 | 4-1/2 | 2636-140 | 12.31 | 2636-440 | 20.88 | 1-1/8 | 5 | 2592-740 | 22.02 |
| 21/32 | 3/4 | 1-5/16 | 5 | 2636-142 | 17.24 | – | – | – | – | – | – |
| 11/16 | 3/4 | 1-5/16 | 5 | 2636-144 | 16.01 | – | – | 1-5/16 | 5-5/8 | 2592-744 | 27.82 |
| 23/32 | 3/4 | 1-5/16 | 5 | 2636-146 | 17.24 | – | – | – | – | – | – |
| 3/4 | 3/4 | 1-5/16 | 5 | 2636-148 | 16.01 | 2636-448 | 25.60 | 1-5/16 | 5-5/8 | 2592-748 | 27.82 |
| 13/16 | 7/8 | 1-9/16 | 5-1/2 | 2636-152 | 18.24 | – | – | 1-9/16 | 6-1/8 | 2592-752 | 35.02 |
| 27/32 | 7/8 | 1-9/16 | 5-1/2 | 2636-154 | 23.71 | – | – | – | – | – | – |
| 7/8 | 7/8 | 1-9/16 | 5-1/2 | 2636-156 | 18.24 | – | – | 1-9/16 | 6-1/8 | 2592-756 | 35.02 |
| 29/32 | 1 | 1-5/8 | 5-7/8 | 2636-158 | 30.97 | – | – | – | – | – | – |
| 15/16 | 1 | 1-5/8 | 5-7/8 | 2636-160 | 23.82 | – | – | 1-5/8 | 6-3/8 | 2592-760 | 43.04 |
| 31/32 | 1 | 1-5/8 | 5-7/8 | 2636-162 | 32.40 | – | – | – | – | – | – |
| 1 | 1 | 1-5/8 | 5-7/8 | 2636-164 | 24.92 | 2636-464 | 35.49 | 1-5/8 | 6-3/8 | 2592-764 | 43.04 |

† Limited Quantities

# Two Flute, Double End, End Mills

3

## High Speed Steel

### Metric Double End - R.H.S. - R.H.C.

| MILL. DIAM. (mm.) | SHANK DIAM. | Pittsburg® ALLEGHANY — FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH | Allegiance® AMERICAN MADE — FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 3/8 | 3/8 | 3-1/16 | 2628-530 | $8.48 | 3/8 | 3-1/16 | 2636-830 | $10.96 |
| 3.5 | 3/8 | – | – | – | – | 7/16 | 3-1/4 | 2636-835 | 11.59 |
| 4.0 | 3/8 | 7/16 | 3-1/8 | 2628-540 | 8.48 | 7/16 | 3-1/4 | 2636-840 | 10.96 |
| 4.5 | 3/8 | – | – | – | – | 7/16 | 3-1/4 | 2636-845 | 10.96 |
| 5.0 | 3/8 | 1/2 | 3-1/8 | 2628-550 | 8.48 | 7/16 | 3-1/4 | 2636-850 | 10.96 |
| 5.5 | 3/8 | – | – | – | – | 1/2 | 3-1/4 | 2636-855 | 11.59 |
| 6.0 | 3/8 | 1/2 | 3-1/8 | 2628-560 | 8.48 | 1/2 | 3-3/8 | 2636-860 | 11.20 |
| 6.5 | 3/8 | – | – | – | – | 1/2 | 3-3/8 | 2636-865 | 11.20 |
| 7.0 | 3/8 | 9/16 | 3-1/8 | 2628-570 | 8.48 | 9/16 | 3-3/8 | 2636-870 | 11.20 |
| 7.5 | 3/8 | – | – | – | – | 9/16 | 3-3/8 | 2636-875 | 11.20 |
| 8.0 | 3/8 | 9/16 | 3-1/2 | 2628-580 | 8.48 | 9/16 | 3-1/2 | 2636-880 | 10.96 |
| 8.5 | 3/8 | – | – | – | – | 9/16 | 3-1/2 | 2636-885 | 11.59 |
| 9.0 | 3/8 | – | – | – | – | 9/16 | 3-1/2 | 2636-890 | 11.20 |
| 9.5 | 3/8 | – | – | – | – | 9/16 | 3-1/2 | 2636-895 | 11.20 |
| 10.0 | 1/2 | 13/16 | 3-3/4 | 2628-600 | 8.48 | 13/16 | 4-1/8 | 2636-900 | 17.10 |
| 10.5 | 1/2 | – | – | – | – | 13/16 | 4-1/8 | 2636-905 | 16.49 |
| 11.0 | 1/2 | – | – | – | – | 13/16 | 4-1/8 | 2636-910 | 16.49 |
| 11.5 | 1/2 | – | – | – | – | 13/16 | 4-1/8 | 2636-915 | 17.63 |
| 12.0 | 1/2 | 13/16 | 3-3/4 | 2628-620 | 12.54 | 13/16 | 4-1/8 | 2636-920 | 16.49 |
| 13.0 | 5/8 | – | – | – | – | 1-1/8 | 5 | 2636-930 | 24.69 |
| 14.0 | 5/8 | 1-1/8 | 4-1/2 | 2628-640 | 21.17 | 1-1/8 | 5 | 2636-940 | 24.69 |
| 15.0 | 5/8 | – | – | – | – | 1-1/8 | 5 | 2636-950 | 23.35 |
| 16.0 | 3/4 | 1-5/16 | 5 | 2628-660 | 21.17 | 1-5/16 | 5-5/8 | 2636-960 | 29.12 |
| 18.0 | 3/4 | 1-5/16 | 5 | 2628-680 | 26.80 | 1-5/16 | 5-5/8 | 2636-980 | 29.12 |
| 20.0 | 7/8 | 1-9/16 | 5-1/2 | 2628-700 | 26.80 | 1-5/16 | 5-5/8 | 2636-991 | 36.65 |
| 22.0 | 1 | 1-5/8 | 5-7/8 | 2628-720 | 33.71 | – | – | – | – |
| 24.0 | 1 | 1-5/8 | 5-7/8 | 2628-740 | 41.01 | – | – | – | – |

### Straight Flute - R.H.C.

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | Pittsburg® ALLEGHANY — ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3 | 2636-508† | $6.80 |
| 3/16 | 3/8 | 7/16 | 3 | 2636-512† | 6.80 |
| 1/4 | 3/8 | 1/2 | 3 | 2636-516† | 6.80 |
| 5/16 | 3/8 | 9/16 | 3 | 2636-520† | 6.80 |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 2636-528† | 9.68 |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 2636-532† | 10.03 |
| 5/8 | 5/8 | 1-1/8 | 3-7/16 | 2636-540† | 14.31 |
| 3/4 | 3/4 | 1- 5/16 | 4-1/2 | 2636-548† | 18.87 |
| 7/8 | 7/8 | 1-9/16 | 5 | 2636-556† | 24.96 |
| 1 | 5/8 | 1-5/8 | 5-1/2 | 2636-564† | 32.76 |

### Huot End Mill Dispenser

1

Smaller version of our master dispensers. Separates and organizes end mills from 1/8" to 1". 3 compartments for 1/8 - 1/4" - 3/8 - 1/2 - 3/4". 2 compartments for 3/16 - 6/16 - 7-16 - 5/8 - 1".
1 compartment for 9/16 - 11/16 - 7/8".
Measures 7-3/8" x 7-3/4" x 14-5/8".
Shipping Weight: 10-1/4 lbs. each.

**Order No. 1919-395**
**PRICE EACH – $80.50**

### Left Hand Spiral - L.H.C.

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | Pittsburg® ALLEGHANY — ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3-1/8 | 2636-708† | $5.98 |
| 3/16 | 3/8 | 7/16 | 3-1/8 | 2636-712† | 5.98 |
| 7/32 | 3/8 | 1/2 | 3-1/8 | 2636-714† | 5.98 |
| 1/4 | 3/8 | 1/2 | 3-1/8 | 2636-716† | 5.98 |
| 9/32 | 3/8 | 9/16 | 3-1/8 | 2636-718† | 5.98 |
| 5/16 | 3/8 | 9/16 | 3-1/8 | 2636-720† | 5.98 |
| 11/32 | 3/8 | 9/16 | 3-1/8 | 2636-722† | 5.98 |
| 3/8 | 3/8 | 9/16 | 3-1/8 | 2636-724† | 5.98 |
| 13/32 | 1/2 | 13/16 | 3-3/4 | 2636-726† | 7.23 |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 2636-728† | 7.23 |
| 15/32 | 1/2 | 13/16 | 3-3/4 | 2636-730† | 7.23 |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 2636-732† | 7.23 |
| 9/16 | 5/8 | 1-1/8 | 4-1/2 | 2636-736† | 11.22 |
| 5/8 | 5/8 | 1-1/8 | 4-1/2 | 2636-740† | 13.98 |
| 3/4 | 3/4 | 1-5/16 | 5 | 2636-748† | 22.11 |
| 7/8 | 7/8 | 1-9/16 | 5-1/2 | 2636-756† | 28.02 |
| 1 | 1 | 1-5/8 | 5-7/8 | 2636-764† | 34.11 |

### Huot Master End Mill Dispenser

1

All steel cabinet with plastic dividers to help protect and separate end mills.

Top drawer holds single end fractional end mills in popular sizes 1/8" to 1" with 41 compartments.

2nd drawer holds double end fractional end mills 1/16" to 1" in popular sizes with 41 compartments.

Lower drawer is undivided for extra end mills, cutters, drills, reamers and miscellaneous tools.

Dimensions: 11" x 26-1/4" x 9-1/2".

Each cabinet is LOCKABLE with its own individual set of keys and is STACKABLE for larger inventories.

Shipping Weight: 31 lbs. each. Cube: 1.64

**For 2-Flute End Mills**
**Order No. 1919-385**
**PRICE EACH – $316.10**

**For 4-Flute End Mills**
**Order No. 1919-390**
**PRICE EACH – $316.10**

# Two Flute – Fast Spiral End Mills for Aluminum

## Two Flute - Single End

3

### Regular Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® AMERICAN MADE ORDER NO. | Allegiance® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 5/8 | 2-1/2 | 2621-161 | $ 6.30 | 3882-161 | $10.08 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 2621-201 | 6.30 | 3882-201 | 10.08 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 2621-241 | 6.30 | 3882-241 | 10.08 |
| 7/16 | 3/8 | 1 | 2-11/16 | 2621-281 | 8.43 | 3882-281 | 12.00 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 2621-321 | 9.36 | 3882-321 | 13.24 |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | – | – | 3882-401 | 18.31 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 2621-401 | 11.96 | 3882-402 | 17.16 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 2621-481 | 13.87 | 3882-482 | 19.27 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 2621-561 | $18.08 | 3882-562 | $27.58 |
| 1 | 1 | 2 | 4-1/2 | 2621-641 | 22.84 | 3882-642 | 31.90 |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 2621-801 | 42.50 | 3882-801 | 48.75 |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 2621-961 | 53.75 | 3882-961 | 63.03 |
| 1-3/4 | 1-1/4 | 2 | 4-1/2 | 2622-121 | 69.21 | 3883-121 | 83.59 |
| 2 | 1-1/4 | 2 | 4-1/2 | 2622-281 | 85.69 | 3883-281 | 99.95 |

### Long Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® AMERICAN MADE ORDER NO. | Allegiance® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-1/4 | 3-1/8 | 2623-161 | $ 7.60 | 3884-161 | $11.05 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 2623-201 | 7.60 | 3884-201 | 11.05 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 2623-241 | 7.60 | 3884-241 | 11.05 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 2623-281 | 10.49 | 3884-281 | 14.94 |
| 1/2 | 1/2 | 2 | 4 | 2623-321 | 10.93 | 3884-321 | 15.47 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 2623-401 | 14.70 | 3884-401 | 20.64 |
| 3/4 | 3/4 | 3 | 5-1/4 | 2623-481 | 18.44 | 3884-481 | 29.96 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 2623-561 | 24.59 | – | – |
| 1 | 1 | 3 | 5-1/2 | 2623-641† | 27.61 | – | – |
| 1 | 1 | 4 | 6-1/2 | 2623-642 | 32.63 | 3884-561 | 49.77 |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 2623-801† | 47.65 | – | – |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 2623-802 | 56.31 | 3884-801 | 71.18 |
| 1-1/2 | 1-1/4 | 3 | 5-1/2 | 2623-961† | 62.46 | – | – |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 2623-962 | 73.82 | 3884-961 | 91.10 |
| 1-3/4 | 1-1/4 | 4 | 6-1/2 | 2624-121 | 99.32 | 3885-121 | 123.92 |
| 2 | 1-1/4 | 4 | 6-1/2 | 2624-281 | 123.49 | – | – |

† Limited Quantities

### Extra Long

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | Allegiance® AMERICAN MADE ORDER NO. | Allegiance® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-3/4 | 3-1/2 | 2625-161 | $ 8.53 | 3885-161 | $ 12.65 |
| 5/16 | 3/8 | 2 | 3-3/4 | 2625-201 | 8.82 | 3885-201 | 13.03 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 2625-241 | 9.21 | 3885-241 | 13.64 |
| 7/16 | 1/2 | 2-3/4 | 4-3/4 | 2625-281 | 11.03 | 3885-281 | 18.11 |
| 1/2 | 1/2 | 3 | 5 | 2625-321 | 12.74 | 3885-321 | 21.07 |
| 5/8 | 5/8 | 4 | 6-1/8 | 2625-401 | 18.08 | 3885-401 | 26.01 |
| 3/4 | 3/4 | 4 | 6-1/4 | 2625-481 | 23.71 | 3885-481 | 36.95 |
| 7/8 | 7/8 | 5 | 7-1/4 | 2625-561 | 36.02 | 3885-561 | 47.52 |
| 1 | 1 | 6 | 8-1/2 | 2625-641 | 57.56 | 3885-641 | 56.52 |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 2625-801 | 91.85 | 3885-801 | 82.76 |
| 1-1/2 | 1-1/4 | 6 | 8-1/2 | 2625-961† | 126.31 | 3885-961 | 113.89 |
| 1-1/2 | 1-1/4 | 8 | 10-1/2 | 2625-962 | 156.02 | – | – |

† Limited Quantities

# Ball End Mills for Aluminum

## Two Flute, High Speed Steel

Look for Allegiance® AMERICANMADE

### Regular Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/4 | 3/8 | 5/8 | 2-1/2 | 3886-016 | $20.43 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 3886-020† | 22.00 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 3886-024† | 22.00 |
| 7/16 | 3/8 | 1 | 2-11/16 | 3886-028† | 22.42 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 3886-032 | 30.43 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 3886-040† | 42.00 |
| 3/4 | 3/4 | 3 | 5-1/4 | 3886-048 | 47.01 |
| 1 | 1 | 2 | 4-1/2 | 3886-064 | 70.57 |

† Limited Quantities

### Long Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-1/4 | 3-1/8 | 3886-116 | $26.71 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 3886-120† | 26.71 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 3886-124 | 27.86 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 3886-128† | 31.71 |
| 1/2 | 1/2 | 2 | 4 | 3886-132 | 38.15 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 3886-140 | 52.15 |
| 3/4 | 3/4 | 3 | 5-1/4 | 3886-148 | 65.17 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 3886-156† | 61.59 |
| 1 | 1 | 4 | 6-1/2 | 3886-164 | 99.30 |
| 1-1/2 | 1-1/2 | 4 | 6-1/2 | 3886-196 | 148.77 |

### Extra Long Length

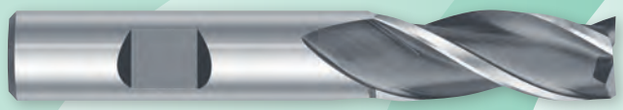
| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-3/4 | 3-9/16 | 3886-216 | $29.44 |
| 5/16 | 3/8 | 2 | 3-3/4 | 3886-220† | 29.44 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 3886-224 | 31.28 |
| 7/16 | 1/2 | 2-3/4 | 4-3/4 | 3886-228† | 43.73 |
| 1/2 | 1/2 | 3 | 5 | 3886-232 | 43.73 |
| 5/8 | 5/8 | 4 | 6-1/8 | 3886-240† | 63.58 |
| 3/4 | 3/4 | 4 | 6-1/4 | 3886-248 | 74.00 |
| 1 | 1 | 6 | 8-1/2 | 3886-264 | 109.44 |

# Three Flute End Mills

## Regular Length, Center Cutting

### R. H. Cut – R. H. Spiral
### High Speed Steel





| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 2640-081 | $6.24 | – | – |
| 5/32 | 3/8 | 1/2 | 2-3/8 | 2640-101† | 6.24 | – | – |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 2640-121 | 6.24 | – | – |
| 1/4 | 3/8 | 5/8 | 2-1/2 | 2640-161 | 6.24 | – | – |
| 9/32 | 3/8 | 3/4 | 2-1/2 | 2640-181† | 6.24 | – | – |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 2640-201 | 6.24 | – | – |
| 11/32 | 3/8 | 3/4 | 2-1/2 | 2640-221† | 6.24 | – | – |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 2640-241 | 6.24 | 3992-241 | $12.95 |
| 7/16 | 3/8 | 1 | 2-11/16 | 2640-281 | 8.88 | 3992-281 | 15.26 |
| 15/32 | 3/8 | 1 | 2-11/16 | 2640-301† | 9.34 | – | – |
| 1/2 | 3/8 | 1 | 2-11/16 | 2640-321 | 9.34 | 3992-321 | 15.90 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 2640-322 | 9.34 | 3992-322 | 15.90 |
| 9/16 | 1/2 | 1-3/8 | 3-3/8 | 2640-361 | 12.72 | 3992-361 | 19.27 |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 2640-401 | 12.72 | 3992-401 | 17.06 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 2640-402 | 12.72 | 3992-402 | 19.27 |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 2640-442† | 14.21 | – | – |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 2640-481 | 14.21 | 3992-481 | 22.32 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 2640-482 | $14.21 | 3992-482 | $22.11 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 2640-483 | 14.21 | 3992-483 | 22.52 |
| 7/8 | 1/2 | 1-5/8 | 3-5/8 | 2640-561 | 17.98 | 3992-561 | 27.17 |
| 7/8 | 5/8 | 1-7/8 | 4 | 2640-562 | 17.98 | 3992-562 | 27.17 |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 2640-563 | 17.98 | 3992-563 | 27.17 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 2640-564 | 17.98 | – | – |
| 15/16 | 5/8 | 1-7/8 | 4-1/8 | 2640-601† | 21.63 | – | – |
| 15/16 | 7/8 | 1-7/8 | 4 | 2640-602† | 21.63 | – | – |
| 1 | 5/8 | 1-7/8 | 4 | 2640-641 | 21.63 | 3992-641 | 30.32 |
| 1 | 3/4 | 1-7/8 | 4-1/8 | 2640-642 | 21.63 | 3992-642 | 30.32 |
| 1 | 7/8 | 1-7/8 | 4-1/8 | 2640-643 | 21.63 | 3992-643 | 33.05 |
| 1 | 1 | 2 | 4-1/2 | 2640-644 | 21.63 | 3992-644 | 30.32 |
| 1-1/8 | 1 | 2 | 4-1/2 | 2640-721 | 26.26 | – | – |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 2640-802 | 31.11 | 3992-801 | 51.02 |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 2640-962 | 43.40 | 3992-961 | 65.90 |
| 1-3/4 | 1-1/4 | 2 | 4-1/2 | 2641-121 | 51.94 | – | – |
| 2 | 1-1/4 | 2 | 4-1/2 | 2641-281 | 64.83 | – | – |

† Limited Quantities

## Long Length

### R. H. Cut – R. H. Spiral–
### High Speed Steel

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH |
|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-1/4 | 3-1/16 | 2642-161 | $8.57 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 2642-201 | 8.57 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 2642-241 | 10.03 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 2642-281 | 11.61 |
| 1/2 | 1/2 | 2 | 4 | 2642-321 | 15.08 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 2642-401 | 18.83 |
| 3/4 | 3/4 | 3 | 5-1/4 | 2642-481 | 21.99 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 2642-561 | 27.60 |
| 1 | 1 | 4 | 6-1/2 | 2642-642 | 35.30 |
| 1-1/4 | 1-1/4 | 3 | 6-1/2 | 2642-801† | 39.97 |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 2642-802 | 47.02 |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 2642-961 | 55.10 |
| 1-3/4 | 1-1/4 | 4 | 6-1/2 | 2643-121 | 63.17 |
| 2 | 1-1/4 | 4 | 6-1/2 | 2643-281 | 97.38 |

## Double End

### R. H. Cut – R. H. Spiral –
### High Speed Steel

| DIAM. | SHANK DIAM. | FLUTE LG'TH. | OVER. LG'TH | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH |
|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3-1/4 | 2645-008 | $9.62 |
| 5/32 | 3/8 | 7/16 | 3-1/4 | 2645-010† | 9.62 |
| 3/16 | 3/8 | 1/2 | 3-1/4 | 2645-012 | 9.62 |
| 7/32 | 3/8 | 9/16 | 3-1/4 | 2645-014† | 9.62 |
| 1/4 | 3/8 | 5/8 | 3-3/8 | 2645-016 | 9.62 |
| 9/32 | 3/8 | 11/16 | 3-3/8 | 2645-018 | 9.62 |
| 5/16 | 3/8 | 3/4 | 3-3/8 | 2645-020 | 9.62 |
| 3/8 | 3/8 | 3/4 | 3-3/8 | 2645-024 | 9.62 |
| 7/16 | 1/2 | 1 | 4-1/4 | 2645-028 | 15.17 |
| 15/32 | 1/2 | 1 | 4-1/4 | 2645-030† | 15.17 |
| 1/2 | 1/2 | 1 | 4-1/4 | 2645-032 | 15.17 |
| 9/16 | 5/8 | 1-3/8 | 5 | 2645-036 | 20.44 |
| 5/8 | 5/8 | 1-3/8 | 5 | 2645-040 | 20.44 |
| 11/16 | 3/4 | 1-5/8 | 5-5/8 | 2645-044 | 27.23 |
| 3/4 | 3/4 | 1-5/8 | 5-5/8 | 2645-048 | 25.72 |
| 13/16 | 7/8 | 1-7/8 | 6-1/4 | 2645-052 | 36.44 |
| 7/8 | 7/8 | 1-7/8 | 6-1/4 | 2645-056 | 32.87 |
| 15/16 | 1 | 1-7/8 | 6-3/8 | 2645-060 | 40.42 |
| 1 | 1 | 1-7/8 | 6-1/2 | 2645-064 | 40.09 |

# Multi-Flute, Single End, End Mills

## Regular Length– R.H. Cut - R.H. Spiral - High Speed Steel

3

Non-Center Cut

Center Cut

TiN Coated

| SIZE | | | | | UNCOATED | | | | | | TiN COATED | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | NON-CENTER CUT | | | | CENTER CUT | | | |
| | | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | |
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | NO OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 3/8 | 3/8 | 2-5/16 | 4 | 2650-081† | $ 3.28 | 2598-081 | $ 7.82 | 2667-108 | $ 3.72 | 2591-808 | $ 10.16 | 2667-648 | $ 6.37 |
| 5/32 | 3/8 | 3/8 | 2-3/8 | 4 | 2650-101† | 3.44 | 2598-101 | 10.60 | 2667-110 | 5.19 | – | – | – | – |
| 11/64 | 3/8 | 1/2 | 2-3/8 | 4 | 2650-111† | 4.26 | – | – | – | – | – | – | – | – |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 4 | – | – | 2598-121 | 7.82 | 2667-112 | 3.72 | 2591-812 | 10.16 | 2667-652 | 6.37 |
| 13/64 | 3/8 | 1/2 | 2-3/8 | 4 | 2650-131† | 4.26 | – | – | – | – | – | – | – | – |
| 7/32 | 3/8 | 1/2 | 2-3/8 | 4 | 2650-141† | 3.44 | 2598-141 | 10.64 | 2667-114 | 5.19 | 2591-814 | 10.66 | – | – |
| 15/64 | 3/8 | 5/8 | 2-1/2 | 4 | 2650-151† | 4.26 | – | – | – | – | – | – | – | – |
| 1/4 | 3/8 | 5/8 | 2-1/2 | 4 | – | – | 2598-161 | 7.82 | 2667-116 | 3.72 | 2591-816 | 9.74 | 2667-656 | 6.37 |
| 17/64 | 3/8 | 5/8 | 2-1/2 | 4 | 2650-171† | 4.26 | – | – | – | – | – | – | – | – |
| 9/32 | 3/8 | 5/8 | 2-1/2 | 4 | – | – | 2598-181 | 10.64 | 2667-118 | 5.19 | 2591-818 | 10.76 | – | – |
| 19/64 | 3/8 | 3/4 | 2-1/2 | 4 | 2650-191† | 4.26 | – | – | – | – | – | – | – | – |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | – | – | 2598-201 | 7.82 | 2667-120 | 3.72 | 2591-820 | 9.74 | 2667-660 | 6.37 |
| 21/64 | 3/8 | 3/4 | 2-1/2 | 4 | 2650-211† | 4.26 | – | – | – | – | – | – | – | – |
| 11/32 | 3/8 | 3/4 | 2-1/2 | 4 | 2650-221† | 3.44 | 2598-221 | 8.02 | 2667-122 | 5.46 | 2591-822 | 10.76 | – | – |
| 23/64 | 3/8 | 3/4 | 2-1/2 | 4 | 2650-231† | 4.26 | – | – | – | – | – | – | – | – |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | – | – | 2598-241 | 7.82 | 2667-124 | 3.72 | 2591-824 | 9.74 | 2667-664 | 6.37 |
| 25/64 | 3/8 | 1 | 2-11/16 | 4 | 2650-251† | 5.86 | – | – | – | – | – | – | – | – |
| 13/32 | 3/8 | 1 | 2-11/16 | 4 | – | – | 2598-261 | 11.10 | 2667-126 | 6.57 | 2591-826 | 14.61 | – | – |
| 27/64 | 3/8 | 1 | 2-11/16 | 4 | 2650-271† | 5.86 | – | – | – | – | – | – | – | – |
| 7/16 | 3/8 | 1 | 2-11/16 | 4 | 2650-281† | POA | 2598-281 | 10.35 | 2667-128 | 5.88 | 2591-828 | 13.91 | 2667-668 | 8.82 |
| 29/64 | 3/8 | 1 | 2-11/16 | 4 | 2650-291† | 5.86 | – | – | – | – | – | – | – | – |
| 15/32 | 3/8 | 1 | 2-11/16 | 4 | 2650-301† | 4.74 | 2598-301 | 10.53 | 2667-130 | 6.57 | 2591-830 | 13.91 | – | – |
| 31/64 | 3/8 | 1 | 2-11/16 | 4 | 2650-311† | 5.86 | – | – | – | – | – | – | – | – |
| 1/2 | 3/8 | 1 | 2-11/16 | 4 | 2650-321† | 4.51 | 2598-321 | 10.35 | 2667-131 | 5.88 | – | – | – | – |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | – | – | 2598-322 | 10.35 | 2667-132 | 6.00 | 2591-832 | 14.31 | 2667-672 | 10.93 |
| 17/32 | 1/2 | 1-3/8 | 3-3/8 | 4 | – | – | 2598-341 | 13.64 | – | – | 2591-834 | 17.97 | – | – |
| 9/16 | 1/2 | 1-3/8 | 3-3/8 | 4 | – | – | 2598-361 | 13.42 | 2667-136 | 9.06 | 2591-836 | 19.59 | – | – |
| 19/32 | 1/2 | 1-3/8 | 3-3/8 | 4 | 2650-381† | 7.61 | – | – | – | – | – | – | – | – |
| 39/64 | 1/2 | 1-3/8 | 3-3/8 | 4 | 2650-390† | 9.43 | – | – | – | – | – | – | – | – |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 4 | 2650-401† | 7.25 | 2598-401 | 14.69 | 2667-139 | 9.06 | 2591-839 | 18.19 | – | – |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | – | – | 2598-402 | 16.43 | 2667-140 | 9.65 | 2591-840 | 18.19 | 2667-680 | 13.03 |
| 11/16 | 1/2 | 1-5/8 | 3-5/8 | 4 | 2650-441† | 8.82 | 2598-441 | 16.04 | 2667-143 | 12.35 | – | – | – | – |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2650-442† | 8.82 | 2598-442 | 16.95 | 2667-144 | 12.35 | 2591-844 | 19.59 | 2667-684 | 16.02 |
| 23/32 | 1/2 | 1-5/8 | 3-5/8 | 4 | 2650-461† | 11.86 | – | – | – | – | – | – | – | – |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 4 | – | – | 2598-481 | 17.36 | 2667-146 | 11.14 | – | – | – | – |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | – | – | 2598-482 | 17.56 | 2667-147 | 12.18 | 2591-847 | 20.70 | – | – |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | – | – | 2598-483 | 18.24 | 2667-148 | 12.18 | 2591-848 | 20.70 | 2667-688 | 16.02 |
| 13/16 | 5/8 | 1-7/8 | 4 | 6 | – | – | 2598-522 | 22.40 | 2667-151 | 15.93 | – | – | – | – |
| 13/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | – | – | 2598-521 | 22.53 | 2667-152 | 16.61 | 2591-852 | 25.48 | – | – |
| 27/32 | 1/2 | 1-5/8 | 3-5/8 | 4 | 2650-541† | 16.37 | – | – | – | – | – | – | – | – |
| 7/8 | 1/2 | 1-5/8 | 3-5/8 | 4 | – | – | – | – | 2667-153 | 17.64 | – | – | – | – |
| 7/8 | 5/8 | 1-7/8 | 4 | 6 | 2650-564† | 12.59 | 2598-563 | 22.95 | 2667-154 | 17.64 | 2591-854 | 26.09 | – | – |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 4 | 2650-565† | 12.59 | 2598-561 | 23.76 | 2667-155 | 17.64 | – | – | – | – |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 6 | 2650-566† | 12.59 | – | – | – | – | – | – | – | – |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | – | – | 2598-562 | 22.64 | 2667-156 | 17.64 | 2591-856 | 26.09 | 2667-696 | 20.41 |
| 29/32 | 1/2 | 1-7/8 | 3-7/8 | 4 | 2650-581† | 17.27 | – | – | – | – | – | – | – | – |
| 15/16 | 1/2 | 1-7/8 | 3-7/8 | 6 | 2650-602† | 13.28 | – | – | – | – | – | – | – | – |
| 15/16 | 5/8 | 1-7/8 | 4 | 6 | – | – | 2598-603 | 25.60 | 2667-158 | 20.18 | – | – | – | – |

† Limited Quantities

# Multi-Flute, Single End, End Mills (cont'd)



## Regular Length – R.H. Cut - R.H. Spiral - High Speed Steel

Non-Center Cut

Center Cut

TiN Coated

| SIZE | | | | | UNCOATED | | | | | | | | TiN COATED | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | NON-CENTER CUT | | | | CENTER CUT | | | | CENTER CUT | |
| | | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | |
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | NO OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 15/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | 2650-603† | $14.17 | 2598-601 | $28.61 | 2667-159 | $20.18 | – | – | – | – |
| 15/16 | 7/8 | 1-7/8 | 4-1/8 | 4 | 2650-604† | 14.17 | 2598-602 | 25.60 | 2667-160 | 20.18 | 2591-860 | $ 28.93 | – | – |
| 31/32 | 1/2 | 1-7/8 | 3-7/8 | 4 | 2650-621† | 18.47 | – | – | – | – | – | – | – | – |
| 1 | 1/2 | 1-7/8 | 3-7/8 | 4 | – | – | – | – | 2667-161 | 21.43 | – | – | – | – |
| 1 | 5/8 | 1-7/8 | 4 | 6 | – | – | 2598-644 | 26.20 | 2667-162 | 21.43 | 2591-862 | 31.47 | – | – |
| 1 | 3/4 | 1-7/8 | 4-1/8 | 4 | 2650-643† | 14.21 | 2598-640 | 25.78 | 2667-163 | 21.43 | 2591-863 | 31.47 | 2667-703 | $ 23.09 |
| 1 | 7/8 | 1-7/8 | 4-1/8 | 4 | 2650-645† | 14.21 | 2598-642 | 25.78 | 2667-165 | 25.43 | – | – | – | – |
| 1 | 1 | 2 | 4-1/2 | 4 | 2650-646† | 15.05 | 2598-643 | 27.31 | 2667-164 | 22.83 | 2591-864 | 31.47 | 2667-704 | 23.09 |
| 1-1/16 | 3/4 | 2 | 4-1/4 | 6 | – | – | 2598-680 | 44.36 | 2667-168 | 29.35 | – | – | – | – |
| 1-1/8 | 3/4 | 2 | 4-1/4 | 6 | – | – | 2598-720 | 40.10 | 2667-170 | 29.35 | 2591-870 | 35.22 | – | – |
| 1-1/8 | 7/8 | 2 | 4-1/4 | 6 | – | – | 2598-721 | 36.04 | 2667-171 | 31.26 | – | – | – | – |
| 1-1/8 | 1 | 2 | 4-1/2 | 4 | – | – | – | – | 2667-172 | 31.26 | 2591-872 | 43.55 | – | – |
| 1-1/8 | 1 | 2 | 4-1/2 | 6 | 2650-724† | 21.95 | 2598-722 | 37.15 | 2667-173 | 31.26 | 2591-873 | 43.55 | – | – |
| 1-3/16 | 3/4 | 2 | 4-1/4 | 6 | – | – | – | – | 2667-176 | 32.44 | – | – | – | – |
| 1-1/4 | 3/4 | 2 | 4-1/4 | 6 | 2650-801† | 23.52 | 2598-800 | 43.76 | 2667-177 | 32.44 | – | – | – | – |
| 1-1/4 | 7/8 | 2 | 4-1/4 | 6 | 2650-802† | 23.52 | 2598-802 | 39.08 | 2667-178 | 33.52 | – | – | – | – |
| 1-1/4 | 1 | 2 | 4-1/2 | 6 | – | – | 2598-803 | 40.68 | 2667-179 | 33.52 | 2591-879 | 47.72 | – | – |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 4 | – | – | – | – | 2667-180 | 36.90 | 2591-880 | 46.48 | – | – |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2650-805† | 24.41 | 2598-804 | 42.63 | 2667-181 | 36.90 | 2591-881 | 46.48 | – | – |
| 1-5/16 | 3/4 | 2 | 4-1/2 | 4 | – | – | – | – | 2667-184 | 35.08 | – | – | – | – |
| 1-3/8 | 3/4 | 2 | 4-1/4 | 6 | – | – | 2598-880 | 55.07 | 2667-186 | 41.04 | – | – | – | – |
| 1-3/8 | 1 | 2 | 4-1/2 | 6 | – | – | 2598-881 | 48.08 | 2667-187 | 37.66 | – | – | – | – |
| 1-3/8 | 1-1/4 | 2 | 4-1/2 | 6 | – | – | – | – | 2667-188 | 37.66 | – | – | – | – |
| 1-7/16 | 3/4 | 2 | 4-1/2 | 6 | – | – | – | – | 2667-192 | 43.09 | – | – | – | – |
| 1-1/2 | 3/4 | 2 | 4-1/4 | 6 | – | – | 2598-960 | 59.19 | 2667-193 | 43.09 | – | – | – | – |
| 1-1/2 | 1 | 2 | 4-1/2 | 6 | – | – | 2598-962 | 54.23 | 2667-195 | 43.09 | 2591-895 | 63.02 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 4 | – | – | 2598-961 | 54.23 | 2667-196 | 43.09 | 2591-896 | 58.46 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 2650-965† | 29.91 | 2598-963 | 54.23 | 2667-197 | 43.09 | 2591-897 | 58.99 | – | – |
| 1-5/8 | 3/4 | 2 | 4-1/2 | 6 | – | – | – | – | 2667-202 | 44.98 | – | – | – | – |
| 1-5/8 | 1-1/4 | 2 | 4-1/2 | 6 | – | – | 2599-041 | 58.14 | 2667-204 | 44.98 | – | – | – | – |
| 1-3/4 | 3/4 | 2 | 4-1/2 | 6 | – | – | 2599-120 | 65.34 | 2667-211 | 61.27 | – | – | – | – |
| 1-3/4 | 1-1/4 | 2 | 4-1/2 | 4 | 2651-122† | 36.23 | 2599-122 | 65.34 | 2667-212 | 58.44 | – | – | – | – |
| 1-3/4 | 1-1/4 | 2 | 4-1/2 | 6 | – | – | 2599-121 | 65.34 | 2667-213 | 58.44 | 2591-912 | 72.12 | – | – |
| 1-7/8 | 3/4 | 2 | 4-1/2 | 6 | – | – | – | – | 2667-219 | 67.53 | – | – | – | – |
| 1-7/8 | 1-1/4 | 2 | 4-1/2 | 6 | – | – | – | – | 2667-220 | 77.90 | – | – | – | – |
| 1-7/8 | 1-1/4 | 2 | 4-1/2 | 8 | 2651-202† | 38.19 | 2599-201 | 67.04 | – | – | – | – | – | – |
| 2 | 3/4 | 2 | 4-1/4 | 8 | – | – | – | – | 2667-227 | 80.71 | – | – | – | – |
| 2 | 1-1/4 | 2 | 4-1/2 | 4 | – | – | – | – | 2667-228 | 80.71 | – | – | – | – |
| 2 | 1-1/4 | 2 | 4-1/2 | 6 | – | – | 2599-282 | 76.66 | 2667-229 | 80.71 | 2591-928 | 84.61 | – | – |
| 2 | 1-1/4 | 2 | 4-1/2 | 8 | 2651-284† | 43.81 | 2599-284 | 78.09 | 2667-230 | 84.02 | – | – | – | – |

† Limited Quantities

# Metric, Multiple Flute, Single End, End Mills



## Regular Length– R.H. Cut - R.H. Spiral - High Speed Steel

Look for ALLEGIANCE® AMERICANMADE

### Metric – Four Flute – R.H. Spiral– R.H. Cut – Regular Length

| MILL. DIAM. (mm.) | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | NON-CENTER CUT Pittsburg® ALLEGHANY ORDER NO. | NON-CENTER CUT Pittsburg® ALLEGHANY PRICE EACH | CENTER CUT Pittsburg® ALLEGHANY ORDER NO. | CENTER CUT Pittsburg® ALLEGHANY PRICE EACH | CENTER CUT ALLEGIANCE® AMERICAN MADE ORDER NO. | CENTER CUT ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 3.0 | 3/8 | 3/8 | 2-5/16 | – | – | 2628-310 | $5.39 | 2662-030 | $8.31 |
| 3.5 | 3/8 | 1/2 | 2-3/8 | – | – | – | – | 2662-035 | 8.31 |
| 4.0 | 3/8 | 1/2 | 2-3/8 | – | – | 2628-312 | 5.39 | 2662-040 | 8.31 |
| 4.5 | 3/8 | 1/2 | 2-3/8 | – | – | – | – | 2662-045 | 9.06 |
| 5.0 | 3/8 | 5/8 | 2-7/16 | – | – | 2628-314 | 5.39 | 2662-050 | 9.06 |
| 5.5 | 3/8 | 5/8 | 2-7/16 | – | – | – | – | 2662-055 | 9.06 |
| 6.0 | 3/8 | 5/8 | 2-7/16 | – | – | 2628-316 | 5.39 | 2662-060 | 9.06 |
| 6.5 | 3/8 | 5/8 | 2-7/16 | – | – | – | – | 2662-065 | 9.06 |
| 7.0 | 3/8 | 3/4 | 2-1/2 | – | – | 2628-318 | 5.39 | 2662-070 | 9.06 |
| 7.5 | 3/8 | 3/4 | 2-1/2 | – | – | – | – | 2662-075 | 9.06 |
| 8.0 | 3/8 | 3/4 | 2-1/2 | – | – | 2628-320 | 5.93 | 2662-080 | 9.06 |
| 8.5 | 3/8 | 3/4 | 2-1/2 | – | – | – | – | 2662-085 | 9.06 |
| 9.0 | 3/8 | 3/4 | 2-1/2 | 2628-090† | $4.74 | 2628-322 | 5.93 | 2662-090 | 9.06 |
| 9.5 | 3/8 | 3/4 | 2-1/2 | – | – | – | – | 2662-095 | 9.06 |
| 10.0 | 3/8 | 3/4 | 2-1/2 | – | – | 2628-324 | 6.81 | 2662-100 | 11.37 |
| 10.5 | 3/8 | 1 | 2-11/16 | – | – | – | – | 2662-105 | 12.00 |
| 11.0 | 3/8 | 1 | 2-11/16 | 2628-110† | 5.76 | 2628-326 | 6.81 | 2662-110 | 12.00 |
| 11.5 | 3/8 | 1 | 2-11/16 | 2628-115† | 5.76 | – | – | 2662-115 | 12.00 |
| 12.0 | 3/8 | 1 | 2-11/16 | – | – | 2628-328 | 6.81 | – | – |
| 12.0 | 1/2 | 1-1/4 | 3-1/4 | – | – | – | – | 2662-122 | 12.22 |
| 12.5 | 1/2 | 1-1/4 | 3-1/4 | 2628-125† | 5.76 | – | – | 2662-125 | 12.22 |
| 13.0 | 1/2 | 1-1/4 | 3-1/4 | 2628-130† | 7.04 | 2628-330 | 7.51 | 2662-130 | 14.00 |
| 13.5 | 1/2 | 1-3/8 | 3-3/8 | – | – | – | – | 2662-135 | 14.00 |
| 14.0 | 1/2 | 1-3/8 | 3-3/8 | – | – | 2628-332 | 10.49 | 2662-140 | 14.00 |
| 14.5 | 1/2 | 1-3/8 | 3-3/8 | – | – | – | – | 2662-145 | 14.62 |
| 15.0 | 1/2 | 1-3/8 | 3-3/8 | – | – | 2628-334 | 10.49 | 2662-150 | 14.62 |
| 16.0 | 5/8 | 1-5/8 | 3-3/4 | – | – | 2628-336 | 11.66 | 2662-160 | 16.74 |
| 17.0 | 5/8 | 1-5/8 | 3-3/4 | – | – | – | – | 2662-170 | 16.74 |
| 18.0 | 5/8 | 1-5/8 | 3-3/4 | – | – | 2628-340 | 13.03 | 2662-180 | 18.84 |
| 19.0 | 3/4 | 1-5/8 | 3-3/4 | – | – | – | – | 2662-190 | 20.00 |
| 20.0 | 5/8 | 1-7/8 | 4 | – | – | 2628-344 | 16.61 | 2662-200 | 24.10 |
| 21.0 | 5/8 | 1-7/8 | 4 | – | – | – | – | 2662-210 | 25.38 |
| 22.0 | 3/4 | 1-7/8 | 4-1/8 | – | – | 2628-348 | 18.23 | – | – |
| 22.0 | 7/8 | 1-7/8 | 4-1/8 | – | – | – | – | 2662-220 | 26.21 |
| 23.0 | 7/8 | 1-7/8 | 4-1/8 | – | – | – | – | 2662-230 | 28.53 |
| 24.0 | 3/4 | 2 | 4-1/2 | – | – | 2628-352 | 22.31 | – | – |
| 24.0 | 1 | 2 | 4-1/2 | – | – | – | – | 2662-240 | 29.69 |
| 25.0 | 1 | 2 | 4-1/2 | – | – | – | – | 2662-250 | 29.69 |

† Limited Quantities

### 20 Piece TiN Coated End Mill Set

Contains:

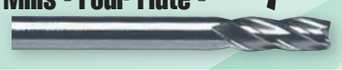
2 Flute Single End
3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 & 3/4

4 Flute, Center Cutting Single End End Mills
3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 & 3/4

**Order No. 2616-000**
**Price Each.....$102.85**

### Miniature End Mills - Four Flute - Single End

Pittsburg® ALLEGHANY



| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| STUB LENGTH | | | | | |
| 5/32 | 3/16 | 1/4 | 1-1/4 | 2645-310† | $4.34 |
| REGULAR LENGTH | | | | | |
| 1/8 | 3/16 | 3/8 | 1-1/2 | 2645-408† | 4.34 |
| 5/32 | 3/16 | 7/16 | 1-7/16 | 2645-410† | 4.34 |
| 3/16 | 3/16 | 1/2 | 1-3/4 | 2645-412† | 4.34 |
| LONG LENGTH | | | | | |
| 1/8 | 3/16 | 3/8 | 1-3/4 | 2645-428† | 4.48 |

† Limited Quantities

# Multiple Flute, Single End, End Mills



## Long Length

| | | | | | NON-CENTER CUT | | | | CENTER CUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | |
| DIA. | SHANK DIA. | FLUTE LG'TH | OVER. LG'TH | NO OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/4 | 3/8 | 1-1/4 | 3-1/16 | 4 | 2654-161† | $ 4.93 | 2600-161 | $ 10.42 | 2667-316 | $ 5.78 | 2592-116 | $ 12.00 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 4 | 2654-201† | 5.04 | 2600-201 | 10.42 | 2667-320 | 5.78 | 2592-120 | 12.00 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 4 | – | – | 2600-241 | 10.21 | 2667-324 | 5.78 | 2592-124 | 12.11 |
| 7/16 | 1/2 | 1-3/4 | 3-1/4 | 4 | 2654-281† | 7.08 | 2600-281 | 14.42 | 2667-328 | 8.33 | 2592-128 | 14.30 |
| 1/2 | 1/2 | 2 | 4 | 4 | – | – | 2600-321 | 14.00 | 2667-332 | 8.77 | 2592-132 | 16.50 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | – | – | 2600-401 | 19.80 | 2667-340 | 13.43 | 2592-140 | 23.14 |
| 3/4 | 3/4 | 3 | 5-1/4 | 4 | – | – | 2600-481 | 24.10 | 2667-348 | 16.56 | 2592-148 | 27.48 |
| 7/8 | 3/4 | 3-1/2 | 5-3/4 | 4 | 2654-561† | 14.75 | – | – | – | – | – | – |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | – | – | 2600-561 | 30.21 | 2667-356 | 20.78 | 2592-156 | 34.21 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 6 | 2654-563† | 14.75 | – | – | – | – | – | – |
| 1 | 1 | 4 | 6-1/2 | 4 | – | – | 2600-641 | 40.95 | 2667-364 | 26.61 | 2592-164 | 46.01 |
| 1-1/8 | 1 | 4 | 6-1/2 | 6 | – | – | 2600-721 | 54.10 | – | – | – | – |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 4 | 2652-802† | 29.78 | – | – | – | – | – | – |
| 1-1/4 | 1 | 4 | 6-1/2 | 6 | 2654-802† | 29.88 | 2600-802 | 63.90 | – | – | – | – |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 4 | – | – | 2600-801 | 66.74 | 2667-380 | 48.03 | 2592-180 | 71.58 |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 6 | 2654-803† | 29.88 | 2600-803 | 63.90 | – | – | – | – |
| 1-1/2 | 1 | 3 | 5-1/2 | 6 | 2652-961† | 36.49 | – | – | – | – | – | – |
| 1-1/2 | 1 | 4 | 6-1/2 | 6 | – | – | 2600-961 | 88.96 | – | – | – | – |
| 1-1/2 | 1-1/4 | 3 | 5-1/2 | 4 | 2652-962† | 36.49 | 2645-962 | – | – | – | – | – |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 6 | 2654-962† | 37.85 | – | – | 2667-396 | 54.26 | 2592-196 | 88.20 |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 4 | 2654-963† | 37.85 | 2600-963 | 79.63 | – | – | – | – |
| 1-3/4 | 1-1/4 | 4 | 6-1/2 | 6 | 2655-122† | 48.86 | 2601-121 | 103.67 | 2667-413 | 89.11 | – | – |
| 2 | 1-1/4 | 4 | 6-1/2 | 6 | 2655-282† | 63.91 | 2601-281 | 133.01 | 2667-429 | 116.17 | 2592-228 | 140.04 |
| 2 | 1-1/4 | 4 | 6-1/2 | 8 | 2655-283† | 63.91 | – | – | – | – | – | – |

† Limited Quantities

## Extra Long Length

| | | | | | NON-CENTER CUT | | | | CENTER CUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | |
| DIA. | SHANK DIA. | FLUTE LG'TH | OVER. LG'TH | NO. OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/4 | 3/8 | 1-3/4 | 3-9/16 | 4 | – | – | 2602-161 | $12.42 | 2667-516 | $7.55 | 2592-016 | $14.10 |
| 5/16 | 3/8 | 2 | 3-3/4 | 4 | 2657-201† | $ 6.39 | 2602-201 | 12.95 | 2667-520 | 8.23 | 2592-020 | 14.84 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 4 | – | – | 2602-241 | 13.27 | 2667-524 | 8.48 | 2592-024 | 15.06 |
| 1/2 | 1/2 | 3 | 5 | 4 | – | – | 2602-321 | 17.06 | 2667-532 | 11.52 | 2592-032 | 19.27 |
| 5/8 | 1/2 | 4 | 6-1/8 | 4 | 2657-401† | 12.47 | – | – | – | – | – | – |
| 5/8 | 5/8 | 4 | 6-1/8 | 4 | – | – | 2602-401 | 24.74 | 2667-540 | 17.25 | 2592-040 | 27.79 |
| 3/4 | 3/4 | 4 | 6-1/4 | 4 | – | – | 2602-481 | 28.95 | 2667-548 | 19.45 | 2592-048 | 32.63 |
| 7/8 | 7/8 | 5 | 7-1/4 | 4 | 2657-561† | 19.17 | 2602-561 | 38.31 | 2667-556 | 23.60 | 2592-056 | 42.84 |
| 1 | 1 | 6 | 8-1/2 | 4 | – | – | 2602-641 | 50.53 | 2667-564 | 35.77 | 2592-064 | 56.21 |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 4 | – | – | – | – | 2667-580 | 59.39 | – | – |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 6 | 2657-802† | 41.23 | 2602-801 | 75.91 | – | – | 2592-080 | 84.22 |
| 1-1/2 | 1-1/4 | 6 | 8-1/2 | 6 | 2657-962† | 67.49 | 2602-961 | 119.83 | 2667-596 | 69.91 | 2592-097 | 138.73 |
| 1-1/2 | 1-1/4 | 8 | 10-1/2 | 6 | – | – | 2602-962 | 127.92 | – | – | – | – |

† Limited Quantities

# Four Flute, Double End, End Mills

## High Speed Steel – R.H.S – R.H.C.

Non-Center Cut

Center Cut

TiN Coated

| SIZE | | | | UNCOATED | | | | | | TiN COATED | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NON-CENTER CUT | | | | CENTER CUT | | | |
| | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | |
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 3/8 | 3/8 | 3-1/16 | – | – | 2592-808 | $10.55 | 2667-808 | $5.84 | 3886-608 | $13.50 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 2667-710† | $4.20 | 2592-810 | 10.97 | 2667-810 | 5.96 | – | – |
| 11/64 | 3/8 | 1/2 | 3-1/4 | 2667-711† | 5.46 | – | – | – | – | – | – |
| 3/16 | 3/8 | 1/2 | 3-1/4 | – | – | 2592-812 | 10.55 | 2667-812 | 5.84 | 3886-612 | 13.50 |
| 7/32 | 3/8 | 9/16 | 3-1/4 | 2667-714† | 4.20 | 2592-814 | 10.97 | 2667-814 | 5.96 | – | – |
| 15/64 | 3/8 | 5/8 | 3-3/8 | 2667-715† | 5.46 | – | – | – | – | – | – |
| 1/4 | 3/8 | 5/8 | 3-3/8 | – | – | 2592-816 | 10.35 | 2667-816 | 5.84 | 3886-616 | 13.50 |
| 17/64 | 3/8 | 11/16 | 3-3/8 | 2667-717† | 5.46 | – | – | – | – | – | – |
| 9/32 | 3/8 | 11/16 | 3-3/8 | 2667-718† | 4.20 | 2592-818 | 10.97 | 2667-818 | 5.96 | – | – |
| 5/16 | 3/8 | 3/4 | 3-1/2 | – | – | 2592-820 | 10.35 | 2667-820 | 5.84 | 3886-620 | 13.50 |
| 21/64 | 3/8 | 3/4 | 3-1/2 | 2667-721† | 5.55 | 2592-821† | 10.97 | – | – | – | – |
| 11/32 | 3/8 | 3/4 | 3-1/2 | 2667-722† | 4.27 | 2592-822 | 10.97 | 2667-822 | 5.96 | – | – |
| 23/64 | 3/8 | 3/4 | 3-1/2 | 2667-723† | 5.55 | – | – | – | – | – | – |
| 3/8 | 3/8 | 3/4 | 3-1/2 | – | – | 2592-824 | 10.35 | 2667-824 | 5.84 | 3886-624 | 13.50 |
| 25/64 | 3/8 | 1 | 4-1/8 | – | – | – | – | – | – | – | – |
| 13/32 | 1/2 | 1 | 4-1/8 | – | – | 2592-826 | 15.33 | 2667-826 | 9.58 | – | – |
| 27/64 | 1/2 | 1 | 4-1/8 | 2667-727† | 8.73 | – | – | – | – | – | – |
| 7/16 | 1/2 | 1 | 4-1/8 | 2667-728† | 6.72 | 2592-828 | 15.28 | 2667-828 | 9.58 | 3886-628 | 16.19 |
| 29/64 | 1/2 | 1 | 4-1/8 | 2667-729† | 8.73 | – | – | – | – | – | – |
| 15/32 | 1/2 | 1 | 4-1/8 | 2667-730† | 6.72 | 2592-830 | 16.00 | 2667-830 | 10.10 | – | – |
| 31/64 | 1/2 | 1 | 4-1/8 | 2667-731† | 8.73 | – | – | – | – | – | – |
| 1/2 | 1/2 | 1 | 4-1/8 | – | – | 2592-832 | 15.28 | 2667-832 | 10.10 | 3886-632 | 21.01 |
| 9/16 | 5/8 | 1-3/8 | 5 | – | – | 2592-836 | 21.72 | 2667-836 | 12.56 | – | – |
| 19/32 | 5/8 | 1-3/8 | 5 | 2667-738† | 12.32 | – | – | – | – | – | – |
| 5/8 | 5/8 | 1-3/8 | 5 | 2667-740† | 9.86 | 2592-840 | 21.72 | 2667-840 | 13.82 | 3886-640 | 26.79 |
| 21/32 | 3/4 | 1-5/8 | 5-5/8 | 2667-742† | 16.41 | – | – | – | – | – | – |
| 11/16 | 3/4 | 1-5/8 | 5-5/8 | – | – | 2592-844 | 27.41 | 2667-844 | 18.56 | – | – |
| 23/32 | 3/4 | 1-5/8 | 5-5/8 | 2667-746† | 16.41 | – | – | – | – | – | – |
| 3/4 | 3/4 | 1-5/8 | 5-5/8 | – | – | 2592-848 | 27.41 | 2667-848 | 18.56 | 3886-648 | 33.70 |
| 25/32 | 7/8 | 1-7/8 | 6-1/8 | 2667-750† | 19.01 | – | – | – | – | – | – |
| 13/16 | 7/8 | 1-7/8 | 6-1/8 | 2667-752† | 15.21 | 2592-852 | 34.82 | 2667-852 | 21.42 | – | – |
| 27/32 | 7/8 | 1-7/8 | 6-1/8 | 2667-754† | 18.48 | – | – | – | – | – | – |
| 7/8 | 7/8 | 1-7/8 | 6-1/8 | – | – | 2592-856 | 34.82 | 2667-856 | 21.42 | 3886-656 | 43.65 |
| 29/32 | 1 | 1-7/8 | 6-3/8 | 2667-758† | 25.27 | – | – | – | – | – | – |
| 15/16 | 1 | 1-7/8 | 6-3/8 | 2667-760† | 20.21 | 2592-860 | 44.87 | 2667-860 | 26.58 | – | – |
| 31/32 | 1 | 1-7/8 | 6-3/8 | 2667-762† | 25.27 | – | – | – | – | – | – |
| 1 | 1 | 1-7/8 | 6-3/8 | – | – | 2592-864 | 42.13 | 2667-864 | 26.58 | 3886-664 | 52.48 |

† Limited Quantities

## Metric

| | | | | NON-CENTER CUT | | CENTER CUT | |
|---|---|---|---|---|---|---|---|
| | | | | | | Pittsburg® ALLEGHANY | |
| MILL. DIAM. (mm.) | SHANK DIAM. | FLUTE L'GTH | OVER. L'GTH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 3 | 3/8 | 7/16 | 3-1/16 | 2629-030† | $6.38 | 2629-310 | $8.53 |
| 4 | 3/8 | 7/16 | 3-1/8 | – | – | 2629-312 | 8.53 |
| 5 | 3/8 | 1/2 | 3-1/4 | 2629-050† | 6.38 | 2629-314 | 8.53 |
| 6 | 3/8 | 5/8 | 3-1/4 | – | – | 2629-316 | 8.53 |
| 7 | 3/8 | 11/16 | 3-3/8 | 2629-070† | 6.38 | 2629-318 | 8.53 |
| 8 | 3/8 | 3/4 | 3-1/2 | – | – | 2629-320 | 9.85 |
| 10 | 1/2 | 1 | 4-1/8 | – | – | 2629-324 | 12.48 |
| 12 | 1/2 | 1 | 4-1/8 | 2629-120† | 10.87 | 2629-328 | 14.53 |
| 14 | 5/8 | 1-3/8 | 5 | 2629-140† | 13.23 | 2629-332 | 17.69 |
| 16 | 3/4 | 1-5/8 | 5-5/8 | 2629-160† | 18.63 | 2629-336 | 24.90 |
| 18 | 3/4 | 1-5/8 | 5-5/8 | 2629-180† | 18.63 | 2629-340 | 24.90 |
| 20 | 7/8 | 1-7/8 | 6-1/8 | 2629-200† | 24.18 | 2629-344 | 32.32 |
| 22 | 1 | 1-7/8 | 6-3/8 | 2629-220† | 25.68 | 2629-348 | 36.79 |
| 24 | 1 | 1-7/8 | 6-3/8 | 2629-240† | 25.68 | 2629-352 | 36.79 |

# Miniature, Four Flute, End Mills

## 3/16" Shank – Double End – R.H.S. – R.H.C.

### High Speed Steel – Stub Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 3/32 | 2 | 2645-144 | $6.50 |
| 5/64 | 3/16 | 1/8 | 2 | 2645-145 | 6.50 |
| 3/32 | 3/16 | 9/64 | 2 | 2645-146 | 6.50 |
| 7/64 | 3/16 | 9/64 | 2 | 2645-147 | 6.50 |
| 1/8 | 3/16 | 3/16 | 2 | 2645-148 | 6.50 |
| 9/64 | 3/16 | 7/32 | 2 | 2645-149 | 6.50 |
| 5/32 | 3/16 | 15/64 | 2 | 2645-150 | 6.50 |
| 11/64 | 3/16 | 9/32 | 2 | 2645-151 | 6.50 |
| 3/16 | 3/16 | 9/32 | 2 | 2645-152 | 6.50 |

### M42 8% Cobalt – Center Cutting – Stub Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 3/32 | 2 | 2711-244 | $7.75 |
| 5/64 | 3/16 | 1/8 | 2 | 2711-245 | 7.75 |
| 3/32 | 3/16 | 9/64 | 2 | 2711-246 | 7.75 |
| 7/64 | 3/16 | 9/64 | 2 | 2711-247 | 7.75 |
| 1/8 | 3/16 | 3/16 | 2 | 2711-248 | 7.75 |
| 9/64 | 3/16 | 7/32 | 2 | 2711-249 | 7.75 |
| 5/32 | 3/16 | 15/64 | 2 | 2711-250 | 7.75 |
| 11/64 | 3/16 | 9/32 | 2 | 2711-251 | 7.75 |
| 3/16 | 3/16 | 9/32 | 2 | 2711-252 | 7.75 |

### High Speed Steel – Regular Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 3/16 | 2-1/4 | 2645-164 | $6.30 |
| 5/64 | 3/16 | 15/64 | 2-1/4 | 2645-165 | 6.30 |
| 3/32 | 3/16 | 5/16 | 2-1/4 | 2645-166 | 6.30 |
| 7/64 | 3/16 | 5/16 | 2-1/4 | 2645-167 | 6.30 |
| 1/8 | 3/16 | 3/8 | 2-1/4 | 2645-168 | 6.30 |
| 9/64 | 3/16 | 3/8 | 2-1/4 | 2645-169 | 6.30 |
| 5/32 | 3/16 | 7/16 | 2-1/4 | 2645-170 | 6.30 |
| 11/64 | 3/16 | 1/2 | 2-1/4 | 2645-171 | 6.30 |
| 3/16 | 3/16 | 1/2 | 2-1/4 | 2645-172 | 6.30 |

### M42 8% Cobalt – Center Cutting – Regular Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 3/16 | 2-1/4 | 2711-264 | $8.30 |
| 5/64 | 3/16 | 15/64 | 2-1/4 | 2711-265 | 8.30 |
| 3/32 | 3/16 | 5/16 | 2-1/4 | 2711-266 | 8.30 |
| 7/64 | 3/16 | 5/16 | 2-1/4 | 2711-267 | 8.30 |
| 1/8 | 3/16 | 3/8 | 2-1/4 | 2711-268 | 8.30 |
| 9/64 | 3/16 | 3/8 | 2-1/4 | 2711-269 | 8.30 |
| 5/32 | 3/16 | 7/16 | 2-1/4 | 2711-270 | 8.30 |
| 11/64 | 3/16 | 1/2 | 2-1/4 | 2711-271 | 8.30 |
| 3/16 | 3/16 | 1/2 | 2-1/4 | 2711-272 | 8.30 |

### High Speed Steel – Long Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 7/32 | 2-1/2 | 2645-184 | $7.90 |
| 5/64 | 3/16 | 1/4 | 2-1/2 | 2645-185 | 7.90 |
| 3/32 | 3/16 | 9/32 | 2-5/8 | 2645-186 | 7.90 |
| 7/64 | 3/16 | 9/32 | 2-5/8 | 2645-187 | 7.90 |
| 1/8 | 3/16 | 3/4 | 3-1/8 | 2645-188 | 7.90 |
| 9/64 | 3/16 | 3/4 | 3-1/8 | 2645-189 | 7.90 |
| 5/32 | 3/16 | 7/8 | 3-1/4 | 2645-190 | 7.90 |
| 11/64 | 3/16 | 7/8 | 3-1/4 | 2645-191 | 7.90 |
| 3/16 | 3/16 | 1 | 3-3/8 | 2645-192 | 7.90 |

### M42 8% Cobalt – Center Cutting – Long Length

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3/16 | 7/32 | 2-1/2 | 2711-284 | $11.70 |
| 5/64 | 3/16 | 1/4 | 2-1/2 | 2711-285 | 11.70 |
| 3/32 | 3/16 | 9/32 | 2-5/8 | 2711-286 | 11.70 |
| 7/64 | 3/16 | 9/32 | 2-5/8 | 2711-287 | 11.70 |
| 1/8 | 3/16 | 3/4 | 3-1/8 | 2711-288 | 11.70 |
| 9/64 | 3/16 | 3/4 | 3-1/8 | 2711-289 | 11.70 |
| 5/32 | 3/16 | 7/8 | 3-1/4 | 2711-290 | 11.70 |
| 11/64 | 3/16 | 7/8 | 3-1/4 | 2711-291 | 11.70 |
| 3/16 | 3/16 | 1 | 3-3/8 | 2711-292 | 11.70 |

# M42 8% Cobalt, Multiple Flute, End Mills

## Single End - Regular Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | NO. OF FLUTES | CENTER CUT Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 4 | 2691-081 | $ 7.14 | 2605-081 | $10.79 |
| 5/32 | 3/8 | 7/16 | 2-3/8 | 4 | 2691-101 | 7.14 | – | – |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 4 | 2691-121 | 7.14 | 2605-121 | 10.79 |
| 7/32 | 3/8 | 5/8 | 2-7/16 | 4 | 2691-141 | 7.14 | – | – |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 4 | 2691-161 | 7.14 | 2605-161 | 10.79 |
| 9/32 | 3/8 | 3/4 | 2-1/2 | 4 | 2691-181 | 7.14 | – | – |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | 2691-201 | 7.14 | 2605-201 | 10.79 |
| 11/32 | 3/8 | 3/4 | 2-1/2 | 4 | 2691-221 | 7.14 | – | – |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 2691-241 | 7.14 | 2605-241 | 10.79 |
| 13/32 | 3/8 | 1 | 2-11/16 | 4 | 2691-261 | 10.09 | – | – |
| 7/16 | 3/8 | 1 | 2-11/16 | 4 | 2691-281 | 9.26 | – | – |
| 15/32 | 3/8 | 1 | 2-11/16 | 4 | 2691-301 | 10.09 | – | – |
| 1/2 | 3/8 | 1 | 2-11/16 | 4 | 2691-321 | 9.56 | – | – |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 2691-322 | 10.51 | 2605-321 | 15.38 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 6 | 2691-323 | 10.51 | – | – |
| 9/16 | 1/2 | 1-3/8 | 3-3/8 | 4 | 2691-361 | 13.82 | – | – |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 4 | 2691-401 | 16.24 | – | – |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2691-402 | 16.24 | 2605-402 | 21.81 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 6 | 2691-403 | 16.24 | – | – |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2691-442 | 20.45 | – | – |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 4 | 2691-480 | 20.45 | – | – |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2691-481 | 20.45 | – | – |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | 2691-482 | 22.83 | 2605-482 | 26.08 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 6 | 2691-483 | 23.79 | 2605-483 | 26.08 |
| 13/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | 2691-521 | 28.57 | – | – |
| 7/8 | 1/2 | 1-7/8 | 3-7/8 | 4 | 2691-558 | 29.55 | – | – |
| 7/8 | 5/8 | 1-7/8 | 4 | 4 | 2691-559 | 28.31 | – | – |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | 2691-560 | 28.31 | – | – |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | 2691-561 | 28.31 | 2605-561 | 29.89 |
| 15/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | 2691-601 | 34.01 | – | – |
| 1 | 1/2 | 1-7/8 | 3-7/8 | 4 | 2691-639 | 35.62 | – | – |
| 1 | 5/8 | 1-7/8 | 4 | 4 | 2691-640 | 36.90 | – | – |
| 1 | 3/4 | 1-7/8 | 4-1/8 | 4 | 2691-641 | 36.90 | – | – |
| 1 | 1 | 2 | 4-1/2 | 4 | 2691-642 | 38.22 | 2605-642 | 41.65 |
| 1 | 1 | 2 | 4-1/2 | 6 | 2691-643 | 38.22 | 2605-643 | 41.65 |
| 1-1/8 | 3/4 | 2 | 4-1/2 | 6 | 2691-681 | 49.98 | – | – |
| 1-1/8 | 1 | 2 | 4-1/2 | 6 | 2691-682 | 49.98 | – | – |
| 1-1/8 | 1-1/4 | 2 | 4-1/2 | 4 | 2691-683† | 49.98 | – | – |
| 1-1/4 | 3/4 | 2 | 4-1/2 | 6 | 2691-798 | 51.03 | – | – |
| 1-1/4 | 1 | 2 | 4-1/2 | 6 | 2691-800 | 51.03 | – | – |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 4 | 2691-801 | 50.44 | 2605-801 | 60.99 |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2691-802 | 50.44 | 2605-802 | 60.99 |
| 1-1/2 | 3/4 | 2 | 4-1/2 | 6 | 2691-958 | 67.12 | – | – |
| 1-1/2 | 1 | 2 | 4-1/2 | 6 | 2691-960 | 67.12 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 4 | 2691-961 | 69.37 | 2605-961 | 73.38 |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 2691-962 | 69.37 | 2605-962 | 73.38 |
| 1-3/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2692-121 | 99.32 | – | – |
| 2 | 1-1/4 | 2 | 4-1/2 | 6 | 2692-281 | 103.90 | 2606-281 | 114.21 |
| 2 | 1-1/4 | 2 | 4-1/2 | 8 | 2692-282 | 103.90 | – | – |

2" Diameter Heavy Duty Dual Drive Shanks available on request

## Single End - Extra Long Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | NO. OF FLUTES | CENTER CUT Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-3/4 | 3-9/16 | 4 | 2695-161 | $14.98 | 3990-516 | $18.17 |
| 5/16 | 3/8 | 2 | 3-3/4 | 4 | 2695-201 | 14.98 | 3990-520 | 18.17 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 4 | 2695-241 | 15.34 | 3990-524 | 18.17 |
| 1/2 | 1/2 | 3 | 5 | 4 | 2695-321 | 19.45 | 3990-532 | 23.03 |
| 5/8 | 5/8 | 4 | 6-1/8 | 4 | 2695-401 | 28.20 | 3990-540 | 31.19 |
| 3/4 | 3/4 | 4 | 6-1/4 | 4 | 2695-481 | 36.77 | 3990-548 | 39.85 |
| 3/4 | 3/4 | 4 | 6-1/4 | 6 | 2695-482 | 36.77 | – | – |
| 7/8 | 7/8 | 5 | 7-1/4 | 4 | 2695-561 | 47.48 | – | – |
| 1 | 1 | 6 | 8-1/2 | 4 | 2695-641 | 65.34 | 3990-564 | 67.66 |
| 1 | 1 | 6 | 8-1/2 | 6 | 2695-642 | 65.34 | – | – |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 4 | 2695-801 | 86.08 | – | – |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 6 | 2695-802 | 86.08 | – | – |
| 1-1/2 | 1-1/4 | 8 | 10-1/2 | 6 | 2695-961 | 176.17 | – | – |

## Double End - Regular Length - 4 Flute

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OVER. LG'TH | CENTER CUT Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3-1/16 | 2700-208 | $ 10.54 | 2604-308 | $ 15.62 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 2700-210 | 10.54 | 2604-310 | 16.23 |
| 3/16 | 3/8 | 1/2 | 3-1/4 | 2700-212 | 10.54 | 2604-312 | 15.62 |
| 7/32 | 3/8 | 9/16 | 3-1/4 | 2700-214 | 10.54 | 2604-314 | 16.23 |
| 1/4 | 3/8 | 5/8 | 3-3/8 | 2700-216 | 10.54 | 2604-316 | 14.69 |
| 9/32 | 3/8 | 11/16 | 3-3/8 | 2700-218 | 10.54 | 2604-318 | 15.77 |
| 5/16 | 3/8 | 3/4 | 3-1/2 | 2700-220 | 10.54 | 2604-320 | 14.69 |
| 11/32 | 3/8 | 3/4 | 3-1/2 | 2700-222 | 10.54 | – | – |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 2700-224 | 10.54 | 2604-324 | 14.69 |
| 13/32 | 1/2 | 1 | 4-1/8 | 2700-226 | 17.34 | – | – |
| 7/16 | 1/2 | 1 | 4-1/8 | 2700-228 | 17.34 | 2604-328 | 21.93 |
| 15/32 | 1/2 | 1 | 4-1/8 | 2700-230 | 17.34 | – | – |
| 1/2 | 1/2 | 1 | 4-1/8 | 2700-232 | 17.34 | 2604-332 | 22.48 |
| 5/8 | 5/8 | 1-3/8 | 5 | 2700-240 | 24.30 | 2604-340 | 31.85 |
| 3/4 | 3/4 | 1-5/8 | 5-5/8 | 2700-248 | 32.88 | 2604-348 | 38.46 |
| 7/8 | 7/8 | 1-7/8 | 6-1/8 | 2700-256 | 43.07 | – | – |
| 1 | 1 | 1-7/8 | 6-3/8 | 2700-264 | 53.16 | – | – |

## Single End – Long Length

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | NO. OF FLUTES | CENTER CUT Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-1/4 | 3-1/8 | 4 | 2693-161 | $ 8.77 | 2607-161 | $13.90 |
| 5/16 | 3/8 | 1-1/2 | 3-1/4 | 4 | 2693-201 | 8.77 | 2607-201 | 13.90 |
| 3/8 | 3/8 | 1-1/2 | 4 | 4 | 2693-241 | 8.77 | 2607-241 | 13.90 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 4 | 2693-281 | 12.36 | – | – |
| 1/2 | 1/2 | 2 | 4 | 4 | 2693-321 | 14.26 | 2607-321 | 20.55 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 2693-401 | 19.32 | 2607-401 | 27.39 |
| 3/4 | 3/4 | 3 | 5-1/4 | 4 | 2693-481 | 24.17 | 2607-481 | 30.53 |
| 3/4 | 3/4 | 3 | 5-1/4 | 6 | 2693-482† | 24.17 | – | – |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | 2693-561 | 38.00 | 2607-561 | 45.14 |
| 1 | 1 | 4 | 6-1/2 | 4 | 2693-641 | 47.23 | 2607-641 | 55.30 |
| 1 | 1 | 4 | 6-1/2 | 6 | 2693-642 | 47.23 | – | – |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 6 | 2693-802 | 67.79 | 2607-801 | 78.78 |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 6 | 2693-961 | 93.31 | – | – |
| 2 | 1-1/4 | 4 | 6-1/2 | 6 | 2694-282 | 185.03 | – | – |
| 2 | 1-1/4 | 4 | 6-1/2 | 8 | 2694-283 | 185.03 | – | – |

† Limited Quantities

## Single End - Ball End

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | NO. OF FLUTES | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 4 | 2697-081 | $13.68 | 3891-081 | $18.77 |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 4 | 2697-121 | 13.68 | 3891-121 | 19.49 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 4 | 2697-161 | 13.68 | 3891-161 | 18.77 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | 2697-201 | 15.06 | 3891-201 | 19.64 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 2697-241 | 15.06 | 3891-241 | 21.20 |
| 7/16 | 3/8 | 1 | 2-9/16 | 4 | 2697-281 | 19.38 | – | – |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 2697-321 | 19.38 | 3891-321 | 25.79 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2697-401 | 27.55 | 3891-401 | 36.74 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | 2697-481 | 33.82 | 3891-481 | 43.87 |
| 1 | 1 | 2 | 4-1/2 | 4 | 2697-641 | 53.40 | 3891-641 | 71.69 |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2697-802 | 79.66 | 3891-802 | 88.11 |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 4 | 2697-803 | 115.81 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 4 | 2697-961 | 125.24 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 2697-962 | 125.24 | – | – |

# Ball End – End Mills

3

## R.H. Cut– R.H. Spiral– High Speed Steel

### Two Flute– Single End– Regular Length

| MILL DIAM. | SHANK DIAM. | Pittsburg® ALLEGHANY FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 2616-081 | $6.71 | 3/8 | 2-5/16 | 2609-081 | $11.73 |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 2616-121 | 6.71 | 1/2 | 2-3/8 | 2609-121 | 11.73 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 2616-161 | 6.71 | 5/8 | 2-7/16 | 2609-161 | 11.73 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 2616-201 | 7.40 | 3/4 | 2-1/2 | 2609-201 | 13.18 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 2616-241 | 7.69 | 3/4 | 2-1/2 | 2609-221 | 13.58 |
| 7/16 | 1/2 | 1 | 3 | 2616-281 | 10.88 | 1 | 3-1/4 | 2609-281 | 17.89 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 2616-321 | 10.88 | 1 | 3-1/4 | 2609-321 | 17.89 |
| 9/16 | 1/2 | 1-3/8 | 3-3/8 | 2616-361 | 12.69 | 1-1/8 | 3-3/8 | 2609-361 | 22.15 |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 2616-401 | 15.14 | 1-1/8 | 3-3/8 | 2609-401 | 25.41 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 2616-402 | 15.14 | 1-3/8 | 3-3/4 | 2609-402 | 25.41 |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 2616-481 | 18.52 | 1-5/16 | 3-5/8 | 2609-481 | 29.87 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 2616-483 | 18.52 | 1-5/8 | 3-7/8 | 2609-483 | 29.87 |
| 7/8 | 7/8 | 2 | 4-1/4 | 2616-562 | 23.28 | 2 | 4-1/4 | 2609-561 | 37.90 |
| 1 | 3/4 | 2-1/4 | 4-9/16 | 2616-641 | 31.14 | 2-1/4 | 4-1/2 | 2609-641 | 47.89 |
| 1 | 1 | 2-1/4 | 4-3/4 | 2616-642 | 31.14 | 2-1/4 | 4-3/4 | 2609-642 | 47.89 |
| 1-1/8 | 1 | 2-1/4 | 4-3/4 | 2616-721 | 35.32 | 2-1/4 | 4-3/4 | 2609-721 | 56.30 |
| 1-1/4 | 1-1/4 | 2-1/2 | 5 | 2616-801 | 43.06 | 2-1/2 | 5 | 2609-801 | 64.82 |
| 1-3/8 | 1-1/4 | 2-1/2 | 5 | 2616-881 | 48.99 | – | – | – | – |
| 1-1/2 | 1-1/4 | 2-1/2 | 5 | 2616-961 | 68.67 | 2-1/2 | 5 | 2609-961 | 79.92 |

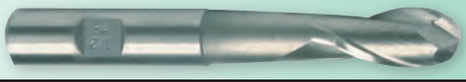
† Limited Quantities

### Multiple Flute– Single End Regular, Long & Long Flute

| MILL. DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | NO. OF FLUTES | Pittsburg® ALLEGHANY ORDER NO | PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 5/8 | 2-1/2 | 4 | – | – | 3889-161 | $18.90 |
| 1/4 | 3/8 | 3/4 | 2-9/16 | 4 | 2660-161 | $12.30 | – | – |
| 1/4 | 3/8 | 1-1/4 | 3-1/16 | 4 | 2660-163 | 14.11 | 3889-163 | 21.17 |
| 1/4 | 3/8 | 1-3/4 | 3-1/2 | 4 | 2660-165 | 16.13 | 3889-165 | 21.90 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | 2660-204 | 12.30 | 3889-202 | 18.53 |
| 5/16 | 3/8 | 1 | 2-3/4 | 4 | 2660-202 | 13.53 | – | – |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 4 | 2660-203 | 14.11 | 3889-203 | 22.22 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 2660-241 | 12.30 | 3889-241 | 20.73 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 4 | 2660-244 | 14.11 | 3889-244 | 24.01 |
| 3/8 | 3/8 | 2 | 3-3/4 | 4 | 2660-245 | 16.28 | – | – |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 4 | 2660-246 | 18.45 | 3889-246 | 26.32 |
| 1/2 | 1/2 | 1 | 3 | 4 | 2660-321† | 13.66 | – | – |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 2660-322 | 14.80 | 3889-323 | 32.74 |
| 1/2 | 1/2 | 2 | 4 | 4 | 2660-324 | 17.89 | 3889-324 | 28.43 |
| 1/2 | 1/2 | 2-1/2 | 4-1/2 | 4 | 2660-325 | 20.13 | – | – |
| 1/2 | 1/2 | 3 | 5 | 4 | 2660-326 | 22.36 | 3889-326 | 37.48 |
| 5/8 | 5/8 | 1-1/4 | 3-3/8 | 4 | 2660-401† | 20.91 | – | – |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2660-402 | 23.23 | 3889-402 | 36.63 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 2660-403 | 24.99 | 3889-403 | 40.12 |
| 5/8 | 5/8 | 3 | 5-1/8 | 4 | 2660-404 | 27.69 | 3889-404 | 43.37 |
| 5/8 | 5/8 | 3-3/4 | 5-7/8 | 4 | 2660-406† | 31.74 | – | – |
| 3/4 | 3/4 | 1-5/8 | 3-3/4 | 4 | 2660-481 | 24.26 | 3889-481 | 41.37 |
| 3/4 | 3/4 | 2-1/4 | 4-1/2 | 4 | – | – | 3889-484 | 45.69 |
| 3/4 | 3/4 | 3 | 5-1/4 | 4 | 2660-485 | 32.49 | 3889-485 | 50.32 |
| 3/4 | 3/4 | 3-3/4 | 6 | 4 | 2660-486† | 37.13 | – | – |
| 3/4 | 3/4 | 4 | 6-1/4 | 4 | – | – | 3889-487 | 62.74 |
| 1 | 1 | 2 | 4-1/2 | 4 | 2660-641 | 46.80 | 3889-641 | 71.06 |
| 1 | 1 | 3 | 5-1/2 | 4 | – | – | 3889-642 | 75.69 |
| 1 | 1 | 4 | 6-1/2 | 4 | 2660-643 | 51.30 | 3889-643 | 81.27 |
| 1 | 1 | 5 | 7-1/2 | 4 | 2660-644† | 59.19 | – | – |
| 1 | 1 | 6 | 8-1/2 | 4 | 2660-645 | 67.08 | 3889-645 | 100.33 |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 4 | 2660-801 | 63.79 | – | – |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 4 | 2660-802 | 77.97 | – | – |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 4 | 2660-803 | 93.67 | – | – |
| 1-1/4 | 1-1/4 | 5 | 7-1/2 | 4 | 2660-806† | 93.67 | – | – |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 4 | 2660-807† | 106.42 | – | – |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 6 | 2660-808 | 106.42 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 2660-961 | 85.64 | – | – |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 6 | 2660-964 | 113.52 | – | – |
| 1-1/2 | 1-1/4 | 6 | 8-1/2 | 6 | 2660-966 | 137.96 | – | – |

† Limited Quantities

### Two Flute– Long Reach



| MILL DIAM. | SHANK DIAM. | LG'TH BELOW SHANK | CUT. EDGE LG'TH | OAL | Pittsburg® ALLEGHANY ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 13/16 | 3/8 | 2-3/8 | 2619-081 | $11.42 |
| 3/16 | 3/8 | 1-1/8 | 1/2 | 2-11/16 | 2619-121 | 11.42 |
| 1/4 | 3/8 | 1-1/2 | 5/8 | 3-1/16 | 2619-161 | 8.38 |
| 5/16 | 3/8 | 1-3/4 | 3/4 | 3-5/16 | 2619-201 | 8.82 |
| 3/8 | 3/8 | 1-3/4 | 3/4 | 3-5/16 | 2619-241 | 8.82 |
| 7/16 | 1/2 | 2-1/4 | 1 | 4 | 2619-281 | 11.24 |
| 1/2 | 1/2 | 2-1/4 | 1 | 4 | 2619-321 | 12.84 |
| 5/8 | 5/8 | 2-3/4 | 1-3/8 | 4-5/8 | 2619-401 | 16.12 |
| 3/4 | 3/4 | 3-3/8 | 1-5/8 | 5-3/8 | 2619-481 | 20.53 |
| 7/8 | 7/8 | 4 | 2 | 6 | 2619-561 | 26.02 |
| 1 | 1 | 5 | 2-1/2 | 7-1/4 | 2619-641 | 35.53 |
| 1-1/4 | 1-1/4 | 5 | 3 | 7-1/4 | 2619-801 | 55.82 |

† Limited Quantities

### Two Flute– Double End

| MILL DIAM. | SHANK DIAM. | Pittsburg® ALLEGHANY FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH | ALLEGIANCE® AMERICAN MADE FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3-1/16 | 2636-308 | $11.76 | 3/8 | 3-1/16 | 3886-508 | $22.72 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | – | – | 7/16 | 3-1/8 | 3886-510 | 22.72 |
| 3/16 | 3/8 | 7/16 | 3-1/8 | 2636-312 | 11.76 | 7/16 | 3-1/4 | 3886-512 | 22.72 |
| 7/32 | 3/8 | 1/2 | 3-1/8 | – | – | 1/2 | 3-1/4 | 3886-514 | 22.72 |
| 1/4 | 3/8 | 1/2 | 3-1/8 | 2636-316 | 11.76 | 1/2 | 3-3/8 | 3886-516 | 22.72 |
| 9/32 | 3/8 | 9/16 | 3-1/8 | – | – | 9/16 | 3-3/8 | 3886-518 | 22.72 |
| 5/16 | 3/8 | 9/16 | 3-1/8 | 2636-320 | 11.76 | 9/16 | 3-1/2 | 3886-520 | 22.72 |
| 11/32 | 3/8 | 9/16 | 3-1/8 | – | – | 9/16 | 3-1/2 | 3886-522 | 22.72 |
| 3/8 | 3/8 | 9/16 | 3-1/8 | 2636-324 | 11.76 | 9/16 | 3-1/2 | 3886-524 | 22.72 |
| 13/32 | 1/2 | 13/16 | 3-3/4 | 2636-326† | 16.56 | – | – | – | – |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 2636-328 | 16.56 | 13/16 | 4-1/8 | 3886-528 | 31.92 |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 2636-332 | 16.56 | 13/16 | 4-1/8 | 3886-532 | 31.79 |
| 5/8 | 5/8 | 1-1/8 | 4-1/2 | 2636-340 | 24.11 | 1-1/8 | 5 | 3886-540 | 43.49 |
| 3/4 | 3/4 | 1-5/16 | 5 | 2636-348 | 29.60 | 1-5/16 | 5-5/8 | 3886-548 | 55.28 |
| 7/8 | 7/8 | 1-9/16 | 5-1/2 | 2636-356 | 38.17 | 1-9/16 | 6-1/8 | 3886-556 | 67.70 |
| 1 | 1 | 1-5/8 | 5-7/8 | 2636-364 | 47.48 | 1-5/8 | 6-3/8 | 3886-564 | 84.04 |

† Limited Quantities

# Left Hand, Multiple Flute, End Mills
## High Speed Steel

3

### Regular Length – L.H.S. – R.H.C.

| MILL. DIAM | SHANK DIAM. | FLUTE L'GTH | NO. OF FLUTES | OVER. L'GTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 5/16 | 3/8 | 3/4 | 4 | 2-1/2 | 2663-201† | $ 4.55 |
| 3/8 | 3/8 | 3/4 | 4 | 2-1/2 | 2663-241† | 4.55 |
| 5/8 | 5/8 | 1-5/8 | 4 | 3-3/4 | 2663-401† | 9.17 |
| 7/8 | 7/8 | 1-7/8 | 4 | 4-1/8 | 2663-561† | 13.69 |
| 1 | 1 | 2 | 4 | 4-1/2 | 2663-641† | 15.68 |
| 1-1/8 | 1 | 2 | 4 | 4-1/2 | 2663-741† | 21.56 |
| 1-1/4 | 1 | 2 | 4 | 4-1/2 | 2663-800† | 23.66 |
| 1-1/4 | 1 | 2 | 6 | 4-1/2 | 2663-801† | 23.66 |
| 1-1/4 | 1-1/4 | 2 | 4 | 4-1/2 | 2663-803† | 23.66 |
| 1-1/4 | 1-1/4 | 2 | 6 | 4-1/2 | 2663-802† | 23.66 |
| 1-3/8 | 1 | 2 | 4 | 4-1/2 | 2663-880† | 25.34 |
| 1-3/8 | 1 | 2 | 6 | 4-1/2 | 2663-881† | 25.34 |
| 1-1/2 | 1 | 2 | 4 | 4-1/2 | 2663-960† | 28.56 |
| 1-1/2 | 1 | 2 | 6 | 4-1/2 | 2663-961† | 28.56 |
| 1-1/2 | 1-1/4 | 2 | 4 | 4-1/2 | 2663-963† | 28.56 |
| 1-1/2 | 1-1/4 | 2 | 6 | 4-1/2 | 2663-962† | 28.56 |
| 1-5/8 | 1-1/4 | 2 | 4 | 4-1/2 | 2664-040† | 31.08 |
| 1-5/8 | 1-1/4 | 2 | 6 | 4-1/2 | 2664-041† | 31.08 |
| 1-3/4 | 1-1/4 | 2 | 4 | 4-1/2 | 2664-120† | 34.90 |
| 1-3/4 | 1-1/4 | 2 | 6 | 4-1/2 | 2664-121† | 34.90 |
| 1-7/8 | 1-1/4 | 2 | 4 | 4-1/2 | 2664-200† | 36.09 |
| 1-7/8 | 1-1/4 | 2 | 8 | 4-1/2 | 2664-201† | 36.09 |
| 2 | 1-1/4 | 2 | 4 | 4-1/2 | 2664-280† | 40.46 |
| 2 | 1-1/4 | 2 | 8 | 4-1/2 | 2664-281† | 40.46 |

† Limited Quantities

### Regular Length – L.H.S. – L.H.C.

| MILL. DIAM | SHANK DIAM. | FLUTE L'GTH | NO. OF FLUTES | OVER. L'GTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 4 | 2-5/16 | 3500-081† | $4.55 |
| 3/16 | 3/8 | 1/2 | 4 | 2-3/8 | 3500-121† | 4.55 |
| 1/4 | 3/8 | 5/8 | 4 | 2-1/2 | 3500-161† | 4.55 |
| 5/16 | 3/8 | 3/4 | 4 | 2-1/2 | 3500-201† | 4.55 |
| 7/16 | 3/8 | 1 | 4 | 2-11/16 | 3500-281† | 5.92 |
| 9/16 | 1/2 | 1-3/8 | 4 | 3-3/8 | 3500-361† | 8.02 |
| 5/8 | 5/8 | 1-3/8 | 4 | 3-3/8 | 3500-401† | 9.17 |
| 5/8 | 5/8 | 1-3/8 | 4 | 3-3/8 | 3500-403† | 9.17 |
| 11/16 | 1/2 | 1-5/8 | 4 | 3-5/8 | 3500-441† | 11.41 |
| 11/16 | 5/8 | 1-5/8 | 4 | 3-3/4 | 3500-443† | 11.41 |
| 3/4 | 1/2 | 1-5/8 | 4 | 3-5/8 | 3500-481† | 12.95 |
| 3/4 | 5/8 | 1-5/8 | 4 | 3-3/4 | 3500-483† | 12.95 |
| 3/4 | 3/4 | 1-1/2 | 6 | 3-1/2 | 3500-486 | 12.95 |
| 7/8 | 1/2 | 1-5/8 | 4 | 3-5/8 | 3500-561† | 13.69 |
| 7/8 | 5/8 | 1-7/8 | 6 | 4 | 3500-563† | 13.69 |
| 7/8 | 7/8 | 1-7/8 | 4 | 4-1/8 | 3500-565† | 13.69 |
| 15/16 | 5/8 | 1-7/8 | 6 | 4 | 3500-601† | 14.70 |
| 15/16 | 7/8 | 1-7/8 | 4 | 4-1/8 | 3500-603† | 14.70 |
| 15/16 | 7/8 | 1-7/8 | 6 | 4-1/8 | 3500-604† | 14.70 |
| 1 | 1/2 | 1-7/8 | 4 | 3-7/8 | 3500-641† | 15.68 |
| 1 | 5/8 | 1-7/8 | 6 | 4 | 3500-643† | 15.68 |
| 1-1/8 | 7/8 | 2 | 6 | 4-1/4 | 3500-723† | 21.56 |
| 1-1/8 | 1 | 2 | 6 | 4-1/2 | 3500-725† | 21.56 |
| 1-1/4 | 1 | 2 | 6 | 4-1/2 | 3500-802† | 23.66 |
| 1-1/4 | 1-1/4 | 2 | 6 | 4-1/2 | 3500-804† | 23.66 |
| 1-3/8 | 1 | 2 | 6 | 4-1/2 | 3500-882† | 25.34 |
| 1-1/2 | 1 | 2 | 6 | 4-1/2 | 3500-962† | 28.56 |
| 1-1/2 | 1-1/4 | 2 | 6 | 4-1/2 | 3500-964† | 28.56 |
| 1-5/8 | 1-1/4 | 2 | 6 | 4-1/2 | 3501-043† | 31.08 |
| 1-3/4 | 1-1/4 | 2 | 6 | 4-1/2 | 3501-123† | 34.90 |
| 1-7/8 | 1-1/4 | 2 | 8 | 4-1/2 | 3501-203† | 36.09 |
| 2 | 1-1/4 | 2 | 4 | 4-1/2 | 3501-283† | 40.46 |
| 2 | 1-1/4 | 2 | 8 | 4-1/2 | 3501-285† | 40.46 |

† Limited Quantities

### Long Length – L.H.S. – R.H.C.

2

| MILL. DIAM | SHANK DIAM. | FLUTE L'GTH | NO. OF FLUTES | OVER. L'GTH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 1-1/4 | 4 | 3-1/8 | 2665-161† | $ 5.04 |
| 5/16 | 3/8 | 1-3/8 | 4 | 3-1/8 | 2665-201† | 5.04 |
| 3/8 | 3/8 | 1-1/2 | 4 | 3-1/4 | 2665-241† | 5.04 |
| 7/16 | 3/8 | 1-3/4 | 4 | 3-3/4 | 2665-281† | 7.32 |
| 5/8 | 5/8 | 2-1/2 | 4 | 4-5/8 | 2665-401† | 9.70 |
| 3/4 | 3/4 | 3 | 4 | 5-1/4 | 2665-481† | 11.94 |
| 7/8 | 7/8 | 3-1/2 | 4 | 5-3/4 | 2665-561† | 14.84 |
| 1 | 1 | 4 | 4 | 6-1/2 | 2665-641† | 20.09 |
| 1-1/8 | 1 | 4 | 6 | 6-1/2 | 2665-721† | 27.65 |
| 1-1/4 | 1 | 4 | 4 | 6-1/2 | 2665-800† | 30.94 |
| 1-1/4 | 1 | 4 | 6 | 6-1/2 | 2665-801† | 30.94 |
| 1-1/4 | 1-1/4 | 4 | 6 | 6-1/2 | 2665-802† | 30.94 |
| 1-3/8 | 1 | 4 | 4 | 6-1/2 | 2665-880† | 36.58 |
| 1-3/8 | 1 | 4 | 6 | 6-1/2 | 2665-881† | 36.58 |
| 1-1/2 | 1 | 4 | 4 | 6-1/2 | 2665-960† | 37.73 |
| 1-1/2 | 1 | 4 | 6 | 6-1/2 | 2665-961† | 37.73 |
| 1-1/2 | 1-1/4 | 4 | 6 | 6-1/2 | 2665-962† | 37.73 |
| 1-3/4 | 1-1/4 | 4 | 4 | 6-1/2 | 2666-120† | 48.72 |
| 1-3/4 | 1-1/4 | 4 | 6 | 6-1/2 | 2666-121† | 48.72 |
| 1-7/8 | 1-1/4 | 4 | 8 | 6-1/2 | 2666-201† | 54.29 |
| 2 | 1-1/4 | 4 | 8 | 6-1/2 | 2666-281† | 59.82 |

† Limited Quantities

### Double End – L.H.S. – L.H.C.

| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/8 | 3/8 | 3/8 | 3-1/4 | 2667-908† | $6.45 |
| 5/32 | 3/8 | 7/16 | 3-1/4 | 2667-910† | 6.45 |
| 3/16 | 3/8 | 1/2 | 3-1/4 | 2667-912† | 6.45 |
| 7/32 | 3/8 | 9/16 | 3-1/4 | 2667-914† | 6.45 |
| 1/4 | 3/8 | 5/8 | 3-3/8 | 2667-916† | 6.45 |
| 9/32 | 3/8 | 11/16 | 3-3/8 | 2667-918† | 6.58 |
| 5/16 | 3/8 | 3/4 | 3-3/8 | 2667-920† | 6.58 |
| 11/32 | 3/8 | 3/4 | 3-3/8 | 2667-922† | 6.73 |
| 3/8 | 3/8 | 3/4 | 3-3/8 | 2667-924† | 6.73 |
| 13/32 | 1/2 | 1 | 4-1/8 | 2667-926† | 8.68 |
| 7/16 | 1/2 | 1 | 4-1/8 | 2667-928† | 8.68 |
| 15/32 | 1/2 | 1 | 4-1/8 | 2667-930† | 8.68 |
| 1/2 | 1/2 | 1 | 4-1/8 | 2667-932† | 8.68 |
| 9/16 | 5/8 | 1-3/8 | 5 | 2667-936† | 13.74 |
| 5/8 | 5/8 | 1-3/8 | 5 | 2667-940† | 13.74 |
| 11/16 | 3/4 | 1-5/8 | 5-5/8 | 2667-944† | 18.87 |
| 3/4 | 3/4 | 1-5/8 | 5-5/8 | 2667-948† | 18.87 |
| 13/16 | 7/8 | 1-7/8 | 6-1/4 | 2667-952† | 21.06 |
| 7/8 | 7/8 | 1-7/8 | 6-1/4 | 2667-956† | 21.06 |
| 15/16 | 1 | 1-7/8 | 6-1/2 | 2667-960† | 29.19 |
| 1 | 1 | 1-7/8 | 6-1/2 | 2667-964† | 29.19 |

† Limited Quantities

# End Mills

## Stub Flute – Single End – Vertical Mill and Bridgeport

CLOSEOUT!

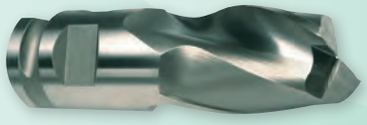
| MILL DIA. | SHANK DIA. | FLUTE L'GTH | OAL | NO. OF FLUTES | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 3/4 | 1/2 | 5/8 | 2-5/8 | 4 | 2715-481† | $8.34 |
| 7/8 | 1/2 | 5/8 | 2-5/8 | 4 | 2715-561† | 10.38 |
| 1 | 1/2 | 3/4 | 2-3/4 | 4 | 2715-641† | 11.43 |
| 1 | 5/8 | 3/4 | 2-7/8 | 4 | 2715-642† | 11.43 |
| 1 | 3/4 | 3/4 | 3 | 4 | 2715-643† | 11.43 |
| 1-1/8 | 1/2 | 3/4 | 2-3/4 | 6 | 2715-721† | 17.55 |
| 1-1/8 | 5/8 | 3/4 | 2-7/8 | 6 | 2715-722† | 16.47 |
| 1-1/8 | 3/4 | 3/4 | 6 | 3 | 2715-723† | 16.47 |
| 1-1/4 | 1/2 | 3/4 | 2-3/4 | 6 | 2715-801† | 18.78 |
| 1-1/4 | 5/8 | 3/4 | 2-7/8 | 6 | 2715-802† | 17.82 |
| 1-3/8 | 5/8 | 3/4 | 2-7/8 | 6 | 2715-881† | 18.78 |
| 1-1/2 | 5/8 | 3/4 | 2-7/8 | 6 | 2715-961† | 20.70 |

† Limited Quantities

# Sure-Lock Heavy Duty End Mills

## Combination Shanks – High Speed Steel

### Two Flute

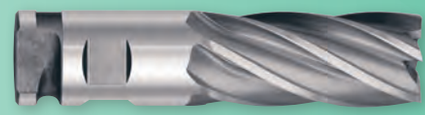


| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2 | 2 | 2 | 5-3/4 | 2671-281† | $44.04 |
| 2 | 2 | 3 | 6-3/4 | 2671-282† | 45.99 |
| 2 | 2 | 4 | 7-3/4 | 2671-283† | 54.76 |
| 2 | 2 | 6 | 9-3/4 | 2671-284† | 62.56 |
| 2-1/2 | 2 | 6 | 9-3/4 | 2671-602† | 97.99 |

### Four Flute

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2 | 2 | 2 | 5-3/4 | 2673-281† | $41.44 |
| 2 | 2 | 4 | 7-3/4 | 2673-282† | 76.54 |
| 2 | 2 | 6 | 9-3/4 | 2673-283† | 102.54 |
| 2-1/2 | 2 | 8 | 11-3/4 | 2673-603† | 103.19 |

### Six Flute



| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2 | 2 | 2 | 5-3/4 | 2675-281† | $ 41.44 |
| 2 | 2 | 4 | 7-3/4 | 2675-282† | 79.14 |

### Eight Flute

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 3 | 2-1/2 | 8 | 11-3/4 | 2677-923† | $154.54 |
| 3 | 2-1/2 | 10 | 13-3/4 | 2677-924† | 177.61 |

### Two Flute Ball

| MILL DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2 | 2 | 5 | 8-3/4 | 2681-281† | $95.45 |

† Limited Quantities

# M42 8% Cobalt Roughing End Mills

## Coarse Tooth – Non-Center Cutting

Uncoated

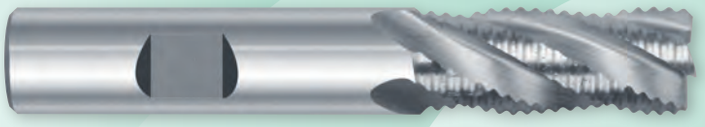
TiN Coated

| SIZE | | | | | UNCOATED | | | | TiN COATED | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Pittsburg® ALLEGHANY | | ALLEGIANCE® AMERICAN MADE | | Pittsburg® ALLEGHANY | |
| MILL DIAM. | SHANK DIAM. | FLUTE L'GTH | OAL | NO. OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 3 | 2701-200 | $ 10.68 | – | – | – | – |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 3 | 2701-201 | 10.68 | – | – | 2702-420 | $16.46 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 2701-241 | 10.68 | 3880-241 | $17.22 | 2702-424 | 16.46 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 2701-321 | 15.24 | 3880-322 | 22.34 | 2702-432 | 21.32 |
| 1/2 | 1/2 | 2 | 4 | 4 | 2701-322 | 23.54 | 3880-323 | 29.10 | 2702-434 | 29.35 |
| 1/2 | 1/2 | 3 | 5 | 4 | 2701-323 | 29.43 | – | – | – | – |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2701-401 | 19.97 | 3880-401 | 27.38 | 2702-440 | 25.33 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 2701-402 | 28.47 | 3880-402 | 38.02 | 2702-442 | 36.66 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2701-481 | 22.25 | – | – | 2702-446 | 32.94 |
| 3/4 | 5/8 | 3 | 5-1/8 | 4 | 2701-482 | 29.31 | – | – | – | – |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | 2701-483 | 24.65 | 3880-483 | 33.00 | 2702-448 | 31.40 |
| 3/4 | 3/4 | 3 | 5-1/4 | 4 | 2701-485 | 31.66 | 3880-484 | 42.00 | 2702-450 | 39.51 |
| 7/8 | 3/4 | 1-5/8 | 4-1/4 | 4 | 2701-561† | 19.95 | – | – | – | – |
| 7/8 | 3/4 | 1-3/4 | 3-7/8 | 5 | – | – | 3880-562 | 44.01 | – | – |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 5 | 2701-562 | 34.43 | – | – | 2702-454 | 42.64 |
| 7/8 | 3/4 | 3-1/2 | 5-5/8 | 5 | 2701-563 | 45.63 | 3880-563 | 54.47 | 2702-455 | 52.21 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 5 | 2701-565 | 37.92 | – | – | 2702-456 | 42.64 |
| 7/8 | 7/8 | 3-1/2 | 5-5/8 | 4 | 2701-566 | 45.63 | – | – | – | – |
| 1 | 3/4 | 2 | 4-1/4 | 5 | 2701-642 | 38.63 | – | – | 2702-462 | 49.71 |
| 1 | 3/4 | 4 | 6-1/4 | 5 | 2701-643 | 55.98 | – | – | – | – |
| 1 | 1 | 2 | 4-1/2 | 5 | 2701-645 | 41.53 | 3880-645 | 49.49 | 2702-464 | 49.71 |
| 1 | 1 | 3 | 5-1/2 | 5 | – | – | 3880-646 | 60.20 | – | – |
| 1 | 1 | 4 | 6-1/2 | 5 | 2701-648 | 57.24 | 3880-647 | 65.60 | 2702-466 | 69.01 |
| 1-1/8 | 3/4 | 2 | 4-1/4 | 6 | 2701-721 | 52.11 | – | – | 2702-470 | 68.33 |
| 1-1/8 | 1 | 2 | 4-1/2 | 6 | 2701-722 | 52.11 | 3880-722 | 67.81 | 2702-472 | 68.33 |
| 1-1/4 | 3/4 | 2 | 4-1/4 | 6 | 2701-799 | 61.44 | – | – | 2702-478 | 79.07 |
| 1-1/4 | 3/4 | 4 | 6-1/4 | 6 | 2701-801 | 83.49 | – | – | 2702-479 | 106.70 |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2701-803 | 59.84 | 3880-803 | 73.56 | 2702-482 | 79.07 |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 6 | – | – | 3880-804 | 91.30 | – | – |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 6 | 2701-805 | 83.49 | 3880-805 | 99.14 | 2702-483 | 106.70 |
| 1-1/2 | 3/4 | 2 | 4-1/4 | 6 | 2701-961 | 74.96 | – | – | 2702-486 | 105.93 |
| 1-1/2 | 3/4 | 4 | 6-1/4 | 6 | 2701-962 | 105.47 | – | – | 2702-487 | 126.59 |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 2701-963 | 85.25 | 3880-963 | 95.14 | 2702-492 | 105.93 |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 6 | 2701-965 | 108.35 | 3880-965 | 136.70 | 2702-493 | 126.59 |
| 1-1/2 | 1-1/4 | 6 | 8-1/2 | 6 | – | – | 3880-966 | 199.29 | – | – |
| 1-3/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2702-121 | 123.43 | – | – | – | – |
| 1-3/4 | 1-1/4 | 4 | 6-1/2 | 6 | 2702-122 | 139.91 | 3881-222 | 155.12 | – | – |
| 2 | 1-1/4 | 2 | 4-1/2 | 8 | 2702-279 | 123.43 | 3881-279 | 137.04 | – | – |
| 2 | 1-1/4 | 4 | 6-1/2 | 8 | 2702-280 | 152.43 | 3881-280 | 187.20 | – | – |
| 2 | 2 | 2 | 5-3/4 | 8 | 2702-281 | 150.33 | – | – | – | – |
| 2 | 2 | 4 | 7-3/4 | 8 | – | – | 3881-282 | 204.61 | – | – |
| 2 | 2 | 6 | 9-3/4 | 8 | – | – | 3881-284 | 253.12 | – | – |

† Limited Quantities

# M42 8% Cobalt Roughing End Mills

## Fine Tooth – Non-Center Cutting



3 3

| DIA. | SHANK DIA. | LGTH. OF CUT | OAL | NO. OF FLUTES | Pittsburg® ALLEGHANY ORDER NO. | Pittsburg® ALLEGHANY PRICE EACH | ALLEGIANCE® AMERICAN MADE ORDER NO. | ALLEGIANCE® AMERICAN MADE PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 | 3/8 | 5/8 | 2-7/16 | 3 | 2702-516 | $13.77 | – | – |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 3 | 2702-520 | 13.77 | – | – |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 2702-524 | 13.77 | 3850-241 | $18.08 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 2702-532 | 19.11 | 3850-322 | 23.48 |
| 1/2 | 1/2 | 2 | 4 | 4 | 2702-534 | 26.63 | 3850-323 | 30.55 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2702-540 | 22.83 | 3850-401 | 28.74 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 2702-542 | 33.34 | 3850-402 | 39.93 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | 2702-546 | 27.88 | – | – |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | 2702-548 | 27.88 | 3850-483 | 34.65 |
| 3/4 | 3/4 | 3-1/2 | 5-1/4 | 4 | 2702-550 | 35.90 | 3850-484 | 44.08 |
| 7/8 | 3/4 | 1-3/4 | 3-7/8 | 5 | – | – | 3850-562 | 46.25 |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 5 | 2702-554 | 36.95 | – | – |
| 7/8 | 3/4 | 3-1/2 | 5-5/8 | 5 | 2702-555 | 48.93 | 3850-563 | 57.20 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 5 | 2702-556 | 36.87 | – | – |
| 1 | 3/4 | 2 | 4-1/4 | 5 | 2702-562 | 41.49 | – | – |
| 1 | 1 | 2 | 4-1/2 | 5 | 2702-564 | 41.49 | 3850-645 | 51.98 |
| 1 | 1 | 3 | 5-1/2 | 5 | – | – | 3850-646 | 63.22 |
| 1 | 1 | 4 | 6-1/2 | 5 | 2702-566 | 59.90 | 3850-647 | 68.90 |
| 1-1/8 | 3/4 | 2 | 4-1/4 | 6 | 2702-570 | 57.03 | – | – |
| 1-1/8 | 1 | 2 | 4-1/2 | 6 | 2702-572 | 57.07 | – | – |
| 1-1/4 | 3/4 | 2 | 4-1/4 | 6 | 2702-578 | 65.55 | – | – |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 6 | 2702-582 | 65.97 | 3850-803 | 77.26 |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 6 | – | – | 3850-804 | 95.73 |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 6 | 2702-583 | 90.45 | 3850-805 | 104.23 |
| 1-1/2 | 3/4 | 2 | 4-1/4 | 6 | 2702-586 | 88.27 | – | – |
| 1-1/2 | 3/4 | 4 | 6-1/4 | 6 | 2702-587 | 113.00 | – | – |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 2702-592 | 88.40 | 3850-963 | 99.88 |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 6 | 2702-593 | 128.55 | 3850-965 | 139.47 |
| 1-1/2 | 1-1/4 | 6 | 8-1/2 | 6 | – | – | 3850-966 | 250.22 |
| 1-3/4 | 1-1/4 | 4 | 6-1/2 | 6 | – | – | 3851-222 | 163.08 |
| 2 | 1-1/4 | 2 | 4-1/2 | 8 | – | – | 3851-279 | 144.08 |
| 2 | 1-1/4 | 4 | 6-1/2 | 8 | – | – | 3851-280 | 196.39 |
| 2 | 2 | 4 | 7-3/4 | 8 | – | – | 3851-282 | 214.84 |
| 2 | 2 | 6 | 9-3/4 | 8 | – | – | 3851-284 | 265.61 |

## BRUBAKER TOOL CORPORATION Rougher/Finisher Center Cutting

Designed to machine materials such as titanium, magnesium and free machining stainless steel alloys. Gold finish. Cobalt, Right Hand, Center Cutting. 2

| DIA. | SHANK DIA. | FLUTE L'GTH. | OVERALL L'GTH | STARCHIP I COBALT NO. OF FLUTES | STARCHIP I COBALT ORDER NO. | STARCHIP I COBALT PRICE EACH |
|---|---|---|---|---|---|---|
| **REGULAR FLUTE LENGTH** | | | | | | |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 3987-228 | $ 44.34 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 3987-236 | 56.21 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | 3987-245 | 60.63 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 6 | 3987-246 | 63.70 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | 3987-254 | 102.30 |
| 1 | 1 | 2 | 4-1/2 | 4 | 3987-266 | 103.54 |
| 1 | 1 | 2 | 4-1/2 | 6 | 3987-267 | 107.36 |
| 1-1/4 | 1-1/4 | 2 | 4-1/2 | 6 | 3987-275 | 149.41 |
| 1-1/2 | 1-1/4 | 2 | 4-1/2 | 6 | 3987-283 | 178.92 |
| 2 | 1-1/4 | 2 | 4-1/2 | 6 | 3987-292 | 380.05 |
| 2 | 2 | 2 | 5-3/4 | 6 | 3987-296 | 416.60 |
| **MEDIUM FLUTE** | | | | | | |
| 5/8 | 5/8 | 3 | 5-1/8 | 4 | 3987-437 | $ 96.97 |
| 1 | 1 | 3 | 5-1/2 | 4 | 3987-467 | 149.47 |
| 1 | 1 | 3 | 5-1/2 | 6 | 3987-468 | 152.86 |
| 1-1/4 | 1-1/4 | 3 | 5-1/2 | 6 | 3987-476 | 191.94 |
| 1-1/2 | 1-1/4 | 3 | 5-1/2 | 6 | 3987-484 | 221.29 |
| 2 | 2 | 3 | 6-3/4 | 6 | 3987-497 | 440.91 |
| **LONG FLUTE** | | | | | | |
| 1/2 | 1/2 | 3 | 5 | 4 | 3987-630 | $ 60.24 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 3987-638 | 85.36 |
| 3/4 | 3/4 | 3 | 5-1/4 | 4 | 3987-647 | 99.00 |
| 3/4 | 3/4 | 3 | 5-1/4 | 6 | 3987-648 | 108.17 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | 3987-656 | 140.02 |
| 1 | 1 | 4 | 6-1/2 | 4 | 3987-668 | 180.28 |
| 1 | 1 | 4 | 6-1/2 | 6 | 3987-669 | 184.72 |
| 1-1/4 | 1-1/4 | 4 | 6-1/2 | 6 | 3987-677 | 245.01 |
| 1-1/2 | 1-1/4 | 4 | 6-1/2 | 6 | 3987-685 | 269.96 |
| 2 | 2 | 4 | 7-3/4 | 6 | 3987-698 | 461.81 |
| **EXTRA LONG FLUTE** | | | | | | |
| 1/2 | 1/2 | 3 | 5 | 4 | 3987-831 | $ 80.80 |
| 5/8 | 5/8 | 4 | 6-1/8 | 4 | 3987-839 | 114.66 |
| 3/4 | 3/4 | 4 | 6-1/4 | 4 | 3987-847 | 126.05 |
| 3/4 | 3/4 | 4 | 6-1/4 | 6 | 3987-848 | 131.44 |
| 1 | 1 | 6 | 8-1/2 | 4 | 3987-868 | 240.34 |
| 1 | 1 | 6 | 8-1/2 | 6 | 3987-869 | 245.76 |
| 1-1/4 | 1-1/4 | 6 | 8-1/2 | 6 | 3987-878 | 319.88 |
| 1-1/2 | 1-1/4 | 6 | 8-1/2 | 6 | 3987-886 | 414.52 |
| 2 | 2 | 6 | 9-3/4 | 6 | 3987-899 | 618.18 |

# Tapered End Mills – Three Flute – R.H. Cut – R.H. Spiral – High Speed Steel

[1]

## 1/2° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 05-102 | 3/32 | 1/2 | 3/8 | 2-1/2 | 2726-001 | $15.05 |
| 05-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-002 | 16.15 |
| 05-105 | 3/32 | 1-1/4 | 3/8 | 3-1/8 | 2726-004 | 18.35 |
| 05-201 | 1/8 | 1/4 | 3/8 | 2-1/2 | 2726-010 | 14.05 |
| 05-202 | 1/8 | 1/2 | 3/8 | 2-1/2 | 2726-011 | 15.20 |
| 05-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-012 | 16.15 |
| 05-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-013 | 18.05 |
| 05-205 | 1/8 | 1-1/4 | 3/8 | 3-1/8 | 2726-014 | 19.10 |
| 05-206 | 1/8 | 1-1/2 | 3/8 | 3-1/4 | 2726-015 | 21.00 |
| 05-303 | 3/16 | 3/4 | 3/8 | 2-1/2 | 2726-025 | 16.20 |
| 05-305 | 3/16 | 1-1/4 | 3/8 | 3-1/8 | 2726-027 | 19.75 |
| 05-313 | 3/16 | 3-1/4 | 3/8 | 5-1/2 | 2726-035 | 43.80 |
| 05-403 | 1/4 | 3/4 | 3/8 | 2-1/2 | 2726-041 | 16.40 |
| 05-405 | 1/4 | 1-1/4 | 3/8 | 3-1/8 | 2726-042 | 20.70 |
| 05-409 | 1/4 | 2-1/4 | 1/2 | 4-1/4 | 2726-043 | 29.00 |
| 05-413 | 1/4 | 3-1/4 | 1/2 | 5-1/2 | 2726-044 | 38.60 |
| 05-605 | 3/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-050 | 26.80 |
| 05-609 | 3/8 | 2-1/4 | 1/2 | 4-1/4 | 2726-051 | 32.05 |
| 05-613 | 3/8 | 3-1/4 | 1/2 | 5-1/2 | 2726-052 | 42.85 |
| 05-805 | 1/2 | 1-1/4 | 1/2 | 3-1/8 | 2726-058 | 31.35 |
| 05-809 | 1/2 | 2-1/4 | 1/2 | 4-1/4 | 2726-059 | 37.70 |
| 05-813 | 1/2 | 3-1/4 | 1/2 | 5-1/2 | 2726-060 | 44.95 |
| 05-1013 | 5/8 | 3-1/4 | 5/8 | 5-1/2 | 2726-067 | 56.40 |
| 05-1017 | 5/8 | 4-1/4 | 5/8 | 6-1/2 | 2726-068 | 63.70 |
| 05-1213 | 3/4 | 3-1/4 | 3/4 | 5-3/4 | 2726-074 | 64.35 |

## 1° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 1-102 | 3/32 | 1/2 | 3/8 | 2-1/2 | 2726-087 | $ 15.25 |
| 1-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-088 | 16.35 |
| 1-105 | 3/32 | 1-1/4 | 3/8 | 3-1/8 | 2726-089 | 18.55 |
| 1-201 | 1/8 | 1/4 | 3/8 | 2-1/2 | 2726-095 | 14.60 |
| 1-202 | 1/8 | 1/2 | 3/8 | 2-1/2 | 2726-096 | 15.30 |
| 1-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-097 | 16.40 |
| 1-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-098 | 18.15 |
| 1-205 | 1/8 | 1-1/4 | 3/8 | 3-1/8 | 2726-099 | 19.25 |
| 1-206 | 1/8 | 1-1/2 | 3/8 | 3-1/4 | 2726-100 | 21.35 |
| 1-303 | 3/16 | 3/4 | 3/8 | 2-1/2 | 2726-108 | 16.60 |
| 1-305 | 3/16 | 1-1/4 | 3/8 | 3-1/8 | 2726-109 | 19.85 |
| 1-313 | 3/16 | 3-1/4 | 3/8 | 5-1/2 | 2726-111 | 45.25 |
| 1-403 | 1/4 | 3/4 | 3/8 | 2-1/2 | 2726-117 | 16.70 |
| 1-405 | 1/4 | 1-1/4 | 3/8 | 3-1/8 | 2726-118 | 20.85 |
| 1-409 | 1/4 | 2-1/4 | 1/2 | 4-1/4 | 2726-119 | 31.00 |
| 1-413 | 1/4 | 3-1/4 | 1/2 | 5-1/2 | 2726-120 | 42.10 |
| 1-605 | 3/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-126 | 25.40 |
| 1-609 | 3/8 | 2-1/4 | 1/2 | 4-1/4 | 2726-127 | 34.55 |
| 1-613 | 3/8 | 3-1/4 | 1/2 | 5-1/2 | 2726-128 | 45.15 |
| 1-805 | 1/2 | 1-1/4 | 1/2 | 3-1/8 | 2726-134 | 31.90 |
| 1-809 | 1/2 | 2-1/4 | 1/2 | 4-1/4 | 2726-135 | 39.25 |
| 1-813 | 1/2 | 3-1/4 | 1/2 | 5-1/2 | 2726-136 | 47.85 |
| 1-1013 | 5/8 | 3-1/4 | 5/8 | 5-1/2 | 2726-143 | 58.25 |
| 1-1017 | 5/8 | 4-1/4 | 5/8 | 6-1/2 | 2726-144 | 66.45 |
| 1-1213 | 3/4 | 3-1/4 | 3/4 | 5-3/4 | 2726-160 | 69.50 |
| 1-1221 | 3/4 | 5-1/4 | 3/4 | 7-3/4 | 2726-161 | 122.55 |
| 1-1624 | 1 | 6 | 1 | 8-1/2 | 2726-167 | 158.05 |

## 1-1/2° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 15-102 | 3/32 | 1/2 | 3/8 | 2-1/2 | 2726-173 | $15.40 |
| 15-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-174 | 16.50 |
| 15-104 | 3/32 | 1 | 3/8 | 2-7/8 | 2726-175 | 18.20 |
| 15-105 | 3/32 | 1-1/4 | 3/8 | 3-1/8 | 2726-176 | 18.75 |
| 15-106 | 3/32 | 1-1/2 | 3/8 | 3-1/4 | 2726-177 | 19.95 |
| 15-154 | 7/64 | 1 | 3/8 | 2-7/8 | 2726-183 | 18.40 |
| 15-156 | 7/64 | 1-1/2 | 3/8 | 3-1/4 | 2726-185 | 20.25 |
| 15-202 | 1/8 | 1/2 | 3/8 | 2-1/2 | 2726-191 | 15.45 |
| 15-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-192 | 16.60 |
| 15-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-193 | 18.55 |
| 15-205 | 1/8 | 1-1/4 | 3/8 | 3-1/8 | 2726-194 | 19.60 |
| 15-206 | 1/8 | 1-1/2 | 3/8 | 3-1/4 | 2726-195 | 21.45 |
| 15-208 | 1/8 | 2 | 3/8 | 3-7/8 | 2726-196 | 27.30 |
| 15-254 | 5/32 | 1 | 3/8 | 2-7/8 | 2726-203 | 18.65 |
| 15-256 | 5/32 | 1-1/2 | 3/8 | 3-1/4 | 2726-205 | 21.45 |
| 15-303 | 3/16 | 3/4 | 3/8 | 3-1/2 | 2726-211 | 16.70 |
| 15-305 | 3/16 | 1-1/4 | 3/8 | 3-1/8 | 2726-212 | 20.00 |
| 15-310 | 3/16 | 2-1/2 | 1/2 | 4-1/2 | 2726-213 | 40.80 |
| 15-313 | 3/16 | 3-1/4 | 3/8 | 5-1/2 | 2726-214 | 45.95 |
| 15-403 | 1/4 | 3/4 | 3/8 | 2-1/2 | 2726-230 | 16.85 |
| 15-405 | 1/4 | 1-1/4 | 3/8 | 3-1/8 | 2726-231 | 20.95 |
| 15-409 | 1/4 | 2-1/4 | 1/2 | 4-1/4 | 2726-232 | 30.25 |
| 15-413 | 1/4 | 3-1/4 | 1/2 | 5-1/2 | 2726-233 | 44.10 |
| 15-605 | 3/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-239 | 27.60 |
| 15-609 | 3/8 | 2-1/4 | 1/2 | 4-1/4 | 2726-240 | $ 36.15 |
| 15-613 | 3/8 | 3-1/4 | 5/8 | 5-1/2 | 2726-241 | 45.95 |
| 15-805 | 1/2 | 1-1/4 | 1/2 | 3-1/8 | 2726-247 | 31.95 |
| 15-809 | 1/2 | 2-1/4 | 1/2 | 4-1/4 | 2726-248 | 40.40 |
| 15-813 | 1/2 | 3-1/4 | 5/8 | 5-1/2 | 2726-249 | 52.70 |
| 15-1624 | 1 | 6 | 1-1/4 | 8-1/2 | 2726-268 | 198.70 |

## 2° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 2-102 | 3/32 | 1/2 | 3/8 | 2-1/2 | 2726-274 | $ 15.65 |
| 2-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-275 | 16.65 |
| 2-202 | 1/8 | 1/2 | 3/8 | 2-1/2 | 2726-281 | 15.70 |
| 2-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-282 | 16.70 |
| 2-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-283 | 18.80 |
| 2-205 | 1/8 | 1-1/4 | 3/8 | 3-1/8 | 2726-284 | 20.75 |
| 2-206 | 1/8 | 1-1/2 | 3/8 | 3-1/4 | 2726-285 | 21.60 |
| 2-303 | 3/16 | 3/4 | 3/8 | 2-1/2 | 2726-293 | 16.85 |
| 2-305 | 3/16 | 1-1/4 | 3/8 | 3-1/8 | 2726-294 | 20.45 |
| 2-313 | 3/16 | 3-1/4 | 1/2 | 5-1/2 | 2726-296 | 47.40 |
| 2-403 | 1/4 | 3/4 | 3/8 | 2-1/2 | 2726-302 | 17.00 |
| 2-405 | 1/4 | 1-1/4 | 3/8 | 3-1/8 | 2726-303 | 21.15 |
| 2-409 | 1/4 | 2-1/4 | 1/2 | 4-1/4 | 2726-304 | 32.35 |
| 2-413 | 1/4 | 3-1/4 | 1/2 | 5-1/2 | 2726-305 | 48.10 |
| 2-605 | 3/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-311 | 30.00 |
| 2-609 | 3/8 | 2-1/4 | 1/2 | 4-1/4 | 2726-312 | 37.60 |
| 2-613 | 3/8 | 3-1/4 | 5/8 | 5-1/2 | 2726-313 | 50.25 |
| 2-805 | 1/2 | 1-1/4 | 1/2 | 3-1/8 | 2726-319 | 32.35 |
| 2-809 | 1/2 | 2-1/4 | 1/2 | 4-1/4 | 2726-320 | 40.80 |
| 2-813 | 1/2 | 3-1/4 | 5/8 | 5-1/2 | 2726-321 | 60.00 |
| 2-1017 | 5/8 | 4-1/4 | 3/4 | 6-1/2 | 2726-330 | 73.35 |
| 2-1221 | 3/4 | 5-1/4 | 1 | 7-3/4 | 2726-338 | 141.20 |
| 2-1624 | 1 | 6 | 1-1/4 | 8-1/2 | 2726-344 | 231.00 |

## 3° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 3-004 | .062 | 1 | 3/8 | 2-7/8 | 2726-350 | $19.50 |
| 3-006 | .070 | 1-1/2 | 3/8 | 3-1/4 | 2726-351 | 21.35 |
| 3-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-357 | 16.80 |
| 3-104 | 3/32 | 1 | 3/8 | 2-7/8 | 2726-358 | 18.50 |
| 3-105 | 3/32 | 1-1/4 | 3/8 | 3-1/8 | 2726-359 | 19.10 |
| 3-106 | 3/32 | 1-1/2 | 3/8 | 3-1/4 | 2726-360 | 20.00 |
| 3-108 | 3/32 | 2 | 3/8 | 3-5/8 | 2726-361 | 23.10 |
| 3-110 | 3/32 | 2-1/2 | 1/2 | 4-1/2 | 2726-362 | 30.30 |
| 3-154 | 7/64 | 1 | 3/8 | 2-7/8 | 2726-368 | 18.50 |
| 3-156 | 7/64 | 1-1/2 | 3/8 | 3-1/4 | 2726-370 | 20.50 |
| 3-158 | 7/64 | 2 | 3/8 | 3-5/8 | 2726-371 | 23.25 |
| 3-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-378 | 16.95 |
| 3-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-379 | 19.00 |
| 3-205 | 1/8 | 1-1/4 | 3/8 | 3-1/8 | 2726-380 | 19.60 |
| 3-206 | 1/8 | 1-1/2 | 3/8 | 3-1/4 | 2726-381 | 20.50 |
| 3-208 | 1/8 | 2 | 3/8 | 3-5/8 | 2726-382 | 29.95 |
| 3-210 | 1/8 | 2-1/2 | 1/2 | 4-1/2 | 2726-383 | 34.10 |
| 3-254 | 5/32 | 1 | 3/8 | 2-7/8 | 2726-389 | 19.20 |
| 3-256 | 5/32 | 1-1/2 | 3/8 | 3-1/4 | 2726-391 | 20.75 |
| 3-303 | 3/16 | 3/4 | 3/8 | 2-1/2 | 2726-398 | 17.30 |
| 3-305 | 3/16 | 1-1/4 | 3/8 | 3-1/8 | 2726-399 | 20.95 |
| 3-310 | 3/16 | 2-1/2 | 1/2 | 4-1/2 | 2726-401 | 39.80 |
| 3-313 | 3/16 | 3-1/4 | 5/8 | 5-1/2 | 2726-402 | 52.55 |
| 3-403 | 1/4 | 3/4 | 3/8 | 2-1/2 | 2726-409 | 18.05 |
| 3-405 | 1/4 | 1-1/4 | 3/8 | 3-1/8 | 2726-410 | 21.35 |
| 3-409 | 1/4 | 2-1/4 | 1/2 | 4-1/4 | 2726-411 | 36.35 |
| 3-413 | 1/4 | 3-1/4 | 5/8 | 5-1/2 | 2726-412 | 60.90 |
| 3-605 | 3/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-419 | 31.10 |
| 3-609 | 3/8 | 2-1/4 | 5/8 | 4-1/4 | 2726-420 | 39.25 |
| 3-613 | 3/8 | 3-1/4 | 3/4 | 5-1/2 | 2726-421 | 71.25 |
| 3-805 | 1/2 | 1-1/4 | 1/2 | 3-1/8 | 2726-430 | 33.35 |
| 3-809 | 1/2 | 2-1/4 | 5/8 | 4-1/4 | 2726-431 | 48.55 |
| 3-813 | 1/2 | 3-1/4 | 3/4 | 5-1/2 | 2726-432 | 79.50 |

## 4° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 4-305 | 3/16 | 1-1/4 | 3/8 | 3-1/8 | 2726-477 | $25.30 |
| 4-613 | 3/8 | 3-1/4 | 3/4 | 5-1/2 | 2726-498 | 80.05 |

## 5° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 5-004 | .062 | 1 | 3/8 | 2-7/8 | 2726-513 | $20.00 |
| 5-006 | .070 | 1-1/2 | 3/8 | 3-1/4 | 2726-514 | 22.75 |
| 5-102 | 3/32 | 1/2 | 3/8 | 2-1/2 | 2726-520 | 19.60 |
| 5-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-521 | 16.95 |
| 5-104 | 3/32 | 1 | 3/8 | 2-7/8 | 2726-522 | 18.75 |
| 5-105 | 3/32 | 1-1/4 | 3/8 | 3-1/8 | 2726-523 | 19.75 |

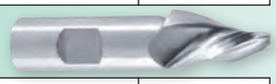
## 5° TAPER PER SIDE, con't.

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 5-106 | 3/32 | 1-1/2 | 3/8 | 3-1/4 | 2726-524 | $ 20.50 |
| 5-107 | 3/32 | 1-3/4 | 1/2 | 3-7/8 | 2726-525 | 20.40 |
| 5-108 | 3/32 | 2 | 1/2 | 3-7/8 | 2726-526 | 23.60 |
| 5-110 | 3/32 | 2-1/2 | 1/2 | 4-1/2 | 2726-527 | 33.25 |
| 5-154 | 7/64 | 1 | 3/8 | 2-7/8 | 2726-533 | 18.85 |
| 5-156 | 7/64 | 1-1/2 | 3/8 | 3-1/4 | 2726-535 | 20.75 |
| 5-158 | 7/64 | 2 | 1/2 | 3-7/8 | 2726-536 | 23.60 |
| 5-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-543 | 17.15 |
| 5-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-544 | 19.05 |
| 5-205 | 1/8 | 1-1/4 | 3/8 | 3-1/8 | 2726-545 | 20.45 |
| 5-206 | 1/8 | 1-1/2 | 3/8 | 3-1/4 | 2726-546 | 23.55 |
| 5-208 | 1/8 | 2 | 1/2 | 3-7/8 | 2726-548 | 30.90 |
| 5-210 | 1/8 | 2-1/2 | 1/2 | 4-1/2 | 2726-550 | 39.75 |
| 5-256 | 5/32 | 1-1/2 | 1/2 | 3-3/4 | 2726-557 | 22.60 |
| 5-303 | 3/16 | 3/4 | 3/8 | 2-1/2 | 2726-563 | 17.60 |
| 5-305 | 3/16 | 1-1/4 | 1/2 | 3-1/8 | 2726-564 | 22.05 |
| 5-310 | 3/16 | 2-1/2 | 1/2 | 4-1/2 | 2726-566 | 50.50 |
| 5-313 | 3/16 | 3-1/4 | 3/4 | 5-1/2 | 2726-567 | 70.20 |
| 5-316 | 3/16 | 4 | 3/4 | 6-1/2 | 2726-570 | 88.10 |
| 5-320 | 3/16 | 5 | 1 | 7-1/2 | 2726-572 | 123.05 |
| 5-324 | 3/16 | 6 | 1 | 8-1/2 | 2726-574 | 182.30 |
| 5-403 | 1/4 | 3/4 | 3/8 | 2-1/2 | 2726-580 | 18.65 |
| 5-405 | 1/4 | 1-1/4 | 1/2 | 3-1/8 | 2726-581 | 22.90 |
| 5-409 | 1/4 | 2-1/4 | 5/8 | 4-1/4 | 2726-582 | 41.15 |
| 5-413 | 1/4 | 3-1/4 | 3/4 | 5-1/2 | 2726-583 | 71.00 |
| 5-416 | 1/4 | 4 | 3/4 | 6-1/2 | 2726-584 | 98.40 |
| 5-605 | 3/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-591 | 33.30 |
| 5-609 | 3/8 | 2-1/4 | 3/4 | 4-1/4 | 2726-592 | 50.75 |
| 5-613 | 3/8 | 3-1/4 | 3/4 | 5-1/2 | 2726-593 | 79.20 |
| 5-616 | 3/8 | 4 | 1 | 6-1/2 | 2726-595 | 125.90 |
| 5-624 | 3/8 | 6 | 1-1/4 | 8-1/2 | 2726-599 | 239.10 |
| 5-805 | 1/2 | 1-1/4 | 1/2 | 3-1/8 | 2726-605 | 40.10 |
| 5-809 | 1/2 | 2-1/4 | 3/4 | 4-1/2 | 2726-614 | 67.85 |
| 5-813 | 1/2 | 3-1/4 | 1 | 5-3/4 | 2726-616 | 101.90 |
| 5-824 | 1/2 | 6 | 1-1/4 | 8-1/2 | 2726-621 | 265.55 |
| 5-1020 | 5/8 | 5 | 1-1/4 | 7-1/2 | 2726-627 | 202.20 |

## 7° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 7-004 | .062 | 1 | 3/8 | 2-7/8 | 2726-654 | $20.95 |
| 7-006 | .070 | 1-1/2 | 1/2 | 3-1/4 | 2726-655 | 26.25 |
| 7-103 | 3/32 | 3/4 | 3/8 | 2-1/2 | 2726-661 | 17.20 |
| 7-104 | 3/32 | 1 | 3/8 | 2-7/8 | 2726-662 | 19.50 |
| 7-106 | 3/32 | 1-1/2 | 1/2 | 3-1/4 | 2726-663 | 21.60 |
| 7-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-669 | 17.80 |
| 7-204 | 1/8 | 1 | 3/8 | 2-7/8 | 2726-670 | 19.50 |
| 7-206 | 1/8 | 1-1/2 | 1/2 | 3-1/4 | 2726-672 | 23.80 |
| 7-208 | 1/8 | 2 | 5/8 | 4-1/8 | 2726-673 | 38.25 |
| 7-305 | 3/16 | 1-1/4 | 1/2 | 3-1/8 | 2726-682 | 26.60 |
| 7-403 | 1/4 | 3/4 | 1/2 | 2-1/2 | 2726-693 | 23.80 |
| 7-405 | 1/4 | 1-1/4 | 1/2 | 3-1/8 | 2726-695 | 27.45 |
| 7-409 | 1/4 | 2-1/4 | 3/4 | 4-1/2 | 2726-696 | 56.85 |
| 7-413 | 1/4 | 3-1/4 | 1 | 5-3/4 | 2726-697 | 90.50 |
| 7-416 | 1/4 | 4 | 1 | 6-1/2 | 2726-698 | 119.90 |
| 7-509 | 3/8 | 2-1/4 | 3/4 | 4-1/4 | 2726-709 | 72.90 |
| 7-613 | 3/8 | 3-1/4 | 1 | 5-3/4 | 2726-710 | 122.65 |
| 7-805 | 1/2 | 1-1/4 | 5/8 | 3-1/4 | 2726-718 | 47.65 |
| 7-809 | 1/2 | 2-1/4 | 1 | 4-3/4 | 2726-719 | 86.65 |
| 7-813 | 1/2 | 3-1/4 | 1-1/4 | 5-3/4 | 2726-720 | 139.30 |

## 10° TAPER PER SIDE



| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 10-102 | 3/32 | 1/2 | 3/8 | 2-1/2 | 2726-755 | $ 19.05 |
| 10-106 | 3/32 | 1-1/2 | 1/2 | 3-3/8 | 2726-757 | 38.55 |
| 10-203 | 1/8 | 3/4 | 3/8 | 2-1/2 | 2726-763 | 19.85 |
| 10-205 | 1/8 | 1-1/4 | 1/2 | 3-1/8 | 2726-765 | 31.90 |
| 10-305 | 3/16 | 1-1/4 | 1/2 | 3-1/8 | 2726-774 | 30.70 |
| 10-403 | 1/4 | 3/4 | 1/2 | 2-1/2 | 2726-780 | 24.10 |
| 10-405 | 1/4 | 1-1/4 | 1/2 | 3-1/8 | 2726-781 | 37.40 |
| 10-409 | 1/4 | 2-1/4 | 3/4 | 4-1/4 | 2726-782 | 81.20 |
| 10-605 | 3/8 | 1-1/4 | 5/8 | 3-1/4 | 2726-789 | 46.00 |
| 10-609 | 3/8 | 2-1/4 | 1 | 4-5/8 | 2726-790 | 95.45 |
| 10-613 | 3/8 | 3-1/4 | 1-1/4 | 5-5/8 | 2726-791 | 173.30 |
| 10-809 | 1/2 | 2-1/4 | 1 | 4-5/8 | 2726-798 | 110.45 |
| 10-813 | 1/2 | 3-1/4 | 1-1/4 | 5-5/8 | 2726-799 | 187.35 |

## 20°, 25° & 30° TAPER PER SIDE

| TOOL NO. | DIA. | FLT. L'TH | SHK. DIA. | OAL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 20-809 | 1/2 | 2-1/4 | 1-1/4 | 4-3/4 | 2726-887 | $225.70 |
| 25-404 | 1/4 | 1 | 1/2 | 3-1/4 | 2726-900 | 83.85 |
| 30-605 | 3/8 | 1-1/4 | 1 | 3-3/4 | 2726-943 | 178.70 |
| 30-606 | 3/8 | 1-1/2 | 1 | 4 | 2726-944 | 195.40 |

# End Mills – Solid Carbide – Square End

Look for ALLEGIANCE® AMERICANMADE [3]

## Single End– Regular Length

### Square End

Tolerances: 1/16 to 1/4 Inclusive, +.000, -.002
9/32 to 1-1/2 Inclusive, +.000, -.003

| | | | | UNCOATED | | | | ALTiN COATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAM. | SHANK | FLUTE LG'TH | OAL | 2 FLT ORDER NO. | PRICE EACH | 4 FLT ORDER NO. | PRICE EACH | 2 FLT ORDER NO. | PRICE EACH | 4 FLT ORDER NO. | PRICE EACH |
| 1/32 | 1/8 | 3/32 | 1-1/2 | 2970-002 | $ 7.20 | 2970-402 | $ 7.20 | 2970-102 | $ 9.20 | 2970-502 | $ 9.20 |
| 3/64 | 1/8 | 1/8 | 1-1/2 | 2970-003 | 7.20 | 2970-403 | 7.20 | 2970-103 | 9.20 | 2970-503 | 9.20 |
| 1/16 | 1/8 | 3/16 | 1-1/2 | 2970-004 | 6.90 | 2970-404 | 6.90 | 2970-104 | 8.85 | 2970-504 | 8.85 |
| 5/64 | 1/8 | 3/16 | 1-1/2 | 2970-005 | 6.90 | 2970-405 | 6.90 | 2970-105 | 8.85 | 2970-505 | 8.85 |
| 3/32 | 1/8 | 3/8 | 1-1/2 | 2970-006 | 6.90 | 2970-406 | 6.90 | 2970-106 | 8.85 | 2970-506 | 8.85 |
| 7/64 | 1/8 | 3/8 | 1-1/2 | 2970-007 | 6.90 | 2970-407 | 6.90 | 2970-107 | 8.85 | 2970-507 | 8.85 |
| 1/8 | 1/8 | 1/2 | 1-1/2 | 2970-008 | 6.40 | 2970-408 | 6.40 | 2970-108 | 8.15 | 2970-508 | 8.15 |
| 9/64 | 3/16 | 9/16 | 2 | 2970-009 | 10.35 | 2970-409 | 10.35 | 2970-109 | 12.60 | 2970-509 | 12.60 |
| 5/32 | 3/16 | 9/16 | 2 | 2970-010 | 10.35 | 2970-410 | 10.35 | 2970-110 | 12.60 | 2970-510 | 12.60 |
| 11/64 | 3/16 | 5/8 | 2 | 2970-011 | 10.35 | 2970-411 | 10.35 | 2970-111 | 12.60 | 2970-511 | 12.60 |
| 3/16 | 3/16 | 5/8 | 2 | 2970-012 | 9.55 | 2970-412 | 9.55 | 2970-112 | 11.45 | 2970-512 | 11.45 |
| 13/64 | 1/4 | 5/8 | 2-1/2 | 2970-013 | 13.05 | 2970-413 | 13.05 | 2970-113 | 17.30 | 2970-513 | 17.30 |
| 7/32 | 1/4 | 5/8 | 2-1/2 | 2970-014 | 13.05 | 2970-414 | 13.05 | 2970-114 | 17.30 | 2970-514 | 17.30 |
| 15/64 | 1/4 | 3/4 | 2-1/2 | 2970-015 | 13.05 | 2970-415 | 13.05 | 2970-115 | 17.30 | 2970-515 | 17.30 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 2970-016 | 11.30 | 2970-416 | 11.30 | 2970-116 | 15.35 | 2970-516 | 15.35 |
| 17/64 | 5/16 | 3/4 | 2-1/2 | 2970-017 | 17.60 | 2970-417 | 17.60 | 2970-117 | 23.30 | 2970-517 | 23.30 |
| 9/32 | 5/16 | 3/4 | 2-1/2 | 2970-018 | 17.60 | 2970-418 | 17.60 | 2970-118 | 23.30 | 2970-518 | 23.30 |
| 19/64 | 5/16 | 13/16 | 2-1/2 | 2970-019 | 17.60 | 2970-419 | 17.60 | 2970-119 | 23.30 | 2970-519 | 23.30 |
| 5/16 | 5/16 | 13/16 | 2-1/2 | 2970-020 | 14.90 | 2970-420 | 14.90 | 2970-120 | 20.95 | 2970-520 | 20.95 |
| 21/64 | 3/8 | 7/8 | 2-1/2 | 2970-021 | 20.00 | 2970-421 | 20.00 | 2970-121 | 26.35 | 2970-521 | 26.35 |
| 11/32 | 3/8 | 7/8 | 2-1/2 | 2970-022 | 20.00 | 2970-422 | 20.00 | 2970-122 | 26.35 | 2970-522 | 26.35 |
| 23/64 | 3/8 | 7/8 | 2-1/2 | 2970-023 | 20.00 | 2970-423 | 20.00 | 2970-123 | 26.35 | 2970-523 | 26.35 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 2970-024 | 17.55 | 2970-424 | 17.55 | 2970-124 | 23.75 | 2970-524 | 23.75 |
| 25/64 | 7/16 | 7/8 | 2-1/2 | 2970-025 | 25.95 | 2970-425 | 25.95 | 2970-125 | 33.90 | 2970-525 | 33.90 |
| 13/32 | 7/16 | 7/8 | 2-1/2 | 2970-026 | 25.95 | 2970-426 | 25.95 | 2970-126 | 33.90 | 2970-526 | 33.90 |
| 27/64 | 7/16 | 7/8 | 2-1/2 | 2970-027 | 25.95 | 2970-427 | 25.95 | 2970-127 | 33.90 | 2970-527 | 33.90 |
| 7/16 | 7/16 | 7/8 | 2-1/2 | 2970-028 | 24.05 | 2970-428 | 24.05 | 2970-128 | 32.15 | 2970-528 | 32.15 |
| 29/64 | 7/16 | 1 | 3 | 2970-029 | 31.30 | 2970-429 | 31.30 | 2970-129 | 39.50 | 2970-529 | 39.50 |
| 15/32 | 1/2 | 1 | 3 | 2970-030 | 31.30 | 2970-430 | 31.30 | 2970-130 | 39.50 | 2970-530 | 39.50 |
| 31/64 | 1/2 | 1 | 3 | 2970-031 | 31.30 | 2970-431 | 31.30 | 2970-131 | 39.50 | 2970-531 | 39.50 |
| 1/2 | 1/2 | 1 | 3 | 2970-032 | 27.35 | 2970-432 | 27.35 | 2970-132 | 35.40 | 2970-532 | 35.40 |
| 9/16 | 9/16 | 1-1/4 | 3 | 2970-036 | 50.05 | 2970-436 | 50.05 | 2970-136 | 62.35 | 2970-536 | 62.35 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2970-040 | 56.55 | 2970-440 | 56.55 | 2970-140 | 68.65 | 2970-540 | 68.65 |
| 11/16 | 3/4 | 1-1/2 | 4 | 2970-044 | 81.15 | 2970-444 | 81.15 | 2970-144 | 96.90 | 2970-544 | 96.90 |
| 3/4 | 3/4 | 1-1/2 | 4 | 2970-048 | 75.70 | 2970-448 | 75.70 | 2970-148 | 91.15 | 2970-548 | 91.15 |
| 13/16 | 7/8 | 1-1/2 | 4 | 2970-052 | 163.45 | 2970-452 | 163.45 | – | – | – | – |
| 7/8 | 7/8 | 1-1/2 | 4 | 2970-056 | 93.05 | 2970-456 | 93.05 | 2970-156 | 108.90 | 2970-556 | 108.90 |
| 15/16 | 1 | 1-1/2 | 4 | 2970-060 | 172.40 | 2970-460 | 172.40 | – | – | – | – |
| 1 | 1 | 1-1/2 | 4 | 2970-064 | 121.20 | 2970-464 | 121.20 | 2970-164 | 141.10 | 2970-564 | 141.10 |

Sizes over 1" POA

Uncoated

2 Flute Square End

4 Flute Square End

ALTiN Coated

2 Flute Square End

4 Flute Square End

## Single End– Extra Long– Square End [2]

| | | | | UNCOATED | | | ALTiN COATED | | |
|---|---|---|---|---|---|---|---|---|---|
| DIA | SHANK DIA | FLUTE LG'TH | OAL | 2 FLT ORDER NO. | 4 FLT ORDER NO | PRICE EACH | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1 | 3 | 6320-808 | 6320-908 | $ 12.60 | 6321-308 | 6321-408 | $ 14.85 |
| 3/16 | 3/16 | 1-1/4 | 3 | 6320-812 | 6320-912 | 13.45 | 6321-312 | 6321-412 | 17.55 |
| 1/4 | 1/4 | 1-1/2 | 4 | 6320-816 | 6320-916 | 18.40 | 6321-316 | 6321-416 | 23.35 |
| 5/16 | 5/16 | 1-5/8 | 4 | 6320-820 | 6320-920 | 22.65 | 6321-320 | 6321-420 | 30.20 |
| 3/8 | 3/8 | 2 | 4 | 6320-824 | 6320-924 | 26.65 | 6321-324 | 6321-424 | 34.45 |
| 3/8 | 3/8 | 3 | 6 | 6320-825 | 6320-925 | 37.55 | 6321-325 | 6321-425 | 46.45 |
| 7/16 | 7/16 | 2 | 4 | 6320-828 | 6320-928 | 36.85 | 6321-328 | 6321-428 | 46.80 |
| 7/16 | 7/16 | 3 | 6 | 6320-829 | 6320-929 | 49.05 | 6321-329 | 6321-429 | 60.90 |
| 1/2 | 1/2 | 2 | 4 | 6320-832 | 6320-932 | 38.40 | 6321-332 | 6321-432 | 48.40 |
| 1/2 | 1/2 | 3 | 6 | 6320-833 | 6320-933 | 63.35 | 6321-333 | 6321-433 | 74.80 |
| 5/8 | 5/8 | 2-1/4 | 5 | 6320-840 | 6320-940 | 74.65 | 6321-340 | 6321-440 | 88.45 |
| 5/8 | 5/8 | 3 | 6 | 6320-841 | 6320-941 | 88.95 | 6321-341 | 6321-441 | 101.80 |
| 3/4 | 3/4 | 2-1/4 | 5 | 6320-848 | 6320-948 | 107.80 | 6321-348 | 6321-448 | 125.65 |
| 3/4 | 3/4 | 3 | 6 | 6320-849 | 6320-949 | 132.70 | 6321-349 | 6321-449 | 150.25 |
| 1 | 1 | 3 | 6 | 6320-866 | 6320-966 | 197.05 | 6321-366 | 6321-466 | 228.00 |

Uncoated or ALTiN Coated

Four Flutes

Two Flutes

# End Mills– Solid Carbide– Single End

Look for ALLEGIANCE® AMERICANMADE 2

## Four Flute Corner Radius Endmills

Cutting Edge Tolerance: +.000 - .002

| | | | | UNCOATED .15° RADIUS | | .20° RADIUS | | .30° RADIUS | | .45° RADIUS | | .60° RADIUS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIA. | SHANK DIA. | CUT. LG'TH. | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1/4 | 1-1/2 | 2970-800 | $7.50 | 2970-801 | $7.50 | 2970-802 | $7.50 | 2970-803 | $7.50 | 2970-804 | $7.50 |
| 3/16 | 3/16 | 3/8 | 2 | 2970-805 | 10.85 | 2970-806 | 10.85 | 2970-807 | 10.85 | 2970-808 | 10.85 | 2970-809 | 10.85 |
| 1/4 | 1/4 | 1/2 | 2 | 2970-810 | 12.80 | 2970-811 | 12.80 | 2970-812 | 12.80 | 2970-813 | 12.80 | 2970-814 | 12.80 |
| 5/16 | 5/16 | 1/2 | 2 | 2970-815 | 16.95 | 2970-816 | 16.95 | 2970-817 | 16.95 | 2970-818 | 16.95 | 2970-819 | 16.95 |
| 3/8 | 3/8 | 5/8 | 2 | 2970-820 | 20.20 | 2970-821 | 20.20 | 2970-822 | 20.20 | 2970-823 | 20.20 | 2970-824 | 20.20 |
| 1/2 | 1/2 | 5/8 | 2-1/2 | 2970-825 | 33.35 | 2970-826 | 33.35 | 2970-827 | 33.35 | 2970-828 | 33.35 | 2970-829 | 33.35 |
| 5/8 | 5/8 | 3/4 | 3 | 2970-830 | 62.20 | 2970-831 | 62.20 | 2970-832 | 62.20 | 2970-833 | 62.20 | 2970-834 | 62.20 |
| 3/4 | 3/4 | 1 | 3 | 2970-835 | 81.50 | 2970-836 | 81.50 | 2970-837 | 81.50 | 2970-838 | 81.50 | 2970-839 | 81.50 |

| | | | | ALTIN COATED .15° RADIUS | | .20° RADIUS | | .30° RADIUS | | .45° RADIUS | | .60° RADIUS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIA. | SHANK DIA. | CUT. LG'TH. | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1/4 | 1-1/2 | 2970-850 | $9.10 | 2970-851 | $9.10 | 2970-852 | $9.10 | 2970-853 | $9.10 | 2970-854 | $9.10 |
| 3/16 | 3/16 | 3/8 | 2 | 2970-855 | 12.90 | 2970-856 | 12.90 | 2970-857 | 12.90 | 2970-858 | 12.90 | 2970-859 | 12.90 |
| 1/4 | 1/4 | 1/2 | 2 | 2970-860 | 16.90 | 2970-861 | 16.90 | 2970-862 | 16.90 | 2970-863 | 16.90 | 2970-864 | 16.90 |
| 5/16 | 5/16 | 1/2 | 2 | 2970-865 | 23.25 | 2970-866 | 23.25 | 2970-867 | 23.25 | 2970-868 | 23.25 | 2970-869 | 23.25 |
| 3/8 | 3/8 | 5/8 | 2 | 2970-870 | 26.50 | 2970-871 | 26.50 | 2970-872 | 26.50 | 2970-873 | 26.50 | 2970-874 | 26.50 |
| 1/2 | 1/2 | 5/8 | 2-1/2 | 2970-875 | 41.05 | 2970-876 | 41.05 | 2970-877 | 41.05 | 2970-878 | 41.05 | 2970-879 | 41.05 |
| 5/8 | 5/8 | 3/4 | 3 | 2970-880 | 71.50 | 2970-881 | 71.50 | 2970-882 | 71.50 | 2970-883 | 71.50 | 2970-884 | 71.50 |
| 3/4 | 3/4 | 1 | 3 | 2970-885 | 94.70 | 2970-886 | 94.70 | 2970-887 | 94.70 | 2970-888 | 94.70 | 2970-889 | 94.70 |

## Two Flute Drill Mills

Cutting Edge Tolerance: +.000 - .002
90 Degree Angle

| | | | UNCOATED | | ALTiN COATED | |
|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | OAL | ORDER NO. | PRICE EACH | ORDER NO | PRICE EACH |
| 1/4 | 1/4 | 3/4 | 2963-116 | $13.70 | 2963-216 | $14.60 |
| 5/16 | 5/16 | 2-1/2 | 2963-120 | 17.25 | 2963-220 | 18.55 |
| 3/8 | 3/8 | 2-1/2 | 2963-124 | 21.10 | 2963-224 | 22.35 |
| 7/16 | 7/16 | 2-1/2 | 2963-128 | 29.20 | 2963-228 | 30.90 |
| 1/2 | 1/2 | 3 | 2963-132 | 31.35 | 2963-232 | 33.05 |

## Six Flute Endmills

Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: +.000 - .0002

| | | | | UNCOATED | | ALTiN COATED | |
|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | CUT. LG'TH | OAL | ORDER NO. | PRICE EACH | ORDER NO | PRICE EACH |
| 3/16 | 3/16 | 5/8 | 2 | 6327-812 | $10.00 | 6327-912 | $11.60 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 6327-816 | 11.80 | 6327-916 | 14.90 |
| 5/16 | 5/16 | 7/8 | 2-1/2 | 6327-820 | 16.50 | 6327-920 | 21.20 |
| 3/8 | 3/8 | 1 | 2-1/2 | 6327-824 | 23.70 | 6327-924 | 28.40 |
| 7/16 | 7/16 | 1 | 2-1/2 | 6327-828 | 25.00 | 6327-928 | 31.40 |
| 1/2 | 1/2 | 1 | 3 | 6327-832 | 32.80 | 6327-932 | 39.20 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 6327-840 | 63.30 | 6327-940 | 73.20 |
| 3/4 | 3/4 | 1-1/2 | 4 | 6327-848 | 92.70 | 6327-948 | 104.80 |
| 7/8 | 7/8 | 1-1/2 | 4 | 6327-856 | 119.60 | 6327-956 | 138.90 |

## Metric End Mills

| | | UNCOATED | | | ALTiN COATED | | |
|---|---|---|---|---|---|---|---|
| DIA. (MM) | SHK. DIA. (MM) | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 1.0 | 3.0 | 6322-010 | 6323-010 | $ 7.60 | 6327-000 | 6327-100 | $ 10.25 |
| 1.5 | 3.0 | 6322-015 | 6323-015 | 7.60 | 6327-001 | 6327-101 | 10.25 |
| 2.0 | 3.0 | 6322-021 | 6323-021 | 6.05 | 6327-002 | 6327-102 | 8.50 |
| 2.5 | 3.0 | 6322-025 | 6323-025 | 6.05 | 6327-003 | 6327-103 | 8.50 |
| 3.0 | 3.0 | 6322-030 | 6323-030 | 6.05 | 6327-004 | 6327-104 | 8.50 |
| 4.0 | 4.0 | 6322-040 | 6323-040 | 7.90 | 6327-006 | 6327-106 | 11.30 |
| 5.0 | 5.0 | 6322-050 | 6323-050 | 8.90 | 6327-008 | 6327-108 | 12.45 |
| 6.0 | 6.0 | 6322-060 | 6323-060 | 11.30 | 6327-010 | 6327-110 | 16.85 |
| 7.0 | 7.0 | 6322-070 | 6323-070 | 14.80 | 6327-012 | 6327-112 | 22.70 |
| 8.0 | 8.0 | 6322-080 | 6323-080 | 14.20 | 6327-014 | 6327-114 | 22.05 |
| 9.0 | 9.0 | 6322-090 | 6323-090 | 20.60 | 6327-016 | 6327-116 | 29.50 |
| 10.0 | 10.0 | 6322-100 | 6323-100 | 18.15 | 6327-018 | 6327-118 | 26.65 |
| 12.0 | 12.0 | 6322-120 | 6323-120 | 25.85 | 6327-022 | 6327-122 | 37.60 |
| 14.0 | 14.0 | 6322-140 | 6323-140 | 42.40 | 6327-026 | 6327-126 | 61.05 |
| 16.0 | 16.0 | 6322-160 | 6323-160 | 56.55 | 6327-030 | 6327-130 | 78.05 |
| 18.0 | 18.0 | 6322-180 | 6323-180 | 64.65 | 6327-034 | 6327-134 | 89.45 |
| 20.0 | 20.0 | 6322-200 | 6323-200 | 77.55 | 6327-036 | 6327-136 | 111.20 |

## Single End– Stub Length

• TiALN available on request

| | | | | UNCOATED | | |
|---|---|---|---|---|---|---|
| DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 3/64 | 1/8 | 1/8 | 1-1/2 | 2971-003 | 2971-203 | $ 6.05 |
| 1/16 | 1/8 | 1/8 | 1-1/2 | 2971-004 | 2971-204 | 5.85 |
| 3/32 | 1/8 | 3/16 | 1-1/2 | 2971-006 | 2971-206 | 5.85 |
| 1/8 | 1/8 | 1/4 | 1-1/2 | 2971-008 | 2971-208 | 5.60 |
| 5/32 | 3/16 | 5/16 | 1-1/2 | 2971-010 | 2971-210 | 7.25 |
| 3/16 | 3/16 | 5/16 | 1-1/2 | 2971-012 | 2971-212 | 7.05 |
| 1/4 | 1/4 | 1/2 | 2 | 2971-016 | 2971-216 | 9.10 |
| 5/16 | 5/16 | 5/8 | 2 | 2971-020 | 2971-220 | 12.50 |
| 3/8 | 3/8 | 5/8 | 2 | 2971-024 | 2971-224 | 15.45 |
| 7/16 | 7/16 | 5/8 | 2-1/2 | 2971-028 | 2971-228 | 21.35 |
| 1/2 | 1/2 | 5/8 | 2-1/2 | 2971-032 | 2971-232 | 24.25 |

# Roughers & End Mills– Solid Carbide

Look for ALLEGIANCE® AMERICANMADE 2

## Fine Pitch Roughers

- Designed for maximum stock removal of titanium, iconel, waspaloy, and other advanced materials

Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: +.000 - .0002

| | | | | | UNCOATED | | ALTiN COATED | |
|---|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | CUT. LG'TH | OAL | NO. OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO | PRICE EACH |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 3 | 6380-316 | $44.15 | 6380-616 | $49.95 |
| 5/16 | 5/16 | 3/4 | 2-1/2 | 3 | 6380-320 | 47.75 | 6380-620 | 55.70 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 3 | 6380-324 | 61.05 | 6380-624 | 69.50 |
| 1/2 | 1/2 | 1 | 3 | 4 | 6380-332 | 77.15 | 6380-632 | 88.10 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 4 | 6380-340 | 133.20 | 6380-640 | 147.25 |
| 3/4 | 3/4 | 1-1/2 | 4 | 4 | 6380-348 | 153.25 | 6380-648 | 173.55 |
| 1 | 1 | 1-1/2 | 4 | 6 | 6380-364 | 245.50 | 6380-664 | 279.10 |

## Medium Pitch Roughers

- Designed for maximum stock removal of mild, stainless, and hardened steels and alloys

Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: +.000 - .0002

| | | | | | UNCOATED | | ALTiN COATED | |
|---|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | CUT. LG'TH | OAL | NO. OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO | PRICE EACH |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 3 | 6380-116 | $ 44.15 | 6380-416 | $ 49.95 |
| 5/16 | 5/16 | 13/16 | 2-1/2 | 3 | 6380-120 | 47.40 | 6380-420 | 55.70 |
| 3/8 | 3/8 | 1 | 2-1/2 | 3 | 6380-124 | 60.60 | 6380-424 | 69.50 |
| 1/2 | 1/2 | 1 | 3 | 4 | 6380-132 | 76.50 | 6380-432 | 88.10 |
| 5/8 | 5/8 | 1-1/2 | 3-1/2 | 4 | 6380-140 | 130.90 | 6380-440 | 147.25 |
| 3/4 | 3/4 | 1-1/2 | 4 | 4 | 6380-148 | 153.25 | 6380-448 | 173.55 |
| 1 | 1 | 1-1/2 | 4 | 5 | 6380-164 | 245.60 | 6380-464 | 279.10 |

## Coarse Pitch Roughers

- Designed for maximum stock removal of aluminum, brass, bronze,r and other lightweight alloys

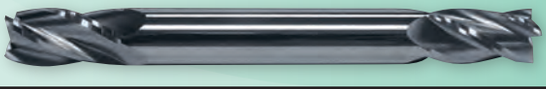
Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: +.000 - .0002

| | | | | | UNCOATED | | ALTiN COATED | |
|---|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | CUT. LG'TH | OAL | NO. OF FLUTES | ORDER NO. | PRICE EACH | ORDER NO | PRICE EACH |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 3 | 6380-216 | $ 44.15 | 6380-516 | $ 49.95 |
| 5/16 | 5/16 | 3/4 | 2-1/2 | 3 | 6380-220 | 47.75 | 6380-520 | 55.70 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 3 | 6380-224 | 61.05 | 6380-524 | 69.50 |
| 1/2 | 1/2 | 1 | 3 | 3 | 6380-232 | 77.15 | 6380-532 | 88.10 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 3 | 6380-240 | 133.20 | 6380-540 | 147.25 |
| 3/4 | 3/4 | 1-1/2 | 4 | 3 | 6380-248 | 153.25 | 6380-548 | 173.55 |
| 1 | 1 | 1-1/2 | 4 | 3 | 6380-264 | 245.55 | 6380-564 | 279.10 |

## Double End– Regular Length

| | | | | UNCOATED | | |
|---|---|---|---|---|---|---|
| DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | 2 FLT. ORDER NO. | 4 FLT. ORDER NO. | PRICE EACH |
| 1/32 | 1/8 | 3/32 | 2 | 2974-002 | 2974-202 | $11.95 |
| 3/64 | 1/8 | 1/8 | 2 | 2974-003 | 2974-203 | 11.95 |
| 1/16 | 1/8 | 3/16 | 1-1/2 | 2974-004† | – | 9.25 |
| 1/16 | 1/8 | 3/16 | 2 | 2974-005 | 2974-205 | 11.60 |
| 3/32 | 1/8 | 1/4 | 2 | 2974-006 | 2974-206 | 11.60 |
| 1/8 | 1/8 | 3/8 | 2 | 2974-008 | 2974-208 | 11.60 |
| 5/32 | 3/16 | 7/16 | 2 | 2974-010† | – | 13.45 |
| 5/32 | 3/16 | 7/16 | 2-1/2 | 2974-011 | 2974-211 | 16.85 |
| 3/16 | 3/16 | 1/2 | 2-1/2 | 2974-013 | 2974-212 | 18.75 |
| 7/32 | 1/4 | 9/16 | 2-1/2 | 2974-014 | 2974-214 | 18.75 |
| 7/32 | 1/4 | 9/16 | 3 | 2974-015† | – | 18.75 |
| 1/4 | 1/4 | 5/8 | 2-1/2 | 2974-016 | 2974-216 | 18.10 |
| 5/16 | 5/16 | 3/4 | 3-1/2 | 2974-021 | 2974-220 | 22.25 |
| 3/8 | 3/8 | 3/4 | 3 | 2974-024† | – | 24.00 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 2974-025 | 2974-224 | 28.20 |
| 7/16 | 7/16 | 3/4 | 3 | 2974-028† | – | 34.75 |
| 7/16 | 7/16 | 7/8 | 4 | 2974-029 | 2974-229 | 40.90 |
| 1/2 | 1/2 | 3/4 | 3 | 2974-032† | – | 41.30 |
| 1/2 | 1/2 | 1 | 4 | 2974-033 | 2974-233 | 45.85 |

## Double End– Stub Length



| | | | | UNCOATED | | | ALTiN COATED | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 2-FLUTE | 4-FLUTE | | 2-FLUTE | 4-FLUTE | |
| DIA. | SHANK DIA. | CUT. LG'TH. | OAL | ORDER NO. | ORDER NO. | PRICE EACH | ORDER NO. | ORDER NO. | PRICE EACH |
| 1/32 | 1/8 | 1/16 | 1-1/2 | 2974-402 | 2974-602 | $ 10.45 | 2975-402 | 2975-602 | $12.70 |
| 3/64 | 1/8 | 3/32 | 1-1/2 | 2974-403 | 2974-603 | 10.45 | 2975-403 | 2975-603 | 12.70 |
| 1/16 | 1/8 | 1/8 | 1-1/2 | 2974-404 | 2974-604 | 8.70 | 2975-404 | 2975-604 | 10.95 |
| 3/32 | 1/8 | 3/16 | 1-1/2 | 2974-406 | 2974-606 | 8.70 | 2975-406 | 2975-606 | 10.95 |
| 1/8 | 1/8 | 1/4 | 1-1/2 | 2974-408 | 2974-608 | 8.65 | 2975-408 | 2975-608 | 10.15 |
| 5/32 | 3/16 | 5/16 | 2 | 2974-410 | 2974-610 | 14.50 | 2975-410 | 2975-610 | 17.70 |
| 3/16 | 3/16 | 3/8 | 2 | 2974-412 | 2974-612 | 12.25 | 2975-412 | 2975-612 | 14.95 |
| 7/32 | 1/4 | 7/16 | 2 | 2974-414 | 2974-614 | 16.60 | 2975-414 | 2975-614 | 21.70 |
| 1/4 | 1/4 | 1/2 | 2 | 2974-416 | 2974-616 | 15.75 | 2975-416 | 2975-616 | 20.20 |
| 5/16 | 5/16 | 1/2 | 2 | 2974-420 | 2974-620 | 20.20 | 2975-420 | 2975-620 | 26.55 |
| 3/8 | 3/8 | 5/8 | 2 | 2974-424 | 2974-624 | 21.35 | 2975-424 | 2975-624 | 27.65 |
| 7/16 | 7/16 | 5/8 | 3 | 2974-428 | 2974-628 | 28.30 | 2975-428 | 2975-628 | 39.80 |
| 1/2 | 1/2 | 5/8 | 2-1/2 | 2974-432 | 2974-632 | 36.55 | 2975-432 | 2975-632 | 44.40 |
| 5/8 | 5/8 | 3/4 | 3 | 2974-440 | 2974-640 | 63.80 | 2975-440 | 2975-640 | 80.05 |
| 3/4 | 3/4 | 1 | 3 | 2974-448 | 2974-648 | 80.25 | 2975-448 | 2975-648 | 100.00 |

## Double End– Large Shank w/ Flat

- TiALN available upon request

| | | | | UNCOATED | | |
|---|---|---|---|---|---|---|
| DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | 2 FLT . ORDER NO. | 4 FLT . ORDER NO. | PRICE EACH |
| 1/8 | 3/8 | 3/8 | 3 | 2973-408 | 2973-608 | $29.85 |
| 5/32 | 3/8 | 7/16 | 3 | 2973-410 | 2973-610 | 29.85 |
| 3/16 | 3/8 | 1/2 | 3 | 2973-412 | 2973-612 | 28.80 |
| 7/32 | 3/8 | 9/16 | 3-1/2 | 2973-414 | 2973-614 | 28.80 |
| 1/4 | 3/8 | 5/8 | 3-1/2 | 2973-416 | 2973-616 | 28.80 |
| 9/32 | 3/8 | 11/16 | 3-1/2 | 2973-418 | 2973-618 | 42.45 |
| 5/16 | 3/8 | 3/4 | 3-1/2 | 2973-420 | 2973-620 | 32.90 |
| 11/32 | 3/8 | 3/4 | 3-1/2 | 2973-422 | 2973-622 | 42.45 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 2973-424 | 2973-624 | 32.90 |
| 7/16 | 1/2 | 7/8 | 4 | 2973-428 | 2973-628 | 52.55 |
| 1/2 | 1/2 | 1 | 4 | 2973-432 | 2973-632 | 52.55 |

# End Mills - Solid Carbide - High Performance

Look for ALLEGIANCE® AMERICANMADE

2

## High Performance - Variable Helix Four Flute - Square End - ALTiN Coated

- Reduces harmonic vibration creating a smoother running end mill.

| DIA. | SHK. DIA. | FLT. LG'TH | OAL | NO FLAT ON SHANK ORDER NO. | NO FLAT ON SHANK PRICE EACH | FLAT ON SHANK ORDER NO. | FLAT ON SHANK PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1/8 | 1/8 | 3/8 | 1-1/2 | 2974-808 | $12.60 | 2974-908 | $13.25 |
| 3/16 | 3/16 | 7/16 | 2 | 2974-812 | 17.20 | 2974-912 | 18.10 |
| 1/4 | 1/4 | 5/8 | 2-1/2 | 2974-816 | 20.35 | 2974-916 | 21.40 |
| 5/16 | 5/16 | 13/16 | 2-1/2 | 2974-820 | 26.25 | 2974-920 | 27.55 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 2974-824 | 32.55 | 2974-924 | 34.15 |
| 7/16 | 7/16 | 1 | 2-3/4 | 2974-828 | 40.80 | 2974-928 | 42.85 |
| 1/2 | 1/2 | 1 | 3 | 2974-832 | 50.15 | 2974-932 | 52.65 |
| 9/16 | 9/16 | 1-1/8 | 3-1/2 | 2974-836 | 72.45 | 2974-936 | 76.10 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2974-840 | 94.45 | 2974-940 | 99.15 |
| 3/4 | 3/4 | 1-1/2 | 4 | 2974-848 | 136.85 | 2974-948 | 143.70 |
| 1 | 1 | 1-1/2 | 4 | 2974-864 | 211.45 | 2974-964 | 222.05 |

## High Performance - Variable Helix Four Flute - Corner Radius - Square End - ALTiN Coated

- Reduces harmonic vibration creating a smoother running end mill.

| DIA. | SHK. DIA. | FLT. LG'TH | OAL | RADIUS | NO FLAT ON SHANK ORDER NO. | NO FLAT ON SHANK PRICE EACH | FLAT ON SHANK ORDER NO. | FLAT ON SHANK PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8 | 1/8 | 3/8 | 1-1/2 | .015 | 2975-008 | $14.20 | 2975-108 | $14.95 |
| 3/16 | 3/16 | 7/16 | 2 | .015 | 2975-012 | 18.85 | 2975-112 | 19.75 |
| 1/4 | 1/4 | 5/8 | 2-1/2 | .020 | 2975-016 | 22.20 | 2975-116 | 23.30 |
| 5/16 | 5/16 | 13/16 | 2-1/2 | .020 | 2975-020 | 28.50 | 2975-120 | 29.90 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | .020 | 2975-024 | 35.20 | 2975-124 | 37.00 |
| 7/16 | 7/16 | 1 | 2-3/4 | .020 | 2975-028 | 44.25 | 2975-128 | 46.45 |
| 1/2 | 1/2 | 1 | 3 | .030 | 2975-032 | 52.05 | 2975-132 | 54.65 |
| 9/16 | 9/16 | 1-1/8 | 3-1/2 | .030 | 2975-036 | 79.45 | 2975-136 | 83.40 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | .040 | 2975-040 | 101.10 | 2975-140 | 106.15 |
| 3/4 | 3/4 | 1-1/2 | 4 | .040 | 2975-048 | 148.35 | 2975-148 | 155.80 |
| 1 | 1 | 1-1/2 | 4 | .040 | 2975-064 | 226.10 | 2975-164 | 237.40 |

## High Performance - Variable Helix Four Flute - Metric - Square End - ALTiN Coated

| DIA. | SHK. DIA. | FLT. LG'TH | OAL | NO FLAT ON SHANK ORDER NO. | NO FLAT ON SHANK PRICE EACH | FLAT ON SHANK ORDER NO. | FLAT ON SHANK PRICE EACH |
|---|---|---|---|---|---|---|---|
| 3 | 3 | 12 | 38 | 2975-203 | $12.60 | 2975-253 | $13.25 |
| 4 | 4 | 14 | 50 | 2975-204 | 15.75 | 2975-254 | 16.50 |
| 5 | 5 | 16 | 50 | 2975-205 | 17.20 | 2975-255 | 18.10 |
| 6 | 6 | 19 | 63 | 2975-206 | 20.35 | 2975-256 | 21.40 |
| 8 | 8 | 19 | 63 | 2975-208 | 26.25 | 2975-258 | 27.55 |
| 10 | 10 | 22 | 70 | 2975-210 | 34.60 | 2975-260 | 36.30 |
| 12 | 12 | 25 | 75 | 2975-212 | 50.15 | 2975-262 | 52.65 |
| 14 | 14 | 25 | 88 | 2975-214 | 72.45 | 2975-264 | 76.10 |
| 16 | 16 | 32 | 88 | 2975-216 | 94.45 | 2975-266 | 99.15 |
| 18 | 18 | 36 | 100 | 2975-218 | 130.85 | 2975-268 | 137.35 |
| 20 | 20 | 38 | 100 | 2975-220 | 154.55 | 2975-270 | 162.30 |
| 25 | 25 | 38 | 100 | 2975-225 | 211.45 | 2975-275 | 222.05 |

## High Performance - Variable Helix Four Flute - Metric - Corner Radius - Square End - ALTiN Coated

| DIA. | SHK. LG'TH | FLT. LG'TH | OAL | RADIUS | NO FLAT ON SHANK ORDER NO. | NO FLAT ON SHANK PRICE EACH | FLAT ON SHANK ORDER NO. | FLAT ON SHANK PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3 | 3 | 12 | 38 | .038 | 2975-303 | $14.10 | 2975-353 | $14.85 |
| 4 | 4 | 14 | 50 | .038 | 2975-304 | 17.05 | 2975-354 | 17.90 |
| 5 | 5 | 16 | 50 | .038 | 2975-305 | 17.80 | 2975-355 | 18.70 |
| 6 | 6 | 19 | 63 | .051 | 2975-306 | 22.20 | 2975-356 | 23.30 |
| 8 | 8 | 19 | 63 | .051 | 2975-308 | 28.50 | 2975-358 | 29.90 |
| 10 | 10 | 22 | 70 | .051 | 2975-310 | 39.00 | 2975-360 | 41.00 |
| 12 | 12 | 25 | 75 | .076 | 2975-312 | 56.85 | 2975-362 | 59.70 |
| 14 | 14 | 25 | 88 | .076 | 2975-314 | 79.45 | 2975-364 | 83.40 |
| 16 | 16 | 32 | 88 | .089 | 2975-316 | 101.10 | 2975-366 | 106.15 |
| 18 | 18 | 36 | 100 | .089 | 2975-318 | 148.70 | 2975-368 | 156.10 |
| 20 | 20 | 38 | 100 | .089 | 2975-320 | 194.45 | 2975-370 | 204.15 |
| 25 | 25 | 38 | 100 | .089 | 2975-325 | 226.10 | 2975-375 | 237.40 |

## 45° 2-Flute High Helix

- Designed for high speed milling of aluminum.

Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: +.000 - .0002

| MILL DIA. | SHK. DIA. | FLT. LG'TH | OAL | UNCOATED ORDER NO. | UNCOATED PRICE EACH |
|---|---|---|---|---|---|
| 1/4 | 1/4 | 1 | 2-1/2 | 6328-016 | $ 13.60 |
| 5/16 | 5/16 | 1 | 3 | 6328-020 | 15.75 |
| 3/8 | 3/8 | 1 | 2-1/2 | 6328-024 | 22.10 |
| 1/2 | 1/2 | 1-1/4 | 3 | 6328-032 | 35.25 |
| 5/8 | 5/8 | 1-5/8 | 3-1/2 | 6328-040 | 65.30 |
| 3/4 | 3/4 | 1-3/4 | 4 | 6328-048 | 90.90 |

# End Mills - Solid Carbide - High Performance

Look for ALLEGIANCE® AMERICANMADE

2

## Six Flute 45° – Square End
## Eccentric Relief - ALTiN Coated
## High Performance Finisher

Cutting Edge Tolerance: +.000 - .002

- Designed to achieve an impeccable finish in hard metals like stainless steel, alloys, and titanium.
- The 45º spiral achieves faster feed rates.

| | | | | ALTiN COATED | | ALTiN CT. - CORNER RADIUS | | |
|---|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | FLT. LG'TH | OAL | ORDER NO. | PRICE EACH | RADIUS | ORDER NO. | PRICE EACH |
| 3/16 | 3/16 | 5/8 | 2 | 2972-812 | $15.40 | – | – | – |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 2972-816 | 20.40 | .010 | 2972-916 | $22.85 |
| 5/16 | 5/16 | 7/8 | 2-1/2 | 2972-820 | 28.20 | .012 | 2972-920 | 31.60 |
| 3/8 | 3/8 | 1 | 2-1/2 | 2972-824 | 37.65 | .012 | 2972-924 | 43.35 |
| 7/16 | 7/16 | 1 | 2-1/2 | 2972-828 | 51.35 | .015 | 2972-928 | 57.55 |
| 1/2 | 1/2 | 1 | 3 | 2972-832 | 52.65 | .015 | 2972-932 | 59.00 |
| 9/16 | 9/16 | 1 | 3 | 2972-836 | 73.20 | .020 | 2972-936 | 81.95 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2972-840 | 99.50 | .020 | 2972-940 | 111.45 |
| 3/4 | 3/4 | 1-1/2 | 4 | 2972-848 | 137.35 | .030 | 2972-948 | 153.85 |
| 7/8 | 7/8 | 1-1/2 | 4 | 2972-856 | 182.15 | .030 | 2972-956 | 204.00 |
| 1 | 1 | 1-1/2 | 4 | 2972-864 | 220.30 | .030 | 2972-964 | 246.75 |

## For Milling Aluminum Alloys
## Two Flute – Square End

- Unique geometry allows highest feed rates and highest possible finish in the milling of aluminum. Two flute design allows large chip load and highest finish.

| | | | | UNCOATED | | ZrN COATED | |
|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | FLT. LG'TH | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1/2 | 1-1/2 | 2971-408 | $ 11.05 | 2971-508 | $12.80 |
| 5/32 | 5/32 | 9/16 | 2 | 2971-410 | 13.40 | 2971-510 | 15.20 |
| 3/16 | 3/16 | 3/4 | 2 | 2971-412 | 15.50 | 2971-512 | 17.90 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 2971-416 | 18.35 | 2971-516 | 22.05 |
| 1/4 | 1/4 | 1 | 2-1/2 | 2971-417 | 19.65 | 2971-517 | 26.70 |
| 5/16 | 5/16 | 3/4 | 2-1/2 | 2971-420 | 23.65 | 2971-520 | 28.45 |
| 5/16 | 5/16 | 1 | 3 | 2971-421 | 25.35 | 2971-521 | 31.00 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 2971-424 | 29.35 | 2971-524 | 35.30 |
| 3/8 | 3/8 | 1 | 2-1/2 | 2971-425 | 31.40 | 2971-525 | 37.75 |
| 7/16 | 7/16 | 1 | 2-1/2 | 2971-428 | 38.85 | 2971-528 | 46.60 |
| 1/2 | 1/2 | 1 | 3 | 2971-432 | 45.25 | 2971-532 | 50.75 |
| 1/2 | 1/2 | 1-1/4 | 3 | 2971-433 | 48.45 | 2971-533 | 53.85 |
| 9/16 | 9/16 | 1-1/4 | 3 | 2971-436 | 65.35 | 2971-536 | 78.60 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2971-440 | 85.15 | 2971-540 | 95.70 |
| 5/8 | 5/8 | 1-5/8 | 3-1/2 | 2971-441 | 91.35 | 2971-541 | 99.20 |
| 3/4 | 3/4 | 1-1/2 | 4 | 2971-448 | 123.40 | 2971-548 | 138.50 |
| 3/4 | 3/4 | 1-3/4 | 4 | 2971-449 | 132.20 | 2971-549 | 143.55 |
| 1 | 1 | 1-1/2 | 4 | 2971-464 | 190.65 | 2971-564 | 214.00 |

## For Milling Aluminum Alloys
## Three Flute – Square End

- Unique geometry allows highest feed rates and highest possible finish in the milling of aluminum. Two flute design allows large chip load and highest finish.

| | | | | UNCOATED | | ZrN COATED | |
|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | FLT. LG'TH | OAL | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1/2 | 1-1/2 | 2972-408 | $11.05 | 2972-508 | $12.80 |
| 5/32 | 5/32 | 9/16 | 2 | 2972-410 | 13.40 | 2972-510 | 15.20 |
| 3/16 | 3/16 | 3/4 | 2 | 2972-412 | 15.50 | 2972-512 | 17.90 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 2972-416 | 18.35 | 2972-516 | 22.05 |
| 1/4 | 1/4 | 1 | 2-1/2 | 2972-417 | 19.65 | 2972-517 | 26.70 |
| 5/16 | 5/16 | 3/4 | 2-1/2 | 2972-420 | 23.65 | 2972-520 | 28.45 |
| 5/16 | 5/16 | 1 | 3 | 2972-421 | 25.35 | 2972-521 | 31.00 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 2972-424 | 29.35 | 2972-524 | 35.30 |
| 3/8 | 3/8 | 1 | 2-1/2 | 2972-425 | 31.40 | 2972-525 | 37.75 |
| 7/16 | 7/16 | 1 | 2-1/2 | 2972-428 | 38.85 | 2972-528 | 46.60 |
| 1/2 | 1/2 | 1 | 3 | 2972-432 | 45.25 | 2972-532 | 50.75 |
| 1/2 | 1/2 | 1-1/4 | 3 | 2972-433 | 48.45 | 2972-533 | 53.85 |
| 6 | 6 | 1-1/4 | 3 | 2972-436 | 65.35 | 2972-536 | 78.60 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2972-440 | 85.15 | 2972-540 | 95.70 |
| 5/8 | 5/8 | 1-5/8 | 3-1/2 | 2972-441 | 91.35 | 2972-541 | 99.20 |
| 3/4 | 3/4 | 1-1/2 | 4 | 2972-448 | 123.40 | 2972-548 | 138.50 |
| 3/4 | 3/4 | 1-3/4 | 4 | 2972-449 | 132.20 | 2972-549 | 143.55 |
| 1 | 1 | 1-1/2 | 4 | 2972-464 | 190.65 | 2972-564 | 214.00 |

## For Milling Aluminum Alloys
## Corner Radius - Two Flute – Square End

- Unique geometry allows highest feed rates and highest possible finish in the milling of aluminum. Two flute design allows large chip load and highest finish.

| | | | | | UNCOATED | | ZrN COATED | |
|---|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | FLT. LG'TH | OAL | RADIUS | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1/2 | 1-1/2 | .015 | 2971-608 | $12.85 | 2971-708 | $15.40 |
| 5/32 | 5/32 | 9/16 | 2 | .015 | 2971-610 | 15.50 | 2971-710 | 18.45 |
| 3/16 | 3/16 | 3/4 | 2 | .015 | 2971-612 | 16.95 | 2971-712 | 20.40 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | .020 | 2971-616 | 20.00 | 2971-716 | 24.05 |
| 1/4 | 1/4 | 1 | 2-1/2 | .021 | 2971-617 | 19.65 | 2971-717 | 24.70 |
| 5/16 | 5/16 | 3/4 | 2-1/2 | .022 | 2971-620 | 25.70 | 2971-720 | 30.85 |
| 5/16 | 5/16 | 1 | 3 | .023 | 2971-621 | 28.25 | 2971-721 | 33.45 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | .024 | 2971-624 | 31.75 | 2971-724 | 38.20 |
| 3/8 | 3/8 | 1 | 2-1/2 | .025 | 2971-625 | 34.00 | 2971-725 | 39.20 |
| 7/16 | 7/16 | 1 | 2-1/2 | .030 | 2971-628 | 41.20 | 2971-728 | 49.05 |
| 1/2 | 1/2 | 1 | 3 | .030 | 2971-632 | 46.95 | 2971-732 | 56.45 |
| 1/2 | 1/2 | 1-1/4 | 3 | .030 | 2971-633 | 50.30 | 2971-733 | 58.00 |
| 9/16 | 6 | 1-1/4 | 3 | .030 | 2971-636 | 71.65 | 2971-736 | 86.15 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | .040 | 2971-640 | 91.15 | 2971-740 | 109.60 |
| 5/8 | 5/8 | 1-5/8 | 3-1/2 | .040 | 2971-641 | 97.65 | 2971-741 | 112.60 |
| 3/4 | 3/4 | 1-1/2 | 4 | .040 | 2971-648 | 133.75 | 2971-748 | 160.90 |
| 3/4 | 3/4 | 1-3/4 | 4 | .040 | 2971-649 | 143.35 | 2971-749 | 165.30 |
| 1 | 1 | 1-1/2 | 4 | .040 | 2971-664 | 203.85 | 2971-764 | 245.15 |

## For Milling Aluminum Alloys
## Corner Radius - Three Flute - Square End

- Unique geometry allows highest feed rates and highest possible finish in the milling of aluminum. Two flute design allows large chip load and highest finish.

| | | | | | UNCOATED | | ZrN COATED | |
|---|---|---|---|---|---|---|---|---|
| DIA. | SHK. DIA. | FLT. LG'TH | OAL | RADIUS | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1/2 | 1-1/2 | .015 | 2972-608 | $12.85 | 2972-708 | $15.40 |
| 5/32 | 5/32 | 9/16 | 2 | .015 | 2972-610 | 15.50 | 2972-710 | 18.45 |
| 3/16 | 3/16 | 3/4 | 2 | .015 | 2972-612 | 16.95 | 2972-712 | 20.40 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | .020 | 2972-616 | 20.00 | 2972-716 | 24.05 |
| 1/4 | 1/4 | 1 | 2-1/2 | .021 | 2972-617 | 19.65 | 2972-717 | 24.70 |
| 5/16 | 5/16 | 3/4 | 2-1/2 | .022 | 2972-620 | 25.70 | 2972-720 | 30.85 |
| 5/16 | 5/16 | 1 | 3 | .023 | 2972-621 | 28.25 | 2972-721 | 33.45 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | .024 | 2972-624 | 31.75 | 2972-724 | 38.20 |
| 3/8 | 3/8 | 1 | 2-1/2 | .025 | 2972-625 | 34.00 | 2972-725 | 39.20 |
| 7/16 | 7/16 | 1 | 2-1/2 | .030 | 2972-628 | 41.20 | 2972-728 | 49.05 |
| 1/2 | 1/2 | 1 | 3 | .030 | 2972-632 | 46.95 | 2972-732 | 56.45 |
| 1/2 | 1/2 | 1-1/4 | 3 | .030 | 2972-633 | 50.30 | 2972-733 | 58.00 |
| 9/16 | 6 | 1-1/4 | 3 | .030 | 2972-636 | 71.65 | 2972-736 | 86.15 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | .040 | 2972-640 | 91.15 | 2972-740 | 109.60 |
| 5/8 | 5/8 | 1-5/8 | 3-1/2 | .040 | 2972-641 | 97.65 | 2972-741 | 112.60 |
| 3/4 | 3/4 | 1-1/2 | 4 | .040 | 2972-648 | 133.75 | 2972-748 | 160.90 |
| 3/4 | 3/4 | 1-3/4 | 4 | .040 | 2972-649 | 143.35 | 2972-749 | 165.30 |
| 1 | 1 | 1-1/2 | 4 | .040 | 2972-664 | 203.85 | 2972-764 | 245.15 |

# End Mills - Solid Carbide - Ball End

Look for ALLEGIANCE AMERICANMADE [3]

## Single End– Regular Length– Ball End

Tolerances: 1/16 to 1/4 Inclusive, +.000, -.002
9/32 to 1-1/2 Inclusive, +.000, -.003

| | | | | UNCOATED | | | | ALTiN COATED | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAM. | SHANK | FLUTE LG'TH | OAL | 2 FLT ORDER NO. | PRICE EACH | 4 FLT ORDER NO. | PRICE EACH | 2 FLT ORDER NO. | PRICE EACH | 4 FLT ORDER NO. | PRICE EACH |
| 1/32 | 1/8 | 3/32 | 1-1/2 | 2970-202 | $ 9.05 | 2970-602 | $ 9.05 | 2970-302 | $ 10.80 | 2970-702 | $ 10.80 |
| 3/64 | 1/8 | 1/8 | 1-1/2 | 2970-203 | 8.70 | 2970-603 | 8.70 | 2970-303 | 10.80 | 2970-703 | 10.80 |
| 1/16 | 1/8 | 3/16 | 1-1/2 | 2970-204 | 8.50 | 2970-604 | 8.50 | 2970-304 | 10.55 | 2970-704 | 10.55 |
| 5/64 | 1/8 | 3/16 | 1-1/2 | 2970-205 | 8.50 | 2970-605 | 8.50 | 2970-305 | 10.55 | 2970-705 | 10.55 |
| 3/32 | 1/8 | 3/8 | 1-1/2 | 2970-206 | 8.50 | 2970-606 | 8.50 | 2970-306 | 10.55 | 2970-706 | 10.55 |
| 7/64 | 1/8 | 3/8 | 1-1/2 | 2970-207 | 8.50 | 2970-607 | 8.50 | 2970-307 | 10.55 | 2970-707 | 10.55 |
| 1/8 | 1/8 | 1/2 | 1-1/2 | 2970-208 | 7.60 | 2970-608 | 7.10 | 2970-308 | 9.50 | 2970-708 | 9.50 |
| 9/64 | 3/16 | 9/16 | 2 | 2970-209 | 12.35 | 2970-609 | 12.35 | 2970-309 | 14.80 | 2970-709 | 14.80 |
| 5/32 | 3/16 | 9/16 | 2 | 2970-210 | 12.35 | 2970-610 | 12.35 | 2970-310 | 14.80 | 2970-710 | 14.80 |
| 11/64 | 3/16 | 5/8 | 2 | 2970-211 | 12.35 | 2970-611 | 12.35 | 2970-311 | 14.80 | 2970-711 | 14.80 |
| 3/16 | 3/16 | 5/8 | 2 | 2970-212 | 11.00 | 2970-612 | 11.00 | 2970-312 | 13.30 | 2970-712 | 13.30 |
| 13/64 | 1/4 | 5/8 | 2-1/2 | 2970-213 | 15.75 | 2970-613 | 15.75 | 2970-313 | 20.15 | 2970-713 | 20.15 |
| 7/32 | 1/4 | 5/8 | 2-1/2 | 2970-214 | 15.75 | 2970-614 | 15.75 | 2970-314 | 20.15 | 2970-714 | 20.15 |
| 15/64 | 1/4 | 3/4 | 2-1/2 | 2970-215 | 15.75 | 2970-615 | 15.75 | 2970-315 | 20.15 | 2970-715 | 20.15 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 2970-216 | 13.65 | 2970-616 | 13.65 | 2970-316 | 17.70 | 2970-716 | 17.70 |
| 17/64 | 5/16 | 3/4 | 2-1/2 | 2970-217 | 21.40 | 2970-617 | 21.40 | 2970-317 | 27.85 | 2970-717 | 27.85 |
| 9/32 | 5/16 | 3/4 | 2-1/2 | 2970-218 | 21.40 | 2970-618 | 21.40 | 2970-318 | 27.85 | 2970-718 | 27.85 |
| 19/64 | 5/16 | 13/16 | 2-1/2 | 2970-219 | 21.40 | 2970-619 | 21.40 | 2970-319 | 27.85 | 2970-719 | 27.85 |
| 5/16 | 5/16 | 13/16 | 2-1/2 | 2970-220 | 18.65 | 2970-620 | 18.65 | 2970-320 | 24.95 | 2970-720 | 24.95 |
| 21/64 | 3/8 | 7/8 | 2-1/2 | 2970-221 | 25.05 | 2970-621 | 25.05 | 2970-321 | 31.70 | 2970-721 | 31.70 |
| 11/32 | 3/8 | 7/8 | 2-1/2 | 2970-222 | 25.05 | 2970-622 | 25.05 | 2970-322 | 31.70 | 2970-722 | 31.70 |
| 23/64 | 3/8 | 7/8 | 2-1/2 | 2970-223 | 25.05 | 2970-623 | 25.05 | 2970-323 | 31.70 | 2970-723 | 31.70 |
| 3/8 | 3/8 | 7/8 | 2-1/2 | 2970-224 | 21.95 | 2970-624 | 21.70 | 2970-324 | 28.40 | 2970-724 | 28.40 |
| 25/64 | 7/16 | 7/8 | 2-1/2 | 2970-225 | 32.45 | 2970-625 | 32.45 | 2970-325 | 40.75 | 2970-725 | 40.75 |
| 13/32 | 7/16 | 7/8 | 2-1/2 | 2970-226 | 32.45 | 2970-626 | 32.45 | 2970-326 | 40.75 | 2970-726 | 40.75 |
| 27/64 | 7/16 | 7/8 | 2-1/2 | 2970-227 | 32.45 | 2970-627 | 32.45 | 2970-327 | 40.75 | 2970-727 | 40.75 |
| 7/16 | 7/16 | 7/8 | 2-1/2 | 2970-228 | 30.20 | 2970-628 | 30.20 | 2970-328 | 38.30 | 2970-728 | 38.30 |
| 29/64 | 7/16 | 1 | 3 | 2970-229 | 39.05 | 2970-629 | 39.05 | 2970-329 | 47.80 | 2970-729 | 47.80 |
| 15/32 | 1/2 | 1 | 3 | 2970-230 | 39.05 | 2970-630 | 39.05 | 2970-330 | 47.80 | 2970-730 | 47.80 |
| 31/64 | 1/2 | 1 | 3 | 2970-231 | 39.05 | 2970-631 | 39.05 | 2970-331 | 47.80 | 2970-731 | 47.80 |
| 1/2 | 1/2 | 1 | 3 | 2970-232 | 34.20 | 2970-632 | 34.20 | 2970-332 | 42.65 | 2970-732 | 42.65 |
| 9/16 | 9/16 | 1-1/4 | 3 | 2970-236 | 55.00 | 2970-636 | 55.00 | 2970-336 | 66.45 | 2970-736 | 66.45 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2970-240 | 71.10 | 2970-640 | 71.10 | 2970-340 | 83.20 | 2970-740 | 83.20 |
| 11/16 | 3/4 | 1-1/2 | 4 | 2970-244 | 101.40 | 2970-644 | 101.40 | 2970-344 | 118.30 | 2970-744 | 118.30 |
| 3/4 | 3/4 | 1-1/2 | 4 | 2970-248 | 94.60 | 2970-648 | 94.60 | 2970-348 | 111.15 | 2970-748 | 111.15 |
| 13/16 | 7/8 | 1-1/2 | 4 | 2970-252 | 212.45 | 2970-652 | 212.45 | – | – | – | – |
| 7/8 | 7/8 | 1-1/2 | 4 | 2970-256 | 116.50 | 2970-656 | 116.50 | 2970-356 | 132.35 | 2970-756 | 132.35 |
| 15/16 | 1 | 1-1/2 | 4 | 2970-260 | 223.45 | 2970-660 | 223.45 | – | – | – | – |
| 1 | 1 | 1-1/2 | 4 | 2970-264 | 149.45 | 2970-664 | 149.45 | 2970-364 | 172.35 | 2970-764 | 167.20 |

Sizes over 1" POA

ALTiN Coated

2 Flute Ball End

4 Flute Ball End

## Single End– Extra Long– Ball End [2]

| | | | | UNCOATED | | | ALTiN COATED | | |
|---|---|---|---|---|---|---|---|---|---|
| DIA | SHANK DIA | FLUTE LG'TH | OAL | 2 FLT ORDER NO. | 4 FLT ORDER NO | PRICE EACH | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 1/8 | 1/8 | 1 | 3 | 6321-108 | 6321-208 | $ 14.00 | 6321-508 | 6321-608 | $ 16.40 |
| 3/16 | 3/16 | 1-1/4 | 3 | 6321-112 | 6321-212 | 16.50 | 6321-512 | 6321-612 | 20.90 |
| 1/4 | 1/4 | 1-1/2 | 4 | 6321-116 | 6321-216 | 20.80 | 6321-516 | 6321-616 | 25.90 |
| 5/16 | 5/16 | 1-5/8 | 4 | 6321-120 | 6321-220 | 25.95 | 6321-520 | 6321-620 | 33.70 |
| 3/8 | 3/8 | 2 | 4 | 6321-124 | 6321-224 | 31.65 | 6321-524 | 6321-624 | 38.75 |
| 3/8 | 3/8 | 3 | 6 | 6321-125 | 6321-225 | 41.55 | 6321-525 | 6321-625 | 49.75 |
| 7/16 | 7/16 | 2 | 4 | 6321-128 | 6321-228 | 42.15 | 6321-528 | 6321-628 | 50.90 |
| 7/16 | 7/16 | 3 | 6 | 6321-129 | 6321-229 | 58.30 | 6321-529 | 6321-629 | 71.35 |
| 1/2 | 1/2 | 2 | 4 | 6321-132 | 6321-232 | 44.65 | 6321-532 | 6321-632 | 55.05 |
| 1/2 | 1/2 | 3 | 6 | 6321-133 | 6321-233 | 72.90 | 6321-533 | 6321-633 | 84.35 |
| 5/8 | 5/8 | 2-1/4 | 5 | 6321-140 | 6321-240 | 85.95 | 6321-540 | 6321-640 | 100.85 |
| 5/8 | 5/8 | 3 | 6 | 6321-141 | 6321-241 | 99.70 | 6321-541 | 6321-641 | 111.95 |
| 3/4 | 3/4 | 2-1/4 | 5 | 6321-148 | 6321-248 | 123.35 | 6321-548 | 6321-648 | 143.15 |
| 3/4 | 3/4 | 3 | 6 | 6321-149 | 6321-249 | 148.70 | 6321-549 | 6321-649 | 167.75 |
| 1 | 1 | 3 | 6 | 6321-166 | 6321-266 | 218.15 | 6321-566 | 6321-666 | 257.35 |

ALTiN Coated

2 Flute Ball End

4 Flute Ball End

# End Mills - Solid Carbide - Ball End

Look for ALLEGIANCE® AMERICANMADE

## Single End - Metric End Mills - Ball End

| | | UNCOATED | | | ALTiN COATED | | |
|---|---|---|---|---|---|---|---|
| DIA. (MM) | SHK. DIA. (MM) | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 1.0 | 3.0 | 6324-010 | 6325-010 | $ 9.20 | 6327-200 | 6327-300 | $ 12.15 |
| 1.5 | 3.0 | 6324-015 | 6325-015 | 9.20 | 6327-201 | 6327-301 | 12.15 |
| 2.0 | 3.0 | 6324-021 | 6325-021 | 7.60 | 6327-202 | 6327-302 | 10.25 |
| 2.5 | 3.0 | 6324-025 | 6325-025 | 7.60 | 6327-203 | 6327-303 | 10.25 |
| 3.0 | 3.0 | 6324-030 | 6325-030 | 7.60 | 6327-204 | 6327-304 | 10.25 |
| 4.0 | 4.0 | 6324-040 | 6325-040 | 10.20 | 6327-206 | 6327-306 | 13.95 |
| 5.0 | 5.0 | 6324-050 | 6325-050 | 10.35 | 6327-208 | 6327-308 | 14.15 |
| 6.0 | 6.0 | 6324-060 | 6325-060 | 13.65 | 6327-210 | 6327-310 | 19.60 |
| 7.0 | 7.0 | 6324-070 | 6325-070 | 18.00 | 6327-212 | 6327-312 | 26.50 |
| 8.0 | 8.0 | 6324-080 | 6325-080 | 17.45 | 6327-214 | 6327-314 | 25.80 |
| 9.0 | 9.0 | 6324-090 | 6325-090 | 24.80 | 6327-216 | 6327-316 | 34.40 |
| 10.0 | 10.0 | 6324-100 | 6325-100 | 22.55 | 6327-218 | 6327-318 | 34.60 |
| 12.0 | 12.0 | 6324-120 | 6325-120 | 33.15 | 6327-222 | 6327-322 | 46.10 |
| 14.0 | 14.0 | 6324-140 | 6325-140 | 47.65 | 6327-226 | 6327-326 | 67.20 |
| 16.0 | 16.0 | 6324-160 | 6325-160 | 71.10 | 6327-230 | 6327-330 | 95.00 |
| 18.0 | 18.0 | 6324-180 | 6325-180 | 78.75 | 6327-234 | 6327-334 | 105.95 |
| 20.0 | 20.0 | 6324-200 | 6325-200 | 92.10 | 6327-236 | 6327-336 | 130.05 |

## Single End - Stub Length - Ball End 2

• TiALN available upon request

| | | | | UNCOATED | | |
|---|---|---|---|---|---|---|
| DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 3/64 | 1/8 | 1/8 | 1-1/2 | 2971-103 | 2971-303 | $ 7.35 |
| 1/16 | 1/8 | 1/8 | 1-1/2 | 2971-104 | 2971-304 | 6.55 |
| 3/32 | 1/8 | 3/16 | 1-1/2 | 2971-106 | 2971-306 | 6.55 |
| 1/8 | 1/8 | 1/4 | 1-1/2 | 2971-108 | 2971-308 | 6.55 |
| 5/32 | 3/16 | 5/16 | 1-1/2 | 2971-110 | 2971-310 | 8.75 |
| 3/16 | 3/16 | 5/16 | 1-1/2 | 2971-112 | 2971-312 | 8.75 |
| 1/4 | 1/4 | 1/2 | 2 | 2971-116 | 2971-316 | 10.70 |
| 5/16 | 5/16 | 5/8 | 2 | 2971-120 | 2971-320 | 15.55 |
| 3/8 | 3/8 | 5/8 | 2 | 2971-124 | 2971-324 | 19.40 |
| 7/16 | 7/16 | 5/8 | 2-1/2 | 2971-128 | 2971-328 | 24.35 |
| 1/2 | 1/2 | 5/8 | 2-1/2 | 2971-132 | 2971-332 | 30.95 |

## Double End - Stub Length - Ball End

| | | | | UNCOATED | | | ALTiN COATED | | |
|---|---|---|---|---|---|---|---|---|---|
| DIA. | CUT LG'TH | SHK. DIA. | OAL | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH | 2 FLT ORDER NO. | 4 FLT ORDER NO. | PRICE EACH |
| 1/32 | 1/8 | 1/16 | 1-1/2 | 2974-502 | 2974-702 | $ 13.05 | 2975-502 | 2975-702 | $ 15.30 |
| 3/64 | 1/8 | 3/32 | 1-1/2 | 2974-503 | 2974-703 | 13.05 | 2975-503 | 2975-703 | 15.30 |
| 1/16 | 1/8 | 1/8 | 1-1/2 | 2974-504 | 2974-704 | 12.50 | 2975-504 | 2975-704 | 14.80 |
| 3/32 | 1/8 | 3/16 | 1-1/2 | 2974-506 | 2974-706 | 12.50 | 2975-506 | 2975-706 | 14.80 |
| 1/8 | 1/8 | 1/4 | 1-1/2 | 2974-508 | 2974-708 | 10.75 | 2975-508 | 2975-708 | 12.30 |
| 5/32 | 3/16 | 5/16 | 2 | 2974-510 | 2974-710 | 16.55 | 2975-510 | 2975-710 | 19.90 |
| 3/16 | 3/16 | 3/8 | 2 | 2974-512 | 2974-712 | 15.85 | 2975-512 | 2975-712 | 18.20 |
| 7/32 | 1/4 | 7/16 | 2 | 2974-514 | 2974-714 | 22.10 | 2975-514 | 2975-714 | 26.05 |
| 1/4 | 1/4 | 1/2 | 2 | 2974-516 | 2974-716 | 19.65 | 2975-516 | 2975-716 | 23.60 |
| 5/16 | 5/16 | 1/2 | 2 | 2974-520 | 2974-720 | 25.25 | 2975-520 | 2975-720 | 31.20 |
| 3/8 | 3/8 | 5/8 | 2 | 2974-524 | 2974-724 | 26.50 | 2975-524 | 2975-724 | 32.45 |
| 7/16 | 7/16 | 5/8 | 3 | 2974-528 | 2974-728 | 33.95 | 2975-528 | 2975-728 | 48.00 |
| 1/2 | 1/2 | 5/8 | 2-1/2 | 2974-532 | 2974-732 | 43.40 | 2975-532 | 2975-732 | 53.05 |
| 5/8 | 5/8 | 3/4 | 3 | 2974-540 | 2974-740 | 72.70 | 2975-540 | 2975-740 | 88.95 |
| 3/4 | 3/4 | 1 | 3 | 2974-548 | 2974-748 | 90.90 | 2975-548 | 2975-748 | 110.65 |

## Double End - Regular Length - Ball End

| | | | | UNCOATED | | |
|---|---|---|---|---|---|---|
| DIAM. | SHANK DIAM. | FLUTE LG'TH | OAL | 2 FLT. ORDER NO. | 4 FLT. ORDER NO. | PRICE EACH |
| 1/32 | 1/8 | 3/32 | 2 | 2974-102 | 2974-302 | $14.50 |
| 3/64 | 1/8 | 1/8 | 2 | 2974-103 | 2974-303 | 14.50 |
| 1/16 | 1/8 | 3/16 | 1-1/2 | 2974-104† | – | 11.30 |
| 1/16 | 1/8 | 3/16 | 2 | 2974-105 | 2974-304 | 14.10 |
| 3/32 | 1/8 | 1/4 | 2 | 2974-106 | 2974-306 | 14.10 |
| 1/8 | 1/8 | 3/8 | 2 | 2974-108 | 2974-308 | 14.10 |
| 5/32 | 3/16 | 7/16 | 2 | 2974-110† | – | 15.50 |
| 5/32 | 3/16 | 7/16 | 2-1/2 | 2974-111 | 2974-311 | 19.35 |
| 3/16 | 3/16 | 1/2 | 2-1/2 | 2974-112 | 2974-313 | 16.55 |
| 7/32 | 1/4 | 9/16 | 2-1/2 | 2974-114 | 2974-314 | 21.55 |
| 1/4 | 1/4 | 5/8 | 2-1/2 | 2974-116 | 2974-316 | 21.35 |
| 5/16 | 5/16 | 3/4 | 3-1/2 | 2974-121 | 2974-321 | 25.60 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 2974-124 | 2974-325 | 31.65 |
| 7/16 | 7/16 | 7/8 | 4 | 2974-128 | 2974-328 | 46.95 |
| 1/2 | 1/2 | 1 | 4 | 2974-132 | 2974-332 | 51.95 |

## Double End - Large Shank With Flat - Ball End

• TiALN available upon request

| | | | | UNCOATED | | |
|---|---|---|---|---|---|---|
| DIAM. | DIAM. | FLUTE LG'TH | OAL | 2 FLT . ORDER NO. | 4 FLT . ORDER NO. | PRICE EACH |
| 1/8 | 3/8 | 3/8 | 3 | 2973-508 | 2973-708 | $36.25 |
| 5/32 | 3/8 | 7/16 | 3 | 2973-510 | 2973-710 | 36.25 |
| 3/16 | 3/8 | 1/2 | 3 | 2973-512 | 2973-712 | 35.20 |
| 7/32 | 3/8 | 9/16 | 3-1/2 | 2973-514 | 2973-714 | 35.20 |
| 1/4 | 3/8 | 5/8 | 3-1/2 | 2973-516 | 2973-716 | 35.20 |
| 9/32 | 3/8 | 11/16 | 3-1/2 | 2973-518 | 2973-718 | 52.25 |
| 5/16 | 3/8 | 3/4 | 3-1/2 | 2973-520 | 2973-720 | 40.55 |
| 11/32 | 3/8 | 3/4 | 3-1/2 | 2973-522 | 2973-722 | 52.25 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 2973-524 | 2973-724 | 40.55 |
| 7/16 | 1/2 | 7/8 | 4 | 2973-528 | 2973-728 | 64.00 |
| 1/2 | 1/2 | 1 | 4 | 2973-532 | 2973-732 | 64.00 |

# Burrs- High Speed Steel & Carbide

Look for ALLEGIANCE® AMERICANMADE

## Cylindrical

| | | [1] HIGH SPEED | | [2] CARBIDE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SINGLE CUT | | DOUBLE CUT | | | ALUMA CUT | | |
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/8" | 1/2" | 2976-010 | $ 5.25 | SA-11 | 2978-063 | $ 9.30 | – | – | – |
| 1/8" | 5/8" | – | – | SA-12 | 2978-065 | 7.70 | – | – | – |
| 3/16" | 3/4" | 2976-035 | 6.95 | – | – | – | – | – | – |
| 3/16" | 5/8" | – | – | SA-14 | 2978-075 | 7.90 | – | – | – |
| 1/4" | 5/8" | – | – | SA-1 | 2978-005 | 6.90 | SA-1NF | 2979-055 | $ 9.10 |
| 1/4" | 1" | 2976-090 | 6.95 | SA-1A | 2978-010 | 8.50 | – | – | – |
| 5/16" | 3/4" | – | – | SA-2 | 2978-015 | 8.45 | – | – | – |
| 5/16" | 1" | 2976-140 | 8.90 | SA-2A | 2978-020 | 11.40 | – | – | – |
| 3/8" | 3/4" | – | – | SA-3 | 2978-025 | 8.85 | SA-3NF | 2979-075 | 12.40 |
| 3/8" | 1" | 2976-190 | 8.95 | SA-3A | 2978-030 | 11.60 | – | – | – |
| 3/8" | 1-1/2" | 2976-215 | 10.65 | SA-3B | 2978-035 | 14.25 | – | – | – |
| 7/16" | 1" | – | – | SA-4 | 2978-040 | 13.20 | – | – | – |
| 1/2" | 1" | 2976-290 | 11.10 | SA-5 | 2978-045 | 14.65 | SA-5NF | 2979-095 | 20.50 |
| 5/8" | 1" | 2976-340 | 13.10 | SA-6 | 2978-050 | 18.70 | SA-6NF | 2979-100 | 25.55 |
| 3/4" | 3/4" | 2976-395 | 13.25 | SA-16 | 2978-085 | 27.00 | – | – | – |
| 3/4" | 1" | 2976-410 | 13.65 | SA-7 | 2978-055 | 27.95 | SA-7NF | 2979-105 | 39.15 |
| 1" | 1" | 2976-465 | 23.75 | SA-9 | 2978-060 | 40.35 | – | – | – |
| 6" EXTENDED SHANK SIZES | | | | | | | | | |
| 1/4" | 5/8" | – | – | SA-1L6 | 2979-905 | 12.60 | – | – | – |
| 3/8" | 1" | – | – | SA-3L6 | 2979-910 | 15.10 | – | – | – |
| 1/2" | 1" | – | – | SA-5L6 | 2979-915 | 22.60 | – | – | – |

High Speed - Single Cut

Carbide - Double Cut  Carbide - Aluma Cut

Extended Shank

## Cylindrical End Cut

| | | [1] HIGH SPEED | | [2] CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/8" | 1/2" | 2976-015 | $ 6.05 | SB-11 | 2978-193 | $ 9.55 |
| 1/8" | 5/8" | – | – | SB-12 | 2978-195 | 8.45 |
| 3/16" | 3/4" | 2976-040 | 8.00 | – | – | – |
| 3/16" | 5/8" | – | – | SB-14 | 2978-205 | 8.60 |
| 1/4" | 5/8" | – | – | SB-1 | 2978-135 | 7.60 |
| 1/4" | 1" | 2976-095 | 8.00 | SB-1A | 2978-140 | 9.60 |
| 5/16" | 3/4" | – | – | SB-2 | 2978-145 | 9.60 |
| 5/16" | 1" | 2976-145 | 10.25 | SB-2A | 2978-150 | 12.15 |
| 3/8" | 3/4" | – | – | SB-3 | 2978-155 | 10.45 |
| 3/8" | 1" | 2976-195 | 10.30 | SB-3A | 2978-160 | 12.75 |
| 3/8" | 1-1/2" | 2976-220 | 12.25 | SB-3B | 2978-165 | 15.75 |
| 7/16" | 1" | – | – | SB-4 | 2978-170 | 15.20 |
| 1/2" | 1" | 2976-295 | 12.80 | SB-5 | 2978-175 | 16.85 |
| 5/8" | 1" | 2976-345 | 15.10 | SB-6 | 2978-180 | 21.00 |
| 3/4" | 3/4" | 2976-400 | 15.25 | SB-16 | 2978-215 | 31.00 |
| 3/4" | 1" | 2976-415 | 15.70 | SB-7 | 2978-185 | 32.20 |
| 1" | 1" | 2976-470 | 27.35 | SB-9 | 2978-190 | 44.75 |

High Speed - Single Cut

Carbide - Double Cut

## Cylindrical Ball Nose

| | | [1] HIGH SPEED | | [2] CARBIDE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SINGLE CUT | | DOUBLE CUT | | | ALUMA CUT | | |
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/8" | 1/2" | 2976-020 | $5.45 | – | – | – | – | – | – |
| 1/8" | 5/8" | – | – | SC-12 | 2978-285 | $8.05 | – | – | – |
| 3/16" | 1/2" | 2976-045 | 5.95 | – | – | – | – | – | – |
| 3/16" | 5/8" | – | – | SC-14 | 2978-290 | 8.40 | – | – | – |
| 1/4" | 5/8" | – | – | SC-1 | 2978-230 | 7.90 | SC-1NF | 2979-230 | $10.80 |
| 1/4" | 1" | 2976-100 | 6.55 | SC-1A | 2978-235 | 9.25 | – | – | – |
| 5/16" | 3/4" | – | – | SC-2 | 2978-240 | 9.70 | – | – | – |
| 5/16" | 1" | 2976-150 | 7.90 | SC-2A | 2978-245 | 11.80 | – | – | – |
| 3/8" | 3/4" | – | – | SC-3 | 2978-250 | 9.80 | SC-3NF | 2979-250 | 13.75 |
| 3/8" | 1" | 2976-200 | 8.90 | SC-3A | 2978-255 | 12.15 | – | – | – |
| 3/8" | 1-1/2" | 2976-225 | 9.65 | SC-3B | 2978-260 | 15.50 | – | – | – |
| 7/16" | 1" | – | – | SC-4 | 2978-265 | 14.85 | – | – | – |
| 1/2" | 1" | 2976-300 | 9.90 | SC-5 | 2978-270 | 16.35 | SC-5NF | 2979-270 | 22.80 |
| 5/8" | 1" | 2976-350 | 13.20 | SC-6 | 2978-275 | 20.90 | SC-6NF | 2979-275 | 27.80 |
| 3/4" | 1" | – | – | SC-7 | 2978-280 | 29.35 | SC-7NF | 2979-280 | 39.60 |
| 3/4" | 1-1/4" | 2976-430 | 14.30 | – | – | – | – | – | – |
| 1" | 1" | – | – | SC-9 | 2978-282 | 52.30 | – | – | – |
| 6" EXTENDED SHANK SIZES | | | | | | | | | |
| 1/4" | 5/8" | – | – | SC-1L6 | 2979-920 | 13.60 | – | – | – |
| 3/8" | 3/4" | – | – | SC-3L6 | 2979-925 | 16.15 | – | – | – |
| 1/2" | 1" | – | – | SC-5L6 | 2979-930 | 22.40 | – | – | – |

High Speed - Single Cut

Carbide - Double Cut

Carbide - Aluma Cut

# Burrs- High Speed Steel & Carbide

Look for ALLEGIANCE AMERICANMADE

## Ball Shape

[1] [2]

| | | HIGH SPEED | | CARBIDE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SINGLE CUT | | DOUBLE CUT | | | ALUMA CUT | | |
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/8" | 1/8" | 2976-005 | $5.25 | SD-12 | 2978-380 | $8.20 | – | – | – |
| 3/16" | 3/16" | 2976-025 | 5.50 | SD-14 | 2978-385 | 8.20 | – | – | – |
| 1/4" | 1/4" | 2976-060 | 6.25 | SD-1 | 2978-335 | 7.60 | SD1-NF | 2979-335 | $10.45 |
| 5/16" | 5/16" | 2976-125 | 6.75 | SD-2 | 2978-340 | 8.25 | – | – | – |
| 3/8" | 3/8" | 2976-165 | 7.80 | SD-3 | 2978-345 | 8.30 | SD3-NF | 2979-345 | 11.50 |
| 7/16" | 7/16" | – | – | SD-4 | 2978-350 | 10.75 | – | – | – |
| 1/2" | 1/2" | 2976-265 | 10.50 | SD-5 | 2978-355 | 11.65 | SD5-NF | 2979-355 | 16.25 |
| 5/8" | 5/8" | 2976-335 | 11.20 | SD-6 | 2978-360 | 15.75 | SD6-NF | 2979-360 | 21.95 |
| 3/4" | 3/4" | 2976-405 | 14.25 | SD-7 | 2978-365 | 21.80 | SD7-NF | 2979-365 | 27.95 |
| 1" | 1" | 2976-475 | 22.90 | SD-9 | 2978-370 | 34.55 | – | – | – |
| 6" EXTENDED SHANK SIZES | | | | | | | | | |
| 1/4" | 1/4" | – | – | SD1-L6 | 2979-935 | $13.30 | – | – | – |
| 3/8" | 3/8" | – | – | SD3-L6 | 2979-940 | 13.75 | – | – | – |
| 1/2" | 1/2" | – | – | SD5-L6 | 2979-945 | 19.30 | – | – | – |

High Speed - Single Cut

Carbide - Double Cut

Carbide -Aluma Cut

Extended Shank

## Egg Shape

[1] [2]

| | | HIGH SPEED | | CARBIDE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SINGLE CUT | | DOUBLE CUT | | | ALUMA CUT | | |
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 3/16" | 5/16" | 2976-030 | $ 5.85 | SE-11 | 2978-445 | $ 9.40 | – | – | – |
| 1/4" | 1/2" | 2976-070 | 6.25 | – | – | – | – | – | – |
| 1/4" | 3/8" | – | – | SE-1 | 2978-420 | 8.70 | – | – | – |
| 3/8" | 5/8" | 2976-175 | 8.05 | SE-3 | 2978-425 | 9.15 | SE-3NF | 2979-425 | $14.85 |
| 1/2" | 7/8" | 2976-285 | 10.90 | SE-5 | 2978-430 | 14.85 | SE-5NF | 2979-430 | 20.95 |
| 5/8" | 1" | 2976-360 | 12.35 | SE-6 | 2978-435 | 20.85 | SE-6NF | 2979-435 | 32.10 |
| 3/4" | 1" | 2976-425 | 16.80 | SE-7 | 2978-440 | 28.30 | SE-7NF | 2979-440 | 41.15 |
| 1" | 1-3/8" | 2976-480 | 26.95 | – | – | – | – | – | – |
| 6" EXTENDED SHANK SIZES | | | | | | | | | |
| 1/4" | 3/8" | – | – | SE-1L6 | 2979-950 | 14.50 | – | – | – |
| 3/8" | 5/8" | – | – | SE-3L6 | 2979-955 | 15.80 | – | – | – |
| 1/2" | 7/8" | – | – | SE-5L6 | 2979-960 | 22.40 | – | – | – |

High Speed - Single Cut

Carbide - Double Cut

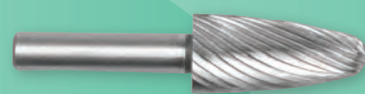
Carbide -Aluma Cut

Extended Shank

## Round Tree Shape

[1] [2]

| | | HIGH SPEED | | CARBIDE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SINGLE CUT | | DOUBLE CUT | | | ALUMA CUT | | |
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 3/4" | 2976-080 | $6.90 | – | – | – | – | – | – |
| 1/4" | 5/8" | – | – | SF-1 | 2978-480 | $8.30 | SF-1NF | 2979-480 | $11.55 |
| 3/8" | 3/4" | 2976-180 | 8.60 | SF-3 | 2978-485 | 9.90 | SF-3NF | 2979-485 | 13.80 |
| 7/16 | 1" | – | – | SF-4 | 2978-487 | 14.05 | – | – | – |
| 1/2" | 3/4" | – | – | SF-13 | 2978-505 | 13.70 | – | – | – |
| 1/2" | 1" | – | – | SF-5 | 2978-490 | 14.65 | SF-5NF | 2979-490 | 20.55 |
| 1/2" | 1-1/8" | 2976-315 | 11.95 | – | – | – | – | – | – |
| 5/8" | 1" | – | – | SF-6 | 2978-495 | 20.95 | SF-6NF | 2979-495 | 28.40 |
| 5/8" | 1-1/8" | 2976-370 | 13.30 | – | – | – | – | – | – |
| 3/4" | 1" | – | – | SF-7 | 2978-500 | 27.00 | SF-7NF | 2979-500 | 37.70 |
| 3/4" | 1-1/4" | 2976-435 | 16.20 | SF-14 | 2978-510 | 30.30 | – | – | – |
| 3/4" | 1-1/2" | – | – | SF-15 | 2978-515 | 39.35 | – | – | – |
| 1-1/8" | 2" | 2976-485 | 38.80 | – | – | – | – | – | – |
| 6" EXTENDED SHANK SIZES | | | | | | | | | |
| 1/4" | 5/8" | – | – | SF-1L6 | 2979-965 | 14.25 | – | – | – |
| 3/8" | 3/4" | – | – | SF-3L6 | 2979-970 | 15.35 | – | – | – |
| 1/2" | 1" | – | – | SF-5L6 | 2979-975 | 22.25 | – | – | – |



High Speed - Single Cut

Carbide - Double Cut

Carbide - Aluma Cut

# Burrs- High Speed Steel & Carbide

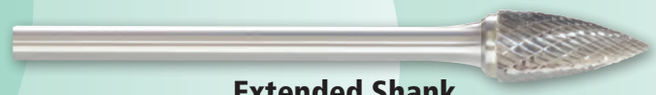
Look for ALLEGIANCE® AMERICANMADE

## Pointed Tree Shape

| | | [1] HIGH SPEED | | [2] CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 3/4" | 2976-085 | $6.90 | – | – | – |
| 1/4" | 5/8" | – | – | SG-1 | 2978-550 | $8.60 |
| 3/8" | 3/4" | 2976-185 | 8.60 | SG-3 | 2978-555 | 10.30 |
| 1/2" | 3/4" | 2976-280 | 9.30 | SG-13 | 2978-575 | 15.10 |
| 1/2" | 1" | – | – | SG-5 | 2978-560 | 15.30 |
| 1/2" | 1-1/8" | 2976-320 | 12.45 | – | – | – |
| 5/8" | 1" | 2976-365 | 12.10 | SG-6 | 2978-565 | 21.20 |
| 3/4" | 1" | – | – | SG-7 | 2978-570 | 28.10 |
| 3/4" | 1-1/2" | – | – | SG-15 | 2978-580 | 40.30 |
| 6" EXTENDED SHANK SIZES | | | | | | |
| 1/4" | 5/8" | – | – | SG-1L6 | 2979-980 | $14.25 |
| 3/8" | 3/4" | – | – | SG-3L6 | 2979-985 | 16.45 |
| 3/8" | 3/4" | – | – | SG-5L6 | 2979-990 | 23.15 |

High Speed - Single Cut

Carbide - Double Cut



Extended Shank

## Flame

| | | [1] HIGH SPEED | | [2] CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 5/8" | – | – | SH-1 | 2978-618 | $10.60 |
| 5/16" | 3/4" | – | – | SH-2 | 2978-620 | 12.20 |
| 1/2" | 1-1/4" | – | – | SH-5 | 2978-625 | 23.05 |
| 5/8" | 1-7/16" | 2976-500 | $19.90 | SH-6 | 2978-630 | 31.85 |
| 3/4" | 1-5/8" | 2976-440 | 26.95 | SH-7 | 2978-635 | 44.00 |
| 6" EXTENDED SHANK SIZES | | | | | | |
| 5/16" | 3/4" | – | – | SH-2L6 | 2980-000 | $18.20 |
| 1/2" | 1-1/4" | – | – | SH-5L6 | 2980-005 | 31.60 |

High Speed - Single Cut

Carbide - Double Cut

Extended Shank

## 60° Included

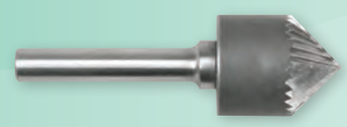
| | | [1] HIGH SPEED | | [2] CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 3/16" | 2976-055 | $6.30 | SJ-1 | 2978-650 | $7.85 |
| 5/16" | 1/4" | – | – | SJ-2 | 2978-655 | 8.55 |
| 3/8" | 5/16" | 2976-160 | 7.45 | SJ-3 | 2978-660 | 8.85 |
| 1/2" | 7/16" | 2976-260 | 10.70 | SJ-5 | 2978-665 | 11.80 |
| 5/8" | 1/2" | 2976-330 | 12.50 | SJ-6 | 2978-670 | 15.50 |
| 3/4" | 5/8" | 2976-380 | 14.95 | SJ-7 | 2978-675 | 20.85 |
| 1" | 7/8" | 2976-460 | 23.00 | SJ-9 | 2978-685 | 32.85 |

High Speed - Single Cut

Carbide - Double Cut

## 90° Included

| | | [1] HIGH SPEED | | [2] CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|
| DIAM. | LENGTH | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 1/8" | 2976-050 | $6.30 | SK-1 | 2978-700 | $7.85 |
| 5/16" | 5/32" | – | – | SK-2 | 2978-705 | 8.55 |
| 3/8" | 3/16" | 2976-155 | 7.45 | SK-3 | 2978-710 | 8.85 |
| 1/2" | 1/4" | 2976-250 | 10.70 | SK-5 | 2978-715 | 11.80 |
| 5/8" | 5/16" | 2976-325 | 12.50 | SK-6 | 2978-720 | 15.50 |
| 3/4" | 3/8" | 2976-375 | 14.95 | SK-7 | 2978-725 | 20.85 |
| 1" | 1/2" | 2976-455 | 23.00 | SK-9 | 2978-735 | 32.85 |



High Speed - Single Cut

Carbide - Double Cut

# Burrs- High Speed Steel & Carbide

Look for ALLEGIANCE® AMERICANMADE

## 14° Included Angle

[1] [2]

| | | CARBIDE | | | | | |
|---|---|---|---|---|---|---|---|
| | | | DOUBLE CUT | | | ALUMA CUT | |
| DIAM. | LENGTH | CARBIDE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 5/8" | SL-1 | 2978-750 | $ 8.40 | – | – | – |
| 5/16" | 7/8" | SL-2 | 2978-755 | 10.90 | – | – | – |
| 3/8" | 1-1/16" | SL-3 | 2978-760 | 12.80 | SL-3NF | 2979-760 | $17.85 |
| 1/2" | 1-1/8" | SL-4 | 2978-765 | 16.30 | SL-4NF | 2979-765 | 22.75 |
| 5/8" | 1-3/16" | SL-5 | 2978-767 | 27.50 | – | – | – |
| 5/8" | 1-5/16" | SL-6 | 2978-770 | 29.95 | SL-6NF | 2979-770 | 40.15 |
| 3/4" | 1-1/2" | SL-7 | 2978-775 | 44.00 | SL-7NF | 2979-775 | 53.15 |
| 6" EXTENDED SHANK SIZES | | | | | | | |
| 1/4" | 5/8" | SL-1L6 | 2980-010 | 13.95 | – | – | – |
| 3/8" | 1-1/16" | SL-3L6 | 2980-015 | 18.75 | – | – | – |
| 1/2" | 1-1/8" | SL-4L6 | 2980-020 | 24.45 | – | – | – |

Carbide - Double Cut

Carbide - Aluma Cut

Extended Shank

## Inverted Cone

[1] [2]

| | | | HIGH SPEED | | CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|---|
| DIA. | LG'TH. | INC. ANGLE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 5/16" | 10° | – | – | SN-1 | 2978-870 | $7.70 |
| 1/2" | 1/2" | 14° | 2976-270 | $11.60 | – | – | – |
| 1/2" | 1/2" | 16° | – | – | SN-3 | 2978-880 | 15.85 |
| 1/2" | 1/2" | 28° | – | – | SN-4 | 2978-886 | 15.85 |
| 5/8" | 3/4" | 18° | – | – | SN-6 | 2978-888 | 20.80 |
| 3/4" | 1/2" | 30° | 2976-385 | 12.90 | – | – | – |
| 3/4" | 5/8" | 30° | – | – | SN-7 | 2978-890 | 25.65 |

High Speed - Single Cut

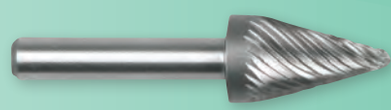
Carbide - Double Cut

## Cone Shape

[1] [2]

| | | | HIGH SPEED | | CARBIDE - DOUBLE CUT | | |
|---|---|---|---|---|---|---|---|
| DIA. | LG'TH. | INC. ANGLE | ORDER NO. | PRICE EACH | CARBIDE | ORDER NO. | PRICE EACH |
| 1/4" | 1/2" | 22° | 2976-065 | $6.60 | SM-1 | 2978-800 | $8.25 |
| 1/4" | 3/4" | 14° | 2976-075 | 7.60 | SM-2 | 2978-805 | 8.95 |
| 1/4" | 1" | 10° | 2976-105 | 8.60 | SM-3 | 2978-810 | 9.40 |
| 1/4" | 1-1/4" | 8° | 2976-110 | 9.90 | SM-3A | 2978-815 | 10.60 |
| 5/16" | 1" | 16° | 2976-135 | 10.25 | – | – | – |
| 3/8" | 5/8" | 28° | 2976-170 | 10.30 | SM-4 | 2978-820 | 12.65 |
| 3/8" | 1" | 14° | 2976-205* | 12.75 | – | – | – |
| 1/2" | 7/8" | 28° | 2976-305 | 11.45 | SM-5 | 2978-825 | 16.65 |
| 5/8" | 1" | 31° | 2976-355 | 13.50 | SM-6 | 2978-830 | 24.35 |
| 3/4" | 1" | 34° | 2976-420 | 16.00 | SM-7 | 2978-835† | 42.45 |

*Radius End † Limited Quantities



High Speed - Single Cut

Carbide - Double Cut

## Aluma Burr Sets [2]

### Set A-2
### 12 Pc. Set - 1/4" Shank - Dias. 1/4", 3/8", 1/2"

| A-2 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-1NF, SA-3NF, SA-5NF, SC-1NF, SC-3NF, SC-5NFSD-1NF, SD-3NF, SD-5NF, SF-1NF, SF-3NF, SF-5NF | 2980-142 | $200.60 |

Set A-2

Set A-6

### Set A-4
### 12 Pc. Set - 1/4" Shank - Dias. 1/4", 3/8", 1/2"

| A-4 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-1NF, SA-3NF, SA-5NF, SC-1NF, SC-3NF, SC-5NF, SF-1NF, SF-3NF, SF-5NF, SL-3NF, SL-4NF | 2980-144 | $205.75 |

### Set A-6
### 10 Pc. Set - 1/4" Shank - Dias. 3/8", 1/2"

| A-6 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-3NF, SA-5NF, SD-3NF, SD-5NF, SE-3NF, SE-5NF, SF-3NF, SF-5NF, SL-3NF, SL-5NF | 2980-146 | $203.65 |

# Carbide Burr Sets

Look for ALLEGIANCE AMERICANMADE

## 12 Pc. Set - 1/4" Shank - Head Diam.: 1/4"

| S-9 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-1, SB-1, SC-1, SD-1, SE-1, SF-1, SG-1, SH-1, SJ-1, SK-1, SM-1, SN-1 | 2980-119 | $123.80 |

## 12 Pc. Set - 1/4" Shank - Head Diam.: 1/4"

| S-10 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SB-1, SC-1, SD-1, SE-1, SF-1, SG-1, SH-1, SJ-1, SK-1, SL-1, SM-1, SN-1 | 2980-120 | $123.80 |

## 12 Pc. Set - 1/4" Shank - Head Diam.: 3/16", 1/4"

| S-12 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-1, SA-14, SC-1, SC-14, SD-1, SE-1, SF-1, SG-1, SJ-1, SL-1, SH-1, SN-1 | 2980-122 | $128.35 |

## 9 Pc. Set - 1/4" Shank - Head Diam.: 1/4", 3/8", 1/2"

| S-16 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-1, SA-3, SA-5, SC-1, SC-3, SC-5, SF-1, SF-3, SF-5 | 2980-126 | $119.25 |

## 8 Pc. Set - 1/4" Shank - Head Diam.: 1/2"

| S-20 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-5, SC-5, SD-5, SE-5, SG-5, SH-5, SK-5, SM-5 | 2980-130 | $138.05 |

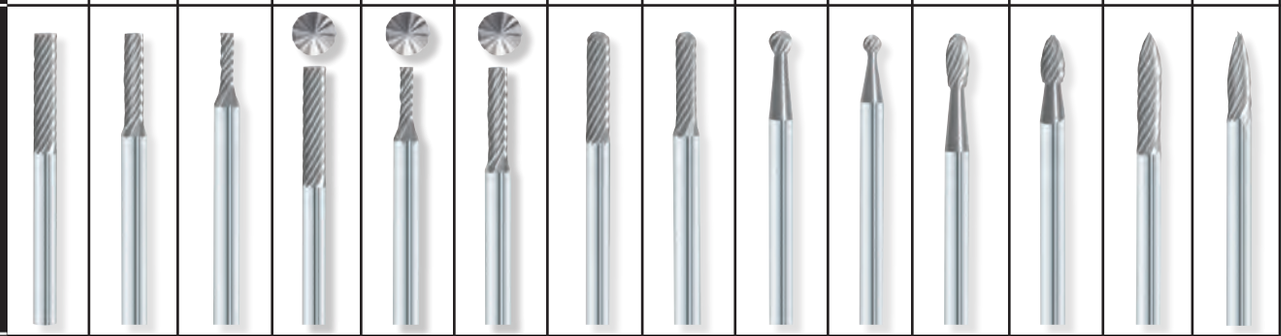
## 8 Pc. Set - 1/4" Shank - Head Diam.: 1/2"

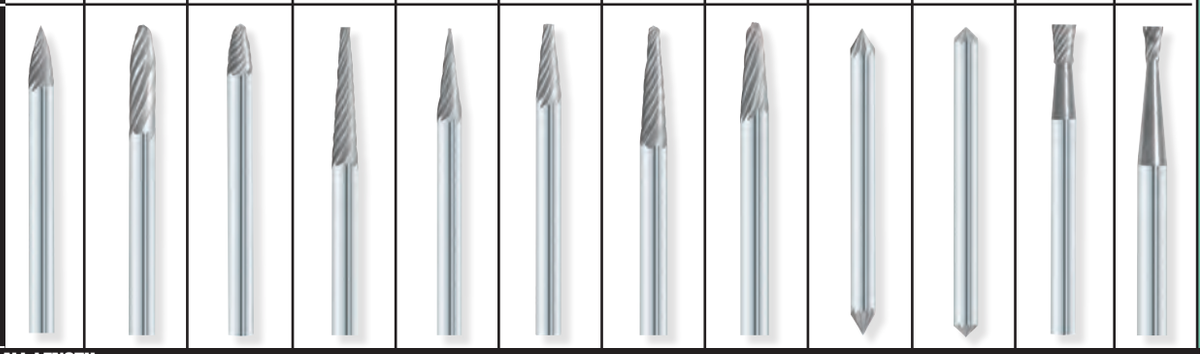
| S-21 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SB-5, SC-5, SD-5, SF-5, SG-5, SH-5, SJ-5, SK-5 | 2980-131 | $136.50 |

# Miniature Carbide Burrs

Look for ALLEGIANCE® AMERICANMADE

## 1/16" - 1/8" Head Diameter - 1/8" Shank Diameter

| CUTTING HEAD | 1/8"x9/16" | 3/32"x7/16" | 1/16"x7/16" | 1/16"x1/4" | 3/32"x7/16" | 1/8"x9/16" | 1/8"x9/16" | 3/32"x7/16" | 1/8" | 3/32" | 1/8"x1/4" | 1/8"x1/4" | 1/8"x1/2" | 1/8"x3/8" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SYLE | SA-43 | SA-42 | SA-41 | SB-41 | SB-42 | SB-43 | SC-42 | SC-41 | SD-42 | SD-41 | SE-41 | SH-41 | SG-44 | SG-43 |
| |  | | | | | | | | | | | | | |
| **1-1/2" OVERALL LENGTH** | | | | | | | | | | | | | | |
| ORDER NO. | 2978-100 | 2978-095 | 2978-090 | 2978-220 | 2978-221 | 2978-222 | 2978-305 | 2978-300 | 2978-395 | 2978-390 | 2978-450 | 2978-640 | 2978-595 | 2978-590 |
| PRICE EACH | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 |
| **2" OVERALL LENGTH** | | | | | | | | | | | | | | |
| ORDER NO. | 2978-101 | 2978-096 | 2978-091 | - | - | 2978-223 | 2978-306 | - | 2978-396 | - | 2978-451 | 2978-641 | 2978-596 | - |
| PRICE EACH | $4.85 | $4.85 | $4.85 | - | - | $4.85 | $4.85 | - | $4.85 | - | $4.85 | $4.85 | $4.85 | - |
| **3" OVERALL LENGTH** | | | | | | | | | | | | | | |
| ORDER NO. | 2978-102 | 2978-097 | 2978-092 | - | - | 2978-224 | 2978-307 | - | 2978-397 | - | 2978-452 | 2978-642 | 2978-597 | - |
| PRICE EACH | $6.15 | $6.15 | $6.15 | - | - | $6.15 | $6.15 | - | $6.15 | - | $6.15 | $6.15 | $6.15 | - |

| CUTTING HEAD | 1/8"x1/4" | 1/8"x1/2" | 1/8"x1/4" | 1/8"x5/8" | 1/8"x7/16" | 1/8"x11/32" | 1/8"x1/2" | 1/8"x3/8" | 1/8" | 1/8" | 1/8"x3/16" | 3/32"x1/8" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STYLE | SG-41 | SF-42 | SF-41 | SM-43 | SM-42 | SM-41 | SL-42 | SL-41 | SJ-42 | SK-42 | SN-42 | SN-41 |
| |  | | | | | | | | | | | |
| **1-1/2" OVERALL LENGTH** | | | | | | | | | | | | |
| ORDER NO. | 2978-585 | 2978-525 | 2978-520 | 2978-850 | 2978-845 | 2978-840 | 2978-785 | 2978-780 | 2978-690 | 2978-740 | 2978-905 | 2978-900 |
| PRICE EACH | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 | $4.25 |
| **2" OVERALL LENGTH** | | | | | | | | | | | | |
| ORDER NO. | - | 2978-526 | - | - | 2978-846 | - | 2978-786 | - | - | - | - | - |
| PRICE EACH | - | $4.85 | - | - | $4.85 | - | $4.85 | - | - | - | - | - |
| **3" OVERALL LENGTH** | | | | | | | | | | | | |
| ORDER NO. | - | 2978-527 | - | - | 2978-847 | - | 2978-787 | - | - | - | - | - |
| PRICE EACH | - | $6.15 | - | - | $6.15 | - | $6.15 | - | - | - | - | - |

# Miniature Carbide Burrs

Look for ALLEGIANCE® AMERICANMADE

## 5/32"- 3/16" Head Diameter - 1/8" Steel Shank Diameter - 1-1/2" OAL

| CUTTING HEAD | 3/16"x1/2" | 5/32"x1/2" | 3/16"x1/2" | 5/32"x1/2" | 5/32" Ball | 3/16" Ball | 3/16"x1/2" | 3/16"x1/2" | 3/16"x3/8" | 3/16"x9/32" | 3/16"x1/4" | 3/16"x1/2" | 3/16"x1/2" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STYLE | SA-53 | SA-52 | SC-53 | SC-52 | SD-52 | SD-53 | SG -53 | SF-53 | SH-53 | SE-53 | SN-53 | SM-53 | SL-53 |
| | | | | | | | | | | | | | |
| ORDER NO. | 2978-115 | 2978-110 | 2978-320 | 2978-315 | 2978-403 | 2978-405 | 2978-605 | 2978-535 | 2978-645 | 2978-460 | 2978-915 | 2978-860 | 2978-790 |
| PRICE EACH | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 | $7.00 |

## 1/4" Head Diameter - 1/8" Steel Shank Diameter - 2" OAL

| CUTTING HEAD | 1/2" | 3/16" | 1/4" | 1/2" | 1/2" | 1/2" | 1/2"- 22° | 3/8" | 1/2"- 10° |
|---|---|---|---|---|---|---|---|---|---|
| STYLE | SA-51 | SB-51 | SD-51 | SC-51 | SF-51 | SG-51 | SM-51 | SE-51 | SN-51 |
| | | | | | | | | | |
| ORDER NO. | 2978-105 | 2978-225 | 2978-400 | 2978-310 | 2978-530 | 2978-600 | 2978-855 | 2978-455 | 2978-910 |
| PRICE EACH | $7.30 | $7.30 | $7.30 | $7.30 | $7.30 | $7.30 | $7.30 | $7.30 | $7.30 |

## 3/16" Head Diameter - 3/16" Shank Diameter - 2" OAL

| CUTTING HEAD | 5/8" | 5/8" | 3/16" | 1/2" | 1/2" | 7/16"- 14° | 9/32" | 1/4"- 10° | 90° | 60° |
|---|---|---|---|---|---|---|---|---|---|---|
| STYLE | SA-81 | SC-81 | SD-81 | SF-81 | SG-81 | SL-81 | SE-81 | SN-81 | SK-81 | SJ-81 |
| | | | | | | | | | | |
| ORDER NO. | 2978-130 | 2978-330 | 2978-415 | 2978-545 | 2978-615 | 2978-795 | 2978-470 | 2978-925 | 2978-745 | 2978-695 |
| PRICE EACH | $7.45 | $7.45 | $7.45 | $7.45 | $7.45 | $7.45 | $7.45 | $7.45 | $7.45 | $7.45 |

# Miniature Burr Sets

Look for ALLEGIANCE® AMERICANMADE

## 12 Pc. Set - 1/8" Shank - Head Diam.: 1/8", 3/32"

| M-1 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-42, SA-43, SC-42, SD-42, SE-41, SF-41, SF-42, SG-41, SM-43, SN-41, SN-42, SL-41 | 2980-101 | $65.20 |

## 9 Pc. Set - 1/8" Shank - Head Diam.: 1/4"

| M-7 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-51, SB-51, SC-51, SD-51, SE-51, SF-51, SG-51, SM-51, SN-51 | 2980-107 | $88.20 |

## 12 Pc. Set - 1/8" Shank - Head Diam.: 1/8", 3/32", 1/16"

| M-2 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-41, SA-42, SC-41, SC-42, SD-42, SE-41, SF-41, SF-42, SH-41, SL-41, SL-42, SN-42 | 2980-102 | $65.20 |

## 12 Pc. Set - 1/8" Shank - Head Diam.: 5/32", 1/4"

| M-8 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-51, SA-52, SB-51, SC-51, SC-52, SD-51, SD-52, SE-51, SF-51, SG-51, SM-51, SN-51 | 2980-108 | $112.20 |

## 11 Pc. Set - 1/8" Shank -Head Diam.: 1/8", 3/32", 1/16"

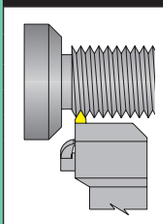
| M-3 SET CONTAINS: | ORDER NO. | PRICE EACH |
|---|---|---|
| SA-41, SB-41, SC-41, SD-41, SE-41, SF-41, SG-41, SH-41, SL-41, SM-41, SN-41 | 2980-103 | $61.70 |

# Threading Toolholders & Bars



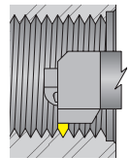
## On Edge Threading

### MTVO-A - On Edge Threading Toolholder



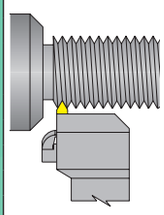
| Inch Description | Order No. R.H. | Order No. L.H. | Shank Size | TNMA Gage Insert | Price Each |
|---|---|---|---|---|---|
| MTVOR/L08-3B-A | 8058-126 | - | 0.500 | 322 | $ 73.41 |
| MTVOR/L16-3D-A | 8058-138 | - | 1.000 | | 84.29 |
| MTVOR/L12-4B-A | 8058-142 | - | 0.750 | 432 | 77.49 |
| MTVOR/L16-4D-A | 8058-146 | 8058-147 | 1.000 | | 84.29 |
| MTVOR/L20-4D-A | 8058-150 | 8058-151 | 1.250 | | 97.89 |
| MTVOR/L16-5D-A | 8058-158 | 8058-159 | 1.000 | 543 | 84.29 |
| MTVOR/L20-5D-A | 8058-162 | 8058-163 | 1.250 | | 97.89 |

### MTHO-A - On Edge Threading Bar



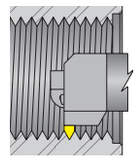
| Inch Description | Order No. R.H. | Order No. L.H. | Bar Size | Min. Bore | TNMA Gage Insert | Price Each |
|---|---|---|---|---|---|---|
| S16T-MTHOR/L-3-A | 8058-346 | - | 1.000 | 1.388 | 322 | $237.78 |
| S20U-MTHOR/L-4-A | 8058-354 | 8058-355 | 1.250 | 1.812 | 432 | 290.81 |
| S24U-MTHOR/L-4-A | 8058-358 | 8058-359 | 1.500 | 2.250 | | 295.71 |
| S32V-MTHOR/L-4-A | 8058-362 | 8058-363 | 2.000 | 3.000 | | 354.16 |
| S32V-MTHOR/L-5-A | 8058-366 | 8058-367 | 2.000 | 3.500 | 543 | 354.16 |
| S40V-MTHOR/L-5-A | 8058-370 | 8058-371 | 2.500 | 3.750 | | 437.38 |
| S40V-MTHOR/L-66-A | 8058-378 | - | 2.500 | 4.000 | 663 | 437.38 |

### STVO - On Edge Threading Toolholder



| Inch Description | Order No. R.H. | Order No. L.H. | Shank Size | TNMC Gage Insert | Price Each |
|---|---|---|---|---|---|
| STVOR/L08-3A | 8058-070 | - | 0.500 | 322 | $ 65.12 |
| STVOR/L10-3B | 8058-074 | 8058-075 | 0.625 | | 68.36 |
| STVOR/L12-3B | 8058-078 | 8058-079 | 0.750 | | 72.04 |
| STVOR/L16-3D | 8058-082 | 8058-083 | 1.000 | | 80.19 |
| STVOR/L12-4B | 8058-086 | 8058-087 | 0.750 | 432 | 72.04 |
| STVOR/L16-4D | 8058-090 | 8058-091 | 1.000 | | 80.19 |
| STVOR/L20-4D | 8058-094 | 8058-095 | 1.250 | | 92.39 |
| STVOR/L16-5D | 8058-102 | 8058-103 | 1.000 | 543 | 80.19 |
| STVOR/L20-5D | 8058-106 | - | 1.250 | | 92.39 |

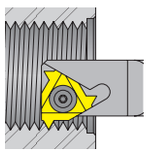
### MTHO-C - On Edge Threading Bar



| Inch Description | Order No. R.H. | Order No. L.H. | Bar Size | Min. Bore | TNMC Gage Insert | Price Each |
|---|---|---|---|---|---|---|
| S16T-MTHOR/L-3-C | 8058-300 | - | 1.000 | 1.388 | 322 | $ 237.78 |
| S20U-MTHOR/L-3-C | 8058-304 | - | 1.250 | 1.656 | | 290.81 |
| S20U-MTHOR/L-4-C | 8058-308 | 8058-309 | 1.250 | 1.812 | 432 | 290.81 |
| S24U-MTHOR/L-4-C | 8058-312 | 8058-313 | 1.500 | 2.250 | | 295.71 |
| S32V-MTHOR/L-4-C | 8058-316 | 8058-317 | 2.000 | 3.000 | | 354.16 |
| S32V-MTHOR/L-5-C | 8058-320 | 8058-321 | 2.000 | 3.500 | 543 | 354.16 |
| S40V-MTHOR/L-5-C | 8058-324 | - | 2.500 | 3.750 | | 437.38 |

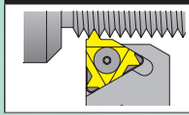
## Laydown Threading

### SN - Small Shank Laydown Threading Bar



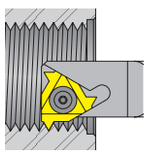
| Inch Description | Order No. R.H. | Bar Size | Min. Bore | Gage Insert | Price Each |
|---|---|---|---|---|---|
| SNR037-40-11 | 8058-600 | 0.375 | 0.500 | 11-A60 | $ 91.09 |
| SNR050-55-11 | 8058-604 | 0.500 | 0.600 | | 91.09 |
| SNR062-60-16 | 8058-608 | 0.625 | 0.750 | 16-G60 | 92.45 |
| SNR075-70-16 | 8058-612 | 0.750 | 0.950 | | 100.60 |
| SNR100-80-16 | 8058-616 | 1.000 | 1.150 | | 130.52 |

### SE- Laydown Qualified Threading Toolholder



| Inch Description | Order No. R.H. | Shank Size | Gage Insert | Price Each |
|---|---|---|---|---|
| SER075-5-16Q | 8058-492 | 0.750 | 16-G60 | $ 80.34 |
| SER100-6-16Q | 8058-496 | 1.000 | | 86.52 |

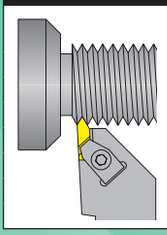
### SN - Laydown Threading Bar



| Inch Description | Order No. R.H. | Bar Size | Min. Bore | Gage Insert | Price Each |
|---|---|---|---|---|---|
| SNR/L075-07-16 | 8058-636 | 0.750 | 0.950 | 16-G60 | $ 106.05 |
| SNR/L100-08-16 | 8058-640 | 1.000 | 1.150 | | 133.24 |
| SNR/L150-12-16 | 8058-648 | 1.500 | 1.700 | | 195.77 |
| SNR/L200-14-16 | 8058-656 | 2.200 | 2.000 | | 277.35 |
| SNR/L125-10-22 | 8058-664 | 1.250 | 1.500 | 22-N60 | 163.14 |
| SNR/L150-12-22 | 8058-668 | 1.500 | 1.800 | | 195.77 |
| SNR/L200-14-22 | 8058-676 | 2.000 | 2.300 | | 277.35 |

## DorNotch Threading

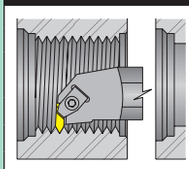
### NS- DorNotch Threading Toolholder



| Inch Description | Order No. R.H. | Order No. L.H. | Shank Size | Gage Insert | Price Each |
|---|---|---|---|---|---|
| NSR/L12-2B | 8058-782 | 8058-783 | 0.750 | NG-2R* | $ 79.53 |
| NSR/L16-2C | 8058-786 | - | 1.000 | NG-2L** | 80.71 |
| NSR/L12-3B | 8058-794 | 8058-795 | 0.750 | NG-3R* | 79.53 |
| NSR/L16-3D | 8058-802 | 8058-803 | 1.000 | NG-3L** | 80.71 |
| NSR/L20-3D | 8058-806 | 8058-807 | 1.250 | | 92.21 |
| NSR/L16-4D | 8058-814 | 8058-815 | 1.000 | NG-4R* | 80.71 |
| NSR/L20-4D | 8058-822 | 8058-823 | 1.250 | NG-4L** | 92.21 |

**For Left Hand Tool,
*For Right Hand Tool

### S-NE- DorNotch Threading Bar



| Inch Description | Order No. R.H. | Order No. L.H. | Bar Size | Min. Bore | Gage Insert | Price Each |
|---|---|---|---|---|---|---|
| S10S-NER/L-2 | 8058-970 | 8058-971 | 0.625 | 1.000 | NG-2R*, NG-2L** | $ 146.29 |
| S16T-NER/L-3 | 8058-978 | 8058-979 | 1.000 | 1.375 | NG-3R*, NG-3L** | 222.91 |
| S20U-NER/L-3 | 8058-982 | 8058-983 | 1.250 | 1.750 | | 236.36 |
| S24U-NER/L-3 | 8058-986 | 8058-987 | 1.500 | 2.000 | | 284.14 |

**For Left Hand Tool,
*For Right Hand Tool

# Threading Inserts



**Choose From Three Threading Styles:**

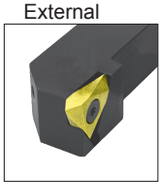
1. **OnEdge** Threading for Multi-Purpose Applications.
2. **Laydown** Threading for Small Diamater Holes, Clearance Restrictions and Precision Threading Applications.
3. **DorNotch** Threading when Maximum Rigidity and precision Threading is Required.

| Non-Ferrous Material | Ferrous Material |
|---|---|
| Dorian Insert Grade | |
| **DVK10** | **DVP656** |
| For all Non-Ferrous Material; 300 series stainless steel, Ductile Cast Iron, Aluminum and High Temper Alloy. | For all Ferrous Material; Alloy Steels, Carbon Steels and 400 Series Stainless Steel |

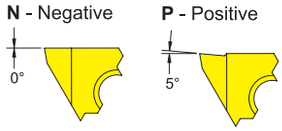
## On Edge Style

### Insert Identification

External

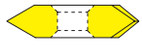


Internal



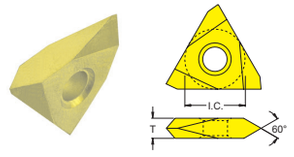

**A -** With hole

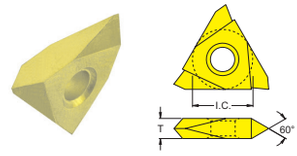
**C -** Countersink on both



### On Edge Threading Inserts

| Insert Description | Dorian Insert Grade Non-Ferrous DVK10 | Ferrous DVP656 | Price Each |
|---|---|---|---|
| **NV "V" Thread Negative Rake** | | | |
| **TNMA** | Order No. | | |
| TNMA-32NV | 8072-529 | 8072-528 | $ 11.11 |
| TNMA-43NV | 8072-536 | 8072-535 | 14.86 |
| TNMA-54NV | 8072-557 | 8072-556 | 23.36 |
| **TNMC** | Order No. | | |
| TNMC-32NV | 8072-004 | 8072-003 | 11.11 |
| TNMC-43NV | 8072-008 | 8072-010 | 14.86 |
| TNMC-54NV | 8072-032 | 8072-031 | 23.36 |
| **NV "V" Thread Positive Rake** | | | |
| **TPMA** | Order No. | | |
| TPMA-32NV | 8073-394 | 8073-393 | 12.53 |
| TPMA-43NV | 8073-401 | 8073-400 | 16.27 |
| **TPMC** | Order No. | | |
| TPMC-32NV | 8073-056 | 8073-055 | 12.53 |
| TPMC-43NV | 8073-063 | 8073-062 | 16.27 |

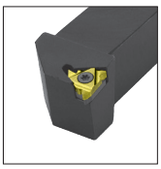


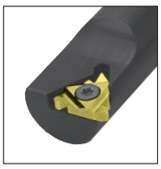

## Laydown Style

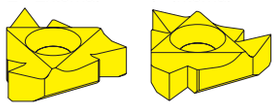
### Insert Identification

External



Internal



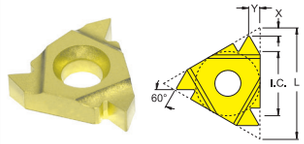



Partial Profile:
A = 16-48 N = 5-7
AG = 8-48 Q = 4.5-4
G = 8-14

Full Profile:
Metric: Pitch in mm
Inches: Thread per inch

### Laydown Threading Insert

| Insert Description | Dorian Insert Grade- Non-Ferrous DVK10 | Ferrous DVP656 | Price Each |
|---|---|---|---|
| **Ext. 60° Partial Profile Thread** | | | |
| **External** | Order No. | | |
| 11ER-A60 | 8074-001 | 8074-000 | $ 20.16 |
| 11EL-A60 | 8074-005 | 8074-004 | 20.16 |
| 16ER-AG60 | 8074-025 | 8074-024 | 20.16 |
| 16EL-AG60 | 8074-029 | 8074-028 | 20.16 |
| 22ER-N60 | 8074-033 | 8074-032 | 23.94 |
| 22EL-N60 | 8074-037 | 8074-036 | 23.94 |
| | | | |
| 11IR-A60 | 8074-057 | 8074-056 | 20.16 |
| 11IL-A60 | 8074-061 | 8074-060 | 20.16 |
| 16IR-AG60 | 8074-081 | 8074-080 | 20.16 |
| 16IL-AG60 | 8074-085 | 8074-084 | 20.16 |
| 22IR-N60 | 8074-089 | 8074-088 | 23.94 |
| 22IL-N60 | 8074-093 | 8074-092 | 23.94 |



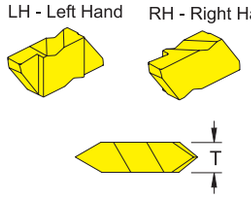

**Internal Shown**
**External Opposite**

## DorNotch Style

### Insert Identification

External

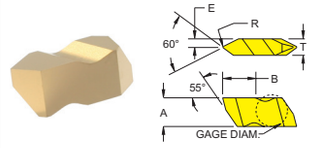
Internal




| Insert No. | T |
|---|---|
| 1 | .100 |
| 2 | .150 |
| 3 | .195 |
| 4 | .255 |
| 5 | .380 |
| 6 | .383 |
| 8 | .438 |

### DorNotch Threading Inserts

| Insert Description | Dorian Insert Grade- Non-Ferrous DVK10 | Price | Ferrous DVP656 | Price Each |
|---|---|---|---|---|
| **NT-60°-"V" Thread** Neutral Rake Angle | | | | |
| **Neutral** | Order No. | | | |
| NT-2R- | 8082-901 | $ 11.82 | 8082-900 | $ 12.50 |
| NT-2L- | 8082-905 | 11.82 | 8082-904 | 12.50 |
| NT-3R- | 8082-909 | 15.28 | 8082-908 | 15.82 |
| NT-3L- | 8082-913 | 15.28 | 8082-912 | 15.82 |

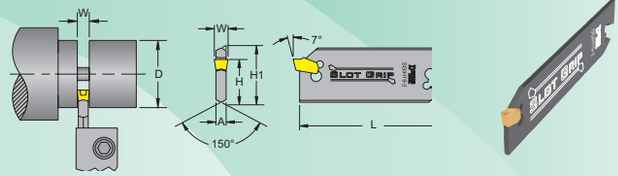



***Inserts are sold in standard packs of 5. Pricing is each.***

# Cut-off Toolholder & Inserts

## Slot Grip Positive Stop Blades -

Improved blade design featuring a "Positive Stop". Inserts are securely held in Slot Grip Blades by a tapered locking system featuring a "Positive Stop" that prevents insert drift and the blade pocket from spreading once the insert is firmly in place. The inserts' cutting edge location repeats accurately and, as a result, prevents insert splitting under heavy feed and shock loads. The blade and insert geometry permits free chip flow, minimizing insert breakage due to chip build-up. Clearance angle ranges from 4° to 7°.

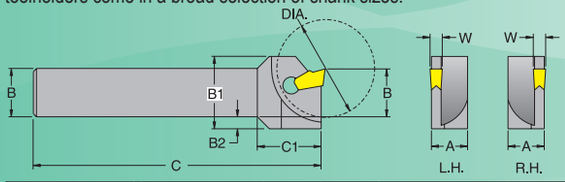



4

| Description | Order No. | Insert Used | W in | W mm | D Max in | D Max mm | A in | A mm | L in | L mm | H in | H mm | H 1 in | H 1 mm | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SGIH19-2 | **8062-950** | SGT(N/R/L)-2 | .087 | 2 | 1.57 | 39,9 | .063 | 1,57 | 3.38 | 85,9 | .618 | 15,7 | 0.75 | 19,1 | **$ 76.49** |
| SGIH26-2 | **8062-951** | SGT(N/R/L)-2 | .087 | 2 | 2.00 | 50,8 | .063 | 1,57 | 4.33 | 110,0 | .842 | 21,4 | 1.02 | 25,9 | **91.11** |
| SGIH26-3 | **8062-952** | SGT(N/R/L)-3 | .122 | 3 | 3.00 | 76,2 | .094 | 2,39 | | | | | | | **91.11** |
| SGIH26-4 | **8062-953** | SGT(N/R/L)-4 | .161 | 4 | 3.15 | 80,0 | .125 | 3,18 | | | | | | | **91.11** |
| SGIH32-3 | **8062-956** | SGT(N/R/L)-3 | .122 | 3 | 3.94 | 100,0 | .094 | 2.39 | 5.90 | 149.9 | .984 | 25,0 | 1.25 | 31,8 | **105.38** |
| SGIH32-4 | **8062-957** | SGT(N/RL)-4 | .161 | 4 | 3.94 | 100,0 | .125 | 3.18 | | | | | | | **105.38** |
| SGIH32-5 | **8062-958** | SGT(N/R/L)-5 | .201 | 5 | 4.71 | 119,6 | .156 | 3,96 | | | | | | | **105.38** |
| SGIH32-6 | **8062-959** | SGT(N/R/L)-6 | .252 | 6 | 4.72 | 119,9 | .203 | 5,16 | | | | | | | **105.38** |

## Cut-Off Toolholder -

The square shank design of the Cut-Off toolholder ensures a precise center line of the insert with respect to the center of the working part, when the toolholder is mounted directly on the CNC turret. Inserts are securely held in Slot Grip blades by a tapered locking system. No additional clamping devices are required. Slot Grip Cut-Off toolholders come in a broad selection of shank sizes.




3

| Description | Order No R.H. | B | Max Dia | W | Insert Used | Price Each |
|---|---|---|---|---|---|---|
| SGTHR/L-9,5-2 | **8063-000** | 0.375 | 1.109 | .087 & 0.93 | SGTN/R/L-2-2,4 | **$ 74.76** |
| SGTHR/L-12,7-2 | **8063-002** | 0.500 | 1.172 | .087 & 0.93 | | **80.92** |
| SGTHR/L-19-2 | **8063-006** | 0.750 | 1.266 | .087 & 0.93 | | **104.63** |
| SGTHR/L-12,7-3 | **8063-010** | 0.500 | 1.266 | .120 | SGTN/R/L-3 | **80.92** |
| SGTHR/L-16-3 | **8063-012** | 0.625 | 1.406 | .120 | | **87.09** |
| SGTHR/L-19-3 | **8063-014** | 0.750 | 2.062 | .120 | | **104.63** |
| SGTHR/L-25,4-3 | **8063-016** | 1.000 | 1.328 | .120 | | **131.35** |
| SGTHR/L-25,4-5 | **8063-026** | 1.000 | 3.000 | .187 & .200 | SGTN/R/L-4,8-5 | **131.35** |

## Neutral Cut-Off Toolholder -

The two piece clamp style of this tool provides a precise and rigid blade locking and easy mounting of the tool into CNC turrets. Simple block design accommodates Slot Grip and competitive blade systems. Slot Grip Cut-Off toolholders come in a broad selection of shank sizes.

4

| Description | Order No. Neutral | Shank Size | Blade Used | Price Each |
|---|---|---|---|---|
| SGTBN12,7-2 | **8062-970** | 0.500 | SGIH19-2 | **$ 181.81** |
| SGTBN19-5 | **8062-973** | 0.750 | SGIH26-2 THRU SGIH26-6 | **191.58** |
| SGTBN19-6 | **8062-974** | 0.750 | SGIH32-3 | **191.58** |
| SGTBN25,4-6 | **8062-975** | 1.000 | THRU | **197.39** |
| SGTBN31,8-6 | **8062-976** | 1.250 | SGIH32-9 | **202.74** |

## Cut-Off & Grooving Inserts

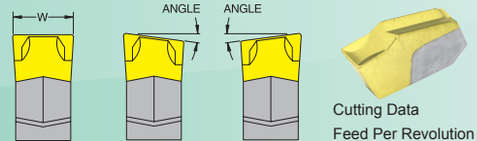
Designed for use with standard cut-off inserts and standard cut-off blade holders. The insert's cutting edge location repeats accurately and as a result prevents insert splitting under heavy feed and shock loads. The blade and insert geometry permits free chip flow, minimizing insert breakage due to chip build-up.

### Chipbreaker Geometry

- Reduced machining force
- Controlled, coiled chip flow
- Higher material removal rate

### Application

- Quickly inserted into adjustable blades
- For cut-off and grooving
- Fair for interrupted cuts




Cutting Data

Feed Per Revolution (in./rev.) .006-.031

Surface Feet/Minute (ft./min.) 375-730

11

| Desc. | ANSI | Insert Size mm | Lead Angle | Width .05 Inch | Width .05 mm | DC656 Order No. | DC656 Price Each | DK25 Order No. | DK25 Price Each | DASK25B Order No. | DASK25B Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SGTN Neutral | SGTN-2 | 2.0 | 0° | 0.087 | 2.0 | 8082-222 | $10.55 | 8082-220 | $8.07 | 8082-223 | $11.80 |
| | SGTN-2.4 | 2.4 | 0° | 0.094 | 2.4 | 8082-306 | 10.55 | 8082-304 | 8.07 | 8082-307 | 11.80 |
| | SGTN-3 | 3.0 | 0° | 0.122 | 3.0 | 8082-226 | 10.55 | 8082-224 | 8.07 | 8082-227 | 11.80 |
| | SGTN-4 | 4.0 | 0° | 0.161 | 4.0 | 8082-230 | 11.24 | 8082-228 | 9.14 | 8082-231 | 13.60 |
| | SGTN-4.8 | 4.8 | 0° | 0.189 | 4.8 | 8082-318 | 10.97 | 8082-316 | 9.56 | 8082-319 | 14.23 |
| SGTR Right Hand | SGTR-2-8 | 2.0 | 8° | 0.087 | 2.0 | 8082-250 | 10.67 | 8082-248 | 8.79 | 8082-251 | 12.52 |
| | SGTR-2.4-8 | 2.4 | 8° | 0.094 | 2.4 | 8082-310 | 10.67 | 8082-308 | 8.79 | 8082-311 | 12.52 |
| | SGTR-3-8 | 3.0 | 8° | 0.122 | 3.0 | 8082-254 | 10.67 | 8082-252 | 8.79 | 8082-255 | 13.45 |
| | SGTR-4-8 | 4.0 | 8° | 0.161 | 4.0 | 8082-258 | 11.78 | 8082-256 | 9.99 | 8082-259 | 14.68 |
| | SGTR-4.8-8 | 4.8 | 8° | 0.189 | 4.8 | 8082-322 | 11.95 | 8082-320 | 10.41 | 8082-323 | 16.24 |

***Inserts are sold in standard packs of 5. Pricing is each.***

| Insert Grade | Coating | ISO | Material to Machine |
|---|---|---|---|
| DC656 | CVD | P15-P35 | Free Cutting Steel |
| | COATED | M20-M35 | Low Carbon Steel |
| | CVD TiN/ | | Alloy Carbon Steel |
| | TiC-TiN | | Alloy Steel under 48 HRC |
| | | | 400 Series Stainless Steel |
| DK25 | Uncoated | K25 | Aluminum |
| DASK25B | PVD | P10-P25 | Free Cutting Steel |
| | COATED | M15-35 | High Temper Alloys |
| | PVD | K05-K20 | Stainless Steel Austentic |
| | TiN+TiAlN +TiN | S10-S25 | Cast Iron Copper/Brass |

# Carbide Inserts

*Sold In Standard Pack Quantity Only* 3

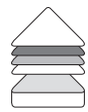
## • American Value Inserts

**Economically priced inserts that will run on steels, cast irons, and non-ferrous materials. VM= Value Medium Machining**

| GRADE | ISO CLASS | INDUSTRY CLASS | DESCRIPTION | COATING |
|---|---|---|---|---|
| **C2VAL** Roughing to Semi-Finishing | K10-K25 N05-N15 S10-S20 | C2 | C2VAL is an uncoated, unalloyed grade with good abrasive wear resistance. Designed for medium to rough turning of cast iron, non-ferrous materials, and high temperature alloys. | |
| **C5CVAL** Roughing to Semi-Finishing | P20-P35 | C5 C6 | C5CVAL has a multi-layered Tin/TiC/TiCN/TiN coating over an alloyed, cobalt-rich substrate. Offers a good balance of wear resistance and toughness. For general purpose to heavy roughing of carbon and alloy steels at medium speeds and feeds. Can withstand light interruptions. | TiN TiCN TiC TiN Substrate |

## • American Standard Inserts

**A broad line of ANSI and ISO standard inserts. Molded-to-size reliability or precision ground. GM= Medium Machining**

| | | | | |
|---|---|---|---|---|
| **AN2020** Roughing to Semi-Finishing | P15-P30 M15-M30 | C6 | AN2020 is based on a hard, cobalt-enriched substrate and has a multi-layered gold coating to provide excellent thermal wear, and mechanical shock resistance. Perfect general purpose grade for medium speeds and feeds in interrupted to semi-finishing cuts on carbon and alloy steels. |  TiN TiCN TiC TiN Substrate |
| **AN2025** Roughing to Semi-Finishing | P15-P35 M15-M35 | C5 | AN2025 has a tough, cobalt-enriched substrate with a multi-layer TiCN/ $Al_2O_3$/ TiN coating to enhance edge strength. This is the preferred grade for high speed machining of stainless steel and most steels. Performs well in roughing to semi-finishing. | TiN $Al_2O_3$ TiCN Substrate |

## • American Performance Inserts

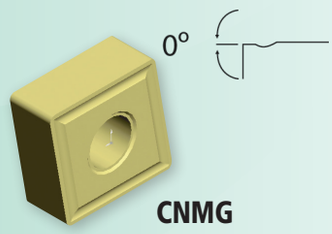
**High-Performance inserts for modern CNC machines featuring state-of-the-art grade and geometry design.**

| | | | | |
|---|---|---|---|---|
| **AN3025** Roughing to Semi-Finishing | P10-P35 M10-M35 K10-K25 S10-S30 | C2 C5 C6 | Offered only in American Performance™ inserts, AN3025 has a tough substrate with a cobalt enriched layer under a CVD coating of TiCN, $Al_2O_3$, and TiN. Provides high wear resistance, and is an excellent general purpose grade for steels and cast irons. | TiN $Al_2O_3$ TiCN Substrate |

# Negative Turning Inserts

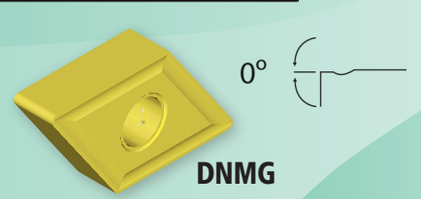
## CNMG

| | | AMERICAN VALUE C2VAL | | AMERICAN VALUE C5CVAL | | AMERICAN STANDARD AN2020 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| CNMG-322-GM | 10 | – | – | – | – | 2958-059 | $3.85 | 3/8 | 1/8 | 1/32 | 0.150 |
| CNMG-432-VM | 10 | 2959-150 | $5.15 | 2959-151 | $6.11 | – | – | 1/2 | 3/16 | 1/32 | 0.203 |
| CNMG-432-GM | 10 | – | – | – | – | 2957-072 | 7.37 | 1/2 | 3/16 | 1/32 | 0.203 |
| CNMG-433-VM | 10 | 2959-152 | 5.15 | 2959-153 | 6.11 | – | – | 1/2 | 3/16 | 3/64 | 0.203 |
| CNMG-433-GM | 10 | – | – | – | – | 2958-082 | 7.37 | 1/2 | 3/16 | 3/64 | 0.203 |
| CNMG-543-VM | 10 | – | – | 2959-154 | 11.07 | – | – | 5/8 | 1/4 | 3/64 | 0.250 |
| CNMG-543-GM | 10 | – | – | – | – | 2957-104 | 13.29 | 5/8 | 1/4 | 3/64 | 0.250 |
| CNMG-643-VM | 5 | – | – | 2959-155 | 13.54 | – | – | 3/4 | 1/4 | 3/64 | 0.312 |
| CNMG-643-GM | 5 | – | – | – | – | 2957-123 | 16.20 | 3/4 | 1/4 | 3/64 | 0.312 |



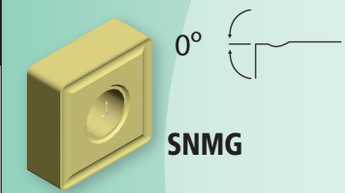

## DNMG

| | AMERICAN STANDARD AN2020 | | | | | | |
|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| DNMG-332-GM | 10 | 2958-189 | $7.87 | 3/8 | 3/16 | 1/32 | 0.150 |
| DNMG-432-GM | 10 | 2957-221 | 11.30 | 1/2 | 3/16 | 1/32 | 0.203 |




## SNMG

| | | AMERICAN VALUE C2VAL | | AMERICAN VALUE C5CVAL | | AMERICAN STANDARD AN2020 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| SNMG-322-GM | 10 | – | – | – | – | 2957-363 | $4.81 | 3/8 | 1/8 | 1/32 | 0.150 |
| SNMG-432-VM | 10 | 2959-156 | $4.96 | 2959-157 | $5.94 | – | – | 1/2 | 3/16 | 1/32 | 0.203 |
| SNMG-432-GM | 10 | – | – | – | – | 2957-370 | 7.12 | 1/2 | 3/16 | 1/32 | 0.203 |
| SNMG-543-VM | 10 | – | – | 2959-158 | 9.71 | – | – | 5/8 | 1/4 | 3/64 | 0.250 |
| SNMG-543-GM | 10 | – | – | – | – | 2957-394 | 11.68 | 5/8 | 1/4 | 3/64 | 0.250 |
| SNMG-643-VM | 5 | – | – | 2959-159 | 12.58 | – | – | 3/4 | 1/4 | 3/64 | 0.312 |
| SNMG-643-GM | 5 | – | – | – | – | 2958-430 | 15.11 | 3/4 | 1/4 | 3/64 | 0.312 |






*(Continued)*

# Carbide Inserts

*Sold In Standard Pack Quantity Only* 3

## Negative Turning Inserts

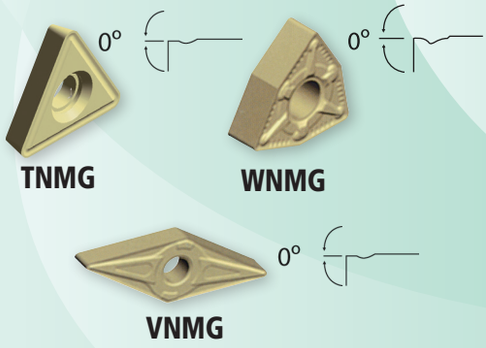
### WNMG

| | AMERICAN PERFORMANCE AN3025 | | | | | | |
|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| WNMG-331-P3 | 10 | 2957-976 | $7.05 | 3/8 | 3/16 | 1/64 | 0.150 |
| WNMG-332-P3 | 10 | 2957-981 | 7.05 | 3/8 | 3/16 | 1/32 | 0.150 |
| WNMG-431-P3 | 10 | 2957-985 | 11.16 | 1/2 | 3/16 | 1/64 | 0.203 |
| WNMG-432-P3 | 10 | 2957-989 | 11.16 | 1/2 | 3/16 | 1/32 | 0.203 |
| WNMG-433-P3 | 10 | 2957-992 | 11.16 | 1/2 | 3/16 | 3/64 | 0.203 |
| WNMG-434-P3 | 10 | 2957-995 | 11.16 | 1/2 | 3/16 | 1/16 | 0.203 |

### VNMG

| | AMERICAN STANDARD AN2020 | | | | | | |
|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| VNMG-331-GM | 10 | 2959-081 | $10.99 | 3/8 | 3/16 | 1/64 | 0.150 |
| VNMG-332-GM | 10 | 2959-090 | 10.99 | 3/8 | 3/16 | 1/32 | 0.150 |
| VNMG-431-GM | 10 | 2959-096 | 14.36 | 1/2 | 3/16 | 1/64 | 0.203 |
| VNMG-432-GM | 10 | 2959-102 | 14.36 | 1/2 | 3/16 | 1/32 | 0.203 |
| VNMG-433-GM | 10 | 2959-108 | 14.36 | 1/2 | 3/16 | 1/64 | 0.203 |

### TNMG

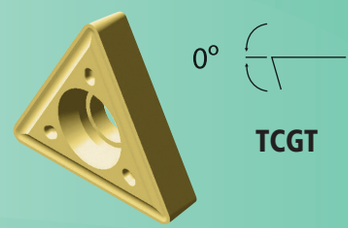



| | | AMERICAN VALUE C2VAL | | AMERICAN VALUE C5CVAL | | AMERICAN STANDARD AN2020 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| TNMG-321-VM | 10 | 2959-160 | $3.50 | 2959-161 | $4.42 | – | – | 3/8 | 1/8 | 1/64 | 0.150 |
| TNMG-321-GM | 10 | – | – | – | – | 2957-576 | $5.30 | 3/8 | 1/8 | 1/64 | 0.150 |
| TNMG-322-VM | 10 | 2959-162 | 3.50 | 2959-163 | 4.42 | – | – | 3/8 | 1/8 | 1/32 | 0.150 |
| TNMG-322-GM | 10 | – | – | – | – | 2957-585 | 5.30 | 3/8 | 1/8 | 1/32 | 0.150 |
| TNMG-332-VM | 10 | 2959-164 | 4.27 | 2959-165 | 5.19 | – | – | 3/8 | 1/8 | 3/64 | 0.150 |
| TNMG-332-GM | 10 | – | – | – | – | 2957-602 | 6.22 | 3/8 | 1/8 | 3/64 | 0.150 |
| TNMG-431-VM | 10 | 2959-166 | 6.20 | 2959-167 | 7.47 | – | – | 1/2 | 3/16 | 1/64 | 0.203 |
| TNMG-431-GM | 10 | – | – | – | – | 2957-612 | 8.96 | 1/2 | 3/16 | 1/64 | 0.203 |
| TNMG-432-VM | 10 | 2959-168 | 6.20 | 2959-169 | 7.47 | – | – | 1/2 | 3/16 | 1/32 | 0.203 |
| TNMG-432-GM | 10 | – | – | – | – | 2957-622 | 8.96 | 1/2 | 3/16 | 1/32 | 0.203 |
| TNMG-433-VM | 10 | 2959-170 | 6.20 | 2959-171 | 7.47 | – | – | 1/2 | 3/16 | 3/64 | 0.203 |
| TNMG-433-GM | 10 | – | – | – | – | 2958-774 | 8.96 | 1/2 | 3/16 | 3/64 | 0.203 |
| TNMG-543-VM | 10 | – | – | 2959-172 | 12.62 | – | – | 5/8 | 1/4 | 3/64 | 0.250 |
| TNMG-543-GM | 10 | – | – | – | – | 2957-666 | 15.15 | 5/8 | 1/4 | 3/64 | 0.250 |
| TNMG-544-VM | 10 | – | – | 2959-173 | 12.62 | – | – | 5/8 | 1/4 | 1/16 | 0.250 |

## Positive Turning Inserts

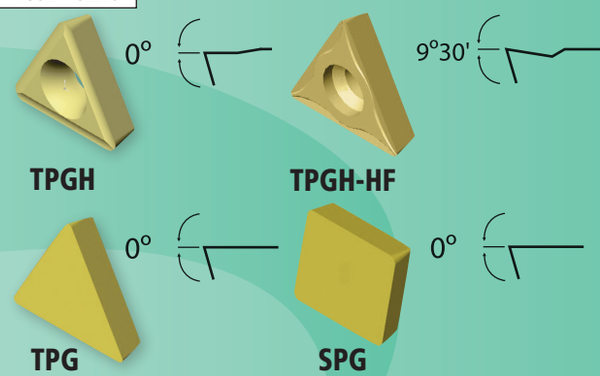
### TCGT

| | AMERICAN VALUE C2VAL | | | AMERICAN VALUE C5CVAL | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| TCGT-221-VM | 10 | 2959-188 | $ 6.49 | 2959-189 | $7.24 | 1/4 | 1/8 | 1/64 | 0.123 |
| TCGT-222-VM | 10 | 2959-190 | 6.49 | 2959-191 | 7.24 | 1/4 | 1/8 | 1/32 | 0.123 |
| TCGT-321-VM | 10 | 2959-192 | 7.45 | 2959-193 | 8.50 | 3/8 | 1/8 | 1/64 | 0.177 |
| TCGT-322-VM | 10 | 2959-194 | 7.45 | 2959-195 | 8.50 | 3/8 | 1/8 | 1/32 | 0.177 |
| TCGT-431-VM | 10 | 2959-202 | 8.89 | 2959-203 | 11.49 | 1/2 | 3/16 | 1/64 | 0.218 |
| TCGT-432-VM | 10 | 2959-204 | 8.89 | 2959-205 | 11.49 | 1/2 | 3/16 | 1/32 | 0.218 |




### TPGH

| | | AMERICAN VALUE C5CVAL | | AMERICAN STANDARD AN2020 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| TPGH-21.51 | 10 | – | – | 2957-855 | $8.69 | 1/4 | 3/32 | 1/64 | 0.123 |
| TPGH-21.52 | 10 | – | – | 2957-860 | 8.69 | 3/32 | 3/32 | 1/32 | 0.123 |
| TPGH-321-HF | 10 | 2959-175 | $8.50 | 2957-865 | 12.75 | 3/8 | 1/8 | 1/64 | 0.177 |
| AN2025 | | | | | | | | | |
| TPGH-322-HF | 10 | 2959-177 | 8.50 | 2957-870 | 12.75 | 3/8 | 1/8 | 1/32 | 0.177 |
| TPGH-32.51-HF | 10 | 2959-179 | 9.82 | – | – | – | – | – | – |
| TPGH-32.52-HF | 10 | 2959-181 | 9.82 | – | – | – | – | – | – |



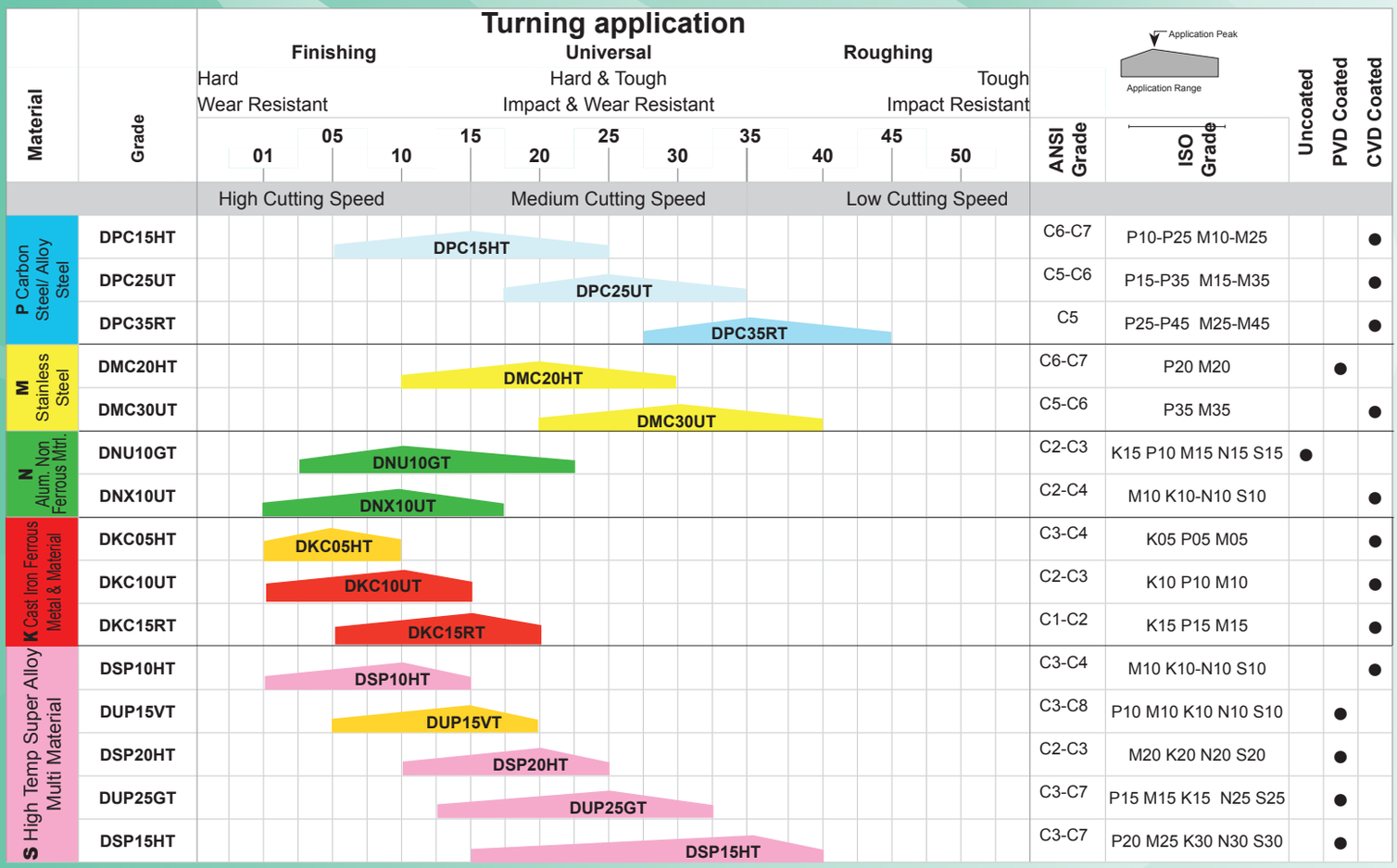

### TPG

| | AMERICAN STANDARD AN2020 | | | | | | |
|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| TPG-222 | 10 | 2958-897 | $8.69 | 1/4 | 1/8 | 1/32 | – |
| TPG-321 | 10 | 2957-768 | 10.21 | 3/8 | 1/8 | 1/64 | – |
| TPG-322 | 10 | 2957-778 | 10.21 | 3/8 | 1/8 | 1/32 | – |
| TPG-323 | 10 | 2958-907 | 10.21 | 3/8 | 1/8 | 3/64 | – |
| TPG-432 | 10 | 2957-796 | 13.79 | 1/2 | 3/16 | 1/32 | – |
| TPG-433 | 10 | 2958-920† | 13.79 | 1/2 | 3/16 | 3/64 | – |
| TPG-434 | 10 | 2957-807 | 13.79 | 1/2 | 3/16 | 1/16 | – |

### SPG

| | AMERICAN STANDARD AN2020 | | | | | | |
|---|---|---|---|---|---|---|---|
| | STD. PACK | ORDER NO. | PRICE EACH | I.C. | THICK. | RADIUS | HOLE |
| SPG-321 | 10 | 2958-493 | $9.69 | 3/8 | 1/8 | 1/64 | – |
| SPG-322 | 10 | 2958-496 | 9.69 | 3/8 | 1/8 | 1/32 | – |
| SPG-323 | 10 | 2958-499 | 9.69 | 3/8 | 1/8 | 3/64 | – |
| SPG-432 | 10 | 2957-482 | 15.51 | 1/2 | 3/16 | 1/32 | – |
| SPG-433 | 10 | 2958-521 | 15.51 | 1/2 | 3/16 | 3/64 | – |

# Insert Grade Chart




| Material | Grade | ANSI Grade | ISO Grade | Uncoated | PVD Coated | CVD Coated |
|---|---|---|---|---|---|---|
| P Carbon Steel/ Alloy Steel | DPC15HT | C6-C7 | P10-P25 M10-M25 | | | ● |
| | DPC25UT | C5-C6 | P15-P35 M15-M35 | | | ● |
| | DPC35RT | C5 | P25-P45 M25-M45 | | | ● |
| M Stainless Steel | DMC20HT | C6-C7 | P20 M20 | | ● | |
| | DMC30UT | C5-C6 | P35 M35 | | | ● |
| N Alum. Non Ferrous Mtrl. | DNU10GT | C2-C3 | K15 P10 M15 N15 S15 | ● | | |
| | DNX10UT | C2-C4 | M10 K10-N10 S10 | | | ● |
| K Cast Iron Ferrous Metal & Material | DKC05HT | C3-C4 | K05 P05 M05 | | | ● |
| | DKC10UT | C2-C3 | K10 P10 M10 | | | ● |
| | DKC15RT | C1-C2 | K15 P15 M15 | | | ● |
| S High Temp Super Alloy Multi Material | DSP10HT | C3-C4 | M10 K10-N10 S10 | | | ● |
| | DUP15VT | C3-C8 | P10 M10 K10 N10 S10 | | ● | |
| | DSP20HT | C2-C3 | M20 K20 N20 S20 | | ● | |
| | DUP25GT | C3-C7 | P15 M15 K15 N25 S25 | | ● | |
| | DSP15HT | C3-C7 | P20 M25 K30 N30 S30 | | ● | |

## Insert Grades

1. If inserts wear, reduce Spindle Speed RPM (n) increase Feed (fn) or change to a harder insert grade.
2. If inserts chip, increase Spindle Speed (n), decrease Feed (fn), or change to tougher insert grade.
3. For smooth surface and hard material, use hard and wear resistant insert with smaller nose radius (not for interrupted cuts).
4. For forgings, castings and interrupted cuts, use tough and impact resistant insert with larger nose radius.

**DPC15HT**
For high speed turning of Alloy Steels, up to 980 SFM
Most wear resistant steel grade
Second choice for finishing operation on Duplex, 316 and 316L Stainless
P15 (P10-P25) Fine Grain Substrate (1600 Vickers)
CVD Al2O3/TiN/TiCN/Al2O3/Nano-TiCN/MT-TiCN/TiN
Not for interrupted cuts

**DPC25UT**
Universal Turining Grade for Alloy Steels, and easily machinable Stainless Steels (316, 316L)
Medium Cutting Speeds at 400-820 SFM
For light interrupted and continous cuts
P25 (P15-P35) Substrate (1550 Vickers)
CVD Al2O3/TiN/TiCN/Alpha-Al2O3/Nano-TiCN/MT-TiCN/TiN Nanolock Technology

**DPC35RT**
For heavily interrupted cuts, forgings, castings and uneven surfaces
Tough and impact resistant substrate
Slow cutting speeds at 160-490 SFM
P40 (P25-P40) Substrate (1450 Vickers)
For Steels and Stainless Steels
CVD TiN/Al2O3/TiCN Nanolock Technology

**DMC20HT**
High Performance Machining of austenitic stainless steels at higher SFM
M20 (M10-M25) Substrate
High cutting speeds 525-720 SFM
Nanolock black MT-CVD Al2O3/TiCN/TiN

**DMC30UT**
Tougher alternative to DMC20UT grade for stainless steels
For medium cutting speeds 390-560 SFM
M30 (M25-M40) Substrate (1475 Vickers)
CVD TiN/TiCN/TiN Coating

**DNU10GT**
Uncoated, high wear resistant grade for machining aluminum, non-ferrous metals and plastics
K10 (K05-K15) Substrate

**DNX10UT**
Coated version of DNU10GT
High wear resistant grade for machining aluminum, non-ferrous metals and plastics
Micropulse Plasma TiAlN coating, ideal for finish machining of stainless steels and high temp alloys

**DKC05HT**
Hard high wear and abrasive resistant substrate with a CVD Multi Layer of Alumina, Titanium Carbonitride Coating, (Al2O3/TiCN/Al2O3/TiCN). High Cutting Speed, for Finishing Turning Application, and Medium to Roughing Application when Turning smooth surface. For cutting Cast Iron, Hardened Steel, and all non Ferrous Material. High SFM (Vc) Brittle! Not for interrupted Cut.

**DKC10UT**
Highest wear resistant substrate for Nodular, Ductile and Gray Cast Irons and Hardened Steels
K10 (K05-K15) Substrate (1700 Vickers). For high cutting speeds, 1000 SFM and above.
CVD Al2O3/TiC/TiCN/TiN Coating. For uninterrupted cuts.

**DKC15RT**
Tougher alternative to DKC10UT, for cast irons
Optimal grade for Nodular Cast Iron (GG) and Gray Cast Iron (GGG)
Up to 1300 SFM on Gray Cast Irons (GG)
K15 (K10-K20) Substrate (1600 Vickers)
CVD Al2O3/TiC/TiCN/TiN Coating
Suitable for interrupted cuts in cast irons

**DSP10HT**
Titanium and Titanium Alloys Grade (non alloyed Ti, alpha-alloys, alpha-beta alloys, beta-alloys)
S10 Substrate (1700 Vickers) with CVD TiB2/TiN coating
For cutting speeds of 100-230 SFM

**DSP15HT**
Hardest grade for High Temp Alloys
Medium to rough machining of high temp alloys and finish machining of stainless steels
With SER chip-breaker, also suitable for Interrupted machining of high temp alloys
With SEF & SEM chip-breakers, also use on aluminum, non-ferrous metals and plastics
Submicron K30 Substrate with 3 micron PVD Super-Nitride AlTiN Coating

**DSP20HT**
Most wear resistant grade for high temp alloys
For high temp alloys such as Inconel 718, Inconel 625, Nimonic, Udimet, Hastelloy, Waspalloy
Submicron S20 Substrate (1700 Vickers) with PVD AlTiN coating
For cutting speeds of 100-200 SFM

**DUP15VT**
Very hard and wear resistant grade for high temp alloys, aluminum, non-ferrous and ferrous materials
S15 Substrate with PVD AlCrN Coating
Not for interrupted cuts

**DUP25GT**
Universal grade for high temp alloys, aluminum, non-ferrous and ferrous materials
S25 Substrate with PVD TiAlN/WC/C Coating
Not for interrupted cuts

# Chip Breaker Types



### UEU High Performance Chip Breaker

The precision ground periphery and pressed chip breaker of the insert, creates a sharp and precise cutting edge, best for small to medium depth of cut, close working tolerances and high surface finish for general turning and boring application.

### Steel Chip Breakers

**PEF Finishing**
The sharp cutting edge (light honed) and the small Chip Beaker, will machine small Depth of Cut at low Feed Rate, with precise machining repeatability, good surface finish, and breaking the chips in short length.

**UEM Precision Finishing to Light Roughing**
Medium pressed Chip Breaker, positive rake angle and small honed cutting edge, to control the length of chips in small Depth of Cut and free flow over the cutting edge.
Light Roughing to Precision Turning and Boring Application. Low cutting pressure for turning and boring thin wall tubing and deep hole boring.

**PEM Light Roughing to Finishing**
The medium honed cutting edge and the medium Chip Beaker, will allow to machine with a wide range of cutting depths, Feed Rates and a good chip control.

**PER** Roughing
Large Chip Breaker, positive rake angle and large honed cutting edge for better Chip control and evacuation in large Depth of Cut and high material removal.

### Stainless Steel Chip Breakers

**MEF Finishing**
Small pressed Chip Breaker with positive rake angle and small Honed Cutting Edge, for chip control in a small depth of cut. For Finishing Turning Application.

**MEH High Performance**
Stainless steel chip breaker, engineered specifically for turning and boring all types of stainless steel and operation, with a variable depth of cut (ap) and feed rate (fn).

**MEM** Medium
Medium pressed Chip Breaker, positive rake angle and medium Honed Cutting Edge, for chip control and free evacuation in medium Depth of Cut and feed.

**MER Roughing**
Large pressed Chip Breaker, positive rake angle and heavy Honed Cutting Edge, for better chip control in large Depth of Cut and high feed rate.

### NFU High Performance Chip Breaker

The High Positive, large and polished Chip Breaker allows large depth of cut, high rate of material removal and free chip evacuation with little cutting pressure.
The precise ground periphery of the insert and the sharp cutting edge, makes the best for small depth of cut, close working tolerances and high surface finish.

### UEX High performance Chip Breaker

The High Positive and large Chip Breaker allows large material removal and free Chip Evacuation in multi Depth of Cut. The precise ground periphery of the insert and the sharp cutting edge, makes the best insert for turning and boring thin wall tubing and deep boring applications.

### High Temp Alloy Chip Breakers

**SEF Finishing**
The precision ground periphery of the Insert with a small pressed positive and polished Chip Breaker and a small Honed Cutting Edge, controls and evacuates the chip precisely and freely in small Depth (ap) of Cut and Feed Rate.

**SEH High Performance**
Super Alloy chip breaker, scientific engineered and developed for turning and boring all types of Super Alloys materials and operation, from Roughing to Finishing with variable Depth of Cut (ap) and feed rate (fn).

**SEM** Finishing to Light Roughing
The precision ground periphery of the Insert with a Medium pressed positive and polished Chip Breaker and a small Honed Cutting Edge, controls and evacuates the chip precisely and freely in small to Medium Depth (ap) of Cut and Feed Rate.

**SER Roughing**
Large pressed positive Chip Breaker, with positive rake angle and Medium Honed Cutting Edge, for precise chips control and free evacuation at larger Depth (ap) of Cut and Feed Rate.

### Cast Iron Chip Breakers

**KEF Finishing**
Small pressed Chip Breaker with positive rake angle and small Honed Cutting Edge, to control the length of chips in small depth of cut.
**KEU Medium**
Ground surface, no Chip Breaker, negative rake angle, and medium Honed Cutting Edge, medium Depth of Cut and feed rate
**KEM Medium**
Ground Surface, no Chip Breaker, Negative Rake Angle, and Medium Honed Cutting Edge, medium depth of cut and feed rate.
**KER Roughing**
Large pressed Chip breaker geometry, positive rake angle and large Honed Cutting Edge, for large Depth of Cut and feed rate.

# Turning Inserts

## 7º POSITIVE PRECISION GROUND INSERTS FOR ALLOY & STAINLESS STEEL APPLICATION

| Description | ANSI | Grade DPC25UT | Price Each | Grade DPC35RT | Price Each | Grade DMC30UT | Price Each |
|---|---|---|---|---|---|---|---|
| **CCGT-UEXL** 80° Diamond Universal | CCGT-21.51 UEXL | **8070-676** | $17.38 | **8070-677** | $17.38 | **8070-678** | $17.38 |
| | CCGT-21.52 UEXL | **8070-682** | 17.38 | **8070-683** | 17.38 | **8070-684** | 17.38 |
| | CCGT-32.51 UEXL | **8070-688** | 20.06 | **8070-689** | 20.06 | **8070-690** | 20.06 |
| | CCGT-32.52 UEXL | **8070-694** | 20.06 | **8070-695** | 20.06 | **8070-696** | 20.06 |
| | CCGT-432 UEXL | **8070-700** | 27.97 | **8070-701** | 27.97 | **8070-702** | 27.97 |
| | CCGT-433 UEXL | **8070-706** | 27.97 | **8070-707** | 27.97 | **8070-708** | 27.97 |
| **CCGT-UEXR** 80° Diamond Universal | CCGT-21.51 UEXR | **8070-679** | 17.38 | **8070-680** | 17.38 | **8070-681** | 17.38 |
| | CCGT-21.52 UEXR | **8070-685** | 17.38 | **8070-686** | 17.38 | **8070-687** | 17.38 |
| | CCGT-31.51 UEXR | **8070-691** | 20.06 | **8070-692** | 20.06 | **8070-693** | 20.06 |
| | CCGT-31.52 UEXR | **8070-697** | 20.06 | **8070-698** | 20.06 | **8070-699** | 20.06 |
| | CCGT-432 UEXR | **8070-703** | 27.97 | **8070-704** | 27.97 | **8070-705** | 27.97 |
| | CCGT-433 UEXR | **8070-709** | 27.97 | **8070-710** | 27.97 | **8070-711** | 27.97 |
| **DCGT-UEXL** 55° Diamond Medium | DCGT-21.51 UEXL | **8070-712** | 17.48 | **8070-713** | 17.48 | **8070-714** | 17.48 |
| | DCGT-32.51 UEXL | **8070-718** | 22.42 | **8070-719** | 22.42 | **8070-720** | 22.42 |
| | DCGT-32.52 UEXL | **8070-725** | 22.42 | **8070-726** | 22.42 | **8070-727** | 22.42 |
| **DCGT-UEXR** 55° Diamond Roughing | DCGT-21.51 UEXR | **8070-715** | 17.48 | **8070-716** | 17.48 | **8070-717** | 17.48 |
| | DCGT-32.51 UEXR | **8070-721** | 22.42 | **8070-722** | 22.42 | **8070-723** | 22.42 |
| | DCGT-32.52 UEXR | **8070-729** | 22.42 | **8070-730** | 22.42 | **8070-731** | 22.42 |
| **RCMX-UEX** 55° Diamond Roughing | RCMX-1003MO-UEX | | | **8071-957** | 16.02 | | |
| | RCMX-1204MO-UEX | **8071-958** | 16.02 | **8071-959** | 16.02 | | |
| | RCMX-1606MO-UEX | **8071-962** | 21.98 | **8071-963** | 21.98 | | |
| | RCMX-2006MO-UEX | **8071-967** | 28.69 | **8071-968** | 28.69 | | |
| | RCMX-2507MO-UEX | **8071-972** | 52.89 | **8071-973** | 52.89 | | |
| | RCMX-3209MO-UEX | **8071-976** | 84.48 | **8071-977** | 84.48 | | |
| **TCGT-UEXL** 60° Triangle Universal | TCGT-21.51 UEXL | **8070-732** | 19.44 | **8070-733** | 19.44 | **8070-734** | 19.44 |
| | TCGT-32.51 UEXL | **8070-738** | 24.58 | **8070-739** | 24.58 | **8070-740** | 24.58 |
| | TCGT-32.52 UEXL | **8070-744** | 24.58 | **8070-745** | 24.58 | **8070-746** | 24.58 |
| **TCGT-UEXR** 60° Triangle Finishing/Medium | TCGT-21.51 UEXR | **8070-735** | 19.44 | **8070-736** | 19.44 | **8070-737** | 19.44 |
| | TCGT-32.51 UEXR | **8070-741** | 24.58 | **8070-742** | 24.58 | **8070-743** | 24.58 |
| | TCGT-32.52 UEXR | **8070-747** | 24.58 | **8070-748** | 24.58 | **8070-749** | 24.58 |

## 7º POSITIVE PRECISION PRESSED INSERTS FOR STAINLESS STEEL APPLICATION

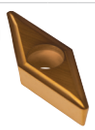
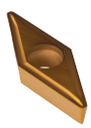
| Description | ANSI | Grade DMC20HT | Price Each | Grade DMC30UT | Price Each |
|---|---|---|---|---|---|
| **CCMT-MEM** 80º Diamond Finishing/Medium | CCMT-32.51-MEM | | | **8070-750** | $7.64 |
| | CCMT-32.52-MEM | | | **8070-751** | 7.64 |
| | CCMT-431-MEM | | | **8070-752** | 12.97 |
| **CCMT-MEH** 80º Diamond High Performance | CCMT-32.51-MEH | **8070-786** | $7.17 | | |
| | CCMT-32.52-MEH | **8070-787** | 7.17 | | |
| **DCMT-MEM** 55º Diamond Finishing / Medium | DCMT-32.51-MEM | | | **8070-760** | 9.31 |
| | DCMT-32.52-MEM | | | **8070-761** | 9.31 |
| **DCMT-MEH** 55º Diamond High Performance | DCMT-32.51-MEH | **8070-788** | 8.77 | | |
| | DCMT-32.52-MEH | **8070-789** | 8.77 | | |
| **SCMT-MEM** Square / Medium | SCMT-432-MEM | | | **8070-772** | 12.24 |
| **TCMT-MEM** 60º Triangle Medium | TCMT-21.51-MEM | | | **8070-776** | 8.08 |
| | TCMT-21.52-MEM | | | **8070-777** | 8.08 |
| | TCMT-32.51-MEM | | | **8070-778** | 10.77 |
| | TCMT-32.52-MEM | | | **8070-779** | 10.77 |
| **VCMT-MEM** 35º Diamond Medium | VCMT-331-MEM | | | **8070-783** | 12.73 |
| | VCMT-332-MEM | | | **8070-784** | 12.73 |
| | VCMT-333-MEM | | | **8070-785** | 12.73 |

***Inserts are sold in standard packs of 5. Pricing is each.***

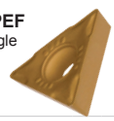
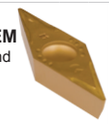
# Turning Inserts



## POSITIVE PRECISION GROUND INSERTS FOR MULTI MATERIAL APPLICATION

| Description | ANSI | Grade DUP15VT | Price Each | Grade DUP25GT | Price Each | Grade DUP35RT | Price Each |
|---|---|---|---|---|---|---|---|
| **CCGT-UEU** 80° Diamond Universal | CCGT-21.50.2-UEU | **8079-451** | $10.62 | | | | |
| | CCGT-21.50.5-UEU | | | **8079-453** | $11.16 | **8079-454** | $9.84 |
| | CCGT-21.51-UEU | **8079-456** | 11.26 | **8079-458** | 11.83 | **8079-459** | 10.43 |
| | CCGT-32.50.5-UEU | | | **8079-463** | 13.48 | **8079-464** | 12.02 |
| | CCGT-32.51-UEU | **8079-466** | 13.65 | **8079-468** | 14.29 | **8079-469** | 12.74 |
| | CCGT-431-UEU | **8079-476** | 16.98 | **8079-478** | 17.74 | **8079-479** | 15.90 |
| | CCGT-432-UEU | **8079-481** | 16.98 | **8079-483** | 17.74 | **8079-484** | 15.90 |
| **CPGT-UEU** 80° Diamond Universal | CPGT-1.81.20.5 -UEU | **8079-486** | 11.23 | **8079-488** | 11.80 | **8079-489** | 10.40 |
| | CPGT-1.81.21-UEU | **8079-491** | 11.23 | **8079-493** | 11.80 | **8079-494** | 10.40 |
| | CPGT-21.50.2-UEU | | | **8079-518** | 13.48 | **8079-519** | 12.02 |
| | CPGT-21.50.5-UEU | **8079-496** | 11.51 | **8079-498** | 12.08 | **8079-499** | 10.68 |
| | CPGT-32.51-UEU | **8079-511** | 13.97 | **8079-513** | 14.61 | **8079-514** | 13.06 |
| **DCGT-UEU** 55° Diamond Universal | DCGT-21.50.2-UEU | **8079-531** | 10.85 | | | | |
| | DCGT-21.50.5-UEU | | | **8079-533** | 11.39 | **8079-534** | 10.07 |
| | DCGT-21.51-UEU | **8079-536** | 11.50 | **8079-538** | 12.07 | **8079-539** | 10.67 |
| | DCGT-32.50.2-UEU | **8079-541** | 14.23 | | | | |
| | DCGT-32.50.5-UEU | | | **8079-543** | 14.02 | **8079-544** | 12.55 |
| | DCGT-32.51-UEU | **8079-546** | 14.23 | **8079-548** | 14.86 | **8079-549** | 13.30 |
| | DCGT-431-UEU | **8079-556** | 17.13 | **8079-558** | 17.89 | **8079-559** | 16.06 |
| | DCGT-432-UEU | **8079-561** | 17.13 | **8079-563** | 17.89 | **8079-564** | 16.06 |
| **SCGT-UEU** Square Universal | SCGT-32.51-UEU | **8079-566** | 13.75 | **8079-568** | 14.38 | **8079-569** | 12.84 |
| | SCGT-32.52-UEU | **8079-571** | 13.75 | **8079-573** | 14.38 | **8079-574** | 12.84 |
| | SCGT-431-UEU | **8079-576** | 16.82 | **8079-578** | 17.59 | **8079-579** | 15.74 |
| | SCGT-432-UEU | **8079-581** | 16.82 | **8079-583** | 17.59 | **8079-584** | 15.74 |
| **TCGT-UEU** 60° Triangle Universal | TCGT-21.50.2-UEU | **8079-586** | 11.42 | **8079-588** | 11.99 | **8079-589** | 10.59 |
| | TCGT-21.50.5-UEU | | | **8079-593** | 7.66 | **8079-594** | 7.66 |
| | TCGT-21.51-UEU | **8079-596** | 11.42 | **8079-598** | 11.99 | **8079-599** | 10.59 |
| | TCGT-32.50.5-UEU | | | **8079-608** | 13.87 | **8079-609** | 12.41 |
| | TCGT-32.51-UEU | **8079-611** | 14.07 | **8079-613** | 14.70 | **8079-614** | 13.15 |
| | TCGT-32.52-UEU | **8079-616** | 14.07 | **8079-618** | 14.70 | **8079-619** | 13.15 |
| **TPGT-UEU** 60° Triangle Universal | TPGT-21.50.2-UEU | | | **8079-623** | 11.58 | **8079-624** | 10.26 |
| | TPGT-21.50.5-UEU | | | **8079-628** | 11.58 | **8079-629** | 10.26 |
| | TPGT-21.51-UEU | **8079-631** | 11.70 | **8079-633** | 12.27 | **8079-634** | 10.88 |
| | TPGT-32.50.5-UEU | | | **8079-643** | 10.01 | **8079-644** | 10.01 |
| | TPGT-32.51-UEU | **8079-646** | 14.35 | **8079-648** | 14.99 | **8079-649** | 13.44 |
| | TPGT-32.52-UEU | **8079-651** | 14.35 | **8079-653** | 14.99 | **8079-654** | 13.44 |
| **VBGT-UEU** 35° Diamond Universal  | VBGT-221-UEU | **8079-661** | 15.53 | **8079-663** | 16.10 | **8079-664** | 13.94 |
| | VBGT-331-UEU | **8079-671** | 21.28 | **8079-673** | 21.60 | **8079-674** | 18.69 |
| | VBGT-332-UEU | **8079-676** | 21.28 | **8079-678** | 21.60 | **8079-679** | 18.69 |
| **VCGT-UEU** 35° Diamond Universal  | VCGT-220.2-UEU | **8079-681** | 14.66 | | | | |
| | VCGT-220.5-UEU | | | **8079-683** | 15.20 | **8079-684** | 13.16 |
| | VCGT-221-UEU | **8079-686** | 15.54 | **8079-688** | 16.11 | **8079-689** | 13.95 |
| | VCGT-331-UEU | **8079-701** | 21.19 | **8079-703** | 21.51 | **8079-704** | 18.56 |
| | VCGT-332-UEU | **8079-706** | 21.19 | **8079-708** | 21.51 | **8079-709** | 18.59 |
| **WCGT-UEU** 80° Trigon Universal | WCGT-1.51.50.2-UEU | **8079-711** | 13.41 | **8079-713** | 13.98 | **8079-714** | 12.58 |
| | WCGT-1.51.50.5-UEU | **8079-716** | 13.41 | **8079-718** | 13.98 | **8079-719** | 12.58 |
| | WCGT-21.51-UEU | **8079-726** | 12.36 | **8079-728** | 12.93 | **8079-729** | 11.53 |
| | WCGT-32.51-UEU | **8079-736** | 13.97 | **8079-738** | 14.61 | **8079-739** | 13.06 |
| | WCGT-32.52-UEU | **8079-741** | 13.97 | **8079-743** | 14.61 | **8079-744** | 13.06 |

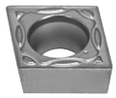
## POSITIVE PRESSED INSERTS FOR STEEL MATERIAL APPLICATION

| Description | ANSI | Grade DPC15HT | Price Each | Grade DPC25UT | Price Each | Grade DPC35RT | Price Each |
|---|---|---|---|---|---|---|---|
| **CCMT-PEF** 80° Diamond Finishing | CCMT-21.51-PEF | **8071-877** | $6.86 | **8071-878** | $6.61 | | |
| | CCMT-21.52-PEF | **8071-879** | 6.86 | **8071-880** | 6.61 | | |
| | CCMT-32.51-PEF | **8071-883** | 7.93 | **8071-884** | 7.64 | | |
| | CCMT-32.52-PEF | **8071-885** | 7.93 | **8071-886** | 7.64 | | |
| | CCMT-431-PEF | **8071-889** | 13.52 | **8071-890** | 12.97 | | |
| **CCMT-PEM** 80° Diamond Medium | CCMT-21.50.5-PEM | **8071-875** | 6.86 | **8071-876** | 6.61 | | |
| | CCMT-21.51-PEM | **8071-933** | 6.86 | **8071-934** | 6.61 | | |
| | CCMT-21.52-PEM | **8071-881** | 6.86 | **8071-882** | 6.61 | | |
| | CCMT-32.51-PEM | **8071-935** | 7.93 | **8071-936** | 7.64 | | |
| | CCMT-32.52-PEM | **8071-887** | 7.93 | **8071-888** | 7.64 | | |
| | CCMT-431-PEM | **8071-937** | 13.52 | **8071-938** | 12.97 | | |
| | CCMT-432-PEM | **8071-891** | 13.52 | **8071-892** | 12.97 | | |
| **DCMT-PEF** 55° Diamond Finishing | DCMT-21.51-PEF | **8071-893** | 7.40 | **8071-894** | 7.10 | | |
| | DCMT-32.51-PEF | **8071-897** | 9.70 | **8071-898** | 9.31 | | |
| **DCMT-PEM** 55° Diamond Medium | DCMT-21.51-PEM | **8071-895** | 7.40 | **8071-896** | 7.10 | | |
| | DCMT 32.51-PEM | **8071-899** | 9.70 | **8071-900** | 9.31 | | |
| | DCMT 32.52-PEM | **8071-901** | 9.70 | **8071-902** | 9.31 | | |
| **SCMT-PEF** Square Finishing | SCMT-32.51-PEF | **8071-903** | 9.25 | **8071-904** | 8.91 | | |
| **SCMT-PEM** Square Medium | SCMT-32.52-PEM | **8071-905** | 9.25 | **8071-906** | 8.91 | | |
| | SCMT-432-PEM | **8071-907** | 12.73 | **8071-908** | 12.24 | | |
| | SCMT-433-PEM | **8071-939** | 12.73 | **8071-940** | 12.24 | | |
| **TCMT-PEF** 60° Triangle Finishing  | TCMT-21.50.5-PEF | **8071-909** | 8.43 | **8071-910** | 8.08 | | |
| | TCMT-21.51-PEF | **8071-911** | 8.43 | **8071-912** | 8.08 | | |
| **TCMT-PEM** 60° Triangle Medium | TCMT-21.51-PEM | **8071-941** | 8.43 | **8071-942** | 8.08 | | |
| | TCMT-21.52-PEM | **8071-913** | 8.43 | **8071-914** | 8.08 | | |
| | TCMT-32.51-PEM | **8071-915** | 11.21 | **8071-916** | 10.77 | | |
| | TCMT-32.52-PEM | **8071-917** | 11.21 | **8071-918** | 10.77 | | |
| **TPMR-PEU** 60° Triangle Medium | TPMR-221-PEU | **8071-945** | 7.79 | **8071-946** | 7.54 | **8071-947** | $7.54 |
| | TPMR-222-PEU | **8071-948** | 7.79 | **8071-949** | 7.54 | **8071-950** | 7.54 |
| | TPMR-321-PEU | **8071-951** | 10.19 | **8071-952** | 9.79 | **8071-953** | 9.79 |
| | TPMR-322-PEU | **8071-954** | 10.19 | **8071-955** | 9.79 | **8071-956** | 9.79 |
| **VBMT-PEF** 35° Diamond Finishing | VBMT-331-PEF | **8071-919** | 16.80 | **8071-920** | 16.16 | | |
| | VBMT-332-PEF | **8071-921** | 16.80 | **8071-922** | 16.16 | | |
| | VBMT-333-PEF | **8071-923** | 16.80 | **8071-924** | 16.16 | | |
| **VCMT-PEF** 35° Diamond Finishing | VCMT-221-PEF | **8071-925** | 11.21 | **8071-926** | 10.77 | | |
| | VCMT331-PEF | **8071-927** | 13.22 | **8071-928** | 12.73 | | |
| | VCMT332-PEF | **8071-931** | 13.22 | **8071-932** | 12.73 | | |
| **VCMT-PEM** 35° Diamond Medium  | VCMT-331-PEM | **8071-943** | 13.22 | **8071-944** | 12.73 | | |
| | VCMT-332-PEM | **8071-929** | 13.22 | **8071-930** | 12.73 | | |

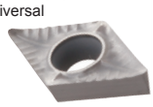
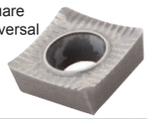
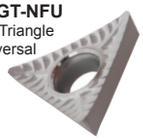
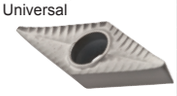
***Inserts are sold in standard packs of 5. Pricing is each.***

# Turning Inserts

## POSITIVE PRESSED INSERTS FOR SUPER ALLOYS

| Description | ANSI | Grade DSP10HT | Price Each | Grade DSP20HT | Price Each |
|---|---|---|---|---|---|
| **CCMT-SEH** 80° Diamond Universal  | CCMT-32.51-SEH | **8069-725** | $7.17 | **8069-722** | $7.16 |
| **DCMT-SEH** 55° Diamond Universal | DCMT-32.51-SEH | **8069-728** | 8.77 | **8069-729** | 8.77 |
| **RCMT-SEH** Round Roughing | RCMT-1606-MO-SEH | **8069-732** | 17.41 | | |
| | RCMT-2006-MO-SEH | **8069-734** | 27.60 | | |

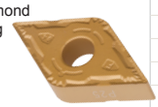
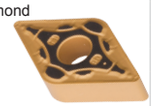
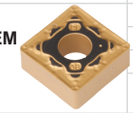
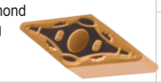
## POSITIVE PRECISION GROUND INSERTS FOR ALUMINUM APPLICATION

| Description | ANSI | Grade DNU10GT | Price Each | Grade DNX10UT | Price Each |
|---|---|---|---|---|---|
| **CCGT-NFU** 80° Diamond Universal | CCGT-21.50.5-NFU | **8080-020** | $14.73 | **8080-021** | $18.10 |
| | CCGT-21.51-NFU | **8080-024** | 14.73 | **8080-025** | 18.10 |
| | CCGT-32.50.5-NFU | **8080-028** | 15.59 | **8080-029** | 19.12 |
| | CCGT-32.51-NFU | **8080-032** | 15.59 | **8080-033** | 19.12 |
| | CCGT-32.52-NFU | **8080-036** | 15.59 | **8080-037** | 19.12 |
| | CCGT-431-NFU | **8080-040** | 18.57 | **8080-041** | 22.80 |
| | CCGT-432-NFU | **8080-044** | 18.57 | **8080-045** | 22.80 |
| **DCGT-NFU** 55° Diamond Universal  | DCGT-21.50.5-NFU | **8080-048** | 14.18 | **8080-049** | 17.63 |
| | DCGT-21.51-NFU | **8080-052** | 14.18 | **8080-053** | 17.63 |
| | DCGT-32.50.5-NFU | **8080-056** | 15.91 | **8080-057** | 19.59 |
| | DCGT-32.51-NFU | **8080-060** | 15.91 | **8080-061** | 19.59 |
| | DCGT-32.52-NFU | **8080-064** | 15.91 | **8080-065** | 19.59 |
| **RCMT-NFU** Round Universal | RCMT-0602MO-NFU | **8070-798** | 6.42 | | |
| **RCGT-NFU** Round Universal | RCGT-0602MO-NFU | **8080-068** | 9.64 | **8080-069** | 12.15 |
| | RCGT-0803MO-NFU | **8080-072** | 10.50 | **8080-073** | 13.17 |
| | RCGT-1003MO-NFU | **8080-076** | 13.17 | **8080-077** | 16.45 |
| **SCGT-NFU** Square Universal  | SCGT-432-NFU | **8080-084** | 16.93 | **8080-085** | 20.68 |
| **TCGT-NFU** 60° Triangle Universal  | TCGT-21.51-NFU | **8080-089** | 14.42 | **8080-090** | 17.71 |
| | TCGT-32.51-NFU | **8080-093** | 15.59 | **8080-094** | 19.12 |
| **VCGT-NFU** 35° Triangle Universal  | VCGT-220.5-NFU | **8080-098** | 19.98 | **8080-099** | 24.30 |
| | VCGT-221-NFU | **8080-103** | 19.98 | **8080-104** | 24.30 |
| | VCGT-330.5-NFU | **8080-107** | 22.18 | **8080-108** | 27.03 |
| | VCGT-331-NFU | **8080-111** | 22.18 | **8080-112** | 27.03 |
| | VCGT-332-NFU | **8080-115** | 22.18 | **8080-116** | 27.03 |
| | VCGT-333-NFU | **8080-119** | 22.18 | **8080-120** | 27.03 |
| | VCGT-448-NFU | **8080-123** | 30.87 | **8080-124** | 38.09 |
| **VPGT-NFU** 35° Triangle Universal | VPGT-221-NFU | **8080-127** | 18.48 | - | - |
| | VPGT-333-NFU | **8080-131** | 21.66 | **8080-133** | 28.03 |
| | VPGT-444-NFU | **8080-135** | 30.87 | **8080-136** | 37.04 |
| **WCGT-NFU** 80° Trigon Universal | WCGT-32.50.5-NFU | **8080-140** | 18.25 | **8080-141** | 22.80 |
| | WCGT-32.51-NFU | **8080-144** | 18.25 | **8080-145** | 22.80 |
| | WCGT-32.52-NFU | **8080-148** | 18.25 | **8080-149** | 22.80 |
| | WCGT-431-NFU | **8080-152** | 20.84 | **8080-153** | 27.19 |
| | WCGT-432-NFU | **8080-156** | 20.84 | **8080-157** | 27.19 |

***Inserts are sold in standard packs of 5. Pricing is each.***

## NEGATIVE PRESSED INSERTS FOR STEEL & STAINLESS STEEL APPLICATION



| Description | ANSI | Grade DPC15HT | Price Each | Grade DPC25UT | Price Each | Grade DPC35RT | Price Each |
|---|---|---|---|---|---|---|---|
| **CNMG-PEF** 80° Diamond Finishing | CNMG-431-PEF | **8069-250** | $10.77 | **8069-251** | $10.37 | | |
| | CNMG-432-PEF | **8069252** | 10.77 | **8069-253** | 10.37 | | |
| **CNMG-PEM** 80° Diamond Medium | CNMG-322-PEM | **8069-491** | 10.77 | **8069-276** | 10.63 | **8069-277** | $10.63 |
| | CNMG-432-PEM | **8069-408** | 10.77 | **8069-278** | 10.37 | **8069-279** | 10.37 |
| | CNMG-433-PEM | **8069-280** | 10.77 | **8069-281** | 10.37 | **8069-282** | 10.37 |
| | CNMG-542-PEM | **8069-283** | 17.91 | **8069-284** | 17.21 | **8069-285** | 17.21 |
| | CNMG-543-PEM | **8069-286** | 17.91 | **8069-287** | 17.21 | **8069-288** | 17.21 |
| | CNMG-544-PEM | **8069-492** | 17.91 | **8069-289** | 17.21 | **8069-290** | 17.21 |
| | CNMG-643-PEM | **8069-409** | 22.41 | **8069-291** | 21.53 | **8069-292** | 21.53 |
| | CNMG-644-PEM | **8069-410** | 22.41 | **8069-293** | 21.53 | **8069-294** | 21.53 |
| **CNMG-PER** 80° Diamond Roughing | CNMG-432-PER | **8069-351** | 10.77 | **8069-352** | 10.37 | **8069-353** | 10.37 |
| | CNMG-433-PER | **8069-354** | 10.77 | **8069-355** | 10.37 | **8069-356** | 10.37 |
| | CNMG-542-PER | **8069-357** | 17.91 | **8069-358** | 17.21 | **8069-359** | 17.21 |
| | CNMG-543-PER | **8069-360** | 17.91 | **8069-361** | 17.21 | **8069-362** | 17.21 |
| | CNMG-544-PER | **8069-363** | 17.91 | **8069-364** | 17.21 | **8069-365** | 17.21 |
| | CNMG-643-PER | **8069-366** | 22.41 | **8069-367** | 21.53 | **8069-368** | 21.53 |
| | CNMG-644-PER | **8069-369** | 22.41 | **8069-370** | 21.53 | **8069-371** | 21.53 |
| | CNMG-646-PER | **8069-372** | 22.41 | **8069-373** | 21.53 | **8069-374** | 21.53 |
| **DNMG-PEF** 55° Diamond Finishing  | DNMG-331-PEF | **8069-254** | 10.77 | **8069-255** | 10.37 | | |
| | DNMG-332-PEF | **8069-256** | 10.77 | **8069-257** | 10.37 | | |
| | DNMG-431-PEF | **8069-258** | 13.55 | **8069-259** | 13.02 | | |
| | DNMG-432-PEF | **8069-260** | 13.55 | **8069-261** | 13.02 | | |
| | DNMG-441-PEF | **8069-262** | 15.13 | **8069-263** | 15.13 | | |
| | DNMG-442-PEF | **8069-264** | 15.13 | **8069-265** | 14.56 | | |
| **DNMG-PEM** 55° Diamond Medium  | DNMG-332-PEM | **8069-295** | 10.37 | **8069-296** | 10.37 | **8069-297** | 10.37 |
| | DNMG-432-PEM | **8069-298** | 13.55 | **8069-299** | 13.02 | **8069-300** | 13.02 |
| | DNMG-433-PEM | **8069-301** | 13.55 | **8069-302** | 13.02 | **8069-303** | 13.02 |
| | DNMG-442-PEM | **8069-304** | 15.13 | **8069-305** | 14.56 | **8069-306** | 14.56 |
| | DNMG-443-PEM | **8069-307** | 15.13 | **8069-308** | 14.56 | **8069-309** | 14.56 |
| | DNMG-444-PEM | **8069-310** | 15.13 | **8069-311** | 14.56 | **8069-312** | 14.56 |
| **DNMG-PER** 55° Diamond Roughing | DNMG-432-PER | **8069-375** | 13.55 | **8069-376** | 13.02 | **8069-377** | 13.02 |
| | DNMG-433-PER | **8069-378** | 13.55 | **8069-379** | 13.02 | **8069-380** | 13.02 |
| | DNMG-442-PER | **8069-381** | 15.13 | **8069-382** | 14.56 | **8069-383** | 14.56 |
| | DNMG-443-PER | **8069-384** | 15.13 | **8069-385** | 14.56 | **8069-386** | 14.56 |
| | DNMG-444-PER | **8069-387** | 15.13 | **8069-388** | 14.56 | **8069-389** | 14.56 |
| **SNMG-PEM** Square Medium  | SNMG-432-PEM | **8069-313** | 10.45 | **8069-314** | 10.06 | **8069-315** | 10.06 |
| | SNMG-433-PEM | **8069-316** | 10.45 | **8069-317** | 10.06 | **8069-318** | 10.06 |
| | SNMG-542-PEM | **8069-319** | 18.09 | **8069-320** | 17.47 | **8069-321** | 17.47 |
| | SNMG-643-PEM | **8069-322** | 24.08 | **8069-323** | 23.16 | **8069-324** | 23.16 |
| **SNMG-PER** Square Roughing | SNMG-432-PER | **8069-390** | 10.45 | **8069-391** | 10.06 | **8069-392** | 10.06 |
| | SNMG-433-PER | **8069-393** | 10.45 | **8069-394** | 10.06 | **8069-395** | 10.06 |
| | SNMG-643-PER | **8069-396** | 24.08 | **8069-397** | 23.16 | **8069-398** | 23.16 |
| | SNMG-644-PER | **8069-399** | 24.08 | **8069-400** | 23.16 | **8069-401** | 23.16 |
| **TNMG-PEF** 60° Triangle Finishing | TNMG-331-PEF | **8069-268** | 10.24 | **8069-269** | 9.84 | | |
| | TNMG-332-PEF | **8069-270** | 10.24 | **8069-271** | 9.84 | | |
| **TNMG-PEM** 60° Triangle Medium | TNMG-332-PEM | **8069-325** | 10.24 | **8069-326** | 9.84 | **8069-327** | 9.84 |
| | TNMG-333-PEM | **8069-328** | 10.24 | **8069-329** | 9.84 | **8069-330** | 9.84 |
| | TNMG-432-PEM | **8069-331** | 12.39 | **8069-332** | 11.92 | **8069-333** | 11.92 |
| | TNMG-433-PEM | **8069-334** | 12.39 | **8069-335** | 11.92 | | |
| **VNMG-PEF** 35° Diamond Finishing | VNMG-331-PEF | **8069-272** | 14.39 | **8069-273** | 13.86 | | |
| | VNMG-332-PEF | **8069-274** | 14.39 | **8069-275** | 13.86 | | |
| **VNMG-PEM** 35° Diamond Finishing  | VNMG-332-PEM | **8069-336** | 14.39 | **8069-337** | 13.86 | **8069-338** | 13.86 |
| | VNMG-333-PEM | **8069-339** | 14.39 | **8069-340** | 13.86 | **8069-341** | 13.86 |
| **WNMG-PEM** 80° Trigon Medium | WNMG-332-PEM | **8069-342** | 9.71 | **8069-343** | 9.71 | **8069-344** | 9.71 |
| | WNMG-432-PEM | **8069-345** | 11.47 | **8069-346** | 11.03 | **8069-347** | 11.03 |
| | WNMG-433-PEM | **8069-348** | 11.47 | **8069-349** | 11.03 | **8069-350** | 11.03 |
| **WNMG-PER** 80° Trigon Roughing | WNMG-432-PER | **8069-402** | 11.47 | **8069-403** | 11.03 | **8069-404** | 11.03 |
| | WNMG-433-PER | **8069-405** | 11.47 | **8069-406** | 11.03 | **8069-407** | 11.03 |

# Turning Inserts



## NEGATIVE PRESSED INSERTS FOR SUPER ALLOYS MATERIAL APPLICATION

| Description | ANSI | Grade DSP10HT | Price Each | Grade DSP15HT | Price Each | Grade DSP20HT | Price Each |
|---|---|---|---|---|---|---|---|
| **CNGG-SEF** 80° Diamond Finishing | CNGG-431-SEF | | | **8067-058** | $14.33 | | |
| | CNGG-432-SEF | | | **8067-059** | 14.33 | | |
| | CNGG-433-SEF | | | **8067-060** | 14.33 | | |
| **CNM/GG-SEM** 80° Diamond Medium | CNGG-431-SEM | | | **8067-061** | 14.33 | | |
| | CNGG-432-SEM | | | **8067-065** | 14.33 | | |
| | CNGG-433-SEM | | | **8067-066** | 14.33 | | |
| | CNMG-431-SEM | | | **8067-067** | 10.37 | | |
| | CNMG-432-SEM | | | **8067-068** | 10.37 | | |
| **CNGG-SER** 80° Diamond Roughing | CNGG-432-SER | | | **8067-069** | 16.94 | | |
| | CNGG-433-SER | | | **8067-070** | 16.94 | | |
| **CNMG-SEH** 80° Diamond Roughing | CNMG-432-SEH | **8069-726** | $10.78 | | | **8069-727** | $10.78 |
| **DNGG-SEF** 55° Diamond Finishing | DNGG-431-SEF | | | **8067-071** | 17.47 | | |
| | DNGG-432-SEF | | | **8067-072** | 17.47 | | |
| | DNGG-433-SEF | | | **8067-073** | 17.47 | | |
| | DNGG-441-SEF | | | **8067-074** | 18.75 | | |
| | DNGG-442-SEF | | | **8067-082** | 18.75 | | |
| | DNGG-443-SEF | | | **8067-083** | 18.75 | | |
| **DNMG-SEM** 55° Diamond Medium | DNMG-431-SEM | | | **8067-084** | 13.02 | | |
| | DNMG-432-SEM | | | **8067-085** | 13.02 | | |
| | DNMG-433-SEM | | | **8067-086** | 13.02 | | |
| | DNMG-441-SEM | | | **8067-087** | 14.56 | | |
| | DNMG-442-SEM | | | **8067-088** | 14.56 | | |
| | DNMG-443-SEM | | | **8067-089** | 14.56 | | |
| **DNMG-SEH** 55° Diamond Roughing | DNMG-442-SEH | **8069-730** | 15.14 | | | **8069-731** | 15.14 |
| **VNMG-SEF** 35° Diamond Finishing | VNMG-331-SEF | | | **8067-095** | 12.80 | | |
| | VNMG-332-SEF | | | **8067-096** | 12.80 | | |
| **WNGG-SEF** 80° Trigon Finishing | WNGG-431-SEF | | | **8067-097** | 16.76 | | |
| | WNGG-432-SEF | | | **8067-098** | 16.76 | | |
| | WNGG-433-SEF | | | **8067-099** | 16.76 | | |
| **WNM/GG-SEM** 80° Trigon Medium | WNGG-431-SEM | | | **8067-100** | 16.76 | | |
| | WNGG-432-SEM | | | **8067-101** | 16.76 | | |
| | WNMG-431-SEM | | | **8067-102** | 11.03 | | |
| | WNMG-432-SEM | | | **8067-103** | 11.03 | | |
| | WNMG-433-SEM | | | **8067-104** | 11.03 | | |
| **WNMG-SEH** 80° Trigon Medium | WNMG-432-SEH | **8069-736** | 11.49 | | | **8069-737** | 11.49 |

## NEGATIVE PRESSED INSERTS FOR STEEL MATERIAL APPLICATION

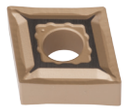
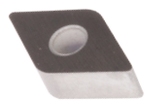
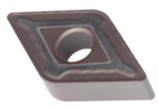
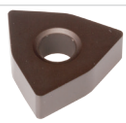
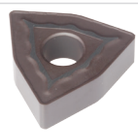
| Description | ANSI | Grade DPC15HT | Price Each | Grade DPC25UT | Price Each | Grade DPC35RT | Price Each |
|---|---|---|---|---|---|---|---|
| **CNMG-UEM** 80° Diamond Universal | CNMG-431-UEM | **8069-826** | $10.77 | **8069-828** | $10.37 | | |
| | CNMG-432-UEM | **8069-832** | 10.77 | **8069-833** | 10.37 | **8069-834** | $10.37 |
| **DNMG-UEM** 55° Diamond Universal | DNMG-331-UEM | **8069-835** | 10.77 | **8069-836** | 10.37 | **8069-837** | 10.37 |
| | DNMG-332-UEM | **8069-840** | 10.77 | **8069-841** | 10.37 | | |
| | DNMG-432-UEM | | | **8069-844** | 13.02 | | |
| | DNMG-441-UEM | **8069-845** | 15.13 | **8069-846** | 14.56 | **8069-847** | 14.56 |
| | DNMG-442-UEM | **8069-848** | 15.13 | **8069-849** | 14.56 | **8069-850** | 14.56 |
| **SNMG-UEM** Square Universal | SNMG-321-UEM | **8069-851** | 7.59 | **8069-852** | 7.28 | | |
| **TNMG-UEM** 60° Triangle Universal | TNMG-331-UEM | **8069-853** | 10.24 | **8069-854** | 9.84 | **8069-855** | 9.84 |
| | TNMG-332-UEM | **8069-856** | 10.24 | **8069-857** | 9.84 | **8069-858** | 9.84 |
| **VNMG-UEM** 35° Diamond Universal | VNMG-332-UEM | **8069-859** | 13.33 | **8069-860** | 12.80 | | |
| **WNMG-UEM** 80° Trigon Universal | WNMG-331-UEM | **8069-861** | 10.10 | **8069-862** | 9.71 | **8069-863** | 9.71 |
| | WNMG-332-UEM | **8069-864** | 10.10 | **8069-865** | 9.71 | **8069-866** | 9.71 |
| | WNMG-431-UEM | **8069-867** | 11.47 | **8069-868** | 11.03 | **8069-869** | 11.03 |
| | WNMG-432-UEM | **8069-870** | 11.47 | **8069-871** | 11.03 | **8069-872** | 11.03 |
| | WNMG-433-UEM | | | **8069-873** | 11.03 | | |

## NEGATIVE INSERTS FOR STAINLESS STEEL APPLICATION

| Description | ANSI | Grade DMC20HT | Price Each | Grade DMC30UT | Price Each |
|---|---|---|---|---|---|
| **CNMG-MEF** 80° Diamond Finishing | CNMG-321-MEF | | | **8069-964** | $10.63 |
| | CNMG-431-MEF | | | **8069-965** | 10.37 |
| | CNMG-432-MEF | | | **8069-966** | 10.37 |
| | CNMG-433-MEF | | | **8069-967** | 10.37 |
| **CNMG-MEM** 80° Diamond Medium | CNMG-432-MEM | | | **8069-968** | 10.37 |
| | CNMG-433-MEM | | | **8069-969** | 10.37 |
| **CNMG-MEH** 80° Diamond High Performance | CNMG-432-MEH | **8070-020** | $10.78 | | |
| | CNMG-433-MEH | **8070-021** | 10.78 | | |
| | CNMG-543-MEH | **8070-022** | 17.91 | | |
| | CNMG-544-MEH | **8070-023** | 17.91 | | |
| | CNMG-643-MEH | **8070-024** | 22.44 | | |
| | CNMG-644-MEH | **8070-028** | 22.44 | | |
| **CNMG-MER** 80° Diamond Roughing | CNMG-433-MER | | | **8069-970** | 10.37 |
| | CNMG-543-MER | | | **8069-971** | 17.21 |
| | CNMG-643-MER | | | **8069-972** | 21.53 |
| **DNMG-MEF** 55° Diamond Finishing | DNMG-331-MEF | | | **8069-973** | 10.37 |
| | DNMG-441-MEF | | | **8069-974** | 14.56 |
| | DNMG-442-MEF | | | **8069-975** | 14.56 |
| **DNMG-MEM** 55° Diamond Medium | DNMG-332-MEM | | | **8069-976** | 10.37 |
| | DNMG-432-MEM | | | **8069-977** | 13.02 |
| | DNMG-442-MEM | | | **8069-978** | 14.56 |
| | DNMG-443-MEM | | | **8069-979** | 14.56 |
| **DNMG-MEH** 55° Diamond High Performance | DNMG-442-MEH | **8070-037** | 15.14 | | |
| | DNMG-443-MEH | **8070-038** | 15.14 | | |
| **DNMG-MER** 55° Diamond Medium | DNMG-442-MER | | | **8069-980** | 14.56 |
| | DNMG-443-MER | | | **8069-981** | 14.56 |
| **SNMG-MEH** Square High Performance | SNMG-543-MEH | **8070-041** | 18.12 | | |
| | SNMG-544-MEH | **8070-044** | 18.12 | | |
| | SNMG-644-MEH | **8070-053** | 24.12 | | |
| **SNMG-MER** Square Roughing | SNMG-432-MER | | | **8069-983** | 10.06 |
| | SNMG-433-MER | | | **8069-984** | 10.06 |
| | SNMG-643-MER | | | **8069-985** | 23.16 |
| **SNMG-MEF** Square Finishing | SNMG-321-MEF | | | **8069-982** | 7.28 |
| **TNMG-MEM** 60° Triangle Medium | TNMG-332-MEM | | | **8069-986** | 9.84 |
| | TNMG-432-MEM | | | **8069-987** | 11.92 |
| | TNMG-433-MEM | | | **8069-988** | 11.92 |
| **WNMG-MEF** 80° Trigon Finishing | WNMG-331-MEF | | | **8069-989** | 9.71 |
| | WNMG-431-MEF | | | **8069-990** | 11.03 |
| | WNMG-432-MEF | | | **8069-991** | 11.03 |
| **WNMG-MEH** 80° Trigon High Performance | WNMG-432-MEH | **8070-056** | 11.49 | | |
| **WNMG-MEM** 80° Trigon Medium | WNMG-332-MEM | | | **8069-992** | 9.71 |
| | WNMG-432-MEM | | | **8069-993** | 11.03 |
| | WNMG-433-MEM | | | **8069-994** | 11.03 |
| | WNMG-434-MEM | | | **8069-995** | 11.03 |
| **WNMG-MER** 80° Trigon Roughing | WNMG-432-MER | | | **8069-996** | 11.03 |
| | WNMG-433-MER | | | **8069-997** | 11.03 |

***Inserts are sold in standard packs of 5. Pricing is each.***

## NEGATIVE PRESSED INSERTS FOR CAST IRON APPLICATION

| Description | ANSI | DKC10UT | Price Ea. | DKC15RT | Price Ea. |
|---|---|---|---|---|---|
| **CNMG-KEF** 80° Diamond Finishing  | CNMG-431-KEF | **8067-052** | **$10.37** | | |
| **CNMA-KEU** 80° Diamond General Purpose | CNMG-432-KEU | **8069-874** | **13.10** | **8069-875** | **$13.10** |
| | CNMA-433-KEU | **8069-876** | **13.10** | **8069-877** | **13.10** |
| | CNMA-644-KEU | | | **8069-878** | **24.75** |
| | CNMA-866-KEU | | | **8069-879** | **60.43** |
| **CNMG-KER** 80° Diamond Roughing | CNMG-432-KER | **8069-904** | **10.37** | **8069-905** | **10.37** |
| | CNMG-433-KER | **8069-906** | **10.37** | **8069-907** | **10.37** |
| | CNMG-434-KER | **8069-908** | **10.37** | **8069-909** | **10.37** |
| | CNMG-543-KER | **8069-910** | **17.21** | **8069-911** | **17.21** |
| | CNMG-544-KER | **8069-912** | **17.21** | **8069-913** | **17.21** |
| **DNMG-KEF** 55° Diamond Finishing | DNMG-331-KEF | **8067-054** | **10.37** | | |
| | DNMG-332-KEF | **8067-056** | **10.37** | | |
| **DNMA-KEU** 55° Diamond General Purpose  | DNMA-442-KEU | | | **8069-880** | **13.02** |
| **DNMG-KER** 55° Diamond Roughing  | DNMG-432-KER | **8069-914** | **13.02** | **8069-915** | **13.02** |
| | DNMG-433-KER | **8069-916** | **13.02** | **8069-917** | **13.02** |
| | DNMG-442-KER | **8069-918** | **14.56** | **8069-919** | **14.56** |
| | DNMG-443-KER | **8069-920** | **14.56** | **8069-921** | **14.56** |
| **SNMA-KEU** Square General Purpose | SNMA-432-KEU | **8069-882** | **10.06** | **8069-883** | **10.06** |
| | SNMA-433-KEU | **8069-884** | **10.06** | **8069-885** | **10.06** |
| | SNMA-434-KEU | **8069-886** | **10.06** | **8069-887** | **10.06** |
| | SNMA-664-KEU | | | **8069-888** | **20.95** |
| | SNMA-856-KEU | | | **8069-889** | **51.39** |
| **SNMG-KER** Square Roughing | SNMG-432-KER | **8069-922** | **10.06** | **8069-923** | **10.06** |
| | SNMG-433-KER | **8069-924** | **10.06** | **8069-925** | **10.06** |
| | SNMG-643-KER | | | **8069-926** | **23.16** |
| | SNMG-644-KER | **8069-927** | **23.16** | **8069-928** | **23.16** |
| **TNMA-KEU** Triangle General Purpose | TNMA-332-KEU | **8069-890** | **9.84** | **8069-891** | **9.84** |
| | TNMA-333-KEU | **8069-892** | **9.84** | **8069-893** | **9.84** |
| | TNMA-434-KEU | **8069-894** | **11.92** | **8069-895** | **11.92** |
| **WNMA-KEU** 80° Trigon General Purpose  | WNMA-432-KEU | **8069-896** | **11.03** | **8069-897** | **11.03** |
| | WNMA-433-KEU | **8069-898** | **11.03** | **8069-899** | **11.03** |
| **WNMA-KER** 80° Trigon Roughing  | WNMG-432-KER | **8069-929** | **11.03** | **8069-930** | **11.03** |
| | WNMG-433-KER | | | **8069-931** | **11.03** |

***Inserts are sold in standard packs of 5. Pricing is each.***

# Multi-Lock Toolholders



## MCKN R/L Toolholder

**Style K- 15° End Cutting Edge Angle for negative 80°diamond CNM_ inserts**

Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | U | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| MCKNR/L12-4B | 8050-066 | - | 0.75 | 4.50 | 1.250 | 1.000 | 123 | 432 | $ 63.82 |
| MCKNR/L16-4C | 8050-070 | - | 1.00 | 5.00 | 1.250 | 1.250 | 123 | | 67.90 |
| MCKNR/L16-4D | 8050-074 | 8050-075 | 1.00 | 6.00 | 1.250 | 1.250 | 123 | | 67.90 |
| MCKNR/L20-4D | 8050-078 | 8050-079 | 1.25 | 6.00 | 1.250 | 1.500 | 123 | | 74.58 |
| MCKNR/L20-5D | 8050-086 | 8050-087 | 1.25 | 6.00 | 1.375 | 1.500 | 151 | 543 | 89.50 |
| MCKNR/L24-6E | 8050-102 | 8050-103 | 1.50 | 7.00 | 1.500 | 2.000 | 184 | 643 | 102.40 |

## MDPN N Toolholder

**Style P- 27.5° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts**

Neutral hand shown

| Description | Order Number | A & B | C | E | Insert Style | Price Each |
|---|---|---|---|---|---|---|
| MDPNN12-4B | 8050-370 | 0.75 | 4.50 | 1.75 | 432 | $ 98.93 |
| MDPNN16-4D | 8050-372 | 1.00 | 6.00 | 1.75 | | 101.30 |
| MDPNN20-4D | 8050-374 | 1.25 | 6.00 | 1.75 | | 112.18 |
| MDPNN16-5D | 8050-376 | 1.00 | 6.00 | 2.00 | 543 | 121.56 |

## MCLN R/L Toolholder

**Style L - Negative 5° End or Side Cutting Edge Angle for negative 80° diamond CNM_ inserts**

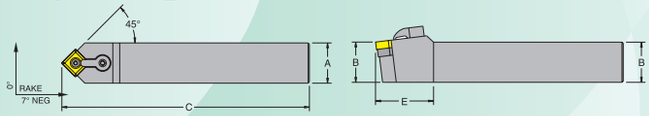
Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MCLNR/L10-4B | 8050- | 8050-117 | 0.625 | 4.50 | 1.250 | 1.000 | 432 | $ 58.89 |
| MCLNR/L12-4B | 1168050- | 8050-121 | 0.750 | 4.50 | 1.250 | 1.250 | | 63.82 |
| MCLNR/L16-4C | 1208050-124 | 8050-125 | 1.000 | 5.00 | 1.250 | 1.250 | | 67.90 |
| MCLNR/L16-4D | 8050-128 | 8050-129 | 1.000 | 6.00 | 1.250 | 1.250 | | 67.90 |
| MCLNR/L20-4D | 8050-132 | 8050-133 | 1.250 | 6.00 | 1.250 | 1.500 | | 74.58 |
| MCLNR/L24-4D | 8050-136 | 8050-137 | 1.500 | 6.00 | 1.250 | 2.000 | | 102.40 |
| MCLNR/L24-4E | 8050-140 | 8050-141 | 1.500 | 7.00 | 1.250 | 2.000 | | 102.40 |
| MCLNR/L16-5D | 8050- | 8050-153 | 1.000 | 6.00 | 1.375 | 1.250 | 543 | 81.48 |
| MCLNR/L20-5D | 1528050-156 | 8050-157 | 1.250 | 6.00 | 1.375 | 1.500 | | 89.50 |
| MCLNR/L16-6D | 8050- | 8050-169 | 1.000 | 6.00 | 1.500 | 1.500 | 643 | 81.48 |
| MCLNR/L20-6D | 1688050-172 | 8050-173 | 1.250 | 6.00 | 1.500 | 1.500 | | 89.50 |
| MCLNR/L20-6E | 8050-174 | 8050-175 | 1.250 | 7.00 | 1.500 | 1.500 | | 89.50 |
| MCLNR/L24-6D | 8050-176 | 8050-177 | 1.500 | 6.00 | 1.500 | 2.000 | | 102.40 |
| MCLNR/L24-6E | 8050-180 | 8050-181 | 1.500 | 7.00 | 1.500 | 2.000 | | 102.40 |

## MSDN N Toolholder

**Style D - 45° Side Cutting Edge Angle for negative square SNM_ inserts**

Neutral hand shown

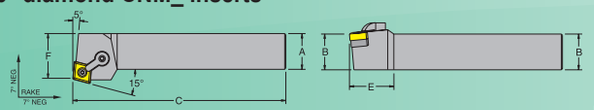



| Description | Order Number | A & B | C | E | Insert Style | Price Each |
|---|---|---|---|---|---|---|
| MSDNN08-3A | 8050-392 | 0.500 | 4.00 | 1.000 | 322 | $ 52.82 |
| MSDNN08-3B | 8050-394 | 0.500 | 4.50 | 1.000 | | 50.31 |
| MSDNN10-3B | 8050-396 | 0.625 | 4.50 | 1.000 | | 56.08 |
| MSDNN12-3B | 8050-398 | 0.750 | 4.50 | 1.000 | | 63.82 |
| MSDNN12-4B | 8050-400 | 0.750 | 4.50 | 1.375 | 432 | 63.82 |
| MSDNN16-4D | 8050-402 | 1.000 | 6.00 | 1.375 | | 67.90 |
| MSDNN16-5D | 8050-406 | 1.000 | 6.00 | 1.625 | 543 | 81.48 |
| MSDNN20-5D | 8050-408 | 1.250 | 6.00 | 1.625 | | 89.50 |
| MSDNN16-6D | 8050-414 | 1.000 | 6.00 | 1.750 | 643 | 81.48 |
| MSDNN20-6D | 8050-416 | 1.250 | 6.00 | 1.750 | | 89.50 |
| MSDNN24-6E | 8050-418 | 1.500 | 7.00 | 1.750 | | 102.40 |

## MCRN R/L Toolholder

**Style R- 15° Side Cutting Edge Angle for negative 80° diamond CNM_ inserts**

Right hand shown, left hand hand opposite

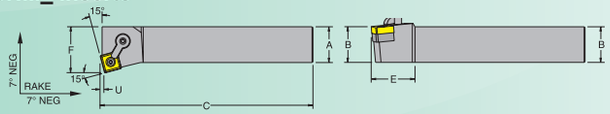



| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MCRNR/L12-4B | 8050-220 | - | 0.75 | 4.50 | 1.250 | 0.750 | 432 | $ 63.82 |
| MCRNR/L16-4D | 8050-228 | 8050-229 | 1.00 | 6.0 | 1.250 | 1.250 | | 67.90 |
| MCRNR/L20-4D | 8050-232 | 8050-233 | 1.25 | 6.0 | 1.250 | 1.500 | | 74.58 |
| MCRNR/L16-5D | 8050-244 | 8050-245 | 1.25 | 6.00 | 1.375 | 1.500 | 543 | 89.50 |
| MCRNR/L16-6D | 8050-256 | 8050-257 | 1.25 | 6.00 | 1.500 | 1.500 | 643 | 89.50 |
| MCRNR/L20-6D | 8050-260 | 8050-261 | 1.50 | 7.00 | 1.500 | 2.000 | | 102.40 |

## MSKN R/L Toolholder

**Style K- 15° End Cutting Edge Angle for negative square SNM_ inserts**

Right hand shown, left hand opposite

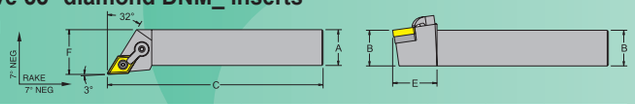



| Description | Order No. Right | Left | A & B | C | E | F | U | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| MSKNR/L12-4B | 8050-448 | - | 0.750 | 4.50 | 1.250 | 1.000 | 0.122 | 432 | $ 63.82 |
| MSKNR/L16-4D | 8050-456 | 8050-457 | 1.000 | 6.00 | 1.000 | 1.250 | 0.122 | | 67.90 |
| MSKNR/L16-5D | 8050-460 | 8050-461 | 1.000 | 6.00 | 1.375 | 1.250 | 0.151 | 543 | 81.48 |
| MSKNR/L20-6D | 8050-472 | 8050-473 | 1.250 | 6.00 | 1.500 | 1.500 | 0.183 | 643 | 89.50 |

## MDJN R/L Toolholder

**Style J- 3° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts**

Right hand shown, left hand opposite

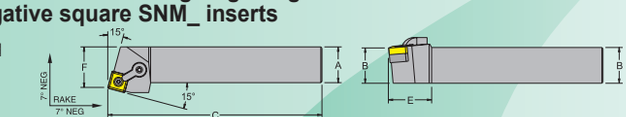



| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MDJNR/L16-3C | 8050-314 | 8050-315 | 1.000 | 5.00 | 1.250 | 1.250 | 332 | $ 101.30 |
| MDJNR/L12-4B | 8050-324 | 8050-325 | 0.750 | 4.50 | 1.250 | 1.000 | 432 | 98.93 |
| MDJNR/L16-4C | 8050-328 | 8050-329 | 1.000 | 5.00 | 1.250 | 1.250 | | 101.30 |
| MCRNR/L20-6D | 8050-332 | 8050-333 | 1.000 | 6.00 | 1.250 | 1.250 | | 101.30 |
| MDJNR/L20-4D | 8050-336 | 8050-337 | 1.250 | 6.00 | 1.250 | 1.500 | | 112.18 |
| MDJNR/L24-4D | 8050-340 | 8050-341 | 1.500 | 6.00 | 1.250 | 2.000 | | 142.75 |
| MDJNR/L24-4E | 8050-344 | 8050-345 | 1.500 | 7.00 | 1.250 | 2.000 | | 142.75 |
| MDJNR/L16-5D | 8050-352 | 8050-353 | 1.000 | 5.00 | 1.750 | 1.250 | 543 | 121.56 |
| MDJNR/L20-5D | 8050-356 | 8050-357 | 1.250 | 6.00 | 1.750 | 1.500 | | 134.61 |
| MDJNR/L24-5E | 8050-364 | 8050-365 | 1.500 | 7.00 | 1.750 | 2.000 | | 142.75 |

## MSRN R/L Toolholder

**Style R- 15° Side Cutting Edge Angle for negative square SNM_ inserts**

Right hand shown, left hand opposite

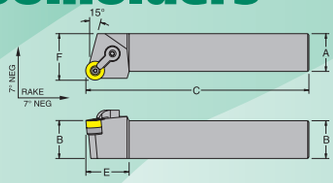



| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MSRNR/L12-4B | 8050-506 | 8050-507 | 0.750 | 4.50 | 1.250 | 0.880 | 432 | $ 63.82 |
| MSRNR/L16-4D | 8050-514 | 8050-515 | 1.000 | 6.00 | 1.250 | 1.130 | | 67.90 |
| MSRNR/L20-4D | 8050-518 | 8050-519 | 1.250 | 6.00 | 1.250 | 1.380 | | 74.58 |
| MSRNR/L16-5D | 8050-530 | 8050-531 | 1.000 | 6.00 | 1.375 | 1.103 | 543 | 81.48 |
| MSRNR/L20-5D | 8050-534 | 8050-535 | 1.250 | 6.00 | 1.375 | 1.353 | | 89.50 |
| MSRNR/L16-6D | 8050-542 | 8050-543 | 1.000 | 6.00 | 1.500 | 1.071 | 643 | 81.48 |
| MSRNR/L20-6D | 8050-546 | 8050-547 | 1.250 | 6.00 | 1.500 | 1.315 | | 89.50 |
| MSRNR/L24-6E | 8050-550 | 8050-551 | 1.500 | 7.00 | 1.500 | 1.821 | | 102.40 |

# Multi-Lock Toolholders

## MRGN R/L Toolholder

**Style G- 0° Side Cutting Edge Angle for negative round RNM_ inserts**

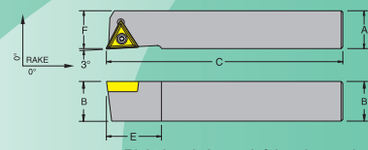



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MRGNR/L12-4B | 8051-198 | 8051-199 | 0.750 | 4.50 | 1.250 | 1.000 | 43 | $ 63.82 |
| MRGNR/L16-4C | 8051-202 | - | 1.000 | 5.00 | 1.250 | 1.250 | | 67.90 |
| MRGNR/L16-4D | 8051-206 | 8051-207 | 1.000 | 6.00 | 1.250 | 1.250 | | 67.90 |
| MRGNR/L20-4D | 8051-210 | 8051-211 | 1.250 | 6.00 | 1.250 | 1.500 | | 74.58 |
| MRGNR/L20-6D | 8051-230 | 8051-231 | 1.250 | 6.00 | 1.375 | 1.500 | 64 | 89.50 |
| MRGNR/L24-6E | 8051-234 | 8051-235 | 1.500 | 7.00 | 1.375 | 2.000 | | 102.40 |

## STNC R/L Toolholder

**Style N - 3° Side Cutting Edge Angle for 7° positive triangle TC_T inserts**

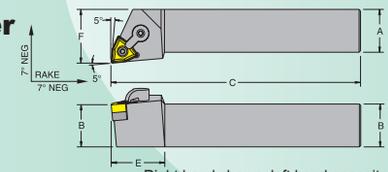



Right hand shown, left hand opposite

| Description | Order No. Right Hand | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|
| STNCR/L08-2J | 8051-736 | 0.500 | 3.500 | 0.625 | 0.500 | 21.51 | $43.50 |
| STNCR/L10-2A | 8051-738 | 0.625 | 4.000 | 0.625 | 0.625 | | 44.87 |
| STNCR/L12-3B | 8051-740 | 0.750 | 4.500 | 1.125 | 0.750 | 32.52 | 50.31 |
| STNCR/L64-3D | 8051-742 | 0.750 | 6.000 | 1.125 | 0.750 | | 54.38 |

## MWLN R/L Toolholder

**Style L- Negative 5° End or Side Cutting Edge Angle for negative 80° trigon WNM_ inserts**

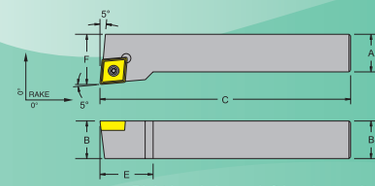



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MWLNR/L12-3B | 8051-262 | 8051-263 | 0.75 | 4.50 | 1.00 | 1.00 | 332 | $ 63.82 |
| MWLNR/L16-3C | 8051-264 | 8051-265 | 1.00 | 5.00 | 1.00 | 1.25 | | 67.90 |
| MWLNR/L12-4B | 8051-266 | 8051-267 | 1.75 | 4.50 | 1.25 | 1.00 | 432 | 63.82 |
| MWLNR/L16-4D | 8051-270 | 8051-271 | 1.00 | 6.00 | 1.25 | 1.25 | | 67.90 |
| MWLNR/L20-4D | 8051-274 | 8051-275 | 1.25 | 6.00 | 1.25 | 1.50 | | 74.58 |

## SCLC R/L Toolholder

**Style L- Negative 5° End or Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts**

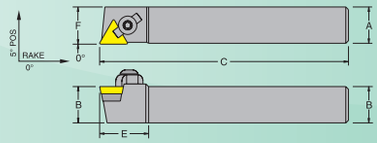



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| SCLCR/L06-2J | 8051-800 | 8051-801 | 0.375 | 3.500 | 0.500 | 0.500 | 21.51 | $ 54.28 |
| SCLCR/L08-3A | 8051-804 | 8051-805 | 0.500 | 4.000 | 0.688 | 0.625 | 32.52 | 54.28 |
| SCLCR/L10-3B | 8051-808 | 8051-809 | 0.625 | 4.500 | 0.688 | 0.750 | | 55.57 |
| SCLCR/L12-3B | 8051-812 | 8051-813 | 0.750 | 4.500 | 0.688 | 1.000 | | 66.07 |

## CTAP R/L Toolholder

**Style A- 0° Side Cutting Edge Angle for 11° positive triangle TPG inserts**

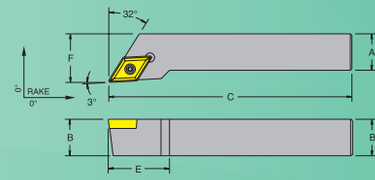



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| CTAPR/L08-2J | 8051-386 | 8051-387 | 0.500 | 3.50 | 0.875 | 0.515 | 221 | $ 50.31 |
| CTAPR/L12-3B | 8051-398 | 8051-399 | 0.750 | 4.50 | 1.250 | 0.765 | 322 | 63.82 |
| CTAPR/L16-3D | 8051-402 | 8051-403 | 1.000 | 6.00 | 1.250 | 1.015 | | 67.90 |
| CTAPR/L16-4D | 8051-410 | 8051-411 | 1.000 | 6.00 | 1.250 | 1.015 | 432 | 67.90 |

## SDJC R/L Toolholder

**Style J- Negative 3° Side Cutting Edge Angle for 7° positive 55° diamond DC_T inserts**

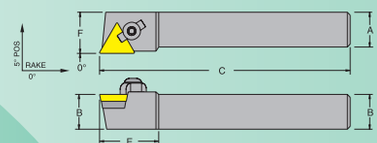



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| SDJCR/L06-2J | 8051-872 | 8051-873 | 0.375 | 3.500 | 0.688 | 0.500 | 21.51 | $66.42 |
| SDJCR/L08-3A | 8051-880 | 8051-881 | 0.500 | 4.000 | 1.000 | 0.625 | 32.52 | 66.42 |
| SDJCR/L12-3B | 8051-888 | 8051-889 | 0.750 | 4.500 | 1.000 | 1.000 | | 86.16 |

## CTGP R/L Toolholder

**Style G- 0° Side Cutting Edge Angle for 11° positive triangle TPG inserts**

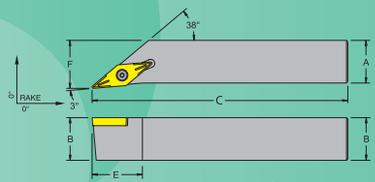



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| CTGPR/L10-3B | 8051-492 | 8051-493 | 0.625 | 4.50 | 1.000 | 0.875 | 322 | $ 56.08 |
| CTGPR/L12-3B | 8051-496 | 8051-497 | 0.750 | 4.50 | 1.000 | 1.000 | | 63.82 |

## SVJB R/L Toolholder

**Style J - Negative 3° Side Cutting Edge Angle for 5° positive 35° diamond VB_T inserts**



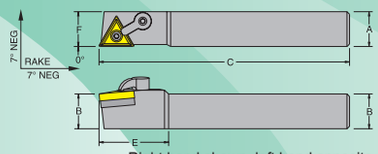

Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| SVJBR/L12-3B | 8052-006 | 8052-007 | 0.750 | 4.500 | 1.250 | 1.000 | 322 | $97.30 |
| SVJBR/L16-3D | 8052-014 | 8052-015 | 1.000 | 6.000 | 10250 | 1.250 | | 98.86 |

# Multi-Lock Toolholders

## MTAN R/L Toolholder

**Style A- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts**

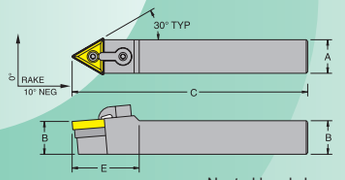



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MTANR/L08-2A | 8050-606 | 8050-607 | 0.500 | 4.00 | 0.875 | 0.500 | 221 | $52.82 |
| MTANR/L10-3B | 8050-614 | 8050-615 | 0.625 | 4.50 | 1.000 | 0.625 | 322 | 58.89 |
| MTANR/L12-3B | 8050-618 | 8050-619 | 0.750 | 4.50 | 1.000 | 0.750 | | 63.82 |

## MTEN N Toolholder

**Style E- 30° Side Cutting Edge Angle for negative triangle TNM_ inserts**

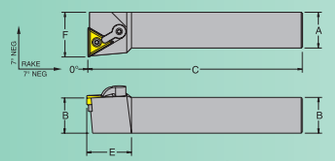



Neutral hand shown

| Description | Order No. | A | B | C | E | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|
| MTENN08-2A | 8050-690 | 0.500 | 0.500 | 4.00 | 1.000 | 221 | $50.31 |
| MTENN10-3B | 8050-692 | 0.625 | 0.625 | 4.00 | 1.125 | 322 | 56.08 |
| MTENN12-3B | 8050-694 | 0.750 | 0.750 | 4.50 | 1.125 | | 63.82 |
| MTENN12-4B | 8050-698 | 0.750 | 0.750 | 4.50 | 1.500 | 432 | 63.82 |
| MTENN16-4D | 8050-700 | 1.000 | 1.000 | 6.00 | 1.500 | | 67.90 |
| MTENN85-4D | 8050-702 | 1.000 | 1.250 | 6.00 | 1.500 | | 74.58 |
| MTENN20-5D | 8050-706 | 1.250 | 1.250 | 6.00 | 1.625 | 543 | 89.50 |

## MTFN R/L Toolholder

**Style F- 0° End Cutting Edge Angle for negative triangle TNM_ inserts**

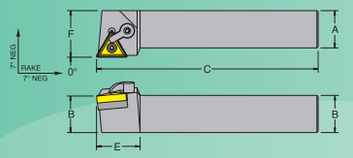



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MTFNR/L12-3B | 8050-738 | 8050-739 | 0.750 | 4.50 | 1.000 | 1.000 | 322 | $63.82 |
| MTFNR/L16-4D | 8050-754 | 8050-755 | 1.000 | 6.00 | 1.250 | 1.250 | 432 | 67.90 |
| MTFNR/L16-5D | 8050-774 | - | 1.000 | 6.00 | 1.375 | 1.250 | 543 | 81.48 |
| MTFNR/L20-5D | 8050-778 | 8050-779 | 1.250 | 6.00 | 1.375 | 1.500 | | 89.50 |
| MTFNR/L24-6E | 8050-792 | 8050-793 | 1.500 | 7.00 | 1.500 | 2.000 | 663 | 102.40 |

## MTGN R/L Toolholder

**Style G- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts**

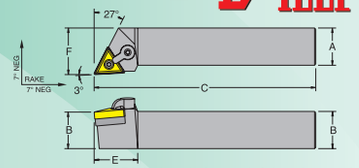



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MTGNR/L08-2A | 8050-802 | 8050-803 | 0.500 | 4.00 | 0.875 | 0.625 | 221 | $52.82 |
| MTGNR/L10-3B | 8050-810 | 8050-811 | 0.625 | 4.50 | 1.000 | 0.875 | 322 | 56.08 |
| MTGNR/L12-3B | 8050-814 | 8050-815 | 0.750 | 4.50 | 1.000 | 1.000 | | 63.82 |
| MTGNR/L16-4D | 8050-830 | 8050-831 | 1.000 | 6.00 | 1.375 | 1.250 | 432 | 67.90 |
| MTGNR/L20-4D | 8050-834 | 8050-835 | 1.250 | 6.00 | 1.375 | 1.500 | | 74.58 |
| MTGNR/L20-5D | 8050-858 | 8050-859 | 1.250 | 6.00 | 1.500 | 1.500 | 543 | 89.50 |
| MTGNR/L24-6E | 8050-872 | 8050-873 | 1.500 | 7.00 | 1.750 | 2.000 | 663 | 102.40 |

## MTJN R/L Toolholder

**Style J- 3° Side Cutting Edge Angle for negative triangle TNM_ inserts**

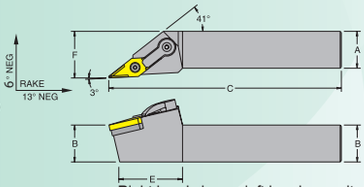



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MTJNR/L08-2A | 8050-882 | 8050-883 | 0.500 | 4.00 | 0.875 | 0.625 | 221 | $52.82 |
| MTJNR/L10-3B | 8050-890 | 8050-891 | 0.625 | 4.50 | 1.000 | 0.875 | 322 | 58.89 |
| MTJNR/L12-3B | 8050-894 | 8050-895 | 0.750 | 4.50 | 1.000 | 1.000 | 332 | 63.82 |
| MTJNR/L16-3D | 8050-898 | 8050-899 | 1.000 | 6.00 | 1.000 | 1.250 | | 67.90 |
| MTJNR/L16-4D | 8050-902 | 8050-903 | 1.000 | 6.00 | 1.250 | 1.250 | 432 | 67.90 |
| MTJNR/L20-4D | 8050-906 | 8050-907 | 1.250 | 6.00 | 1.250 | 1.500 | | 74.58 |
| MTJNR/L20-5D | 8050-918 | 8050-919 | 1.250 | 6.00 | 1.500 | 1.500 | 543 | 89.50 |
| MTJNR/L24-5E | 8050-922 | 8050-923 | 1.500 | 7.00 | 1.500 | 2.000 | | 102.40 |
| MTJNR/L24-6E | 8050-934 | 8050-935 | 1.500 | 7.00 | 1.625 | 2.000 | 663 | 102.40 |

## MVJN R/L Toolholder

**Style J- Negative 3° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts**

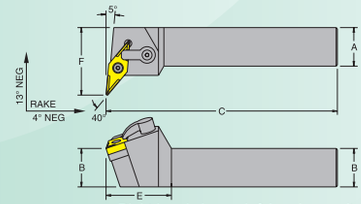



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MVJNR/L12-3B | 8051-062 | 8051-063 | 0.75 | 4.50 | 1.750 | 1.00 | 332 | $104.37 |
| MVJNR/L16-3C | 8051-066 | 8051-067 | 1.00 | 1.00 | 1.750 | 1.25 | | 106.39 |
| MVJNR/L16-3D | 8051-070 | 8051-071 | 1.00 | 1.00 | 1.750 | 1.25 | | 106.39 |
| MVJNR/L20-3D | 8051-074 | 8051-075 | 1.25 | 1.25 | 1.750 | 1.50 | | 117.96 |
| MVJNR/L16-4D | 8051-090 | 8051-091 | 1.00 | 6.00 | 2.125 | 1.25 | 432 | 106.39 |
| MVJNR/L20-4D | 8051-094 | 8051-095 | 1.25 | 6.00 | 2.125 | 1.50 | | 117.96 |
| MVJNR/L24-4E | 8051-098 | 8051-099 | 1.50 | 7.00 | 2.125 | 2.00 | | 151.34 |

## MVLN R/L Toolholder

**Style L- Negative 5° End Cutting Edge Angle for negative 35° diamond VNM_ inserts**

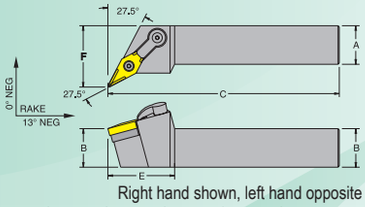



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MVLNR/L16-4C | 8051-108 | - | 1.00 | 5.00 | 1.50 | 1.75 | 432 | $106.39 |
| MVLNR/L16-4D | 8051-112 | 8051-113 | 1.00 | 6.00 | 1.50 | 1.75 | | 106.39 |
| MVLNR/L20-4D | 8051-116 | 8051-117 | 1.25 | 6.00 | 1.50 | 2.00 | | 117.96 |

## MVTN R/L Toolholder

**Style N- Negative 27.5° End Cutting Edge Angle for negative 35° diamond VNM_ inserts**

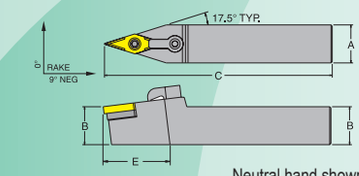



Right hand shown, left hand opposite

| Description | Order No. Right | Left | A & B | C | E | F | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|---|
| MVTNR/L16-3D | 8051-142 | 8051-143 | 1.00 | 6.00 | 1.625 | 1.25 | 332 | $106.39 |
| MVTNR/L20-3D | 8051-146 | 8051-147 | 1.25 | 6.00 | 1.625 | 1.50 | | 117.96 |

## MVVN N Toolholder

**Style V- 17.5° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts**




Neutral hand shown

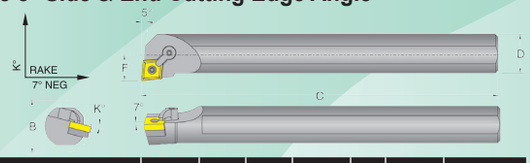
| Description | Order No. | A | B | C | E | Insert Style | Price Each |
|---|---|---|---|---|---|---|---|
| MVVNN12-3B | 8051-160 | 0.75 | 0.75 | 4.50 | 1.75 | 332 | $ 104.37 |
| MVVNN16-3D | 8051-164 | 1.00 | 1.00 | 6.00 | 1.75 | | 106.39 |
| MVVNN16-4D | 8051-168 | 1.00 | 1.00 | 6.00 | 2.25 | 432 | 106.39 |

# Boring Bars



## S-MCLN R/L Boring Bar

**Style L - Negative 5° Side & End Cutting Edge Angle for negative 80° diamond CNM_ inserts**

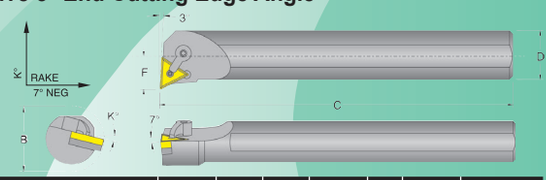



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | CNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S12S-MCLNR/L-4 | 8055-006 | 8055-007 | 1.000 | 10.0 | 0.75 | 0.500 | 14° | 432 | $182.00 |
| S16T-MCLNR/L-4 | 8055-010 | 8055-011 | 1.280 | 12.0 | 1.00 | 0.640 | 14° | | 228.56 |
| S20U-MCLNR/L-4 | 8055-014 | 8055-015 | 1.530 | 14.0 | 1.25 | 0.765 | 14° | 432 | 244.08 |
| S24U-MCLNR/L-4 | 8055-018 | 8055-019 | 0.780 | 14.0 | 1.50 | 0.890 | 11° | | 268.06 |
| S28U-MCLNR/L-4 | 8055-022 | 8055-023 | 2.030 | 14.0 | 1.75 | 1.015 | 11° | | 296.28 |
| S32V-MCLNR/L-4 | 8055-024 | 8055-025 | 2.562 | 16.0 | 2.00 | 1.261 | 11° | | 315.52 |
| S24U-MCLNR/L-5 | 8055-026 | 8055-027 | 2.374 | 14.0 | 1.50 | 1.187 | 11° | 543 | 268.06 |
| S32V-MCLNR/L-5 | 8055-030 | 8055-031 | 2.562 | 16.0 | 2.00 | 1.281 | 11° | | 315.52 |
| S40V-MCLNR/L-5 | 8055-034 | 8055-035 | 3.062 | 16.0 | 2.50 | 1.531 | 11° | | 412.49 |
| S32V-MCLNR/L-6 | 8055-042 | 8055-043 | 2.562 | 16.0 | 2.00 | 1.281 | 11° | 643 | 315.52 |
| S40V-MCLNR/L-6 | 8055-050 | 8055-051 | 3.062 | 16.0 | 2.50 | 1.531 | 11° | | 412.49 |

## S-MTUN R/L Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for negative triangle TNM_ inserts**

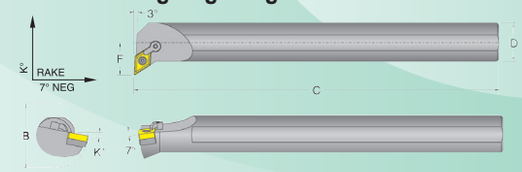



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | DNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S12S-MTUNR/L-3 | 8055-204 | 8055-205 | 1.000 | 10.0 | 0.75 | 0.500 | 14° | 332 | $182.00 |
| S16T-MTUNR/L-3 | 8055-208 | 8055-209 | 1.280 | 12.0 | 1.00 | 0.640 | 14° | 322 | 228.56 |
| S20U-MTUNR/L-3 | 8055-212 | 8055-213 | 1.530 | 14.0 | 1.25 | 0.766 | 14° | 332 | 244.08 |
| S24U-MTUNR/L-3 | 8055-216 | 8055-217 | 2.060 | 14.0 | 1.50 | 0.890 | 11° | | 268.06 |
| S20U-MTUNR/L-4 | 8055-220 | 8055-221 | 1.530 | 14.0 | 1.25 | 0.765 | 14° | 432 | 244.08 |
| S24U-MTUNR/L-4 | 8055-224 | 8055-225 | 2.060 | 14.0 | 1.50 | 0.890 | 11° | | 268.06 |
| S32V-MTUNR/L-4 | 8055-228 | 8055-229 | 2.562 | 16.0 | 2.00 | 1.281 | 11° | | 315.52 |

## S-MDUN R/L Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for negative 55° diamond DNM_ inserts**

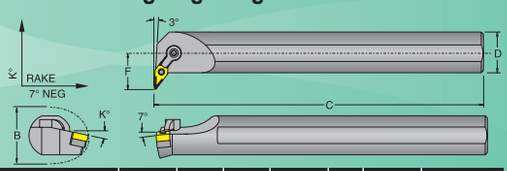



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | DNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S16T-MDUNR/L-3 | 8055-066 | 8055-067 | 1.300 | 12.0 | 1.00 | 0.750 | 14° | 332 | $228.56 |
| S20U-MDUNR/L-4 | 8055-070 | 8055-071 | 2.00 | 14.0 | 1.25 | 1.000 | 14° | 432 | 277.04 |
| S24U-MDUNR/L-4 | 8055-074 | 8055-075 | 2.25 | 14.0 | 1.50 | 1.125 | 11° | | 304.75 |
| S28U-MDUNR/L-4 | 8055-078 | 8055-079 | 2.50 | 14.0 | 1.75 | 1.250 | 11° | | 334.38 |
| S32V-MDUNR/L-4 | 8055-082 | 8055-083 | 3.00 | 16.0 | 2.00 | 1.375 | 11° | | 358.35 |
| S40V-MDUNR/L-5 | 8055-098 | 8055-099 | 3.50 | 16.0 | 2.50 | 1.750 | 11° | 543 | 454.04 |

## S-MVUN R/L Boring Bar

**Style U - Negative 3° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts**

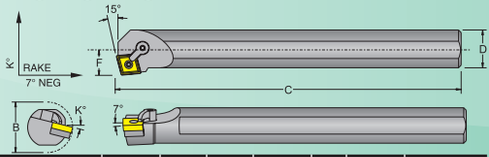



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | VNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S16T-MVUNR/L-3 | 8055-266 | 8055-267 | 2.00 | 12.0 | 1.00 | 1.000 | 14° | 332 | $262.55 |
| S20U-MVUNR/L-3 | 8055-270 | 8055-271 | 2.25 | 14.0 | 1.25 | 1.125 | 14° | | 290.98 |
| S24U-MVUNR/L-3 | 8055-274 | 8055-275 | 2.50 | 14.0 | 1.50 | 1.250 | 11° | | 318.65 |
| S32V-MVUNR/L-4 | 8055-282 | 8055-283 | 3.25 | 16.0 | 2.00 | 1.625 | 11° | 432 | 358.35 |

## S-MSKN R/L Boring Bar

**Style K - 15° End Cutting Edge Angle for negative square SNM_ inserts**

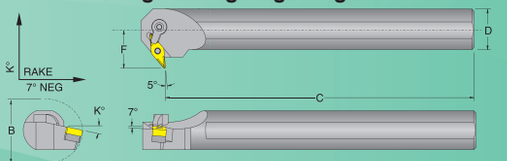



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | SNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S20U-MSKNR/L-4 | 8055-100 | 8055-101 | 1.47 | 14.0 | 1.25 | 0.765 | 14° | 432 | $244.08 |
| S24U-MSKNR/L-4 | 8055-102 | 8055-103 | 1.76 | 14.0 | 1.50 | 0.890 | 10° | 432 | 268.06 |
| S28U-MSKNR/L-4 | 8055-104 | - | 2.01 | 14.0 | 1.75 | 1.015 | 10° | | 296.28 |
| S32V-MSKNR/L-6 | 8055-106 | 8055-107 | 2.40 | 16.0 | 2.00 | 1.281 | 12° | 643 | 315.52 |

## S-MVXN R/L Boring Bar

**Style X - Negative 5° Back Boring Cutting Edge Angle for negative 35° diamond VNM_ inserts**

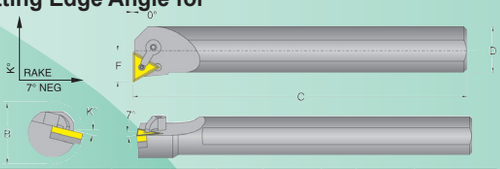



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | VNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S24U-MVXNR/L-3 | 8055-300 | 8055-301 | 2.25 | 14.0 | 1.50 | 1.1250 | 11° | 332 | $318.65 |
| S32V-MVXNR/L-4 | 8055-308 | - | 3.00 | 16.0 | 2.00 | 1.500 | 11° | 432 | 358.35 |

## S-MTFN R/L Boring Bar

**Style F - 0° End Cutting Edge Angle for negative triangle TNM_ inserts**

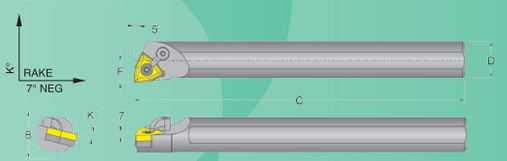



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | TNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S12S-MTFNR/L-3 | 8055-150 | - | 1.000 | 10.0 | 0.75 | 0.500 | 14° | 322 | $182.00 |
| S16T-MTFNR/L-3 | 8055-154 | 8055-155 | 1.280 | 12.0 | 1.00 | 0.640 | 14° | | 228.56 |
| S20U-MTFNR/L-3 | 8055-158 | 8055-159 | 1.530 | 14.0 | 1.25 | 0.765 | 14° | 322 | 244.08 |
| S24U-MTFNR/L-3 | 8055-162 | - | 1.780 | 14.0 | 1.50 | 0.890 | 11° | 332 | 268.06 |
| S20U-MTFNR/L-4 | 8055-170 | 8055-171 | 1.530 | 14.0 | 1.25 | 0.765 | 14° | 432 | 244.08 |
| S24U-MTFNR/L-4 | 8055-174 | 8055-175 | 2.060 | 14.0 | 1.50 | 0.890 | 11° | | 268.06 |
| S32V-MTFNR/L-4 | 8055-182 | 8055-183 | 2.562 | 16.0 | 2.00 | 1.281 | 11° | | 315.52 |
| S40V-MTFNR/L-4 | 8055-190 | 8055-191 | 3.062 | 16.0 | 2.50 | 1.531 | 11° | | 412.49 |

## S-MWLN R/L Boring Bar

**Style L - Negative 5° End & Side Cutting Edge Angle for negative trigon WNM_ inserts**




Right hand shown, left hand opposite

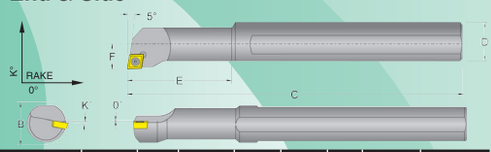
| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | K° | WNM Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S12S-MWLNR/L-3 | 8055-318 | 8055-319 | 1.00 | 10.0 | 0.75 | 0.500 | 14° | 332 | $182.00 |
| S16T-MWLNR/L-3 | 8055-320 | 8055-321 | 1.28 | 12.0 | 1.00 | 0.640 | 14° | | 228.56 |
| S16T-MWLNR/L-4 | 8055-322 | 8055-323 | 1.28 | 12.0 | 1.00 | 0.640 | 14° | 432 | 228.56 |
| S20U-MWLNR/L-4 | 8055-326 | 8055-327 | 1.53 | 14.0 | 1.25 | 0.765 | 14° | 432 | 244.08 |
| S24U-MWLNR/L-4 | 8055-330 | 8055-331 | 1.78 | 14.0 | 1.50 | 0.890 | 11° | | 268.06 |

# Boring Bars



## S-SCLC R/L Boring Bar

**Style L - Negative 5° End & Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts**

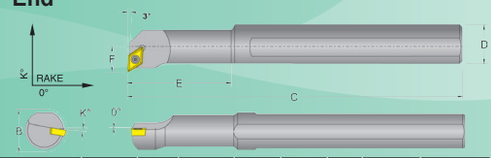



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | E | F | K° | CC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S06M-SCLCR/L-2 | 8055-470 | 8055-471 | 0.477 | 6.00 | 0.375 | 0.625 | .250 | 15° | 21.51 | $ 95.62 |
| S08M-SCLCR/L-2 | 8055-474 | 8055-475 | 0.602 | 6.00 | 0.500 | 0.750 | .312 | 13° | | 95.62 |
| S10R-SCLCR/L-2 | 8055-478 | 8055-479 | 0.812 | 8.00 | 0.625 | 1.250 | .406 | 10° | | 113.12 |
| S08M-SCLCR/L-3 | 8055-482 | 8055-483 | 0.625 | 6.00 | 0.500 | 1.250 | .312 | 13° | 32.52 | 95.62 |
| S10R-SCLCR/L-3 | 8055-486 | 8055-487 | 0.797 | 6.00 | 0.625 | 1.250 | .406 | 10° | | 113.12 |
| S12S-SCLCR/L-3 | 8055-490 | 8055-491 | 0.954 | 10.00 | 0.750 | 1.875 | .500 | 8° | 35.52 | 136.03 |
| S16T-SCLCR/L-3 | 8055-494 | 8055-495 | 1.250 | 12.00 | 1.000 | 2.500 | .625 | 7° | | 214.14 |
| S16T-SCLCR/L-4 | 8055-498 | 8055-499 | 1.280 | 12.0 | 1.000 | 2.500 | .640 | 7° | 432 | 214.14 |
| S20U-SCLCR/L-4 | 8055-502 | 8055-503 | 1.530 | 14.0 | 1.250 | 2.500 | .765 | 5° | | 231.64 |
| S24U-SCLCR/L-4 | 8055-506 | 8055-507 | 1.780 | 14.0 | 1.500 | 2.500 | .890 | 5° | | 253.18 |

## S-SDUC R/L Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts**

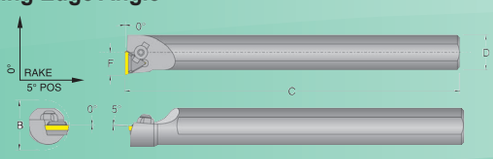



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | E | F | K° | DC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S06M-SDUCR/L-2 | 8055-560 | 8055-561 | 0.625 | 6.00 | 0.375 | 0.625 | .375 | 11° | 21.51 | $103.55 |
| S08M-SDUCR/L-2 | 8055-564 | 8055-565 | 0.780 | 6.00 | 0.500 | 0.750 | .437 | 11° | | 103.55 |
| S10R-SDUCR/L-2 | 8055-568 | 8055-569 | 0.840 | 8.00 | 0.625 | 1.250 | .500 | 5° | | 138.72 |
| S12S-SDUCR/L-3 | 8055-572 | 8055-573 | 1.125 | 10.00 | 0.750 | 1.250 | .562 | 6° | 32.52 | 165.66 |
| S16T-SDUCR/L-3 | 8055-576 | 8055-577 | 1.500 | 12.00 | 1.000 | 1.250 | .750 | 4° | | 234.33 |
| S20U-SDUCR/L-3 | 8055-580 | 8055-581 | 1.750 | 14.00 | 1.125 | 1.875 | .875 | 4° | | 253.18 |

## S-CTFP R/L Boring Bar

**Style F - 5° End Cutting Edge Angle for positive triangle TPG inserts**

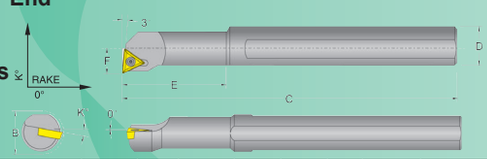



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | F | TPG Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|
| S10S-CTFPR/L-2 | 8055-358 | 8055-359 | 0.770 | 10.0 | 0.625 | 0.406 | 221 | $ 164.17 |
| S12S-CTFPR/L-3 | 8055-360 | 8055-361 | 1.125 | 10.0 | 0.750 | 0.500 | 322 | 182.00 |
| S16T-CTFPR/L-3 | 8055-364 | 8055-365 | 1.280 | 12.0 | 1.000 | 0.640 | 322 | 228.56 |
| S20U-CTFPR/L-3 | 8055-368 | 8055-369 | 1.530 | 14.0 | 1.250 | 0.765 | | 244.08 |
| S24U-CTFPR/L-3 | 8055-372 | 8055-373 | 1.840 | 14.0 | 1.500 | 0.890 | | 268.06 |
| S20U-CTFPR/L-4 | 8055-380 | 8055-381 | 1.530 | 14.0 | 1.250 | 0.765 | 432 | 244.08 |
| S24U-CTFPR/L-4 | 8055-384 | 8055-385 | 2.060 | 14.0 | 1.500 | 0.890 | | 268.06 |

## S-STUC R/L Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for7° positive triangle TC_T inserts**

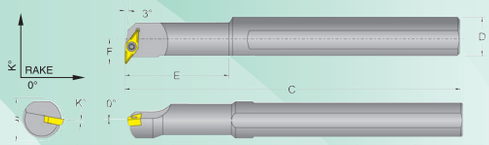



Right hand shown, left hand opposite

| Description | Order No. Right Hand | Min. Bore B | C | D | E | F | K° | TC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S06M-STUCR-2 | 8055-628 | 0.477 | 6.00 | 0.375 | 0.625 | .250 | 15° | 21.51 | $ 95.62 |
| S08M-STUCR-2 | 8055-629 | 0.602 | 6.00 | 0.500 | 0.750 | .312 | 13° | | 95.62 |
| S10R-STUCR-2 | 8055-630 | 0.797 | 8.00 | 0.625 | 1.250 | .406 | 10° | | 113.12 |
| S12S-STUCR-3 | 8055-631 | 0.954 | 10.00 | 0.750 | 1.875 | .500 | 8° | 32.52 | 136.03 |
| S16T-STUCR-3 | 8055-632 | 1.280 | 12.00 | 1.000 | 2.500 | 640 | 7° | | 214.14 |

## S-SVUC R/L Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for 7° positive 35° diamond VC_T inserts**

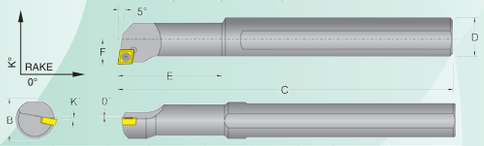



Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | E | F | K° | DC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S12S-SVUCR/L-2 | 8055-800 | 8055-801 | 1.125 | 10.0 | 0.75 | 1.250 | 0.625 | 6° | 221 | $ 178.28 |
| S16T-SVUCR/L-2 | 8055-804 | - | 1.300 | 12.0 | 1.00 | 1.500 | 0.750 | 6° | | 246.26 |
| S16T-SVUCR/L-3 | 8055-808 | 8055-809 | 1.625 | 12.0 | 1.00 | 1.500 | 0.750 | 6° | 332 | 246.26 |
| S20U-SVUCR/L-3 | 8055-812 | 8055-813 | 1.625 | 14.0 | 1.25 | 2.000 | 1.000 | 6° | | 265.50 |

## S-SCLP R/L Boring Bar

**Style L - Negative 5° End & Side Cutting Edge Angle for 11° positive 80° diamond CP_T inserts**



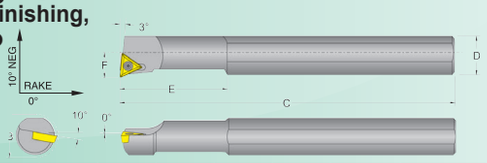

Right hand shown, left hand opposite

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | E | F | K° | DC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S06M-SCLPR/L-2 | 8055-761 | - | 0.48 | 6.0 | 0.375 | 0.625 | 0.250 | 6° | 21.51 | $ 95.62 |
| S08R-SCLPR/L-2 | 8055-763 | 8055-764 | 0.60 | 8.0 | 0.500 | 0.750 | 0.312 | 3° | | 95.62 |
| S10S-SCLPR/L-3 | 8055-767 | 8055-768 | 0.77 | 10.0 | 0.625 | 1.250 | 0.406 | 2° | 32.52 | 113.12 |
| S12S-SCLPR/L-3 | 8055-769 | 8055-770 | 0.93 | 10.0 | 0.750 | 1.250 | 0.500 | 2° | | 136.03 |
| S16T-SCLPR/L-3 | 8055-771 | 8055-772 | 1.20 | 12.0 | 1.000 | 1.875 | 0.640 | 0° | | 214.14 |

- **Small Hole Capacity** - to a minimum of .500
- **High Tech** - Insert pocket has been scientifically designed to eliminate vibration and maximize the depth of cut
- **Rigidity** - Bar made of heat treated, precision ground alloy steel
- **Insert Locking** - The insert is securely held with the Torx screw to reduce tool slipping
- **Better Finish** - The clearance angle of the insert, in relation to the cutting edge, gives the best micro finish
- **Fast Material Removal** - The positive insert with advanced chip breaker design for heavier cuts

## STCMB Boring Bar

**From Roughing to Finishing, Square Shoulders to Through Bores for 7° positive triangle TCMT Inserts**

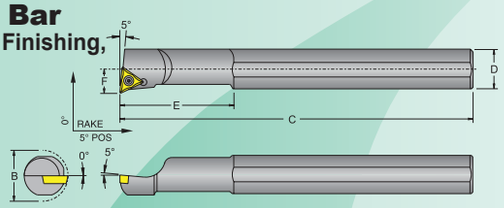



Right hand shown

| Description | Order No. Right Hand | Min. Bore B | C | D | E | F | TC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|
| STCMB06-2 | 8055-738 | 0.500 | 5.00 | 0.500 | 1.25 | .208 | 21.51 | $ 95.62 |
| STCMB08-2 | 8055-740 | 0.590 | 6.00 | 0.500 | 1.50 | .287 | | 95.62 |
| STCMB10-2 | 8055-742 | 0.750 | 8.00 | 0.625 | 2.25 | .350 | | 113.12 |
| STCMB12-3 | 8055-744 | 0.845 | 10.0 | 0.750 | 2.50 | .422 | 32.52 | 136.03 |
| STCMB16-3 | 8055-746 | 1.115 | 12.0 | 1.000 | 3.00 | .555 | | 214.14 |
| STCMB20-4 | 8055-748 | 1.370 | 12.0 | 1.250 | 3.50 | .682 | 432 | 231.64 |

## TPBN Boring Bar

**From Roughing to Finishing, Square Shoulders to Through Bores For 11° positive triangle TPGH or TPGB Inserts**




Right hand shown

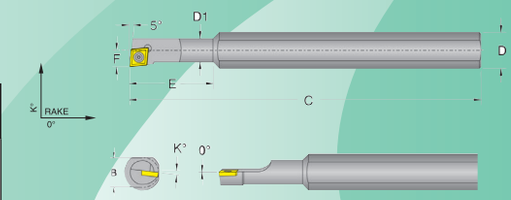
| Description | Order No. Right Hand | Min. Bore B | C | D | E | F | TC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|
| TPBN06-2 | 8055-658 | 0.450 | 5.00 | 0.500 | 1.25 | .208 | 21.51 | $ 64.34 |
| TPBN08-2 | 8055-660 | 0.590 | 6.00 | 0.500 | 1.50 | .287 | | 66.03 |
| TPBN10-2 | 8055-662 | 0.682 | 8.00 | 0.625 | 2.25 | .350 | | 67.31 |
| TPBN12-3 | 8055-664 | 0.845 | 10.0 | 0.750 | 2.50 | .422 | 322 | 70.80 |
| TPBN16-3 | 8055-666 | 1.115 | 12.0 | 1.000 | 3.00 | .555 | | 121.05 |
| TPBN20-3 | 8055-668 | 1.370 | 12.0 | 1.250 | 3.50 | .682 | | 138.13 |
| TPBN20-4 | 8055-670 | 1.370 | 12.0 | 1.250 | 3.50 | .682 | 432 | 138.13 |

# Miniature Boring Bars

## MINI S-SCLC R/L Boring Bar

**Style L - Negative 5° End & Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts**

| Description | Order No. Right | Order No. Left | Min. Bore B | C | D | D1 | E | F | K° | CC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S06H-SCLCR/L-2 | **8055-450** | **8055-451** | .394 | 4.0 | .375 | .315 | 1.25 | .236 | -11° | | **$ 63.11** |
| S08K-SCLCR/L-2 | **8055-454** | **8055-455** | .550 | 5.0 | .500 | .390 | 1.50 | .275 | -9° | 21.51 | **63.11** |
| S10M-SCLCR/L-2 | **8055-458** | **8055-459** | .708 | 6.0 | .625 | .472 | 2.00 | .354 | -7° | | **74.66** |

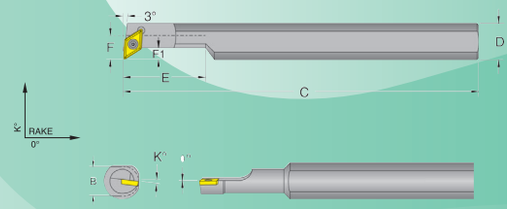



Right hand shown, left hand opposite

## MINI S-SDUC R/L Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts**

| Description | Order No. Right Hand | Min. Bore B | C | D | E | F | F1 | K° | DC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S06H-SDUCR/L-2 | **8055-540** | .492 | 4.0 | .375 | 0.875 | .324 | .197 | -11° | | **$ 68.34** |
| S08K-SDUCR/L-2 | **8055-544** | .610 | 5.0 | .500 | 1.125 | .383 | .197 | -9° | 21.51 | **68.34** |
| S10M-SDUCR/L-2 | **8055-548** | .768 | 6.0 | .625 | 1.500 | .433 | .197 | -7° | | **91.56** |

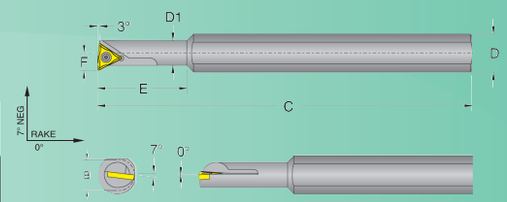



Right hand shown, left hand opposite

## MINI S-STUC R Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for 7° positive triangle TC_T inserts**

| Description | Order No. Right Hand | Min. Bore B | C | D | D1 | E | F | TC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| S06H-STUCR-1.2-2 | **8055-724** | .286 | 4.0 | .375 | .265 | 1.125 | .143 | | **$ 63.11** |
| S08H-STUCR-1.2-3 | **8055-726** | .313 | 4.0 | .500 | .300 | 1.125 | .157 | 52.50 | **63.11** |
| S08H-STUCR-1.2-4 | **8055-728** | .374 | 4.0 | .625 | .358 | 1.125 | .189 | | **63.11** |

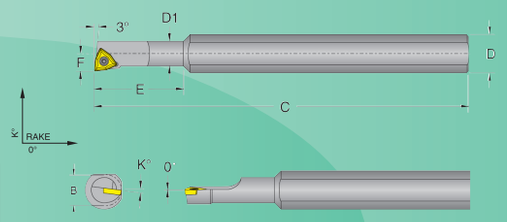



Right hand shown, left hand opposite

## MINI S-SWUC R Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for 7° positive 80° trigon WC_T inserts**

| Description | Order No. Right Hand | Min. Bore B | C | D | D1 | E | F | K° | WC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S08H-SWUCR-1.2-2 | **8055-900** | 0.228 | 4.0 | .50 | .197 | 0.750 | .144 | -11° | | **$ 63.11** |
| S08H-SWUCR-1.2-3 | **8055-902** | 0.308 | 4.0 | .50 | .236 | 1.000 | .154 | -11° | 1.210 | **63.11** |
| S08H-SWUCR-1.2-4 | **8055-904** | 0.374 | 4.0 | .50 | .300 | 1.125 | .189 | -11° | | **63.11** |

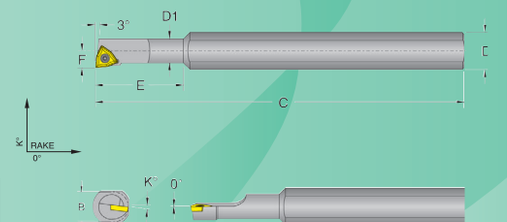



Right hand shown, left hand opposite

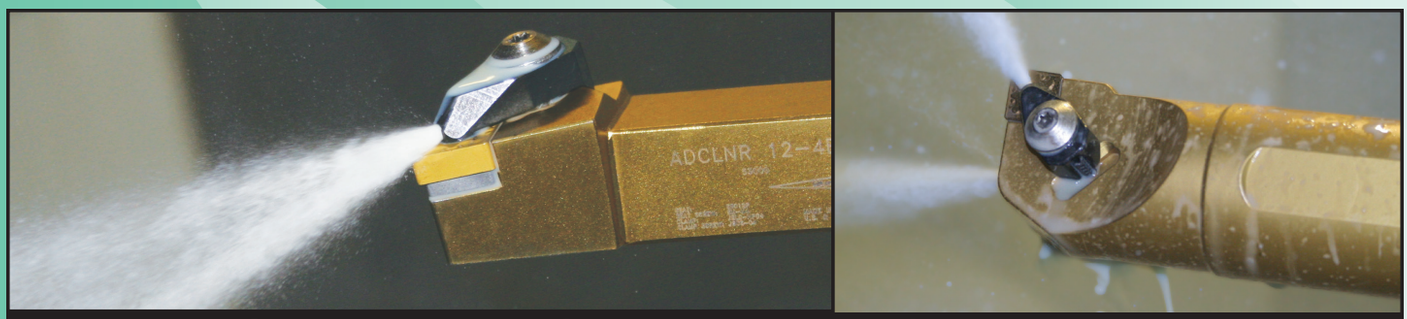
## MINI S-SWUC R Boring Bar

**Style U - Negative 3° End Cutting Edge Angle for 7° positive 80° trigon WC_T inserts**

| Description | Order No. Right Hand | Min. Bore B | C | D | D1 | E | F | K° | WC_T Gage Insert | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| S06H-SWUCR-2 | **8055-906** | .394 | 4.0 | .375 | .315 | 1.25 | .236 | -11° | | **$ 63.11** |
| S08K-SWUCR-2 | **8055-907** | .550 | 5.0 | .500 | .390 | 1.50 | .275 | -9° | 21.51 | **63.11** |
| S10M-SWUCR-2 | **8055-908** | .708 | 6.0 | .625 | .472 | 2.00 | .354 | -7° | | **74.66** |




Right hand shown, left hand opposite



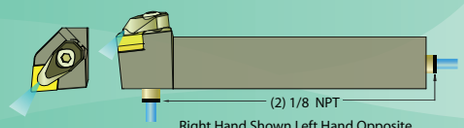

# Jet-Stream™ Thru Coolant Turning & Boring Tools

Dorian Tool's Jet-Stream™ Thru Coolant Cutting Tools use a patented thru-coolant locking clamp which is precisely aimed to direct high pressure, high velocity coolant exactly onto the cutting edge of the carbide insert, from a short distance of ¼".

This controlled Jet-Stream coolant, directed onto the insert/chip interface (right under the chip and over the insert cutting edge) will dissipate the generated heat very effectively as well as lubricate the cutting edge of the insert, causing the chips to hydroplane over the insert surface in stead of adhering to it. As a result, the insert will operate at a constant low temperature, with a clean and undamaged cutting edge, changing the way metal is cut.

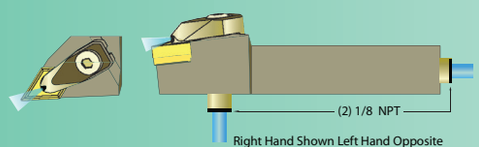
Higher speeds and feeds can be achieved, with a better surface finish, tolerance control and machining performance. The insert life is extended up to 200%.





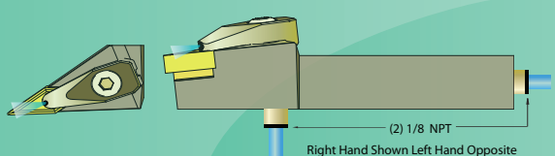
Right Hand Shown Left Hand Opposite

| Description | Order No. R.H. | Order No. L.H. | Size | CNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|
| ADCLNR/L-12-4B | 8053-000 | 8053-001 | 0.75 | 432 | $ 135.55 |
| ADCLNR/L-16-4D | 8053-002 | 8053-003 | 1.00 | 432 | 156.46 |
| ADCLNR/L-20-4D | 8053-004 | 8053-005 | 1.25 | 432 | 166.28 |



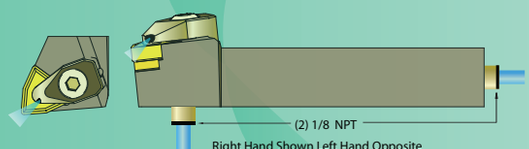
Right Hand Shown Left Hand Opposite

| ADDJN Description | Order No. R.H. | Order No. L.H. | Shank Size | DNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|
| ADDJNR/L-12-4B | 8053-018 | 8053-019 | 0.75 | 432 | $ 156.39 |
| ADDJNR/L-16-4D | 8053-020 | 8053-021 | 1.00 | 432 | 167.63 |
| ADDJNR/L-20-4D | 8053-022 | 8053-023 | 1.25 | 432 | 178.16 |



Right Hand Shown Left Hand Opposite

| ADVJN Description | Order No. R.H. | Order No. L.H. | Shank Size | VNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|
| ADVJNR/L-12-3B | 8053-081 | 8053-082 | 0.75 | 332 | $ 145.97 |
| ADVJNR/L-16-3D | 8053-083 | 8053-084 | 1.00 | 332 | 167.63 |
| ADVJNR/L-20-3D | 8053-085 | 8053-086 | 1.25 | 332 | 178.16 |



Right Hand Shown Left Hand Opposite

| ADWLN Description | Order No. R.H. | Order No. L.H. | Shank Size | WNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|
| ADWLNR/L-12-4B | 8053-095 | 8053-096 | 0.75 | 432 | $ 135.55 |
| ADWLNR/L-16-4D | 8053-099 | 8053-100 | 1.00 | 432 | 156.46 |
| ADWLNR/L-20-4D | 8053-101 | 8053-102 | 1.25 | 432 | 166.28 |

Right Hand Shown Left Hand Opposite

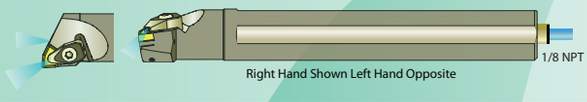
| AS-ADCLN Description | Order No. R.H. | Order No. L.H. | Bar Dia. | Min. Bore | CNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|---|
| AS-12R-ADCLNR/L-3 | 8053-120 | 8053-121 | 0.75 | 1.000 | 322 | $ 250.11 |
| AS-16R-ADCLNR/L-4 | 8053-122 | 8053-123 | 1.00 | 1.280 | 432 | 307.82 |
| AS-20S-ADCLNR/L-4 | 8053-124 | 8053-125 | 1.25 | 1.530 | 432 | 346.30 |
| AS-24S-ADCLNR/L-4 | 8053-126 | 8053-127 | 1.50 | 1.780 | 432 | 365.54 |
| AS-32T-ADCLNR/L-4 | 8053-128 | - | 2.00 | 2.562 | 432 | 461.74 |

Right Hand Shown Left Hand Opposite

| AS-ADDUN Description | Order No. R.H. | Order No. L.H. | Bar Dia. | Min. Bore | DNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|---|
| AS-16R-ADDUNR/L-3 | 8053-137 | 8053-138 | 1.00 | 1.300 | 332 | $ 307.82 |
| AS-20S-ADDUNR/L-4 | 8053-139 | 8053-140 | 1.25 | 2.000 | 432 | 346.30 |
| AS-24S-ADDUNR/L-4 | 8053-141 | 8053-142 | 1.50 | 2.250 | 432 | 365.54 |

Right Hand Shown Left Hand Opposite

| AS-ADVUN Description | Order No. R.H. | Order No. L.H. | Bar Dia. | Min. Bore | VNM_ Gage Inser | Price Each |
|---|---|---|---|---|---|---|
| AS-20S-ADVUNR/L-3 | 8053-189 | 8053-190 | 1.25 | 2.250 | 332 | $ 396.61 |
| AS-24S-ADVUNR/L-3 | 8053-191 | 8053-192 | 1.50 | 2.500 | 332 | 404.02 |



Right Hand Shown Left Hand Opposite

| AS-ADWLN Description | Order No. R.H. | Order No. L.H. | Bar Dia. | Min. Bore | WNM_ Gage Insert | Price Each |
|---|---|---|---|---|---|---|
| AS-12R-ADWLNR/L-3 | 8053-198 | 8053-199 | 0.75 | 1.000 | 332 | $ 250.11 |
| AS-16R-ADWLNR/L-4 | 8053-200 | 8053-201 | 1.00 | 1.280 | 432 | 307.82 |
| AS-20S-ADWLNR/L-4 | 8053-202 | 8053-203 | 1.25 | 1.530 | 432 | 346.30 |
| AS-24S-ADWLNR/L-4 | 8053-204 | 8053-205 | 1.50 | 1.780 | 432 | 365.54 |
| AS-32T-ADWLNR/L-4 | 8053-206 | 8053-207 | 2.00 | 2.000 | 432 | 461.74 |

# Milling Inserts



## New Coatings

Using the latest and most advanced technology for the coating to give the insert the optimum performance in any milling application and materials.

### DASK25B

C2 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of non-ferrous metals such as aluminum, copper, brass, and bronze, high temp alloys, 300-series stainless steels and cast iron with medium to high SFM.

### DHP440F

C5 Substrate with PVD TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

### DASP35B/DUP30M

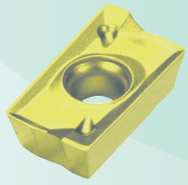
C5 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

### DUP25GT

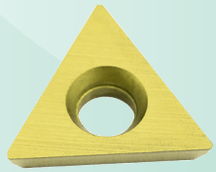
C2 Substrate with PVD TiN-TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

**Insert Type**

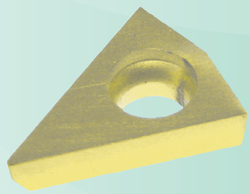
**APKT**



**TDEX 60°**



**TDEX 45°**



| Description | Order No. | Grade | Application | Cutting Condition | Price Each |
|---|---|---|---|---|---|
| APKT-1003-PDSR | **8094-758** | DPC25UM | Ferrous | General Purpose | **$10.56** |
| APKT-1003-PDSR | **8094-754** | DMC35UM | Stainless Steel | General Purpose | **10.56** |
| APKT-1003-PDSR | **8094-753** | DKC10UM | Cast Iron | General Purpose | **11.62** |
| APKT-1604-PDSR | **8094-768** | DPC25UM | Ferrous | General Purpose | **12.53** |
| APKT-1604-PDSR | **8094-764** | DMC35RM | Stainless Steel | General Purpose | **12.53** |
| APKT-1604-PDSR | **8094-763** | DKC10UM | Cast Iron | General Purpose | **12.53** |
| TDEX-110204-EN | **8095-422** | DASK25B | Non-Ferrous | General Purpose (60°) | **13.82** |
| TDEX-110204-EN | **8095-426** | DASP35B | Ferrous | General Purpose (60°) | **12.19** |
| TDEX-110204-EN | **8095-428** | DHP440F | Ferrous | Heavy Roughing (60°) | **13.26** |
| TDEX-110208-EN | **8095-432** | DASK25B | Non-Ferrous | General Purpose (60°) | **13.82** |
| TDEX-110208-EN | **8095-436** | DASP35B | Ferrous | General Purpose (60°) | **12.19** |
| TDEX-110208-EN | **8095-438** | DHP440F | Ferrous | Heavy Roughing (60°) | **13.26** |
| TDEX-160304-EN | **8095-442** | DASK25B | Non-Ferrous | General Purpose (60°) | **15.37** |
| TDEX-160304-EN | **8095-446** | DASP35B | Ferrous | General Purpose (60°) | **13.70** |
| TDEX-160304-EN | **8095-448** | DHP440F | Ferrous | Heavy Roughing (60°) | **15.18** |
| TDEX-160308-EN | **8095-452** | DASK25B | Non-Ferrous | General Purpose (60°) | **15.37** |
| TDEX-160308-EN | **8095-456** | DASP35B | Ferrous | General Purpose (60°) | **13.70** |
| TDEX-160308-EN | **8095-458** | DHP440F | Ferrous | Heavy Roughing (60°) | **15.18** |
| TDEX-220404-EN | **8095-462** | DASK25B | Non-Ferrous | General Purpose (60°) | **20.62** |
| TDEX-220404-EN | **8095-466** | DASP35B | Ferrous | General Purpose (60°) | **20.43** |
| TDEX-220404-EN | **8095-468** | DHP440F | Ferrous | Heavy Roughing (60°) | **21.55** |
| TDEX-220408-EN | **8095-472** | DASK25B | Non-Ferrous | General Purpose (60°) | **20.62** |
| TDEX-220408-EN | **8095-476** | DASP35B | Ferrous | General Purpose (60°) | **20.43** |
| TDEX-220408-EN | **8095-478** | DHP440F | Ferrous | Heavy Roughing (60°) | **21.55** |
| TDEX-090202-EN | **8095-492** | DASK25B | Non-Ferrous | General Purpose (45°) | **11.91** |
| TDEX-090202-EN | **8095-495** | DASP35B | Ferrous | General Purpose (45°) | **10.83** |
| TDEX-090202-EN | **8095-496** | DHP440F | Ferrous | Heavy Roughing (45°) | **10.83** |
| TDEX-090204-EN | **8095-502** | DASK25B | Non-Ferrous | General Purpose (45°) | **11.91** |
| TDEX-090204-EN | **8095-505** | DASP35B | Ferrous | General Purpose (45°) | **10.83** |
| TDEX-090204-EN | **8095-506** | DHP440F | Ferrous | Heavy Roughing (45°) | **10.83** |
| TDEX-17T304-EN | **8095-512** | DASK25B | Non-Ferrous | General Purpose (45°) | **16.79** |

***Inserts are sold in standard packs of 5. Pricing is each.***

# Milling Inserts



## New Coatings

Using the latest and most advanced technology for the coating to give the insert the optimum performance in any milling application and materials.

## DASK25B

C2 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of non-ferrous metals such as aluminum, copper, brass, and bronze, high temp alloys, 300-series stainless steels and cast iron with medium to high SFM.

## DHP440F

C5 Substrate with PVD TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

## DASP35B/DUP30M

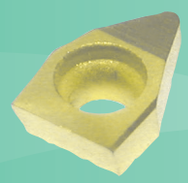
C5 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

## DUP25GT

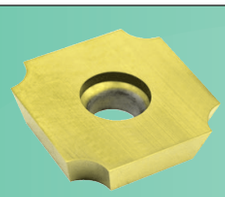
C2 Substrate with PVD TiN-TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

**Insert Type**

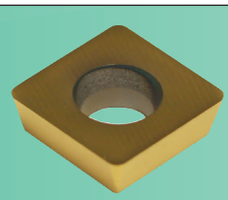
**TEHW**



**SDGX**



**SDHW**



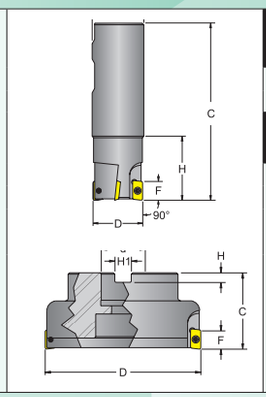
**SPMT**

| Description | Order No. | Grade | Application | Cutting Condition | Price Each |
|---|---|---|---|---|---|
| TEHW-0602-AEEN- | 8095-593 | DASK25B | Non-Ferrous | General Purpose | $21.76 |
| TEHW-0602-AEEN- | 8095-595 | DASP35B | Ferrous | General Purpose | 20.84 |
| TEHW-0602-AEEN- | 8095-596 | DHP440F | Ferrous | Heavy Roughing | 22.29 |
| SDGX-09C01-E- | 8095-299 | DUP25GT | Non-Ferrous | General Purpose | 30.46 |
| SDGX-09C02-E- | 8095-303 | DUP25GT | Non-Ferrous | General Purpose | 31.24 |
| SDGX-09C03-E- | 8095-307 | DUP25GT | Non-Ferrous | General Purpose | 31.24 |
| SDGX-09C04-E- | 8095-311 | DUP25GT | Non-Ferrous | General Purpose | 31.24 |
| SDGX-19C05-E- | 8095-250 | DUP25GT | Non-Ferrous | General Purpose | 41.87 |
| SDGX-19C06-E- | 8095-254 | DUP25GT | Non-Ferrous | General Purpose | 41.87 |
| SDGX-19C07-E- | 8095-258 | DUP25GT | Non-Ferrous | General Purpose | 41.87 |
| SDGX-19C08-E- | 8095-262 | DUP25GT | Non-Ferrous | General Purpose | 45.00 |
| SDGX-19C09-E- | 8095-266 | DUP25GT | Non-Ferrous | General Purpose | 45.00 |
| SDGX-19C10-E- | 8095-270 | DUP25GT | Non-Ferrous | General Purpose | 45.00 |
| SDGX-19C11-E- | 8095-274 | DUP25GT | Non-Ferrous | General Purpose | 47.01 |
| SDGX-19C12-E- | 8095-278 | DUP25GT | Non-Ferrous | General Purpose | 47.01 |
| SDGX-19C13-E- | 8095-282 | DUP25GT | Non-Ferrous | General Purpose | 50.32 |
| SDGX-19C14-E- | 8095-286 | DUP25GT | Non-Ferrous | General Purpose | 50.32 |
| SDGX-19C15-E- | 8095-290 | DUP25GT | Non-Ferrous | General Purpose | 46.10 |
| SDGX-19C16-E- | 8095-294 | DUP25GT | Non-Ferrous | General Purpose | 46.10 |
| SDHW-090308-EN | 8094-998 | DASK25B | Non-Ferrous | General Purpose | 15.88 |
| SDHW-090308-EN | 8095-002 | DASP35B | Ferrous | General Purpose | 15.88 |
| SPMT-060304-EN | 8095-051 | DUP30M | Ferrous | General Purpose | 11.13 |

***Inserts are sold in standard packs of 5. Pricing is each.***
***SDGX inserts are sold in standard packs of 2.***

## HIGH POSITIVE 90° MILLING CUTTER

Cutting Rake - 20° for 11° positive 85° parallelogram AP__ inserts

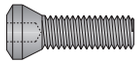



| End Mills Description | C | D | Shank Size | F | H | Insert Q t y . | APKT Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| E90-100-AP16-075 | 4.000 | 1.00 | 0.75 | .618 | 1.625 | 2 | 1604 | 8065-646 | $ 176.20 |
| E90-100-AP16-100 | 4.500 | 1.00 | 1.00 | .618 | 1.750 | 2 | | 8065-648 | 176.20 |

| Face Mills Description | C | D | Shank Size | F | H | H1 | Insert Q t y . | APKT Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| E90A-200-AP16-075 | 1.570 | 2.00 | 0.750 | .618 | .187 | .312 | 5 | 1604 | 8065-662 | 242.28 |
| E90A-250-AP16-100 | 0.750 | 2.50 | 1.000 | .618 | .219 | .375 | 5 | | 8065-664 | 316.91 |
| E90A-300-AP16-100 | 1.750 | 3.00 | 1.000 | .618 | .219 | .375 | 5 | | 8065-666 | 398.89 |
| E90A-400-AP16-150 | 2.000 | 4.00 | 1.500 | .618 | .375 | .625 | 8 | | 8065-668 | 505.35 |

## Spare Parts Milling Insert Torx Screw

8

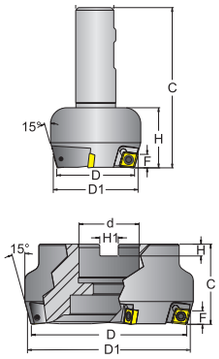


| Description | Order No. | PKG. | Price Each |
|---|---|---|---|
| TS-06 | 8091-306 | | $2.71 |
| TS-25.45-6M2 | 8090-972 | 10 | 2.68 |
| TS-4.7-6M1 | 8090-975 | | 2.95 |

| Description | Order No. | PKG. | Price Each |
|---|---|---|---|
| TS-4.7-8M1 | 8090-976 | 10 | $2.84 |
| TS-4.7-10M1 | 8090-982 | | 3.20 |
| TS-1032-5M1 | 8090-960 | | 3.71 |
| TS-5.8-10M1 | 8090-986 | | 4.16 |

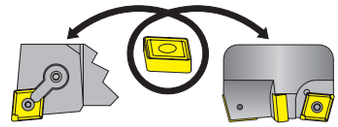
## 15° CNMG RECYCLE MILLING CUTTER

Cutting Rake - Negative 7° for negative 80° diamond CN__ inserts




## RECYCLE MILLING CUTTER

After the cutting edges are used on your turning toolholder, do not throw the insert away. It can be used in these milling cutters to utilize four more cutting edges that were not used in your lathe work.

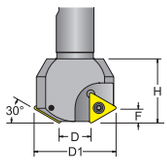


| End Mills Description | C | D | D1 | Shank Size | F | H | Insert Qty. | CNMG Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| REC15-200-CN4-075 | 3.750 | 2.0 | 2.25 | 0.75 | .45 | 1.50 | 3 | 432 | 8065-850 | $211.77 |
| REC15-200-CN4-100 | 4.000 | 2.0 | 2.25 | 1.00 | .45 | 1.50 | 3 | | 8065-852 | 211.77 |
| REC15-200-CN4-R8 | 5.625 | 2.0 | 2.25 | R8 | .45 | 1.75 | 3 | | 8065-854 | 267.21 |

| Face Mills Description | C | D | D1 | Shank Size | F | H | H1 | Insert Qty. | CNMG Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REC15A-300-CN4-100 | 1.750 | 3.0 | 3.23 | 1.00 | .45 | .250 | .375 | 4 | 432 | 8065-856 | 463.37 |
| REC15A-400-CN4-150 | 2.000 | 4.0 | 4.23 | 1.50 | .45 | .375 | .625 | 5 | | 8065-858 | 587.02 |

## CHAMFER MILL

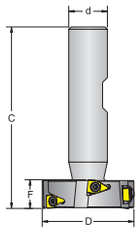
Cutting Rake - 11° for 11° positive triangle TPHT inserts




| | Description | O.A.L. | Shank Size | D | D1 | F | H | Insert Qty. | TPHT Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 30° | C30-062-TP3-075 | 3.500 | 0.625 | 1.600 | 0.750 | .275 | 1.25 | 2 | 32.52 | 8065-400 | $ 118.28 |
| 45° | C45-075-TP3-075 | 3.500 | 0.750 | 1.517 | 0.750 | .392 | 1.25 | 2 | 32.52 | 8065-402 | 118.28 |
| 60° | C60-100-TP3-075 | 3.500 | 1.000 | 1.560 | 0.750 | .484 | 1.25 | 2 | 32.52 | 8065-404 | 118.28 |

## WOODRUFF KEY SEAT CUTTER

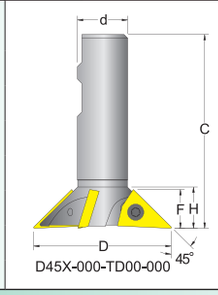
Cutting Rake - 20° for positive TEHW inserts




| American Standard Size | Description | C | D | d | F | Insert Qty. | TEHW Gage Insert | Insert Torx Screw | Torx Key | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 807 | DWKC-807-TEO6-050 | 2.250 | 0.875 | 0.500 | 0.250 | 2 | 0602 | TS-06 | T-6 | 8065-144 | 134.60 |
| 608 | DWKC-608-TEO6-050 | 2.188 | 1.000 | 0.500 | 0.188 | 3 | | | | 8065-145 | 141.39 |
| 808 | DWKC-808-TEO6-050 | 2.250 | 1.000 | 0.500 | 0.250 | 3 | | | | 8065-147 | 141.39 |
| 1008 | DWKC-1008-TEO6-050 | 2.313 | 1.000 | 0.500 | 0.313 | 3 | | | | 8065-148 | 141.39 |
| 1210 | DWKC-1210-TEO6-050 | 2.375 | 1.250 | 0.500 | 0.375 | 6 | | | | 8065-158 | 202.57 |
| 811 | DWKC-811-TEO6-050 | 2.250 | 1.375 | 0.500 | 0.250 | 6 | | | | 8065-159 | 202.57 |
| 1212 | DWKC-1212-TEO6-050 | 2.375 | 1.500 | 0.500 | 0.375 | 6 | | | | 8065-164 | 270.55 |

## 45° DOVETAIL CUTTER

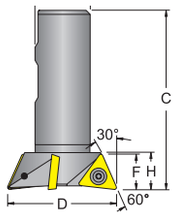
Cutting Rake - 11° for 11° positive TDEX inserts.




| Description | C | D | Shank Size | F | H | Insert Qty. | TDEX Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| D45X-050-TD09-037 | 2.39 | 0.500 | 0.375 | .247 | .125 | 1 | | 8065-233 | $ 110.66 |
| D45X-075-TD09-037 | 2.39 | 0.750 | 0.375 | .247 | .214 | 2 | 090202 | 8065-234 | 149.56 |
| D45X-100-TD09-050 | 2.39 | 1.000 | 0.500 | .250 | .244 | 3 | | 8065-235 | 191.43 |
| D45X-137-TD17-062 | 2.94 | 1.375 | 0.625 | .375 | .320 | 2 | 17T304 | 8065-236 | 212.37 |
| D45X-187-TD17-075 | 2.94 | 1.875 | 0.750 | .468 | .444 | 3 | | 8065-237 | 248.27 |
| D45X-225-TD25-100 | 3.50 | 2.250 | 1.000 | .700 | .696 | 2 | 250404 | 8065-238 | 314.06 |
| D45X-250-TD25-100 | 3.50 | 2.500 | 1.000 | .700 | .700 | 3 | | 8065-239 | 346.95 |

## 60° DOVETAIL CUTTER

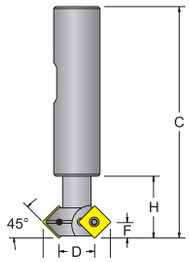
Cutting Rake - 15° for 15° positive triangle TDEX inserts.




| Description | C | D | Shank Size | F | H | Insert Qty. | TDEX Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| D60X-050-TD11-037 | 2.390 | 0.500 | 0.375 | .325 | .142 | 1 | | 8065-244 | $ 110.66 |
| D60X-075-TD11-037 | 2.390 | 0.750 | 0.375 | .325 | .282 | 2 | 110204 | 8065-245 | 149.56 |
| D60X-100-TD11-050 | 2.390 | 1.000 | 0.500 | .325 | .375 | 3 | | 8065-246 | 191.43 |
| D60X-137-TD16-062 | 2.862 | 1.375 | 0.625 | .510 | .550 | 3 | 160308 | 8065-247 | 212.37 |
| D60X-187-TD16-075 | 3.000 | 1.875 | 0.750 | .510 | .550 | 3 | | 8065-248 | 248.27 |
| D60X-225-TD22-100 | 3.500 | 2.250 | 1.000 | .700 | .750 | 3 | 220408 | 8065-249 | 314.06 |
| D60X-250-TD22-100 | 3.500 | 2.500 | 1.000 | .700 | .750 | 3 | | 8065-250 | 346.95 |

## DOUBLE 45° CHAMFER MILL

Cutting Rake - 15° for 15° positive square SD__ inserts

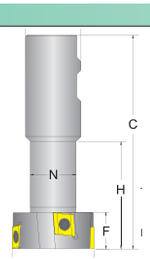



| Description | C | D | D1 | Shank Size | F | H | Insert Qty. | SDHW Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| C45-112-SD09-075 | 3.375 | 0.625 | 1.125 | 0.750 | 0.230 | 0.750 | 2 | | 8065-414 | $ 118.28 |
| C45-125-SD09-075 | 3.375 | 0.772 | 1.250 | 0.750 | 0.230 | 0.750 | 2 | | 8065-416 | 122.36 |
| C45-150-SD09-100 | 3.500 | 1.040 | 1.500 | 1.000 | 0.230 | 1.000 | 3 | 090308 | 8065-418 | 134.60 |
| C45XL-112-SD09-075 | 7.75 | 0.625 | 1.125 | 0.750 | 0.230 | 0.750 | 2 | | 8065-420 | 188.44 |
| C45XL-150-SD09-100 | 7.75 | 1.040 | 1.500 | 1.000 | 0.230 | 1.000 | 3 | | 8065-421 | 231.12 |

| Cutting Rake - 15° for 15° positive square SPHX inserts | | | | | | | Insert Qty. | SPMT Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| C45-062-SP06-062 | 3.000 | 0.325 | 0.625 | 0.625 | 0.159 | 0.750 | 1 | 060304 | 8065-410 | 106.05 |
| C45-075-SP06-062 | 3.000 | 0.448 | 0.750 | 0.625 | 0.159 | 0.750 | 2 | | 8065-411 | 112.17 |

## T-SLOT CUTTER

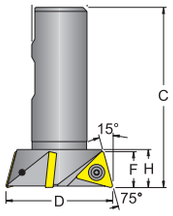
Cutting Rake - 20° for positive SDHW, SPHX, & TEHW inserts




| Description | C | D | Shank Size | F | H | N | Insert Qty. R/L | Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|
| SLOT-097-SP06-075 | 3.438 | 0.969 | 0.750 | 0.390 | 1.100 | 0.531 | 4 | SPMT-060304 | 8065-184 | 201.21 |
| SLOT-147-SD09-100 | 4.438 | 1.469 | 1.000 | 0.624 | 1.757 | 0.781 | 4 | SDHW-090308 | 8065-186 | 255.60 |
| SLOT-184-SD09-125 | 4.813 | 1.844 | 1.250 | 0.827 | 2.108 | 1.031 | 5 | SDHW-090308 | 8065-187 | 282.79 |

## 15° DOVETAIL CUTTER

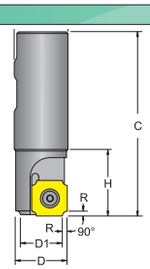
Cutting Rake - 15° for 15° positive TDEX inserts.




| Description | C | D | Shank Size | F | H | Insert Qty. | TDEX Gage Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|
| D15X-050-TD11-037 | 2.42 | 0.500 | 0.375 | .359 | 0.42 | 1 | 110204 | 8065-225 | $ 110.66 |
| D15X-100-TD11-050 | 2.42 | 1.000 | 0.500 | .359 | 0.42 | 3 | | 8065-226 | 191.43 |
| D15X-187-TD16-075 | 3.20 | 1.875 | 0.750 | .550 | 0.75 | 3 | 160308 | 8065-227 | 248.27 |
| D15X-250-TD22-100 | 3.75 | 2.500 | 1.000 | .750 | 1.00 | 3 | 220408 | 8065-228 | 346.95 |

## CONVEX RADIUS CUTTER

Cutting Rake - 15° for 15° positive square convex radius SDGX inserts




| Description | C | D | D1 | Shank Size | H | R-Range Min. | R-Range Max. | Insert Qty. | SDGX Insert | Order No. | Price Each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QV-100-S608-100 | 3.625 | 1.000 | 0.754 | 1.000 | 1.125 | .0781 | .1250 | 1 | | 8065-120 | 154.99 |
| QV-100-S616-075 | 3.500 | 1.000 | 0.510 | 0.750 | 1.000 | .2031 | .2500 | 1 | 19C_ | 8065-130 | 168.58 |
| QV-100-S616-100 | 3.625 | 1.000 | 0.510 | 1.000 | 1.125 | .2031 | .2500 | 1 | | 8065-132 | 154.99 |

# Indexable End Mills & Countersinks
## All tools supplied without inserts



### Positive Rake, 90°, Right Hand Cut

| DIA. | SHANK | NO. OF INSERTS | INSERT STYLE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1 | R-8 | 2 | TPG-22 | 2874-010 | $ 36.92 |
| 1-1/4 | R-8 | 2 | TPG-32 | 2874-020 | 44.31 |
| 1-1/2 | R-8 | 3 | TPG-32 | 2874-030 | 59.08 |
| 1-3/4 | R-8 | 3 | TPG-32 | 2874-040 | 64.33 |
| 2 | R-8 | 3 | TPG-32 | 2874-050 | 75.41 |
| 2-1/2 | R-8 | 4 | TPG-32 | 2874-060 | 87.11 |
| 3 | R-8 | 5 | TPG-32 | 2874-070 | 90.67 |
| 3/4 | 3/4 | 2 | TPG-21 | 2874-120 | 31.10 |
| 1 | 3/4 | 2 | TPG-22 | 2874-130 | 37.66 |
| 1-1/4 | 3/4 | 2 | TPG-22 | 2874-140 | 42.58 |
| 1-1/2 | 3/4 | 3 | TPG-32 | 2874-150 | 54.15 |
| 1-3/4 | 3/4 | 3 | TPG-32 | 2874-160 | 65.56 |
| 2 | 3/4 | 3 | TPG-32 | 2874-170 | 68.84 |
| 1 | 1 | 2 | TPG-32 | 2874-180 | 36.92 |
| 1-1/4 | 1 | 2 | TPG-32 | 2874-190 | 44.23 |
| 1-1/2 | 1 | 3 | TPG-32 | 2874-200 | 52.43 |
| 1-3/4 | 1 | 3 | TPG-32 | 2874-210 | 64.00 |
| 2 | 1 | 3 | TPG-32 | 2874-220 | 64.00 |
| 2 | 30 STD | 3 | TPG-32 | 2874-080 | 97.64 |
| 2 | 40 STD | 3 | TPG-32 | 2874-090 | 90.26 |
| 2-1/2 | 40 STD | 4 | TPG-32 | 2874-100 | 96.82 |
| 3 | 40 STD | 5 | TPG-32 | 2874-110 | 131.20 |

Tools furnished without inserts

### Indexable End Mill Sets

| SHANK | SIZES IN SET | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1 | 1-1/4, 1-1/2, & 2 | 2874-515 | $147.69 |
| R-8 | 1-1/4, 1-1/2, & 2 | 2874-525 | 157.46 |
| R-8 | 2, 2-1/2, & 3 | 2874-535 | 224.82 |
| 40 STD | 2, 2-1/2, & 3 | 2874-545 | 286.52 |

### Spare Parts for Indexable End Mills

| DIA. | LOCKING SCREW ITEM NO. | PRICE EACH | HEX WRENCH ITEM NO. | PRICE EACH |
|---|---|---|---|---|
| 1/2 | 2870-475 | $7.70 | 2870-495 | $0.36 |
| 3/4,7/8,& 1 | 2870-480 | 5.11 | | |
| 1-1/2 | 2870-485 | 5.05 | | |
| OTHER SIZES | 2870-490 | 5.26 | 2870-500 | 1.18 |

Only one spare part per End Mill

# Indexable Countersink & Chamfering Tool

- Positive Rake For Smooth Cutting – Without Chatter
- Carbide Indexable – No Tool Resharpening Needed
- C-6 Carbide Insert & Torx® Wrench Included w/Each Tool
- Uses Standard Triangle And Square Inserts

MADE IN USA

### SETS

**3-PIECE SET**

**Contains 1 Piece Each:**
**1/4, 1/2 and 1-1/4 (Min.)**
**Inserts Included with Each Set**
**Supplied in Wood Block**
**Order No. 2861-720 – 60° SET**
**Order No. 2861-721 – 82° SET**
**Order No. 2861-722 – 90° SET**
**SET PRICE –$423.60**

### Single Tool

| CUTTER BODY MIN. | CUTTER BODY MAX. | SHANK SIZE | USE INSERT NO. | COMPLETE TOOL ORDER NO. | COMPLETE TOOL PRICE EACH |
|---|---|---|---|---|---|
| 60° POINT ANGLE | | | | | |
| 1/4 | 3/4 | 1/2 | 2861-701/711 | 2861-416 | $ 95.35 |
| 1/2 | 1-3/4 | 1/2 | | 2861-432 | 139.75 |
| 1-1/4 | 2-1/2 | 3/4 | | 2861-480 | 183.10 |
| 82° POINT ANGLE | | | | | |
| 1/4 | 3/4 | 1/2 | 2861-702/712 | 2861-516 | $95.35 |
| 1/2 | 1-3/4 | 1/2 | | 2861-532 | 139.75 |
| 1-1/4 | 2-1/2 | 3/4 | | 2861-580 | 183.10 |
| 90° POINT ANGLE | | | | | |
| 1/4 | 3/4 | 1/2 | 2861-702/712 | 2861-616 | $ 95.35 |
| 1/2 | 1-3/4 | 1/2 | | 2861-632 | 139.75 |
| 1-1/4 | 2-1/2 | 3/4 | | 2861-680 | 183.10 |

### Carbide Inserts

| INSERT STYLE | RAD. | I.C. | THICK-NESS | C-5 & C-6 ORDER NO. | C-5 & C-6 PRICE EACH | TIN COATED ORDER NO. | TIN COATED PRICE EACH |
|---|---|---|---|---|---|---|---|
| Triangle | 1/64 | 3/8 | 1/8 | 2861-701 | $6.84 | 2861-711 | $8.34 |
| Square | 3/18 | 1/2 | 1/8 | 2861-702 | 11.94 | 2861-712 | 14.34 |

### Replacement Parts

| DESCRIPTION | ORDER NUMBER | PRICE EACH |
|---|---|---|
| Flat Head Cap Screw | 2861-715 | $0.42 |

# Spare Parts



*Complete Line of Sizes Available

## Finger Clamps

| Desc. | Order No. | Price | B | C | D | E | G | Thread |
|---|---|---|---|---|---|---|---|---|
| CL-5 | 8090-680 | $8.46 | .280 | .52 | .350 | .102 | — | 10-32 |
| CL-6 | 8090-681 | $8.46 | .310 | .58 | .440 | .187 | .094 | 10-32 |
| CL-7 | 8090-682 | $8.46 | .310 | .64 | .310 | .082 | — | 10-32 |
| CL-9 | 8090-683 | $9.16 | .430 | .75 | .660 | .344 | .125 | 5/16-24 |
| CL-12 | 8090-684 | $9.16 | .430 | .88 | .660 | .344 | .125 | 5/16-24 |
| CL-19 | 8090-685 | $8.11 | .310 | .55 | .310 | .062 | — | 10-32 |
| CL-20 | 8090-686 | $9.16 | .375 | .73 | .380 | .125 | — | 1/4-28 |
| CL-24 | 8090-687 | $12.27 | .491 | 1.0 | .785 | .453 | .136 | 3/8-24 |
| CL-30 | 8090-688 | $12.27 | .430 | 1.0 | .660 | .344 | .125 | 5/16-24 |

## Neg. Lock Pins

| Desc. | Order No. | Price | Insert I.C. | Nominal Length | Thread | Hex Wrench Size |
|---|---|---|---|---|---|---|
| | | | Inch | | | |
| NL-23 | 8090-472 | $6.30 | .250 | .328 | 8-32 | 1/16 |
| NL-33 | 8090-473 | $6.30 | .375 | .344 | 10-32 | 5/64 |
| NL-33L | 8090-474 | $6.30 | .375 | .406 | 10-32 | 5/64 |
| NL-34 | 8090-475 | $6.30 | .375 | .453 | 10-32 | 5/64 |
| NL-34L | 8090-476 | $6.30 | .375 | .516 | 10-32 | 5/64 |
| NL-43 | 8090-477 | $7.22 | .500 | .420 | 10-32 | 5/64 |
| NL-44 | 8090-478 | $7.22 | .500 | .516 | 1/4-28 | 3/32 |
| NL-46 | 8090-479 | $7.22 | .500 | .672 | 1/4-28 | 3/32 |
| NL-46L | 8090-480 | $7.22 | .500 | .730 | 1/4-28 | 3/32 |
| NL-56 | 8090-481 | $7.54 | .625 | .703 | 5/16-24 | 1/8 |
| NL-58 | 8090-483 | $7.54 | .625 | .859 | 5/16-24 | 1/8 |
| NL-58L | 8090-484 | $9.43 | .625 | .890 | 5/16-24 | 1/8 |
| NL-66 | 8090-485 | $8.33 | .750 | .703 | 3/8-24 | 9/64 |
| NL-66L | 8090-486 | $8.33 | .750 | .828 | 3/8-24 | 9/64 |
| NL-68 | 8090-487 | $8.33 | .750 | .859 | 3/8-24 | 9/64 |
| NL-68L | 8090-488 | $8.33 | .750 | .953 | 3/8-24 | 9/64 |
| NL-810 | 8090-490 | $11.07 | 1.00 | 1.17 | 7/16-20 | 5/32 |
| | | | Metric | | | |
| S535 | 8091-320 | $6.20 | 09 | 5 | - | 2,5 |
| S635 | 8091-321 | $6.20 | 12 | 6 | - | 3,0 |
| S840 | 8091-322 | $6.83 | 16 | 8 | - | 3,0 |
| S990 | 8091-323 | $7.44 | 19 | 10,5 | - | 3,0 |
| P0502 | 8091-324 | $13.44 | 16 | 16 | - | - |
| P0602 | 8091-325 | $13.44 | 08 | 15 | - | - |

## Bridge Clamps

| Desc. | Order No. | Price | L | D | H |
|---|---|---|---|---|---|
| HC-7 | 8090-915 | $6.25 | .469 | .313 | .172 |
| HC-9 | 8090-917 | $6.87 | .625 | .375 | .203 |
| HC-12 | 8090-919 | $9.07 | .812 | .500 | .266 |

## Pos. Lock Pins

| Desc. | Order No. | Price | Insert I.C. | Nominal Length | Hex Wrench Size |
|---|---|---|---|---|---|
| PL-46 | 8090-495 | $7.38 | .500 | .672 | 3/32 |
| PL-58 | 8090-496 | $13.20 | .625 | .859 | 1/8 |
| PL-68 | 8090-497 | $13.52 | .750 | .859 | 9/64 |

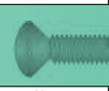
## Finger Clamp Screws

| Desc. | Order No. | Price | A | B | C | Thread Size | Hex Wrench Size |
|---|---|---|---|---|---|---|---|
| XNS-26 | 8090-900 | $3.60 | 0.750 | .31 | .31 | 8-32 | 5/64 |
| XNS-35 | 8090-901 | $2.70 | 0.625 | .22 | .22 | 10-32 | 3/32 |
| XNS-36 | 8090-902 | $2.70 | 0.750 | .25 | .25 | 10-32 | 3/32 |
| XNS-37 | 8090-903 | $2.70 | 0.840 | .31 | .31 | 10-32 | 3/32 |
| XNS-38 | 8090-904 | $2.70 | 1.000 | .37 | .37 | 10-32 | 3/32 |
| XNS-46 | 8090-905 | $2.86 | 0.750 | .31 | .31 | 1/4-28 | 1/8 |
| XNS-47 | 8090-906 | $2.86 | 0.875 | .28 | .28 | 1/4-28 | 1/8 |
| XNS-48 | 8090-907 | $2.86 | 1.000 | .37 | .37 | 1/4-28 | 1/8 |
| XNS-58 | 8090-910 | $3.02 | 1.000 | .50 | .28 | 5/16-24 | 5/32 |
| XNS-59 | 8090-911 | $3.02 | 1.125 | .47 | .41 | 5/16-24 | 5/32 |
| XNS-510 | 8090-908 | $3.02 | 1.250 | .50 | .50 | 5/16-24 | 5/32 |
| XNS-610 | 8090-912 | $6.15 | 1.250 | .50 | .50 | 3/8-24 | 3/16 |

## Seat Screws

| Desc. | Order No. | Price | I.C. | Thread | Hex Wrench Size |
|---|---|---|---|---|---|
| | | | Inch | | |
| S-34 | 8091-295 | $1.01 | .375 | 10-32 | 5/64 |
| S-46 | 8091-296 | $1.01 | .500 | 1/4-28 | 3/32 |
| S-58 | 8091-297 | $1.54 | .625 | 5/16-24 | 1/8 |
| S-68 | 8091-298 | $1.75 | .750 | 3/8-24 | 9/64 |
| | | | Metric | | |
| V83006 | 8091-327 | $5.09 | 16 | M3 | 2,5 |
| BO509 | 8091-328 | $5.09 | 11-16 | M5 | 3,5 |
| BO609 | 8091-329 | $5.09 | 12 | M6 | 4,0 |

## Wedge Clamp Screws



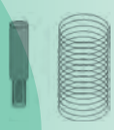
| Desc. | Order No. | Price | Length | Thread | Hex Wrench Size |
|---|---|---|---|---|---|
| V6016 | 8091-336 | $16.51 | 23 | M5 | 2.5 |
| V8008N | 8091-337 | $16.51 | 23 | M6 | 3.0 |

**Spare Parts are sold in standard packs of 10. Pricing is each.**

# Spare Parts



## Clamp Pin & Spring



| Desc. | Order No. | Price |
|---|---|---|
| **Profiling Clamp Pin** | | |
| SC510 | 8091-330 | $8.07 |
| **Spring** | | |
| M428 | 8091-331 | 4.36 |

## Clamps

| Desc. | Order No. | Price |
|---|---|---|
| **Wedge Lock Clamps** | | |
| C6016N | 8091-332 | $27.28 |
| C8008N | 8091-333 | 27.28 |
| **Profiling Clamps** | | |
| SKN16R | 8091-334 | 15.23 |
| SKN16L | 8091-335 | 15.23 |

## Bridge Clamp Screws

| Desc. | Order No. | Price | Length | Thread | Hex Wrench Size |
|---|---|---|---|---|---|
| SHC-7 | 8090-920 | $1.34 | .375 | 8-32 | 3/32 |
| CS-94 | 8090-921 | 2.08 | .580 | 10-32 | 1/8 |
| CS-96 | 8090-923 | 1.95 | .840 | 10-32 | 1/8 |
| CS-126 | 8090-925 | 2.54 | .860 | 1/4-28 | 5/32 |

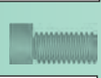
## Bridge Clamp Screw Clip

| Desc. | Order No. | Price | Length |
|---|---|---|---|
| CLP-9 | 8090-928 | $1.48 | .312 |
| CLP-12 | 8090-930 | 1.48 | .422 |

## Lever Locks

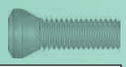
| Desc. | Order No. | Price |
|---|---|---|
| LV01 | 8091-338 | $10.92 |
| LV02 | 8091-339 | 10.92 |
| LV05 | 8091-340 | 11.82 |
| LV06 | 8091-341 | 20.91 |
| LV09 | 8091-342 | 21.60 |

## Lever Screws



| Desc. | Order No. | Price | Lever | Hex Wrench Size |
|---|---|---|---|---|
| V0601 | 8091-344 | $10.10 | LV01 | 3.0 |
| V0802 | 8091-345 | 10.10 | LV02 | 3.0 |
| V0805 | 8091-346 | 10.10 | LV05 | 3.0 |
| V1006 | 8091-347 | 10.72 | LV06 | 4.0 |
| V1209 | 8091-348 | 12.74 | LV09 | 4.0 |

## Boring Insert Torx Screw



| Desc. | Order No. | Price | I.C. | Torx Key |
|---|---|---|---|---|
| TS-18.35-3M1 | 8091-305 | $5.74 | .188 | T-6 |
| TS-4.7-8M1 | 8090-976 | 2.84 | .375 | T-15 |
| TS-4.7-10M1 | 8090-982 | 3.20 | .375 | T-15 |
| TS-44-3-M | 8090-937 | 2.84 | .375 | T-10 |
| TS-44-4-M | 8090-939 | 2.84 | .375 | T-10 |
| TS-1032-4M1 | 8090-956 | 3.16 | .500 | T-20 |
| TS-83-4M1 | 8090-950 | 3.16 | .500 | T-20 |
| TS-5.8-10M1 | 8090-986 | 4.16 | .750 | T-20 |

## Pos. Seat Screw

| Hex Desc. | Order No. | Price | I.C. | Wrench Size |
|---|---|---|---|---|
| TS-4 | 8090-931 | $2.44 | .375 or .500 | T-10 |
| TS-6 | 8090-944 | 2.60 | .500 or .750 | T-20 |

## Turning Insert Torx Screw

| Desc. | Order No. | Price | I.C. | Torx Key |
|---|---|---|---|---|
| TS-3.5-7M1 | 8090-971 | $4.50 | .315 | T-8 |
| TS-35.6-9M1 | 8090-973 | 3.90 | .394 | T-15 |
| TS-4.7-10M1 | 8090-982 | 3.20 | .375 | T-15 |
| TS-1032-4M1 | 8090-956 | 3.16 | .500 | T-20 |
| TS-5.8-10M1 | 8090-986 | 4.16 | .750 | T-20 |

## Torx Keys

| Desc. | Order No. | Price |
|---|---|---|
| T-6 | 8092-001 | $10.20 |
| T-7 | 8092-002 | 10.20 |
| T-8 | 8092-003 | 10.20 |
| T-10 | 8092-005 | 10.20 |

| Desc. | Order No. | Price |
|---|---|---|
| T-15 | 8092-006 | $10.20 |
| T-20 | 8092-007 | 10.20 |
| T-25 | 8092-008 | 15.65 |

## Triangle Chipbreakers

| Desc. | Order No. | Price | I.C. | Effective Width W |
|---|---|---|---|---|
| T2AC | 8090-446 | $4.66 | .250 | .060 |
| T3AC | 8090-452 | 5.09 | .375 | .060 |
| T3AE | 8090-453 | 5.09 | .375 | .090 |
| T3AG | 8090-454 | 5.09 | .375 | .125 |
| T4AC | 8090-459 | 6.57 | .500 | .060 |
| T4AE | 8090-460 | 6.57 | .500 | .090 |
| T4AG | 8090-461 | 6.57 | .500 | .125 |
| T5AG | 8090-466 | 8.46 | .625 | .140 |
| T5AJ | 8090-467 | 8.46 | .625 | .180 |

## Square Chipbreakers

| Desc. | Order No. | Price | I.C. | Effective Width W |
|---|---|---|---|---|
| S3BC | 8090-440 | $4.84 | .375 | .060 |
| S4BE | 8090-442 | 5.88 | .500 | .060 |
| S6BG | 8090-444 | 6.51 | .750 | .125 |

## Pos. Square Shim Seats

| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| SM-40 | 8090-373 | $6.04 | .500 | .1250 | .0156 |
| SM-36 | 8090-374 | 7.00 | .750 | .1250 | .0469 |

**Spare Parts are sold in standard packs of 10. Pricing is each.**

# Spare Parts



## Profiling Shim Seats

| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| CKN16R | 8091-353 | $16.37 | 14,5 | 4,76 | 1,0 |
| CKN16L | 8091-354 | 16.37 | 14,5 | 4,76 | 1,0 |

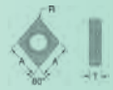
## Pos. Triangle Shim Seats

| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| Inch | | | | | |
| SM-41 | 8090-367 | $5.65 | .332 | .1250 | .0156 |
| SM-37 | 8090-366 | 6.36 | .452 | .1250 | .0312 |
| SM-99 | 8090-371 | 9.30 | .540 | .1875 | .0469 |
| Metric | | | | | |
| S6016P | 8091-355 | $10.92 | 8,4 | 3,18 | 0,8 |

## Pos. Round Shim Seats

| Desc. | Order No. | Price | A | T |
|---|---|---|---|---|
| RS-43P | 8090-375 | $ 6.36 | .500 | .1875 |
| RS-63P | 8090-377 | 11.32 | .750 | .1875 |
| RS-83P | 8090-378 | 17.81 | 1.00 | .1875 |

## Neg. 80° Diamond Shim Seats

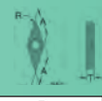


| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| Inch | | | | | |
| ICSN-322 | 8090-003 | $6.34 | .375 | .1250 | .0312 |
| ICSN-332 | 8090-007 | 6.87 | .375 | .1875 | .0312 |
| ICSN-422 | 8090-004 | 7.66 | .500 | .1250 | .0312 |
| ICSN-423 | 8090-005 | 7.66 | .500 | .1250 | .0469 |
| ICSN-433 | 8090-008 | 7.72 | .500 | .1875 | .0469 |
| ICSN-533 | 8090-010 | 7.72 | .625 | .1875 | .0469 |
| ICSN-633 | 8090-012 | 10.39 | .750 | .1875 | .0469 |
| Metric | | | | | |
| S8009N | 8091-356 | $11.14 | 8,5 | 3,18 | 0,8 |
| S8012N | 8091-357 | 11.14 | 11,4 | 3,18 | 1,2 |
| S8016N | 8091-358 | 11.14 | 14,6 | 4,76 | 1,4 |
| S8019N | 8091-359 | 27.51 | 18,0 | 4,76 | 1,6 |

## Neg. 55° Diamond Shim Seats

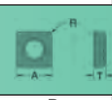
| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| IDSN-322 | 8090-016 | $6.20 | .375 | .1250 | .0312 |
| IDSN-423 | 8090-018 | 8.96 | .500 | .1250 | .0469 |
| IDSN-433 | 8090-021 | 7.40 | .500 | .1875 | .0469 |
| IDSN-533 | 8090-024 | 9.39 | .625 | .1875 | .0469 |
| IDSN-534 | 8090-025 | 9.39 | .625 | .1875 | .0625 |

## Neg. 35° Diamond Shim Seats



| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| IVSN-322 | 8090-065 | $6.69 | .375 | .1250 | .0312 |
| IVSN-324 | 8090-066 | 9.28 | .375 | .1250 | .0625 |
| IVSN-433 | 8090-068 | 8.44 | .500 | .1875 | .0469 |

## Neg. Square Shim Seats

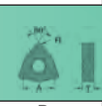


| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| Inch | | | | | |
| ISSN-322 | 8090-050 | $ 4.98 | .375 | .1250 | .0312 |
| ISSN-323 | 8090-051 | 4.98 | .375 | .1250 | .0469 |
| ISSN-333 | 8090-054 | 6.66 | .375 | .1875 | .0469 |
| ISSN-423 | 8090-056 | 7.82 | .500 | .1250 | .0469 |
| ISSN-433 | 8090-059 | 7.08 | .500 | .1875 | .0469 |
| ISSN-533 | 8090-060 | 7.48 | .625 | .1875 | .0469 |
| ISSN-633 | 8090-062 | 10.37 | .750 | .1875 | .0469 |
| ISSN-846 | 8090-064 | 17.86 | 1.00 | .2500 | .0937 |
| Metric | | | | | |
| S9012N | 8091-361 | 11.14 | 11,4 | 3,18 | 0,8 |

## Neg. Round Shim Seats

| Desc. | Order No. | Price | A | T |
|---|---|---|---|---|
| IRSN-32 | 8090-030 | $ 6.02 | .375 | .1250 |
| IRSN-43 | 8090-031 | 7.53 | .500 | .1875 |
| IRSN-53 | 8090-032 | 9.07 | .625 | .1875 |
| IRSN-63 | 8090-033 | 12.40 | .750 | .1875 |
| IRSN-84 | 8090-034 | 18.78 | 1.00 | .2500 |

## Neg. 80° Trigon Shim Seats



| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| Inch | | | | | |
| IWSN-322 | 8090-070 | $ 6.08 | .375 | .1250 | .0312 |
| IWSN-433 | 8090-072 | 11.29 | .500 | .1875 | .0469 |
| IWSN-533 | 8090-073 | 11.29 | .625 | .1875 | .0469 |

## Neg. Triangle Shim Seats

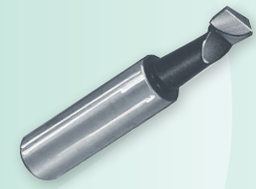
| Desc. | Order No. | Price | A | T | R |
|---|---|---|---|---|---|
| Inch | | | | | |
| ITSN-322 | 8090-084 | $ 5.19 | .375 | .1250 | .0312 |
| ITSN-323 | 8090-085 | 6.34 | .375 | .1250 | .0469 |
| ITSN-324 | 8090-086 | 6.34 | .375 | .1250 | .0625 |
| ITSN-332 | 8090-087 | 5.78 | .375 | .1875 | .0312 |
| ITSN-333 | 8090-088 | 5.99 | .375 | .1875 | .0469 |
| ITSN-334 | 8090-089 | 6.10 | .375 | .1875 | .0625 |
| ITSN-423 | 8090-090 | 8.85 | .500 | .1250 | .0469 |
| ITSN-433 | 8090-093 | 7.72 | .500 | .1875 | .0469 |
| ITSN-434 | 8090-094 | 8.40 | .500 | .1875 | .0625 |
| ITSN-533 | 8090-098 | 9.39 | .625 | .1875 | .0469 |
| ITSN-534 | 8090-099 | 10.90 | .625 | .1875 | .0625 |
| ITSN-633 | 8090-105 | 12.99 | .750 | .1875 | .0469 |
| ITSN-636 | 8090-106 | 12.99 | .750 | .1875 | .0937 |

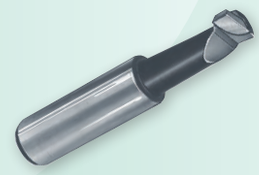
**Spare Parts are sold in standard packs of 10. Pricing is each.**

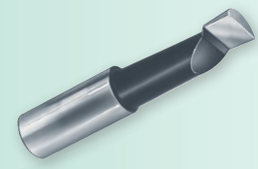
# Boring Bars

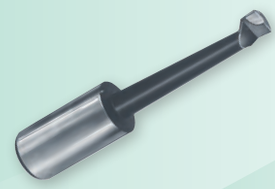
## Carbide Tipped Boring Bars— Grade C2 and C6

| SHANK DIA. | LG'TH | BORE DEPTH | MINIMUM BORE | TOOL NO. | GRADE C-2 ORDER NO. | GRADE C-6 ORDER NO. | PRICE EACH | SETS (MADE IN USA) C-2 SET | SETS (MADE IN USA) C-6 SET |
|---|---|---|---|---|---|---|---|---|---|
| 3/8 | 2 | 3/4 | 5/16 | A5S | 3047-006 | 3047-106 | $ 9.89 | 9 Pcs. Set 3047-180 Price Each $ 102.88 | 9 Pcs. Set 3047-190 Price Each $ 102.88 |
| | 2-3/8 | 1-1/8 | 5/16 | A5M | 3047-005 | 3047-105 | 10.34 | | |
| | 2-3/4 | 1-1/2 | 5/16 | A5L | 3047-004 | 3047-104 | 10.78 | | |
| | 2-3/16 | 15/16 | 3/8 | A3S | 3047-003 | 3047-103 | 11.00 | | |
| | 2-21/32 | 1-13/32 | 3/8 | A3M | 3047-002 | 3047-102 | 11.34 | | |
| | 3-1/8 | 1-7/8 | 3/8 | A3L | 3047-001 | 3047-101 | 12.11 | | |
| | 2-3/8 | 1-1/8 | 7/16 | A7S | 3047-009 | 3047-109 | 12.38 | | |
| | 2-15/16 | 1-7/8 | 7/16 | A7M | 3047-008 | 3047-108 | 12.61 | | |
| | 3-1/2 | 2-1/4 | 7/16 | A7L | 3047-007 | 3047-107 | 13.21 | | |
| 1/2 | 2-1/4 | 3/4 | 5/16 | B5S | 3047-012 | 3047-112 | 13.21 | 9 Pcs. Set 3047-181 Price Each $ 131.73 | 9 Pcs. Set 3047-191 Price Each $ 131.73 |
| | 2-5/8 | 1-1/8 | 5/16 | B5M | 3047-011 | 3047-111 | 13.55 | | |
| | 3 | 1-1/2 | 5/16 | B5L | 3047-010 | 3047-110 | 14.15 | | |
| | 2-5/8 | 1-1/8 | 7/16 | B7S | 3047-015 | 3047-115 | 14.65 | | |
| | 3-3/16 | 1-11/16 | 7/16 | B7M | 3047-014 | 3047-114 | 15.26 | | |
| | 3-3/4 | 2-1/4 | 7/16 | B7L | 3047-013 | 3047-113 | 15.42 | | |
| | 3 | 1-1/2 | 9/16 | B9S | 3047-018 | 3047-118 | 15.87 | | |
| | 3-3/4 | 2-1/4 | 9/16 | B9M | 3047-017 | 3047-117 | 16.09 | | |
| | 4-1/2 | 3 | 9/16 | B9L | 3047-016 | 3047-116 | 16.42 | | |
| 5/8 | 2-1/4 | 3/4 | 5/16 | C5S | 3047-024 | 3047-124 | 16.57 | 12 Pcs. Set 3047-182 Price Each $ 249.04 | 12 Pcs. Set 3047-192 Price Each $ 249.04 |
| | 2-5/8 | 1-1/8 | 5/16 | C5M | 3047-023 | 3047-123 | 17.09 | | |
| | 3 | 1-1/2 | 5/16 | C5L | 3047-022 | 3047-122 | 17.97 | | |
| | 2-5/8 | 1-1/8 | 7/16 | C7S | 3047-027 | 3047-127 | 18.63 | | |
| | 3-3/16 | 1-11/16 | 7/16 | C7M | 3047-026 | 3047-126 | 19.40 | | |
| | 3-3/4 | 2-1/4 | 7/16 | C7L | 3047-025 | 3047-125 | 20.63 | | |
| | 3 | 1-1/2 | 9/16 | C9S | 3047-030 | 3047-130 | 21.01 | | |
| | 3-3/4 | 2-1/4 | 9/16 | C9M | 3047-029 | 3047-129 | 21.84 | | |
| | 4-1/2 | 3 | 9/16 | C9L | 3047-028 | 3047-128 | 22.84 | | |
| | 3-3/8 | 1-7/8 | 11/16 | C11S | 3047-033 | 3047-133 | 23.56 | | |
| | 4-5/16 | 2-13/16 | 11/16 | C11M | 3047-032 | 3047-132 | 24.45 | | |
| | 5-1/4 | 3-3/4 | 11/16 | C11L | 3047-031 | 3047-131 | 25.88 | | |
| 3/4 | 3-1/8 | 1-1/8 | 7/16 | D7S | 3047-039 | 3047-139 | 19.40 | 12 Pcs. Set 3047-183 Price Each $ 292.31 | 12 Pcs. Set 3047-193 Price Each $ 292.31 |
| | 3-11/16 | 1-11/16 | 7/16 | D7M | 3047-038 | 3047-138 | 20.40 | | |
| | 4-1/4 | 2-1/4 | 7/16 | D7L | 3047-037 | 3047-137 | 21.29 | | |
| | 3-1/2 | 1-1/2 | 9/16 | D9S | 3047-042 | 3047-142 | 22.01 | | |
| | 4-1/4 | 2-1/4 | 9/16 | D9M | 3047-041 | 3047-141 | 22.62 | | |
| | 5 | 3 | 9/16 | D9L | 3047-040 | 3047-140 | 23.61 | | |
| | 3-7/8 | 1-7/8 | 11/16 | D11S | 3047-045 | 3047-145 | 24.27 | | |
| | 4-13/16 | 2-13/16 | 11/16 | D11M | 3047-044 | 3047-144 | 25.05 | | |
| | 5-3/4 | 3-3/4 | 11/16 | D11L | 3047-043 | 3047-143 | 25.99 | | |
| | 4-1/4 | 2-1/4 | 13/16 | D13S | 3047-048 | 3047-148 | 27.54 | | |
| | 5-3/8 | 3-3/8 | 13/16 | D13M | 3047-047 | 3047-147 | 29.13 | | |
| | 6-1/2 | 4-1/2 | 13/16 | D13L | 3047-046 | 3047-146 | 30.74 | | |
| 1 | 5 | 3 | 9/16 | E9L | 3047-051 | 3047-151 | 38.42 | 5 Pcs. Set 3047-185 Price Each $ 240.38 *Bars in set | 5 Pcs. Set 3047-195 Price Each $ 240.38 *Bars in set |
| | 5-3/4 | 3-3/4 | 11/16 | E11L* | 3047-053 | 3047-153 | 39.64 | | |
| | 6-1/2 | 4-1/2 | 7/8 | E14L | 3047-055 | 3047-155 | 42.40 | | |
| | 6-1/2 | 4-1/2 | 1-1/16 | E18L* | 3047-060 | 3047-160 | 45.34 | | |
| | 7-3/4 | 5-3/4 | 1-1/8 | E20L* | 3047-062 | 3047-162 | 48.65 | | |
| | 8-1/4 | 6-1/4 | 1-1/2 | E24L* | 3047-066 | 3047-166 | 51.42 | | |
| | 9-1/2 | 7-1/2 | 1-5/8 | E26L* | 3047-068 | 3047-168 | 55.23 | | |









## Carbide Tipped Boring Bar Sets - Grade C2 and C6

- C2 - Cast Iron
- C6 - General Purpose/Steel
- Sets include short, meduim, and long length bars for each minimum bore diameter

| SHANK DIA. | PCS. IN SET | C-2 ITEM NO. | C-6 ITEM NO. | PRICE EACH |
|---|---|---|---|---|
| 3/8" | 9 | 3047-301 | 3047-401 | $23.10 |
| 1/2" | 9 | – | 3047-402 | 25.40 |
| 5/8" | 12 | 3047-303 | 3047-403 | 43.10 |
| 3/4" | 12 | – | 3047-404 | 57.70 |

† Limited Qty.

# Boring Bars

## High Speed Steel Cobalt Boring Bars

MADE IN USA

| SHANK DIA. | LG'TH | BORE DEPTH | MINIMUM BORE | TOOL NO. | ORDER NO. | PRICE EACH | SETS |
|---|---|---|---|---|---|---|---|
| 3/8 | 1-13/16 | 9/16 | 3/16 | CO A3S | 3048-002 | $14.21 | 8 Pc. Set 3048-101 $131.08 |
| | 2-3/16 | 15/16 | 3/16 | CO A3L | 3048-001 | 15.06 | |
| | 2 | 3/4 | 1/4 | CO A4S | 3048-004 | 15.55 | |
| | 2-1/2 | 1-1/4 | 1/4 | CO A4L | 3048-003 | 16.29 | |
| | 2-3/16 | 15/16 | 5/16 | CO A5S | 3048-006 | 16.51 | |
| | 2-13/16 | 1-9/16 | 5/16 | CO A5L | 3048-005 | 17.33 | |
| | 2-3/8 | 1-1/8 | 3/8 | CO A6S | 3048-008 | 17.71 | |
| | 3-1/8 | 1-7/8 | 3/8 | CO A6L | 3048-007 | 18.57 | |
| 1/2 | 2-1/8 | 3/4 | 1/4 | CO B4S | 3048-010 | 18.10 | 10 Pc. Set 3048-102 $202.58 |
| | 2-5/8 | 1-1/4 | 1/4 | CO B4L | 3048-009 | 18.57 | |
| | 2-5/16 | 15/16 | 5/16 | CO B5S | 3048-012 | 18.86 | |
| | 2-1a5/16 | 1-9/16 | 5/16 | CO B5L | 3048-011 | 19.71 | |
| | 2-1/2 | 1-1/8 | 3/8 | CO B6S | 3048-014 | 20.01 | |
| | 3-1/4 | 1-7/8 | 3/8 | CO B6L | 3048-013 | 20.77 | |
| | 2-11/16 | 1-5/16 | 7/16 | CO B7S | 3048-016 | 20.77 | |
| | 3-9/16 | 2-3/16 | 7/16 | CO B7L | 3048-015 | 21.31 | |
| | 2-7/8 | 1-1/2 | 1/2 | CO B8S | 3048-018 | 22.35 | |
| | 3-7/8 | 2-1/2 | 1/2 | CO B8L | 3048-017 | 22.85 | |
| 5/8 | 2-5/8 | 1-1/8 | 3/8 | CO C6S | 3048-020 | 23.67 | 10 Pc. Set 3048-103 $296.83 |
| | 3-3/8 | 1-7/8 | 3/8 | CO C6L | 3048-019 | 24.20 | |
| | 2-13/16 | 1-5/16 | 7/16 | CO C7S | 3048-022 | 25.47 | |
| | 3-11/16 | 2-13/16 | 7/16 | CO C7L | 3048-021 | 27.57 | |
| | 3 | 1-1/2 | 1/2 | CO C8S | 3048-024 | 28.30 | |
| | 4 | 2-1/2 | 1/2 | CO C8L | 3048-023 | 30.24 | |
| | 3-3/16 | 1-11/16 | 9/16 | CO C9S | 3048-026 | 32.28 | |
| | 4-5/16 | 2-13/16 | 9/16 | CO C9L | 3048-025 | 33.71 | |
| | 3-3/8 | 1-7/8 | 5/8 | CO C10S | 3048-028 | 35.37 | |
| | 4-5/8 | 3-1/8 | 5/8 | CO C10L | 3048-027 | 36.78 | |
| 3/4 | 2-7/8 | 1-1/8 | 3/8 | CO D6S | 3048-034 | 27.74 | 14 Pc. Set 3048-104 $472.33 |
| | 3-5/8 | 1-7/8 | 3/8 | CO D6L | 3048-033 | 28.73 | |
| | 3-1/16 | 1-5/16 | 7/16 | CO D7S | 3048-036 | 29.47 | |
| | 3-15/16 | 2-3/16 | 7/16 | CO D7L | 3048-035 | 30.82 | |
| | 3-1/4 | 1-1/2 | 1/2 | CO D8S | 3048-038 | 31.73 | |
| | 4-1/4 | 2-1/2 | 1/2 | CO D8L | 3048-037 | 32.57 | |
| | 3-7/16 | 1-11/16 | 9/16 | CO D9S | 3048-040 | 33.19 | |
| | 4-9/16 | 2-13/16 | 9/16 | CO D9L | 3048-039 | 34.46 | |
| | 3-5/8 | 1-7/8 | 5/8 | CO D10S | 3048-042 | 35.19 | |
| | 4-7/8 | 3-1/8 | 5/8 | CO D10L | 3048-041 | 36.27 | |
| | 3-13/16 | 2-1/16 | 11/16 | CO D11S | 3048-044 | 37.07 | |
| | 5-3/16 | 3-7/16 | 11/16 | CO D11L | 3048-043 | 38.63 | |
| | 4 | 2-1/4 | 3/4 | CO D12S | 3048-046 | 39.25 | |
| | 5-1/2 | 3-3/4 | 3/4 | CO D12L | 3048-045 | 40.35 | |

# Boring Bars & Sets

## Hardened Boring

**Prices do not include tool bits**

## Single End 45° & 90°

| DIA. | OAL | BIT SIZE | 45° ORDER NO. | 90° ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/4 | 2-1/2 | 5/32 RD | 3053-016 | 3054-016 | $2.60 |
| 5/16 | 2-1/2 | 3/16 RD | 3053-020 | 3054-020 | 2.60 |
| 3/8 | 3 | 3/16 RD | 3053-024 | 3054-024 | 2.90 |
| 1/2 | 3 | 3/16 SQ | 3053-032 | 3054-032 | 3.00 |
| 9/16 | 4-1/2 | 3/16 SQ | 3053-036 | 3054-036 | 3.35 |
| 5/8 | 5 | 1/4 SQ | 3053-040 | 3054-040 | 4.00 |
| 3/4 | 6 | 1/4 SQ | 3053-048 | 3054-048 | 5.05 |
| 1 | 6 | 5/16 SQ | 3053-064 | 3054-064 | 9.70 |
| 1 | 6 | 3/8 SQ | 3053-065 | 3054-065 | 9.70 |
| 1-1/8 | 7 | 7/16 SQ | 3053-072 | 3054-072 | 13.50 |
| 1-1/4 | 8 | 1/2 SQ | 3053-080 | 3054-080 | 17.55 |
| 1-1/2 | 9 | 1/2 SQ | 3053-096 | 3054-096 | 22.95 |

# Double End

## One End 45° One End 90°

| DIA. | OAL | BIT SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/4 | 5 | 5/32 RD | 3055-016 | $ 6.05 |
| 5/16 | 5 | 3/16 RD | 3055-020 | 6.50 |
| 3/8 | 6 | 3/16 RD | 3055-024 | 7.05 |
| 1/2 | 6 | 3/16 SQ | 3055-032 | 7.95 |
| 9/16 | 9 | 3/16 SQ | 3055-036 | 10.35 |
| 5/8 | 10 | 1/4 SQ | 3055-040 | 10.70 |
| 3/4 | 12 | 1/4 SQ | 3055-048 | 11.80 |
| 1 | 12 | 5/16 SQ | 3055-064 | 15.15 |
| 1 | 12 | 3/8 SQ | 3055-065 | 17.10 |
| 1-1/8 | 14 | 7/16 SQ | 3055-072 | 20.20 |
| 1-1/4 | 16 | 1/2 SQ | 3055-080 | 23.10 |
| 1-1/2 | 18 | 1/2 SQ | 3055-096 | 36.75 |

# Double End Boring Bar Sets

## One End 45° One End 90°

| | | |
|---|---|---|
| 4 PC Set | 1/4 - 1/2"Includes 1 each: 1/4, 5/16, 3/8 & 1/2" in Plastic Pouch | 3056-001 Price…$23.45 |
| 5 PC Set | 1/4 - 3/4"Includes 1 each: 1/4, 3/8, 1/2, & 3/4" in Wood Block | 3056-002 Price…$39.85 |
| 5 PC Set | 3/8 - 1"Includes 1 each: 3/8, 1/2, 5/8, 3/4 & 1" in Wood Block | 3056-003 Price…$43.00 |

# Single Point Tool Bits - Carbide Tipped



## Styles AL & AR
### Straight Turning

| SHANK SIZE | | | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/4 | 1/4 | 2 | AL-4 | 3060-104 | $2.15 | 3070-104 | $2.15 | AR-4 | 3060-204 | $2.15 | 3070-204 | $2.15 |
| 5/16 | 5/16 | 2-1/4 | AL-5 | 3060-105 | 2.25 | 3070-105 | 2.25 | AR-5 | 3060-205 | 2.25 | 3070-205 | 2.25 |
| 3/8 | 3/8 | 2-1/2 | AL-6 | 3060-106 | 2.25 | 3070-106 | 2.25 | AR-6 | 3060-206 | 2.25 | 3070-206 | 2.25 |
| 7/16 | 7/16 | 3 | AL-7 | 3060-107 | 2.25 | 3070-107 | 2.25 | AR-7 | 3060-207 | 2.25 | 3070-207 | 2.25 |
| 1/2 | 1/2 | 3-1/2 | AL-8 | 3060-108 | 2.70 | 3070-108 | 2.70 | AR-8 | 3060-208 | 2.70 | 3070-208 | 2.70 |
| 5/8 | 5/8 | 4 | AL-10 | 3060-110 | 3.35 | 3070-110 | 3.35 | AR-10 | 3060-210 | 3.35 | 3070-210 | 3.35 |
| 3/4 | 3/4 | 4-1/2 | AL-12 | 3060-112 | 5.00 | 3070-112 | 5.00 | AR-12 | 3060-212 | 5.00 | 3070-212 | 5.00 |
| 1 | 1 | 6 | AL-16 | 3060-116 | 9.70 | 3070-116 | 9.70 | AR-16 | 3060-216 | 9.70 | 3070-216 | 9.70 |
| 1-1/4 | 1-1/4 | 7 | AL-20 | 3060-120† | 10.20 | 3070-120† | 10.20 | AR-20 | 3060-220† | 10.20 | 3070-220† | 10.20 |
| 1-1/2 | 1-1/2 | 7 | AL-24 | 3060-124† | 15.15 | 3070-124† | 15.15 | AR-24 | 3060-224† | 15.15 | 3070-224† | 15.15 |
| 1/2 | 1 | 6 | AL-44 | 3060-144† | 3.10 | 3070-144† | 3.10 | AR-44 | – | – | – | – |
| 5/8 | 1 | 6 | AL-54 | – | – | – | – | AR-54 | – | – | 3070-254† | 3.80 |
| 5/8 | 1-1/4 | 6 | AL-55 | 3060-155† | 4.55 | – | – | AR-55 | – | – | – | – |
| 3/4 | 1 | 6 | AL-64 | – | – | 3070-164† | 5.10 | AR-64 | 3060-264† | 5.10 | 3070-264† | 5.10 |
| 3/4 | 1-1/2 | 7 | AL-66 | 3060-166† | 8.75 | – | – | AR-66 | 3060-266† | 8.75 | 3070-266† | 8.75 |
| 1 | 1-1/4 | 7 | AL-85 | 3060-185† | 10.20 | 3070-185† | 10.20 | AR-85 | 3060-285† | 10.20 | 3070-285† | 10.20 |
| 1 | 1-1/2 | 7 | AL-86 | 3060-186† | 13.85 | 3070-186† | 13.85 | AR-86 | 3060-286† | 13.85 | 3070-286† | 13.85 |

† Limited Quantities

## Styles BL & BR
### Lead Angle Turning

| SHANK SIZE | | | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/4 | 1/4 | 2 | BL-4 | 3060-304 | $ 2.15 | 3070-304 | $ 2.15 | BR-4 | 3060-404 | $ 2.15 | 3070-404 | $ 2.15 |
| 5/16 | 5/16 | 2-1/4 | BL-5 | 3060-305 | 2.25 | 3070-305 | 2.25 | BR-5 | 3060-405 | 2.25 | 3070-405 | 2.25 |
| 3/8 | 3/8 | 2-1/2 | BL-6 | 3060-306 | 2.25 | 3070-306 | 2.25 | BR-6 | 3060-406 | 2.25 | 3070-406 | 2.25 |
| 7/16 | 7/16 | 3 | BL-7 | 3060-307 | 2.25 | 3070-307 | 2.25 | BR-7 | 3060-407 | 2.25 | 3070-407 | 2.25 |
| 1/2 | 1/2 | 3-1/2 | BL-8 | 3060-308 | 2.70 | 3070-308 | 2.70 | BR-8 | 3060-408 | 2.70 | 3070-408 | 2.70 |
| 5/8 | 5/8 | 4 | BL-10 | 3060-310 | 3.35 | 3070-310 | 3.35 | BR-10 | 3060-410 | 3.35 | 3070-410 | 3.35 |
| 3/4 | 3/4 | 4-1/2 | BL-12 | 3060-312 | 5.00 | 3070-312 | 5.00 | BR-12 | 3060-412 | 5.00 | 3070-412 | 5.00 |
| 1 | 1 | 6 | BL-16 | 3060-316 | 9.70 | 3070-316 | 9.70 | BR-16 | 3060-416 | 9.70 | 3070-416 | 9.70 |
| 1-1/4 | 1-1/4 | 7 | BL-20 | 3060-320† | 10.20 | 3070-320† | 10.20 | BR-20 | 3060-420† | 10.20 | 3070-420† | 10.20 |
| 1-1/2 | 1-1/2 | 7 | BL-24 | – | – | 3070-324† | 15.15 | BR-24 | 3060-424† | 15.15 | 3070-424† | 15.15 |
| 1/2 | 1 | 6 | BL-44 | – | – | 3070-344† | 3.10 | BR-44 | 3060-444† | 3.10 | 3070-444† | 3.10 |
| 5/8 | 1 | 6 | BL-54 | 3060-354† | 3.80 | 3070-354† | 3.80 | BR-54 | 3060-454† | 3.80 | 3070-454† | 3.80 |
| 5/8 | 1-1/4 | 6 | BL-55 | 3060-355† | 4.55 | 3070-355† | 4.55 | BR-55 | – | – | – | – |
| 3/4 | 1 | 6 | BL-64 | 3060-364† | 5.10 | 3070-364† | 5.10 | BR-64 | 3060-464† | 5.10 | 3070-464† | 5.10 |
| 3/4 | 1-1/2 | 7 | BL-66 | 3060-366† | 8.75 | 3070-366† | 8.75 | BR-66 | 3060-466† | 8.75 | 3070-466† | 8.75 |
| 1 | 1-1/4 | 7 | BL-85 | 3060-385† | 10.20 | 3070-385† | 10.20 | BR-85 | 3060-485† | 10.20 | – | – |
| 1 | 1-1/2 | 7 | BL-86 | – | – | – | – | BR-86 | 3060-486† | 13.85 | 3070-486† | 13.85 |

† Limited Quantities

## Styles FL & FR
### Offset End Cutting

| SHANK SIZE | | | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1/2 | 3-1/2 | FL-8 | 3060-808 | $ 5.65 | 3070-808 | $ 5.65 | FR-8 | 3060-908 | $ 5.65 | 3070-908 | $ 5.65 |
| 5/8 | 5/8 | 4 | FL-10 | 3060-810 | 6.80 | 3070-810 | 6.80 | FR-10 | 3060-910 | 6.80 | 3070-910 | 6.80 |
| 3/4 | 3/4 | 4-1/2 | FL-12 | 3060-812 | 8.65 | 3070-812 | 8.65 | FR-12 | 3060-912 | 8.65 | 3070-912 | 8.65 |
| 1 | 1 | 6 | FL-16 | 3060-816 | 15.75 | 3070-816 | 15.75 | FR-16 | 3060-916 | 15.75 | 3070-916 | 15.75 |
| 1-1/4 | 1-1/4 | 7 | FL-20 | 3060-820† | 10.90 | 3070-820† | 10.90 | FR-20 | 3060-920† | 10.90 | 3070-920† | 10.90 |
| 1-1/2 | 1-1/2 | 7 | FL-24 | 3060-824† | 15.80 | 3070-824† | 15.80 | FR-24 | – | – | 3070-924† | 15.80 |
| 1/2 | 1 | 6 | FL-44 | – | – | – | – | FR-44 | 3060-944† | 3.10 | – | – |
| 5/8 | 1-1/4 | 6 | FL-55 | 3060-855† | 3.80 | 3070-855† | 3.80 | FR-55 | 3060-955† | 3.80 | 3070-955† | 3.80 |
| 3/4 | 1 | 6 | FL-64 | 3060-864† | 5.10 | 3070-864† | 5.10 | FR-64 | 3060-964† | 5.10 | 3070-964† | 5.10 |
| 1 | 1-1/4 | 7 | FL-85 | – | – | 3070-885† | 10.20 | FR-85 | 3060-985† | 10.20 | 3070-985† | 10.20 |
| 1 | 1-1/2 | 7 | FL-86 | 3060-886† | 13.85 | 3070-886† | 13.85 | FR-86 | 3060-986† | 13.85 | 3070-986† | 13.85 |

† Limited Quantities

## Style C

### Broadnose

| TOOL NO. | SHANK SIZE | | | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| C-4 | 1/4 | 1/4 | 2 | 3060-504 | $ 2.15 | 3070-504 | $ 2.15 |
| C-5 | 5/16 | 5/16 | 2-1/4 | 3060-505 | 2.25 | 3070-505 | 2.25 |
| C-6 | 3/8 | 3/8 | 2-1/2 | 3060-506 | 2.25 | 3070-506 | 2.25 |
| C-7 | 7/16 | 7/16 | 3 | 3060-507 | 2.25 | 3070-507 | 2.25 |
| C-8 | 1/2 | 1/2 | 3-1/2 | 3060-508 | 2.70 | 3070-508 | 2.70 |
| C-10 | 5/8 | 5/8 | 4 | 3060-510 | 3.35 | 3070-510 | 3.35 |
| C-12 | 3/4 | 3/4 | 4-1/2 | 3060-512 | 5.00 | 3070-512 | 5.00 |
| C-16 | 1 | 1 | 6 | 3060-516 | 9.70 | 3070-516 | 9.70 |
| C-66 | 3/4 | 1-1/2 | 7 | 3060-566† | 9.90 | – | – |
| C-86 | 1 | 1-1/2 | 7 | 3060-586† | 14.85 | – | – |

† Limited Quantities

## Style D

### Roundnose

| TOOL NO. | SHANK SIZE | | | GRD. C2 ORDER NO. | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| D-4 | 1/4 | 1/4 | 2 | 3060-604 | 3070-604 | $2.15 |
| D-5 | 5/16 | 5/16 | 2-1/4 | 3060-605 | 3070-605 | 2.25 |
| D-6 | 3/8 | 3/8 | 2-1/2 | 3060-606 | 3070-606 | 2.25 |
| D-7 | 7/16 | 7/16 | 3 | 3060-607 | 3070-607 | 2.25 |
| D-8 | 1/2 | 1/2 | 3-1/2 | 3060-608 | 3070-608 | 2.70 |
| D-10 | 5/8 | 5/8 | 4 | 3060-610 | 3070-610 | 3.35 |
| D-12 | 3/4 | 3/4 | 4-1/2 | 3060-612 | 3070-612 | 5.00 |
| D-16 | 1 | 1 | 6 | 3060-616 | 3070-616 | 9.70 |

## Style E

### Threading

| TOOL NO. | SHANK SIZE | | | GRD. C2 ORDER NO. | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| E-4 | 1/4 | 1/4 | 2 | 3060-704 | 3070-704 | $2.15 |
| E-5 | 5/16 | 5/16 | 2-1/4 | 3060-705 | 3070-705 | 2.25 |
| E-6 | 3/8 | 3/8 | 2-1/2 | 3060-706 | 3070-706 | 2.25 |
| E-7 | 7/16 | 7/16 | 3 | 3060-707 | 3070-707 | 2.25 |
| E-8 | 1/2 | 1/2 | 3-1/2 | 3060-708 | 3070-708 | 2.70 |
| E-10 | 5/8 | 5/8 | 4 | 3060-710 | 3070-710 | 3.35 |
| E-12 | 3/4 | 3/4 | 4-1/2 | 3060-712 | 3070-712 | 5.00 |
| E-16 | 1 | 1 | 6 | 3060-716 | 3070-716 | 9.70 |

# Single Point Tool Bits - Carbide Tipped

## Styles GL & GR

### Offset Side Cutting

| SHANK SIZE | | | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH | TOOL NO. | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1/2 | 3-1/2 | GL-8 | 3061-008 | $ 5.65 | 3071-008 | $ 5.65 | GR-8 | 3061-108 | $ 5.65 | 3071-108 | $ 5.65 |
| 5/8 | 5/8 | 4 | GL-10 | 3061-010 | 6.80 | 3071-010 | 6.80 | GR-10 | 3061-110 | 6.80 | 3071-110 | 6.80 |
| 3/4 | 3/4 | 4-1/2 | GL-12 | 3061-012 | 8.65 | 3071-012 | 8.65 | GR-12 | 3061-112 | 8.65 | 3071-112 | 8.65 |
| 1 | 1 | 6 | GL-16 | 3061-016 | 15.75 | 3071-016 | 15.75 | GR-16 | 3061-116 | 15.75 | 3071-116 | 15.75 |
| 1-1/4 | 1-1/4 | 7 | GL-20 | 3061-020† | 10.90 | 3071-020† | 10.90 | GR-20 | – | – | 3071-120† | 10.90 |
| 1-1/2 | 1-1/2 | 7 | GL-24 | – | – | 3071-024† | 15.80 | GR-24 | – | – | – | – |
| 1/2 | 1 | 6 | GL-44 | 3061-044† | 3.10 | 3071-044† | 3.10 | GR-44 | – | – | 3071-144† | 3.10 |
| 5/8 | 1-1/4 | 6 | GL-55 | 3061-055† | 3.80 | 3071-055† | 3.80 | GR-55 | 3061-155† | 3.80 | 3071-155† | 3.80 |
| 3/4 | 1 | 6 | GL-64 | 3061-064† | 5.10 | 3071-064† | 5.10 | GR-64 | 3061-164† | 5.10 | 3071-164† | 5.10 |
| 1 | 1-1/4 | 7 | GL-85 | 3061-085† | 10.20 | – | – | GR-85 | 3061-185† | 10.20 | 3071-185† | 10.20 |
| 1 | 1-1/2 | 7 | GL-86 | 3061-086† | 13.85 | 3071-086† | 13.85 | GR-86 | 3061-186† | 13.85 | 3071-186† | 13.85 |

† Limited Quantities

## Style TSA

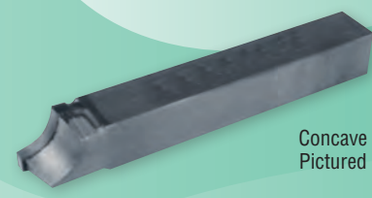
### Square Shoulder Boring

3

| TOOL NO. | SHANK SIZE | | | GRD. C2 ORDER NO. | PRICE EACH | GRD. C6 ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| TSA-5 | 5/16 | 5/16 | 1-1/2 | 3061-205 | $6.00 | 3071-205 | $6.00 |
| TSA-6 | 3/8 | 3/8 | 1-3/4 | 3061-206 | 6.00 | 3071-206 | 6.00 |
| TSA-8 | 1/2 | 1/2 | 2-1/2 | 3061-208 | 6.95 | 3071-208 | 6.95 |
| TSA-10 | 5/8 | 5/8 | 3 | 3061-210 | 9.75 | 3071-210 | 9.75 |
| TSA-12 | 3/4 | 3/4 | 3-1/2 | 3061-212 | 10.75 | 3071-212 | 10.75 |

# Radius Tool Bits

### Concave or Convex – Carbide Tipped



Concave Pictured

Good shock resistance, good wear resistance. Choose Grade C2 or C6 for general purpose machining with a wide range of applications, designed for cutting all types of steel including high tensile strength and heat resisting alloys. Radius Accurate within ±.002". 1

| RADIUS (IN) | SHANK SQ. (IN) | CARBIDE TIP HT. (IN) | CARBIDE LENGTH (IN) | GRADE C2 CONCAVE ORDER BOX | GRADE C2 CONVEX ORDER NO. | GRADE C2 PRICE EACH | GRADE C6 CONCAVE ORDER NO. | GRADE C6 CONVEX ORDER NO. | GRADE C6 PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|
| 1/32 | 1/4 | 1/16 | 1/4 | 3080-001 | 3080-201 | $ 3080-201 | 3080-101 | 3080-301 | $39.75 |
| 1/16 | 1/4 | 1/16 | 1/4 | 3080-002 | 3080-202 | 36.40 | 3080-102 | 3080-302 | 39.75 |
| 3/32 | 1/4 | 1/16 | 1/4 | 3080-003 | 3080-203 | 36.40 | 3080-103 | 3080-303 | 39.75 |
| 1/8 | 1/4 | 1/16 | 1/4 | 3080-004 | 3080-204 | 36.40 | 3080-104 | 3080-304 | 39.75 |
| 5/32 | 3/8 | 3/32 | 3/8 | 3080-005 | 3080-205 | 39.70 | 3080-105 | 3080-305 | 43.00 |
| 3/16 | 3/8 | 3/32 | 3/8 | 3080-006 | 3080-206 | 39.70 | 3080-106 | 3080-306 | 43.00 |
| 7/32 | 3/8 | 3/32 | 3/8 | 3080-007 | 3080-207 | 39.70 | 3080-107 | 3080-307 | 43.00 |
| 1/4 | 3/8 | 3/32 | 3/8 | 3080-008 | 3080-208 | 39.70 | 3080-108 | 3080-308 | 43.00 |
| 9/32 | 1/2 | 1/8 | 1/2 | 3080-009 | 3080-209 | 45.10 | 3080-109 | 3080-309 | 48.45 |
| 5/16 | 1/2 | 1/8 | 1/2 | 3080-010 | 3080-210 | 45.10 | 3080-110 | 3080-310 | 48.45 |
| 11/32 | 1/2 | 1/8 | 1/2 | 3080-011 | 3080-211 | 45.10 | 3080-111 | 3080-311 | 48.45 |
| 3/8 | 1/2 | 1/8 | 1/2 | 3080-012 | 3080-212 | 45.10 | 3080-112 | 3080-312 | 48.45 |
| 13/32 | 3/4 | 1/8 | 3/4 | 3080-013 | 3080-213 | 51.50 | 3080-113 | 3080-313 | 54.85 |
| 7/16 | 3/4 | 1/8 | 3/4 | 3080-014 | 3080-214 | 51.50 | 3080-114 | 3080-314 | 54.85 |
| 15/32 | 3/4 | 1/8 | 3/4 | 3080-015 | 3080-215 | 51.50 | 3080-115 | 3080-315 | 54.85 |
| 1/2 | 3/4 | 1/8 | 3/4 | 3080-016 | 3080-216 | 51.50 | 3080-116 | 3080-316 | 54.85 |
| Set of 4, consists of 1 each: 1/16, 1/8, 1/4 & 3/8 | | | | 3080-017 | 3080-217 | 157.55 | 3080-117 | 3080-317 | 170.90 |
| Set of 8, consists of 1 each: 1/16–1/2 in 16th increments | | | | 3080-018 | 3080-218 | 345.30 | 3080-118 | 3080-318 | 372.00 |
| Set of 16, consists of 1 each: 1/32–1/2 in 1/32nd increments | | | | 3080-019 | 3080-219 | 690.60 | 3080-119 | 3080-319 | 743.95 |

# Round M2 Tool Bits 3

| DIMENSIONS | ORDER NO. | PRICE EA. |
|---|---|---|
| 5/16 x 4 | 3251-070 | $1.25 |
| 3/8 x 4 | 3251-090 | 1.64 |
| 7/16 x 4 | 3251-110 | 2.06 |
| 1/2 x 4 | 3251-130 | 2.53 |
| 9/16 x 4 | 3251-150 | 3.66 |
| 9/16 x 6 | 3251-160 | 5.50 |
| 3/4 x 6 | 3251-200 | 8.60 |
| 1" x 4 | 3251-220 | 11.30 |
| 1" x 6 | 3251-225 | 15.90 |
| 1" x 8 | 3251-230 | 19.20 |

# Tool Bits

## Square Tool Bits

| SIZE | M2 HSS [3] ORDER NO. | M2 HSS [3] PRICE EACH | 5% Co [3] ORDER NO. | 5% Co [3] PRICE EACH | 8% - 10% Co [3] ORDER NO. | 8% - 10% Co [3] PRICE EACH | T15 COBALT [2] ORDER NO. | T15 COBALT [2] PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/8 x 2-1/2 | 3252-010 | $ 1.12 | 3252-440 | $ 1.95 | 3252-270 | $ 2.40 | 3252-710 | $ 11.66 |
| 3/16 x 2-1/2 | 3252-020 | 1.12 | 3252-450 | 1.95 | 3252-280 | 2.70 | 3252-720 | 6.56 |
| 1/4 x 2-1/2 | 3252-030 | 1.40 | 3252-460 | 2.42 | 3252-290 | 2.70 | 3252-730 | 7.25 |
| 1/4 x 6 | 3252-034 | 5.44 | 3252-470 | 6.98 | – | – | – | – |
| 1/4 x 8 | 3252-036 | 7.39 | 3252-475 | 8.23 | – | – | – | – |
| 5/16 x 2-1/2 | 3252-040 | 1.67 | 3252-480 | 2.93 | 3252-300 | 3.44 | 3252-740 | 8.52 |
| 5/16 x 6 | 3252-060 | 6.93 | 3252-482 | 8.65 | – | – | – | – |
| 5/16 x 8 | 3252-065 | 8.70 | 3252-484 | 9.86 | – | – | – | – |
| 3/8 x 3 | 3252-070 | 2.52 | 3252-490 | 4.45 | 3252-310 | 5.26 | 3252-770 | 11.69 |
| 3/8 x 6 | 3252-090 | 8.74 | 3252-492 | 11.53 | – | – | 3252-790 | 23.36 |
| 3/8 x 8 | 3252-095 | 10.88 | 3252-494 | 12.14 | – | – | – | – |
| 7/16 x 3-1/2 | 3252-100 | 3.90 | 3252-500 | 7.11 | 3252-320 | 10.09 | 3252-800 | 15.40 |
| 7/16 x 6 | 3252-105 | 10.46 | – | – | – | – | – | – |
| 1/2 x 4 | 3252-110 | 5.38 | 3252-510 | 9.14 | 3252-330 | 11.50 | 3252-810 | 21.69 |
| 1/2 x 6 | 3252-120 | 13.49 | 3252-520 | 17.02 | – | – | – | – |
| 1/2 x 8 | 3252-125 | 18.00 | 3252-530 | 19.76 | – | – | – | – |
| 5/8 x 4-1/2 | 3252-150 | 9.10 | 3252-540 | 15.26 | 3252-340 | 21.58 | 3252-850 | 33.87 |
| 5/8 x 6 | 3252-160 | 17.62 | 3252-545 | 22.65 | – | – | – | – |
| 5/8 x 8 | 3252-180 | 23.34 | – | – | – | – | – | – |
| 3/4 x 5 | 3252-190 | 14.10 | 3252-550 | 23.95 | 3252-360 | 32.50 | 3252-890 | 53.59 |
| 3/4 x 8 | 3252-195 | 33.48 | – | – | – | – | – | – |
| 7/8 x 6 | 3252-200 | 22.10 | 3252-560 | 41.99 | 3252-370 | 50.08 | – | – |
| 1 x 7 | 3252-205 | 33.38 | 3252-570 | 57.12 | 3252-380 | 78.59 | 3252-905 | 126.94 |
| 1-1/4 x 7 | 3252-208 | 68.54 | – | – | – | – | 3252-908 | 151.56 |
| 1-1/4 x 9 | 3252-210 | 88.13 | 3252-590 | 150.95 | 3252-390 | 189.97 | – | – |

## Rectangular Tool Bits Close Out

| SIZE | M2 HSS [3] ORDER NO. | M2 HSS [3] PRICE EACH | 5% Co [3] ORDER NO. | 5% Co [3] PRICE EACH | 8% - 10% Co [3] ORDER NO. | 8% - 10% Co [3] PRICE EACH | T15 COBALT [3] ORDER NO. | T15 COBALT [3] PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 3/32 x 3/8 x 5 | 3250-005 | $0.95 | – | – | – | – | – | – |
| 3/32 x 1/2 x 4-1/2 | 3250-010 | 1.05 | – | – | 3250-420 | $2.45 | 3251-302 | $9.13 |
| 3/32 x 5/8 x 5 | 3250-012 | 1.30 | – | – | 3250-425 | 2.55 | – | – |
| 3/32 x 3/4 x 6 | 3250-015 | 1.55 | – | – | 3250-430 | 2.65 | – | – |
| 3/32 x 7/8 x 6 | 3250-020 | 2.10 | – | – | 3250-435 | 2.75 | – | – |
| 3/32 x 1 x 6 | 3250-025 | 2.25 | 3250-720 | $2.45 | 3250-440 | 3.00 | – | – |
| 1/8 x 5/8 x 5 | 3250-030 | 2.10 | – | – | – | – | 3251-305 | 10.37 |
| 1/8 x 3/4 x 5 | – | – | – | – | 3250-455 | 3.20 | 3251-307 | 12.95 |
| 1/8 x 3/4 x 6 | – | – | 3250-730 | 2.95 | 3250-457 | 3.50 | 3251-/308 | 12.95 |
| 1/8 x 7/8 x 6 | 3250-045 | 3.90 | – | – | – | – | – | – |
| 1/8 x 7/8 x 6-1/2 | – | – | – | – | 3250-465 | 4.80 | – | – |
| 1/8 x 1 x 6-1/2 | – | – | – | – | 3250-467 | 5.20 | – | – |
| 3/16 x 3/4 x 6 | 3250-055 | 3.10 | – | – | 3250-470 | 4.45 | – | – |
| 3/16 x 7/8 x 6 | 3250-060 | 4.15 | 3250-740 | 4.20 | – | – | – | – |
| 7/32 x 7/8 x 6 | – | – | 3250-743 | 4.50 | – | – | – | – |
| 1/4 x 3/8 x 2-1/2 | – | – | 3250-745 | 2.90 | 3250-485 | 4.92 | 3251-315 | 8.65 |
| 1/4 x 1/2 x 3 | 3250-090 | 3.00 | – | – | – | – | – | – |
| 1/4 x1-1/4 x 7 | 3250-120 | 12.45 | – | – | 3250-520 | 20.00 | 3251-345 | 42.95 |
| 5/16 x 1/2 x 3 | – | – | – | – | – | – | 3251-352 | 11.70 |
| 5/16 x 5/8 x 3 | – | – | – | – | 3250-535 | 8.60 | 3251-355 | 12.33 |
| 5/16 x 3/4 x 5 | 3250-150 | 8.75 | – | – | 3250-540 | 9.50 | 3251-360 | 23.01 |
| 5/16 x 1 x 6 | – | – | 3250-785 | 13.00 | – | – | 3251-365 | 32.03 |
| 3/8 x 1/2 x 3 | – | – | – | – | – | – | 3251-368 | 11.98 |
| 3/8 x 5/8 x 4-1/2 | 3250-177 | 6.85 | – | – | – | – | – | – |
| 3/8 x 5/8 x 5 | 3250-180 | 6.85 | 3250-810 | 7.30 | – | – | 3251-395 | 20.16 |
| 3/8 x 3/4 x 4 | – | – | – | – | – | – | 3251-405 | 20.45 |
| 3/8 x 3/4 x 6 | – | – | – | – | – | – | 3251-415 | 25.56 |
| 3/8 x1-1/4 x 6 | – | – | 3250-840 | 19.00 | – | – | – | – |
| 3/8 x1-3/4 x 6 | 3250-205 | 18.00 | – | – | 3250-590 | 29.50 | 3251-423 | 63.13 |
| 1/2 x 5/8 x 6 | 3250-215 | 10.50 | 3250-855 | 15.30 | – | – | – | – |
| 1/2 x 1 x 6 | – | – | – | – | 3250-610 | 26.60 | – | – |
| 1/2 x 1 x 8 | – | – | – | – | 3250-620 | 31.50 | – | – |
| 1/2 x1-1/4 x 6 | 3250-250 | 19.95 | – | – | 3250-625 | 29.00 | – | – |
| 1/2 x1-3/4 x 6 | – | – | 3250-897 | 32.50 | 3250-635 | 40.15 | – | – |
| 5/8 x 1 x 6 | – | – | – | – | 3250-650 | 33.75 | – | – |
| 5/8 x1-1/4 x 6 | 3250-285 | 20.60 | – | – | – | – | – | – |
| 5/8 x1-1/4 x 8 | 3250-295 | 29.60 | – | – | – | – | – | – |
| 5/8 x1-1/4 x 9 | 3250-297 | 34.65 | – | – | – | – | – | – |
| 3/4 x 1 x 6 | – | – | – | – | 3250-670 | 32.00 | 3251-475 | 73.51 |
| 7/8 x1-1/8 x 6 | – | – | – | – | – | – | 3251-494 | 86.72 |
| 7/8 x1-1/8 x 7 | – | – | 3250-915 | 34.75 | 3250-685 | 58.00 | 3251-495 | 101.17 |
| 1 x 2 x 7 | 3250-360 | 70.25 | – | – | – | – | 3251-515 | 217.24 |
| 1-1/4 x 1-1/2 x 7 | – | – | 3250-920 | 99.00 | – | – | – | – |

## Rectangular Tool Bits

| SIZE | M2 HSS [3] ORDER NO. | M2 HSS [3] PRICE EACH | 5% Co [3] ORDER NO. | 5% Co [3] PRICE EACH | 8% - 10% Co [3] ORDER NO. | 8% - 10% Co [3] PRICE EACH | T15 COBALT [3] ORDER NO. | T15 COBALT [3] PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 1/4 x 3/8 x 3 | 3250-080 | $ 4.15 | 3250-746 | $ 5.51 | 3250-490 | $ 8.09 | 3251-320 | $11.07 |
| 1/4 x 1/2 x 4 | 3250-095 | 5.49 | 3250-750 | 8.84 | 3250-495 | 12.04 | 3251-325 | 15.51 |
| 1/4 x 1/2 x 6 | 3250-100 | 9.07 | – | – | – | – | – | – |
| 1/4 x 3/4 x 5 | 3250-105 | 8.49 | 3250-760 | 13.31 | 3250-505 | 16.74 | 3251-330 | 23.64 |
| 1/4 x 1 x 6 | 3250-110 | 10.97 | 3250-764 | 17.02 | 3250-510 | 24.27 | 3251-335 | 37.67 |
| 5/16 x 7/16 x 3 | 3250-130 | 6.37 | 3250-770 | 8.97 | 3250-525 | 7.40 | 3251-350* | 10.24 |
| 3/8 x 1/2 x 4 | 3250-165 | 6.74 | 3250-795 | 11.39 | 3250-550 | 14.51 | 3251-370 | 20.42 |
| 3/8 x 1/2 x 6 | 3250-170 | 10.25 | – | – | – | – | 3251-375* | 18.42 |
| 3/8 x 5/8 x 4 | 3250-175 | 8.74 | 3250-805 | 15.11 | 3250-560 | 19.11 | 3251-385* | 17.93 |
| 3/8 x 5/8 x 6 | 3250-185 | 12.35 | – | – | 3250-570* | 17.35 | 3251-400* | 26.88 |
| 3/8 x 3/4 x 5 | 3250-193 | 12.16 | 3250-825 | 21.00 | 3250-577 | 26.93 | 3251-410 | 32.69 |
| 3/8 x 1 x 6 | 3250-200 | 18.79 | 3250-835 | 26.83 | 3250-585 | 35.90 | 3251-420 | 49.75 |
| 1/2 x 5/8 x 4-1/2 | 3250-210 | 11.81 | 3250-850 | 18.29 | 3250-595 | 22.09 | 3251-430 | 30.19 |
| 1/2 x 3/4 x 5 | 3250-225 | 17.83 | 3250-865 | 25.89 | 3250-602 | 32.94 | 3251-435 | 38.52 |
| 1/2 x 1 x 7 | 3250-240 | 27.67 | 3250-880 | 38.22 | 3250-615 | 55.20 | 3251-440 | 76.24 |
| 1/2 x1-1/4 x 7 | 3250-255 | 33.48 | 3250-892 | 52.55 | 3250-627 | 54.10 | – | – |
| 1/2 x1-1/2 x 7 | 3250-260 | 44.92 | 3250-895 | 59.94 | 3250-630 | 77.24 | 3251-447* | 78.93 |
| 5/8 x 3/4 x 5 | 3250-265 | 17.53 | 3250-900 | 35.01 | 3250-640 | 47.76 | 3251-450 | 50.44 |
| 5/8 x 7/8 x 6 | 3250-270 | 25.84 | 3250-905 | 38.36 | 3250-645 | 56.68 | 3251-455 | 70.46 |
| 5/8 x 1 x 7 | 3250-280 | 37.43 | – | – | 3250-655 | 58.45 | 3251-460 | 93.25 |
| 5/8 x1-1/4 x 7 | 3250-290 | 39.76 | – | – | 3250-660 | 69.98 | 3251-465 | 116.32 |
| 5/8 x1-1/2 x 7 | 3250-300 | 53.29 | – | – | 3250-665 | 96.95 | 3251-470 | 136.89 |
| 3/4 x 1 x 7 | 3250-310 | 35.20 | – | – | 3250-675 | 71.61 | 3251-480 | 109.69 |
| 3/4 x1-1/4 x 7 | 3250-320 | 42.69 | – | – | 3250-680 | 101.65 | 3251-485 | 136.94 |
| 3/4 x1-1/2 x 7 | 3250-325 | 64.22 | – | – | 3250-682 | 109.55 | 3251-490 | 155.69 |
| 7/8 x1-1/4 x 7 | 3250-340 | 44.36 | – | – | 3250-690 | 93.60 | 3251-500 | 159.79 |
| 1 x1-1/4 x 6 | 3250-345 | 43.31 | – | – | 3250-695 | 91.69 | 3251-505 | 148.89 |
| 1 x1-1/4 x 7 | 3250-350 | 53.61 | – | – | 3250-700 | 106.98 | 3251-507* | 135.78 |
| 1 x1-1/2 x 7 | 3250-355 | 84.72 | – | – | – | – | 3251-510* | 162.93 |

*Limited Quantities

## Cut-Off Blades

| SIZE | M2 HSS [3] ORDER NO. | M2 HSS [3] PRICE EACH | 5% Co [3] ORDER NO. | 5% Co [3] PRICE EACH | HSS HOLLOW GROUND [3] ORDER NO. | HSS HOLLOW GROUND [3] PRICE EACH |
|---|---|---|---|---|---|---|
| 1/16 x 1/2 x 4-1/2 | – | – | – | – | 3256-020 | $ 13.08 |
| 1/16 x11/16 x 5 | – | – | – | – | 3256-030 | 17.28 |
| 1/16 x13/16 x 6 | – | – | – | – | 3256-040 | 24.40 |
| 5/64 x 1/2 x 4-1/2 | 3253-050* | $ 4.05 | – | – | 3256-050 | 13.08 |
| 3/32 x 1/2 x 4-1/2 | 3253-060 | 5.39 | 3258-060 | $ 8.60 | 3256-060 | 13.08 |
| 3/32 x 1/2 x 6 | 3253-065* | 4.95 | – | – | – | – |
| 3/32 x 5/8 x 4-1/2 | 3253-085* | 5.05 | – | – | – | – |
| 3/32 x 5/8 x 5 | 3253-090 | 6.39 | 3258-090 | 10.09 | – | – |
| 3/32 x11/16 x 5 | – | – | – | – | 3256-100 | 17.28 |
| 3/32 x13/16 x 5 | 3253-110* | 5.75 | 3258-110* | 7.60 | – | – |
| 3/32 x13/16 x 6 | – | – | – | – | 3256-120 | 24.40 |
| 3/32 x 1 x 6 | – | – | 3258-125* | 11.50 | – | – |
| 3/32 x 1 x 6-1/2 | 3253-130* | 7.25 | – | – | 3256-130* | 29.09 |
| 1/8 x1/2 x 4-1/2 | – | – | – | – | 3256-140 | 13.08 |
| 1/8 x11/16 x 5 | – | – | – | – | 3256-150 | 17.28 |
| 1/8 x 3/4 x 5 | 3253-170 | 8.32 | 3258-170 | 11.25 | – | – |
| 1/8 x 3/4 x 6 | 3253-173* | 6.90 | 3258-173* | 7.60 | – | – |
| 1/8 x13/16 x 5 | 3253-177* | 7.95 | – | – | – | – |
| 1/8 x 7/8 x 6 | 3253-190 | 9.62 | 3258-190 | 13.44 | – | – |
| 1/8 x 1 x 6-1/2 | 3253-210* | 9.70 | – | – | 3256-210 | 29.09 |
| 5/32 x11/16 x 5 | – | – | – | – | 3256-220 | 18.49 |
| 5/32 x13/16 x 6 | 3253-230* | 7.10 | 3258-230* | 9.35 | 3256-230 | 26.73 |
| 3/16 x11/16 x 5 | – | – | – | – | 3256-240 | 19.38 |
| 3/16 x13/16 x 5 | – | – | – | – | 3256-250* | 26.73 |
| 3/16 x13/16 x 6 | 3253-250* | 8.50 | 3258-250* | 9.50 | – | – |
| 3/16 x 1 x 6-1/2 | 3253-260 | 15.40 | 3258-260 | 20.79 | 3256-260 | 29.09 |
| 3/16 x1-1/8 x 7 | 3253-267 | 18.73 | 3258-265 | 29.95 | – | – |
| 7/32 x13/16 x 6 | 3253-270* | 9.40 | 3258-270* | 9.50 | – | – |
| 1/4 x13/16 x 6 | 3253-280* | 9.80 | 3258-280* | 9.50 | 3256-280 | 27.75 |
| 1/4 x 1 x 6-1/2 | 3253-300* | 14.05 | – | – | 3256-300 | 38.16 |
| 1/4 x1-1/4 x 10 | 3253-325* | 17.50 | – | – | – | – |
| 5/16 x 1 x 6-1/2 | 3253-340* | 17.50 | – | – | – | – |

*Limited Quantities

# TOOLHOLDING

BORING HEADS

GLOBALLY SOURCED TOOLS PROVIDING A BALANCE OF QUALITY & PRICE

DRILL CHUCKS & ARBORS

HOLDERS, ADAPTORS & COLLETS

ARBOR SPACERS & SHIMS

CENTERS, TOOL POSTS, TOOLHOLDERS, & KNURLING TOOLS

TAPPING HEADS

TOOLHOLDER CARTS, COLLET RACKS


Boring Heads . . . . . 282-283
Centers . . . . . 295-296
Collets . . . . . 266-267
Collet Chucks . . . . . 288
Drill Chuck Arbors . . . . . 271
Drill Chucks . . . . . 268-270
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# Tapping Heads

TAPMATIC® 14

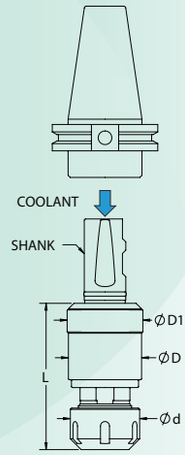
# SFT II SynchroFlex II Series,

The Only Rigid Tap Driver Guaranteed To Double Tap Life For Synchronous Tapping On CNC Machines

### FEATURES

- SynchroFlex's patented precisely machined flexure compensates axially and radially for the unavoidable minute discrepancies between the machine's RPM, feed and traverse and the exact thread pitch and hole location.
- Any deviation at all from the correct feed rate for the thread pitch or the precise hole location results in added wear on the tap.
- SynchroFlex allows the tap to reproduce itself exactly for maximum life and better thread quality.
- All SFT II come standard with high pressure coolant through the spindle.

| MODEL | CAPACITY (STEEL) | SHANK | COLLETS | WEIGHT (Kg.) | D | D1 | d | L | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| SFT II 10 | M2-M5<br>#2-#10<br>20mm<br>16mm | 25mm<br>1" | ER11 | 0.4 | 23.5 | 23.5 | 19 | 52 | 3158-515<br>3158-512<br>3158-514<br>3158-513 | $475.00<br>475.00<br>475.00<br>475.00 |
| SFT II 50 | M4.5-M12<br>#8-1/2"<br>20mm | 25mm<br>1" | ER20 | 0.5 | 34.6 | 36.3 | 34 | 69 | 3158-522*<br>3158-517*<br>3158-519* | 517.00<br>517.00<br>542.00 |
| SFT II 75 | M8-M20<br>1/4"-3/4" | 25mm<br>1" | ER25 | 1.0 | 44.0 | 45.6 | 42 | 88 | 3158-536*<br>3158-533* | 626.00<br>626.00 |
| SFT II 100 | M16-M30<br>5/8"-1" | 25mm<br>1" | ER40 | 2.0 | 62.0 | 63.6 | 63 | 117 | 3158-549*<br>3158-546* | 1089.00<br>1089.00 |

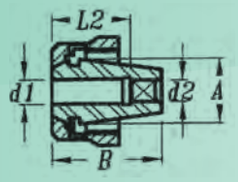



*Includes seal nut for use with sealing discs. All dimensions are shown in mm. 25.4mm + 1".

5

## Square Drive ER Collets

(one collet required for each tap size)




| SERIES | TAP SIZES | ORDER NO. RANGE | PRICE EACH |
|---|---|---|---|
| #11 | #0-#10 | 3158-700 to 3158-702 | $86.00 |
| #20 | #8-3/8", 1/16" Pipe | 3158-719 to 3158-727 | 97.00 |
| #25 | 5/16"-3/4", 1/4' Pipe | 3158-729 to 3158-744 | 104.00 |
| #40 | 9/16"-1", 1/4", 3/8" 1/2" Pipes | 3158-806 to 3158-817 | 126.00 |

# SPD Series, Short Positive Drive, Reversing Tapping Attachments

For N/C Machines With Bore Cycles, Automated Drill Units (and high production manual applications).

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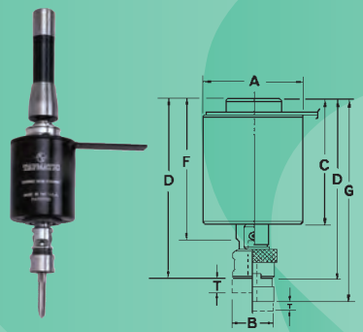
### FEATURES

- **Positive Drive and Reverse:** The full power of the machine is transmitted to the tap in both drive and reverse to **eliminate slippage.**
- **Short Stroke Self-Feed:** This provides the minimum amount of axial float necessary to compensate or lead error on most automated equipment and still allows the tap to act as its own lead screw.
- **Re-entry Cushion:** Cushioned drive **eliminates cross threading.**
- **1 X 1 Reverse Ratio:** Permits the bore cycle of most N/C machines to be used for tapping. This eliminates the undesirable necessity of reversing the motors, spindles and gear trains of expensive numerically controlled equipment.
- **Top Stop Arm Location:** The top stop arm location of the "SPD" reduces the required length of a torque bar to its absolute minimum and **eliminates interference with other tools being used in a set-up.**
- **Collet Chuck Spindle Nose:** Jacobs RUBBER-FLEX® collets and back jaws adapt to all tap sizes, both metric and inch, within the attachment's rated capacity.
- **Standard Right Hand Tapping:** Units modified for left-hand tapping are available on special order at no extra cost.
- **Optional Quick Change Spindle Nose:** Accepts Tapmatic Collet Chuck Adapters, Positive Drive and Torque Release Tap Adapters for **complete versatility.**
- **Optional ERICKSON® Spindle Nose:** Available for Models SPD5 and SPD7. Accepts J & K type collets.

| | SPD3 (#0-1/4") | | SPD5 (#6-1/2") | | SPD7 (#10-3/4-16") | | SPD9A (1/2-1-1/8") | |
|---|---|---|---|---|---|---|---|---|
| MOUNT TYPE | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| #3JT | – | – | – | – | 3158-234 | $1069.00 | – | – |
| #4JT | – | – | – | – | – | – | 3158-244 | $1599.00 |
| #6JT | 3158-202 | $633.00 | 3158-218 | $776.00 | – | – | – | – |
| #33JT | 3158-204 | 633.00 | 3158-220 | 776.00 | – | – | – | – |
| 5/16-24 | 3158-208 | 646.00 | – | – | – | – | – | – |
| 3/8-24 | 3158-210 | 646.00 | 3158-224 | 804.00 | – | – | – | – |
| 1/2-20 | 3158-212 | 646.00 | 3158-226 | 804.00 | 3158-236 | 1069.00 | – | – |
| 5/8-16 | 3158-214 | 646.00 | 3158-228 | 804.00 | 3158-238 | 1069.00 | – | – |
| 3/4-16 | 3158-216 | 646.00 | 3158-230 | 804.00 | 3158-240 | 1069.00 | 3158-246 | 1599.00 |
| 7/8-20 | – | – | 3158-232 | 804.00 | 3158-242 | 1069.00 | – | – |
| 1-1/2-18 | – | – | – | – | – | – | 3158-248 | 1599.00 |




| MODEL | *** CAPACITY IN STEEL | WEIGHT | REC. MAX SPEED | COLLETS (order separately) STANDARD | COLLETS (order separately) OPTIONAL | A | B | T SELF-FEED | JACOBS TAPER MTS. | THREADED MTS. | C | D | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPD3 | M1.4-M6<br>#0.-¼" | .45 Kg.<br>1 lb. | 2000 RPM | 21600<br>(#0-#8) | 21500<br>(.040-.098) | 52mm<br>2.062 | 19mm<br>.750 | 3mm<br>.125 | #6, #33 | | 79mm<br>3.125 | 115mm<br>4.540 | 96mm<br>3.812 |
| | | | | 21700 | | | | | | 5/16-24<br>⅜-24 | 65mm<br>2.575 | 101mm<br>4.000 | 83mm<br>3.275 |
| | | | | (#10-¼") | | | | | | ½-20, ⅝-16<br>*¾-16 | 73mm<br>2.910 | 110mm<br>4.350 | 92mm<br>3.625 |
| SPD5 | M3-M12<br>#6-½" | 1.36 Kg.<br>3 lbs. | 1500 RPM | 22100<br>(#0-¼") | 22000<br>(.194-.318) | 69mm<br>2.718 | 27mm<br>1.070 | 5mm<br>.187 | #6, #33 | | 98mm<br>3.885 | 139mm<br>5.485 | 114mm<br>4.520 |
| | | | | 22200<br>(#¼"-½") | 22300<br>(.090-.180) | | | | | ¾-24, ½-20<br>⅝-16, ¾-16<br>*⅞"-20 | 92mm<br>3.625 | 132mm<br>5.230 | 108mm<br>4.255 |
| SPD7 | M5-M18<br>#10-¾"-16 | 2.04 Kg. | 1200 RPM | 24100<br>(#10-½") | 24300<br>(.110-.280) | 76mm<br>3.000 | 36mm<br>1.450 | 7mm<br>.250 | #3 | | 107mm<br>4.250 | 170mm<br>6.710 | 137mm<br>5.420 |
| | NP ⅛"-¼" | 4 lbs.<br>8 ozs. | | 24500<br>(½"-¾") | 24000<br>(.318-.480) | | | | | ½-20, ⅝-16<br>¾-16, ⅞-20 | 95mm<br>3.765 | 158mm<br>6.225 | 125mm<br>4.940 |
| SPD9A | M10-M28<br>#½"-1⅛" | 5.00 Kg.<br>11 lbs. | 600 RPM | 26100<br>(½"-¾") | | 103mm<br>4.090 | 57mm<br>2.250 | 10mm<br>.400 | #4 | 1½-18 | 143mm<br>5.650 | 240mm<br>9.550 | 200mm<br>7.875 |
| | NP-¾" | | | 26200<br>(⅞"-1⅛") | | | | | | ¾-16 | 115mm<br>4.550 | 215mm<br>8.450 | 170mm<br>6.700 |

**Complete information and instructions are packaged with each unit.**

*** Capacity must be reduced a minimum of 25% for roll form taps.

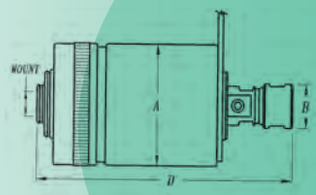
* Increase CID & F dimension by .200 for SPD3, .391 for SPD5 and .525 for SPD7.

TAPMATIC®

# Rx New Rx Series, Self Reversing Tap Attachments,

For Manually Operated Drilling and Milling
(Replaces R Series and X Series Tapping Attachments)

14



**PERFORMANCE ADVANTAGES**
- New Durable, Rugged Design For Higher Production On Manual Applications
- Accurate Depth Control • Heavy Duty Ball Clutch

**FEATURES**
Self-Feed: Permits the tap to act as its own lead screw, allowing even inexperienced operators to produce gage perfect threads.
Thread depth repeatability can be maintained accurately.

**Pre-Selective Torque Drive:** Completely adjustable for material and tap size, to prevent tap breakage.

**1.75 x 1 Reverse Ratio:** Permits the tap to retract from the tapped hole 75% faster than it entered which greatly increases production.

**Re-Entry Cushion:** A cushioned drive eliminates cross threading. It is possible to re-enter the same tapped hole as many times as necessary and still maintain a gage perfect thread.

**Collet Chuck Spindle Nose:** Jacobs RUBBER-FLEX collets and adjustable back jaws adapt to all tap sizes, both metric and inch, within an attachment's rated capacity.

| MOUNT TYPE | Rx 30 (#0-1/4) ORDER NO. | Rx 30 (#0-1/4) PRICE EACH | Rx 50 (#6-1/2) ORDER NO. | Rx 50 (#6-1/2) PRICE EACH | Rx 70 (#10-3/4) ORDER NO. | Rx 70 (#10-3/4) PRICE EACH |
|---|---|---|---|---|---|---|
| #33 JT | 3158-144 | $588.00 | 3158-158 | $785.00 | – | – |
| #6 JT | 3158-142 | 588.00 | 3158-156 | 785.00 | – | – |
| #3 JT | – | – | – | – | 3158-168 | $1118.00 |
| 5/16"-24 | 3158-148 | 599.00 | – | – | – | – |
| 3/8"-24 | 3158-150 | 599.00 | – | – | – | – |
| 1/2"-20 | 3158-152 | 599.00 | 3158-162 | 810.00 | – | – |
| 5/8"-16 | 3158-154 | 599.00 | 3158-164 | 810.00 | 3158-172 | 1158.00 |
| 3/4"-16 | – | – | 3158-166 | 810.00 | 3158-174 | 1158.00 |
| 7/8"-20 | – | – | – | – | 3158-176 | 1158.00 |

| MODEL | CAPACITY | COLLET SERIES | MAX SPEED | WEIGHT | A | B | D | SELF-FEED |
|---|---|---|---|---|---|---|---|---|
| Rx30 | #0-1/4" M1.4-M6 Roll Form #10 Max | #21000 | 2000 RPM | 1.5 lb. .7 Kg. | 2.125 53mm | 0.75 19mm | 4.58 116mm | 0.13 3mm |
| Rx50 | #6-1/2" M3-M12 Roll Form #3/8 Max NP 1/16", 1/8" | #22000 | 1500 RPM | 4.0 lb. 1.8 Kg. | 3 76mm | 1.07 27mm | 6.2 157mm | 0.16 .4mm |
| Rx70 | #10-3/4"-16 M5-M18 Roll Form 9/16" Max | #24000 | 1200 RPM | 6.7 lb. 3.0 Kg. | 3.5 88mm | 1.45 36mm | 7.14 182mm | 0.16 4mm |

# TC/DC For Manually Operated Drilling & Milling Machines

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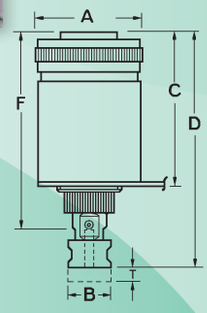
*Tapping Attachment with Torque and Depth Control Designed for Shallow Hole Drilling on Manually Operated Milling & Drilling Machines

**FEATURES**
- Has the standard features of the X Series, plus depth control that eliminates the possibility of bottoming in your work piece and breaking taps.
- Self-Feed: Permits the tap to act as its own lead screw and consistently produce gage perfect threads.

| MOUNT TYPE | 30 TC/DC (#0-1/4") ORDER NO. | 30 TC/DC (#0-1/4") PRICE EACH | 50 TC/DC (36-1/2") ORDER NO. | 50 TC/DC (36-1/2") PRICE EACH | 70 TC/DC (#10-5/8") ORDER NO. | 70 TC/DC (#10-5/8") PRICE EACH |
|---|---|---|---|---|---|---|
| #3JT | – | – | – | – | 3158-334 | $1220.00 |
| #4JT | – | – | – | – | – | – |
| #6JT | 3158-302 | $686.00 | 3158-320 | $907.00 | – | – |
| #33JT | 3158-304 | 686.00 | 3158-322 | 907.00 | – | – |
| 5/16-24 | 3158-310 | 686.00 | – | – | – | – |
| 3/8-24 | 3158-312 | 686.00 | 3158-326 | 907.00 | – | – |
| 1/2-20 | 3158-314 | 686.00 | 3158-328 | 907.00 | 3158-336 | 1220.00 |
| 5/8-16 | 3158-316 | 686.00 | 3158-330 | 907.00 | 3158-338 | 1220.00 |
| 3/4-16 | 3158-318 | 686.00 | 3158-332 | 907.00 | 3158-340 | 1220.00 |
| 7/8-20 | – | – | – | – | 3158-342 | 1220.00 |

*** Capacity must be reduced a minimum of 25% for roll form taps.




Complete information and instructions are packaged with each unit.

| MODEL | *** CAPACITY IN STEEL | WEIGHT | REC. MAX SPEED | COLLETS (order separately) STANDARD | COLLETS (order separately) OPTIONAL | A | B | E SELF-FEED | JACOBS TAPER MTS. | THREADED MTS. | C | D | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 TC/DC | M1.4-M6 #0-¼" | .45 Kg. 1 lb. | 2000 RPM | 21600 (#0-#8) | 21500 (.040-.098) | 48mm 1.875 | 19mm .750 | 6mm .250 | #6, #33 | ½-20, ⅝-16 ⅜-16 | 81mm 3.220 | 109mm 4.300 | 92mm 3.650 |
| | | | | 21700 (#10-¼") | | | | | | 5/16-24, ⅜-24 | 72mm 2.850 | 99mm 3.900 | 82mm 3.250 |
| 50 TC/DC | M3-M12 #6-½" | 1.36 Kg. 3 lbs. | 1500 RPM | 22100 (#0-¼") | 22000 (.194-.318) | 70mm 2.750 | 27mm 1.070 | 9mm .375 | #6, #33 | ⅝-16, ¾-16 | 109mm 4.300 | 148mm 5.830 | 122mm 4.812 |
| | | | | 22200 (¼"-½") | 22300 (.090-.180) | | | | | ¾-24, ½-20 | 104mm 4.100 | 142mm 5.625 | 118mm 4.650 |
| 70 TC/DC | M5-M16 #10-⅝" NP ⅛" | 2.04 Kg. 4 lbs. 8 ozs. | 1200 RPM | 24100 (#10-½") 24000 (5/16"-⅝") | 24300 (.110-.280) 24500 (.393-.590) | 76mm 3.000 | 36mm 1.450 | 9mm .375 | #3 | ½-20, ⅝-16 ¾-16, ⅞-20 | 119mm 4.685 | 168mm 6.650 | 137mm 5.400 |

# Rubber Flex Collets

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| MFG. NO. | COLLET DESCRIPTION | ORDER NO. | PRICE |
|---|---|---|---|
| 21400 | .198-.255 | 3158-914 | $31.50 |
| 21500 | .040-.098 | 3158-915 | 57.00 |
| 21600 | #0-#8 Standard | 3158-916 | 57.00 |
| 21700 | #10-1/4" Standard | 3158-917 | 57.00 |

| MFG. NO. | COLLET DESCRIPTION | ORDER NO. | PRICE |
|---|---|---|---|
| 22000 | .194-.318 | 3158-920 | $57.00 |
| 22100 | #0-1/4" Standard | 3158-921 | 57.00 |
| 22200 | #1/4" -1/2" Standard | 3158-922 | 57.00 |
| 22300 | .090-.180 | 3158-923 | 57.00 |

| MFG. NO. | COLLET DESCRIPTION | ORDER NO. | PRICE |
|---|---|---|---|
| 24000 | 5/16"-5/8" Standard | 3158-940 | $61.00 |
| 24100 | #10-1/2" Standard | 3158-941 | 61.00 |
| 24300 | .110-.280 | 3158-943 | 61.00 |
| 24500 | .393-.590 | 3158-945 | 71.00 |
| 26100 | 1/2"-3/4" | 3158-961 | 124.00 |
| 26200 | 7/8"-1-1/8" | 3158-962 | 124.00 |

# Jacobs® Super Chucks

The ball bearing super chuck is especially designed for EXTRA HEAVY DUTY drilling applications on production machines, jig borers, milling machines, lathes and radials. The ideal choice for those jobs that require close tolerance drilling.

| MODEL NO. | CAPACITY INCHES | CHUCK MOUNT | KEY MOUNT | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 8-1/2N | 0-1/4 | 2JT | K30 | 3147-517 | $134.26 |
| 11N | 0-3/8 | 2JT | K32 | 3147-522 | 149.61 |
| 14N | 0-1/2 | 3JT | K3 | 3147-528 | 209.15 |
| 16N | 1/8-5/8 | 3JT | K4 | 3147-532 | 240.08 |
| 18N | 1/8-3/4 | 4JT | K4 | 3147-536 | 361.08 |
| 20N | 3/8-1 | 5JT | K5 | 3147-540 | 486.25 |

# Jacobs® Plain Chucks

This fine chuck is offered for both medium duty portable, bench or floor type power tools in a wide range of capabilities for either threaded or taper mounted spindles.

| MODEL NO. | CAPACITY INCHES | MOUNT | KEY | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| **TAPER MOUNT** | | | | | |
| 0 | 0-5/32 | 0JT | K0 | 3148-005 | $ 90.04 |
| 1A | 0-1/4 | 1JT | K1 | 3148-015 | 73.23 |
| 2A | 0-3/8 | 2JT | K2 | 3148-065 | 100.44 |
| 33 | 5/64-1/2 | 33JT | K32 | 3148-095 | 112.28 |
| 33KD | 5/64-1/2 | 33JT | K32 | 3148-100 | 125.06 |
| 3A | 1/8-5/8 | 3JT | K3 | 3148-160 | 164.24 |
| 34-02 | 0-1/2 | 2JT | K3 | 3148-143 | 103.15 |
| 34-06 | 0-1/2 | 6JT | K3 | 3148-145 | 136.97 |
| 34-33 | 0-1/2 | 33JT | K3 | 3148-146 | 116.60 |
| 34-33C | 0-1/2 | 33JT | K3 | 3148-147 | 107.74 |
| 36 | .18-80 | 3JT | K4 | 3148-170 | 206.08 |
| 36KD | .18-80 | 3JT | K4 | 3148-190 | 198.62 |
| **THREAD MOUNT** | | | | | |
| 1B3/8 | 0-1/4 | 3/8-24 | K7 | 3148-010 | $74.35 |
| 7BA3/8 | 0-1/4 | 3/8-24 | K7 | 3148-035 | 82.54 |
| 41BA3/8 | 0-3/8 | 3/8-24 | K30 | 3148-193 | 41.55 |
| 41BA1/2 | 0-3/8 | 1/2-20 | K30 | 3148-197 | 115.88 |
| 2BA3/8 | 0-3/8 | 3/8-24 | K2 | 3148-075 | 98.80 |
| 32BA1/2 | 0-3/8 | 1/2-20 | K32 | 3148-090 | 108.98 |
| 33BA3/8 | 5/64-1/2 | 3/8-2A | K32 | 3148-105 | 106.24 |
| 33BA1/2 | 5/64-1/2 | 1/2-20 | K32 | 3148-115 | 101.83 |
| 33BA5/8 | 5/64-1/2 | 5/8-16 | K3 | 3148-120 | 106.13 |
| 3B5/8 | 5/64-1/2 | 5/8-16 | K3 | 3148-165 | 165.48 |
| 3BA-1/2 | 1/8-5/8 | 5/8-16 | K3 | 3148-158 | 124.60 |
| 36B | .18-80 | 5/8-16 | K4 | 3148-175 | 246.56 |
| 36B | .18-80 | 3/4-16 | K4 | 3148-176 | 231.61 |

# Jacobs® Keyless Chucks

Jacobs® Industrial Keyless Chucks are high precision devices specially designed for high accuracy applications on either conventional or CNC equipment. Tightened and released by hand, they permit more rapid tooling changes to increase machining productivity. A self-tightening feature produces significantly higher gripping force to resist tool shank slippage. Precision manufactured and tested to the most exacting quality standards, Jacobs® Industrial Keyless Chucks can be counted on for extremely high reliability and durability under the most demanding machining conditions.

| MODEL JKP | CAPACITY RANGE MIN. INCHES | MM | MAX. INCHES | MM | MOUNT JACOBS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 80-J2S | 0 | 0 | 0.315 | 8 | J2S | 3148-600 | $252.32 |
| 100-J2 | 0 | 0 | 0.394 | 10 | J2 | 3148-601 | 269.74 |
| 100-J33 | 0 | 0 | 0.394 | 10 | J33 | 3148-602 | 269.74 |
| 130-J2 | 0.039 | 1 | 0.512 | 13 | J2 | 3148-603 | 288.33 |
| 130-J33 | 0.039 | 1 | 0.512 | 13 | J33 | 3148-604 | 288.33 |
| 130-J6 | 0.039 | 1 | 0.512 | 13 | J6 | 3148-605 | 288.33 |
| 160-J6 | 0.118 | 3 | 0.630 | 16 | J6 | 3148-606 | 333.37 |

## FEATURES:

- Each chuck precision tested and furnished with an individualized certification number identifying its specific performance characteristics.
- Self-tightening feature automatically increases gripping force proportional to prevent tool shank slippage.
- All components exposed to wear are completely hardened to maintain accuracy and extended chuck life.
- Jacobs taper mount permits use on a wide range of high accuracy drill presses, jig borers, milling machines and production drilling equipment.

## HIGH TORQUE / HIGH PRECISION MODEL

- For use on CNC machining centers in drilling, boring, counterboring and milling operations requiring heavy penetration.
- Furnished with milled wrench flats and spanner wrench to allow the application of supplementary gripping torque. Light tightening increases gripping torque up to 3 times high than hand tightening.
- Resists tool loosening on high speed machines with right hand rotation and instant spindle top.

| MODEL JKT | CAPACITY RANGE MIN. INCHES | MM | MAX. INCHES | MM | MOUNT JACOBS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 130-J2 | 0.039 | 0 | 0.512 | 13 | J2 | 3148-611 | $334.84 |
| 130-J33 | 0.039 | 0 | 0.512 | 13 | J33 | 3148-612 | 334.84 |
| 130-J6 | 0.039 | 1 | 0.512 | 13 | J6 | 3148-613 | 334.84 |
| 160-J6 | 0.118 | 3 | 0.630 | 16 | J6 | 3148-614 | 400.18 |

# Micro Drill Chuck Adapter

## FEATURES:

- 1/2" precision ground straight shank .750 travel
- Free turning knurled hand grip
- Infinitely variable spring pressure
- Automatic return at release
- 0 Jacobs male taper

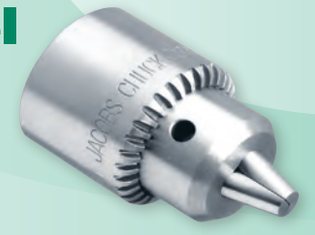
| DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|
| Micro Drill Adapter Only | 3142-470 | $ 39.90 |
| Micro Drill Adapter with Jacobs Keyed Chuck. 0-5/32" capacity. | 3142-480 | 127.54 |
| Micro Drill Adapter with ROHM Keyless Chuck. 0-5/32" capacity. | 3142-485 | 108.90 |
| Micro Drill Adapter with Albrecht Keyless Chuck. 0-1/16" capacity. | 3142-490 | 256.43 |

# High Torque/High Precision Keyless Chucks With Integrated Shank

- High precision keyless drill chuck - arbor is integrated into the internal socket of the drill chuck.
- Self-tightening feature automatically increases gripping force proportional to increased torque to prevent tool shank slippage. For right hand rotation applications only.
- 100% individually controlled to ensure not to exceed a maximum total integrated run-out of 0.04 mm.

| | CAPACITY RANGE | | | | | DIMENSIONS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MINIMUM | | MAXIMUM | | | CLOSED LGTH. | | OPEN LGTH. | | SLEEVE DIA. | | | |
| MODEL/ PART NO. | IN | MM | IN | MM | MOUNT | IN. | MM. | IN. | MM. | IN. | MM. | ORDER NO. | PRICE EACH |
| JK 100-MT2 | 0.000 | 0 | 0.394 | 10.0 | MT2 | 3.23 | 82 | 2.87 | 73 | 1.69 | 43 | 3148-561 | $299.32 |
| JK 130-MT2 | 0.039 | 1 | 0.512 | 13.0 | MT2 | 3.62 | 92 | 3.15 | 80 | 1.89 | 48 | 3148-562 | 334.67 |
| JK 130-MT3 | 0.039 | 1 | 0.512 | 13.0 | MT3 | 3.62 | 92 | 3.15 | 80 | 1.89 | 48 | 3148-563 | 336.67 |
| JK 130-MT4 | 0.039 | 1 | 0.512 | 13.0 | MT4 | 3.54 | 90 | 3.23 | 82 | 1.89 | 48 | 3148-564 | 356.46 |
| JK 130-R8 | 0.039 | 1 | 0.512 | 13.0 | R8 | 3.54 | 90 | 3.23 | 82 | 1.89 | 48 | 3148-565 | 368.68 |
| JK 160-MT3 | 0.118 | 3 | 0.630 | 16.0 | MT3 | 3.78 | 96 | 3.35 | 85 | 2.13 | 54 | 3148-568 | 376.85 |
| JK 160-MT4 | 0.118 | 3 | 0.630 | 16.0 | MT4 | 3.78 | 96 | 3.35 | 85 | 2.13 | 54 | 3148-569 | 394.55 |
| JK 160-R8 | 0.118 | 3 | 0.630 | 16.0 | R8 | 3.78 | 96 | 3.35 | 85 | 2.13 | 54 | 3148-570 | 406.80 |

# Stainless Steel Chucks



- For special applications on either portable air-operated, or stationary machine tools.
- Resistant to chemical corrosion and reduces potential for hazardous sparking.

| | CAPACITY RANGE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MINIMUM | | MAXIMUM | | | | | |
| MODEL/ PART NO. | IN | MM | IN | MM | MOUNT STYLE | KEY NO. | ORDER NO. | PRICE EACH |
| 0M-6624 | 0(1) | 0 | 0.156 | 4 | 0-JT(2) | K0M | 3147-560 | $182.15 |
| 0BM-6625 | 0(1) | 0 | 0.156 | 4 | 5/16-24 | K0M | 3147-565 | 178.97 |
| 1M-6626 | 0(1) | 0 | 0.250 | 6 | 1-JT(2) | K1M | 3147-580 | 166.14 |
| 1BM-6627 | 0(1) | 0 | 0.250 | 6 | 5/16-24 | K1M | 3147-570 | 181.62 |
| 1MM-6628 | 0(1) | 0 | 0.250 | 6 | 3/8-24 | K1M | 3147-575 | 177.25 |

# Drain Chuck

- Specifically designed for use with flexible coil spring tools. Allows coil spring to pass through chuck. Chuck may be hand tightened to secure coil spring at desired length transmitting tool rotation to shaft.
- Ideal for soil pipe and sewer cleaning tools.

| | CAPACITY RANGE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MINIMUM | | MAXIMUM | | | | | |
| MODEL/ PART NO. | IN | MM | IN | MM | MOUNT THREAD | KEY NO. | ORDER NO. | PRICE EACH |
| DC4595 | 0.25 | 6.4 | 0.500 | 13 | 13/16-20 | – | 3148-199 | $96.67 |

# Adapt-A-Drive® Chucks

- Converts any cordless screwdriver to a multi-purpose mini-drill for bit sizes up to 1/4".
- Easy conversion– integral hex mount locks the Adapt-A-Drive® chuck into the screwdriver bit socket.
- Ideal for starting screw holes when using in hard-to reach spaces.

| | CAPACITY RANGE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MINIMUM | | MAXIMUM | | | | | |
| MODEL/ PART NO. | IN | MM | IN | MM | MOUNT THREAD | KEY NO. | ORDER NO. | PRICE EACH |
| 30248 | 0.028 | 0.7 | 0.250 | 6.5 | 3/8-24 | KG1 | 3148-200 | $17.79 |

# Professional Duty Chucks

- Industrial quality for the tradesman.
- Through-hardened jaws provide hard, durable gripping surfaces.
- One-piece sleeve eliminates crack between driving teeth often found in other designs.
- Each chuck is inspected for 100% performance and precision.
- Fluted sleeve finish.

| | CAPACITY RANGE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MINIMUM | | MAXIMUM | | | | | |
| MODEL/ PART NO. | IN | MM | IN | MM | MOUNT THREAD | KEY NO. | ORDER NO. | PRICE EACH |
| 30246 | 0.063 | 1.6 | 0.375 | 10 | 3/8-24 | KK | 3148-182 | $35.32 |
| 31052 | 0.063 | 1.6 | 0.500 | 13 | 1/2-20 | KK | 3148-183 | 40.65 |

# Chucks, Chuck Keys

Jacobs® 10

## Multi-Craft® Chucks

The Multi-Craft® Drill Chuck is mounted as original equipment on more drills than any other chuck by both domestic and import drill manufacturers. It features through-hardened jaws and a design found only in competitors' industrial-grade chucks. Each chuck is backed by the Jacobs® Warranty. Ideal for corded or cordless reversible or nonreversible power drills.

| MODEL/ PART NO. | CAPACITY RANGE MINIMUM IN | MINIMUM MM | MAXIMUM IN | MAXIMUM MM | MOUNT THREAD | KEY NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| | | | 1/4" Capacity | | | | |
| 3148-186 | 0.028 | 0.7 | 0.250 | 6.5 | 3/8-24 | KG1 | $14.06 |
| | | | 3/8" Capacity | | | | |
| 3148-196 | 0.062 | 1.5 | 0.375 | 10.0 | 3/8-24 | KG1 | 16.76 |
| | | | 1/2" Capacity | | | | |
| 3148-184 | 0.078 | 2.0 | 0.500 | 13.0 | 3/8-24 | KK | 22.14 |
| 3148-185 | 0.078 | 2.0 | 0.500 | 13.0 | 1/2-20 | KK | 22.14 |

## Hand-Tite® Keyless Drill Chucks

- **Keyless Operation –** Permits fast bit changes without lost key delays.
- **Superior Gripping Force –** Provides high mechanical advantage to convert hand tightening torque into superior bit gripping force.
- **Versatility –** Models available to fit all 10mm (3/8") and 13mm (1/2") variable speed corded and cordless portable drills.
- **Precision Operation –** Meet or exceed stringent DIN run-out and dimensional specifications.
- **Ergonomic Design –** Material and surface finish combinations result in increased comfort and performance.
- **Rugged Construction –** Constructed of high performance materials to maximize durability and performance.

| MODEL/ PART NO. | CAPACITY RANGE MINIMUM IN | MINIMUM MM | MAXIMUM IN | MAXIMUM MM | MOUNT THREAD | PRICE EACH |
|---|---|---|---|---|---|---|
| | | 10mm Capacity (3/8") Metal Sleeve, Exposed Jaws, Black Finish | | | | |
| 3148-198 | 0.040 | 1.0 | 0.375 | 10 | 3/8-24 | $26.41 |
| | | 13mm Capacity (1/2") Hard Nose, Black Finish | | | | |
| 3148-188 | 0.062 | 2.0 | 0.500 | 13 | 1/2-20 | 40.65 |
| 3148-187 | 0.062 | 2.0 | 0.500 | 13 | 3/8-24 | 40.65 |

## Chuck Keys

| Jacobs JACOBS | ROHM | LFA | FOR JACOBS CHUCK NOS. | FOR ROHM CHUCK NOS. | FOR LFA CHUCK NOS. | PILOT SIZE | Jacobs ORDER NO. | PRICE EACH | USA MADE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| K0 | | 0 | 0B | | | 1/8 | 3148-324 | $ 5.64 | 3148-301 | $ 4.51 |
| K1 | S7 | 1 | 1A, 1B, 1BS, MC1 | R0-0, R1-1 | 81-1A, 81-B1- | 5/32 | 3148-317 | 3.99 | 3148-302 | 3.19 |
| KG | S14 | TB1 | DC1G61, DC1G61AD, DC4G61, DC4G61AD, H1G61, H4561, MC2, MC11G41, MC1G60, MC1G61, MC1G75, U4G41, U4G60, U4G61 | | 4200-B1, 412-B1 420-B1 | 1/4 | 3148-331 | 2.83 | 3148-314 | 2.26 |
| KGA | | T80 | | | | 1/4 | 3148-326 | 2.51 | 3148-316 | 2.26 |
| K2 | S17 | #2 | 2A, 2B, MC5 | R2-38, R2-38TH | 82-2A, 82-2B | 1/4 | 3148-318 | 5.62 | 3148-303 | 4.50 |
| K7 | S18 | T4 | 7, 7-1A, 7B | R6-12, R6-12TH, R6-38TH, R7-38TH | | 7/32 | 3148-321 | 4.93 | 3148-306 | 3.94 |
| K32 | S9 | T5 | 11N, 32, 32B, 33, 33B, 33BA, 33F, 33KD, 3326, 3326A, MC-10, MC33 | R2-2, R2-12, R2-33, R9-12, R9-12TH, R9-38, R9-38TH | 82A-5A, 42BA-5A, 8282A-5B, 42-BA-5B, 82AS-5A | 1/4 | 3148-319 | 5.75 | 3148-308 | 4.60 |
| K3 | S10 | T6 | 3, 3A, 3AE, 3B, 3KD, 3PD, 6AE, 6A-2A, 6A-33, 6B, 14N, 34, 34B, 34KD, 34PD, 55B, 56B, 58B, 75A, 634, 634B | R3-2, R3-6, R3-6DP/TH, R3-12, R3-33, R3-58, R4-3, R4-58, R11-3 | 43-6A, 42-6B, 84-6A, 45-6A, 44-6B, 84-6B, 45-5B, 83S-6A, 84S-6A | 5/16 | 3148-320 | 6.69 | 3148-304 | 5.35 |
| K3C | | T6C | 633C, 633D | | | 5/16 | 3148-327 | 8.12 | 3148-305 | 6.50 |
| K30 | S8 | #13 | 30, 30-1A, 30B, 31B, 31BA, 8-1/2N, MC4 | R7-1, R7-12, R7-38, R8-12, R8-38, R8-38TH | 81B-13A, 81B-13B, 42-13B, 81BS-13A | 15/64 | 3148-323 | 5.47 | 3148-307 | 4.38 |
| KK | S19 | TB13 | DC8K33, DC8K61, | | 42-813, | 9/32 | 3148-329 | 4.57 | 3148-315 | 3.66 |
| K4 | S13 | #9 | 16N, 18BN, 36, 36B, 37KD, 37PD, 59B | R5-3, R-5, 3DP/TH, R5-4, R6-5 | 85-9A, 85B-9A, 85S-9A, 85BS-9A | 3/8 | 3148-322 | 11.08 | 3148-309 | 8.86 |
| K5 | | #26 | 20N | | | 7/16 | 3148-328 | 24.38 | 3148-310 | 20.72 |

# Arbors

## Morse Taper To Jacobs Taper

| MORSE TAPER | JACOBS TAPER | Pittsburg® [2] ORDER NO. | Pittsburg® [2] PRICE EACH | Jacobs® [10] ORDER NO. | Jacobs® [10] PRICE EACH |
|---|---|---|---|---|---|
| 0 | 0 | 3142-400† | $3.20 | – | – |
| 1 | 0 | 3142-410† | 3.20 | – | – |
| 1 | 1 | 3142-411 | 3.20 | 3148-685 | $21.31 |
| 1 | 2 | 3142-412 | 3.20 | 3148-686 | 24.56 |
| 1 | 3 | 3142-413 | 3.20 | – | – |
| 1 | 6 | 3142-416 | 3.20 | 3148-687 | 26.75 |
| 1 | 33 | 3142-419 | 3.20 | 3148-688 | 24.92 |
| 2 | 0 | 3142-420† | 3.20 | – | – |
| 2 | 1 | 3142-421 | 3.20 | 3148-689 | 23.38 |
| 2 | 2 | 3142-422 | 3.20 | 3148-690 | 18.94 |
| 2 | 3 | 3142-423 | 3.20 | 3148-691 | 18.57 |
| 2 | 4 | 3142-424 | 4.45 | 3148-692 | 23.92 |
| 2 | 5 | 3142-425 | 7.80 | – | – |
| 2 | 6 | 3142-426 | 3.20 | 3148-693 | 25.45 |
| 2 | 33 | 3142-429 | 3.20 | 3148-694 | 18.94 |
| 3 | 1 | 3142-431 | 4.25 | 3148-695 | 25.64 |
| 3 | 2 | 3142-432 | 4.25 | 3148-696 | 26.46 |
| 3 | 3 | 3142-433 | 4.25 | 3148-697 | 25.13 |
| 3 | 4 | 3142-434 | 4.25 | 3148-698 | 29.44 |
| 3 | 5 | 3142-435 | 4.25 | 3148-699 | 34.73 |
| 3 | 6 | 3142-436 | 4.25 | 3148-700 | 26.46 |
| 3 | 33 | 3142-439 | 4.25 | 3148-701 | 25.64 |
| 4 | 2 | 3142-442 | 7.30 | 3148-702 | 46.43 |
| 4 | 3 | 3142-443 | 7.30 | 3148-703 | 39.53 |
| 4 | 4 | 3142-444 | 7.30 | 3148-704 | 40.80 |
| 4 | 5 | 3142-445 | 7.30 | 3148-705 | 57.07 |
| 4 | 6 | 3142-446 | 7.30 | 3148-706 | 41.53 |
| 4 | 33 | 3142-449 | 7.30 | 3148-707 | 41.76 |
| 5 | 2 | 3142-452 | 11.35 | – | – |
| 5 | 3 | 3142-453 | 11.35 | 3148-708 | 84.77 |
| 5 | 4 | 3142-454 | 11.35 | 3148-709 | 83.84 |
| 5 | 5 | 3142-455 | 11.35 | 3148-710 | 82.78 |
| 5 | 6 | 3142-456 | 11.35 | – | – |
| 5 | 33 | 3142-459 | 11.35 | – | – |

## Straight Shank To Jacobs Taper

| SA. SHANK | JACOBS TAPER | Pittsburg® [2] ORDER NO. | Pittsburg® [2] PRICE EACH | Jacobs® [10] ORDER NO. | Jacobs® [10] PRICE EACH |
|---|---|---|---|---|---|
| 1/2 | 0 | 3142-300 | $2.95 | 3148-715 | $19.34 |
| 1/2 | 1 | 3142-301 | 2.95 | 3148-716 | 19.34 |
| 1/2 | 2 | 3142-302 | 2.95 | 3148-717 | 19.34 |
| 1/2 | 3 | 3142-303 | 2.95 | 3148-718 | 19.34 |
| 1/2 | 4 | 3142-304 | 2.95 | – | – |
| 1/2 | 6 | 3142-306 | 2.95 | 3148-719 | 25.06 |
| 1/2 | 33 | 3142-309 | 2.95 | 3148-720 | 19.34 |
| 5/8 | 1 | 3142-321 | 2.95 | 3148-721 | 23.06 |
| 5/8 | 2 | 3142-322 | 2.95 | 3148-722 | 23.80 |
| 5/8 | 3 | 3142-323 | 2.95 | 3148-723 | 32.89 |
| 5/8 | 4 | 3142-324 | 2.95 | – | – |
| 5/8 | 6 | 3142-326 | 2.95 | 3148-724 | 25.63 |
| 5/8 | 33 | 3142-329 | 2.95 | 3148-725 | 21.88 |
| 3/4 | 2 | 3142-342 | 4.10 | 3148-726 | 32.89 |
| 3/4 | 3 | 3142-343 | 4.10 | 3148-727 | 30.05 |
| 3/4 | 4 | 3142-344 | 4.10 | – | – |
| 3/4 | 6 | 3142-346 | 4.10 | 3148-728 | 35.29 |
| 3/4 | 33 | 3142-349 | 4.10 | 3148-729 | 35.75 |
| 1 | 2 | 3142-362 | 4.65 | – | – |
| 1 | 3 | 3142-363 | 4.65 | 3148-730 | 35.79 |
| 1 | 4 | 3142-364 | 4.65 | – | – |
| 1 | 6 | 3142-366 | 4.65 | 3148-731 | 40.95 |
| 1 | 33 | 3142-369 | 4.65 | – | – |
| 1-1/2 | 3 | 3142-383 | 7.85 | – | – |
| 1-1/2 | 4 | 3142-384 | 11.25 | – | – |
| 1-3/4 | 3 | 3142-393 | 9.20 | – | – |
| 1-3/4 | 4 | 3142-394 | 13.15 | – | – |

## R8 To Jacobs Taper

| FROM R8 TAPER | TO JACOBS TAPER | Pittsburg® [2] ORDER NO. | Pittsburg® [2] PRICE EACH | Jacobs® [10] ORDER NO. | Jacobs® [10] PRICE EACH |
|---|---|---|---|---|---|
| R8 | 1 | 3142-200 | $13.35 | – | – |
| R8 | 2 | 3142-202 | 13.35 | 3148-745 | $102.10 |
| R8 | 3 | 3142-204 | 13.35 | 3148-746 | 102.10 |
| R8 | 4 | 3142-206 | 13.35 | – | – |
| R8 | 6 | 3142-208 | 13.35 | 3148-747 | 102.10 |
| R8 | 33 | 3142-210 | 13.35 | 3148-748 | 102.10 |

## Threaded Arbors

| SIZE | Pittsburg® [2] ORDER NO. | Pittsburg® [2] PRICE EACH | Jacobs® [10] ORDER NO. | Jacobs® [10] PRICE EACH |
|---|---|---|---|---|
| 1/2 x 3/8-24 | 3142-160 | $5.05 | – | – |
| 1/2 x1/2-20 | 3142-161 | 5.05 | – | – |
| 1MT x 3/8-24 | 3142-165 | 5.70 | – | – |
| 1MT x 1/2-20 | 3142-166 | 5.70 | – | – |
| 2MT x3/8-24 | 3142-170 | 5.70 | 3148-735 | $68.91 |
| 2MT x 1/2-20 | 3142-172 | 5.70 | 3148-736 | 68.91 |
| 2MT x 5/8-16 | 3142-174 | 5.70 | 3148-737 | 68.91 |

# Assorted Toolholders



## Drill Sleeves

| SIZE | M.T. HOLE | M.T. O.D. | SOFT WITH HARDENED TANG ORDER NO. | SOFT WITH HARDENED TANG PRICE EACH | HARDENED AND GROUND THROUGHOUT ORDER NO. | HARDENED AND GROUND THROUGHOUT PRICE EACH |
|---|---|---|---|---|---|---|
| 1 to 2 | 1 | 2 | 3147-012 | $ 3.40 | 3147-312 | $ 5.15 |
| 1 to 3 | 1 | 3 | 3147-013 | 4.70 | 3147-313 | 7.05 |
| 1 to 4 | 1 | 4 | 3147-014 | 7.25 | 3147-314 | 12.60 |
| 1 to 5 | 1 | 5 | 3147-015 | 11.65 | 3147-315 | 16.65 |
| 2 to 3 | 2 | 3 | 3147-023 | 4.70 | 3147-323 | 7.05 |
| 2 to 4 | 2 | 4 | 3147-024 | 7.25 | 3147-324 | 12.60 |
| 2 to 5 | 2 | 5 | 3147-025 | 11.65 | 3147-325 | 16.65 |
| 3 to 4 | 3 | 4 | 3147-034 | 7.25 | 3147-334 | 12.60 |
| 3 to 5 | 3 | 5 | 3147-035 | 11.65 | 3147-335 | 16.65 |
| 4 to 5 | 4 | 5 | 3147-045 | 11.65 | 3147-345 | 16.65 |
| 4 to 6 | 4 | 6 | 3147-046 | 33.20 | 3147-346 | 43.20 |
| 5 to 6 | 5 | 6 | 3147-056 | 35.90 | 3147-356 | 43.20 |

## Screw Machine Sockets

| SIZE | M.T. HOLE | O.D. | OVERALL LENGTH | ORDER EACH | PRICE EACH |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 3-1/2 | 3147-201 | $ 7.25 |
| 2 | 1 | 1-1/4 | 3-1/2 | 3147-202 | 7.55 |
| 3 | 1 | 1-1/2 | 3-1/2 | 3147-203 | 7.95 |
| 4 | 2 | 1 | 4 | 3147-204 | 12.10 |
| 5 | 2 | 1-1/4 | 4 | 3147-205 | 12.10 |
| 6 | 2 | 1-1/2 | 4 | 3147-206 | 12.10 |
| 7 | 2 | 1-3/4 | 4 | 3147-207 | 12.10 |
| 8 | 2 | 2 | 4 | 3147-208 | 13.75 |
| 9 | 3 | 1-1/4 | 4-3/4 | 3147-209 | 15.30 |
| 10 | 3 | 1-1/2 | 4-3/4 | 3147-210 | 15.30 |
| 11 | 3 | 1-3/4 | 4-3/4 | 3147-211 | 15.30 |
| 12 | 3 | 2 | 4-3/4 | 3147-212 | 17.65 |
| 13 | 4 | 1-1/2 | 6 | 3147-213 | 17.65 |
| 14 | 4 | 1-3/4 | 6 | 3147-214 | 17.65 |
| 15 | 4 | 2 | 6 | 3147-215 | 17.65 |
| 16 | 5 | 2-1/4 | 7-3/8 | 3147-216 | 33.75 |
| 17 | 5 | 2-1/2 | 7-3/8 | 3147-217 | 33.75 |

## 3 Piece Slotting Saw Arbor Set

- For saw blades .001” to 3/16” thickness.
- Heat treated shanks.
- For hole sizes 1/4”, 3/8” & 12”.
- 1/2” Shanks.

**Order No. 3142-021 Price Each .....$31.40**

## Extension Sockets

| SIZE | SIZE HOLE | SHANK | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1 to 1 | 1 | 1 | 3147-111 | $10.80 |
| 1 to 2 | 1 | 2 | 3147-112 | 10.80 |
| 1 to 3 | 1 | 3 | 3147-113 | 11.70 |
| 1 to 4 | 1 | 4 | 3147-114 | 16.50 |
| 2 to 1 | 2 | 1 | 3147-121 | 10.80 |
| 2 to 2 | 2 | 2 | 3147-122 | 10.80 |
| 2 to 3 | 2 | 3 | 3147-123 | 11.70 |
| 2 to 4 | 2 | 4 | 3147-124 | 14.80 |
| 2 to 5 | 2 | 5 | 3147-125 | 27.45 |
| 3 to 2 | 3 | 2 | 3147-132 | 14.80 |
| 3 to 3 | 3 | 3 | 3147-133 | 14.80 |
| 3 to 4 | 3 | 4 | 3147-134 | 14.80 |
| 3 to 5 | 3 | 5 | 3147-135 | 27.45 |
| 4 to 2 | 4 | 2 | 3147-142 | 21.15 |
| 4 to 3 | 4 | 3 | 3147-143 | 23.60 |
| 4 to 4 | 4 | 4 | 3147-144 | 23.60 |
| 4 to 5 | 4 | 5 | 3147-145 | 27.45 |
| 4 to 6 | 4 | 6 | 3147-146 | 69.30 |
| 5 to 3 | 5 | 3 | 3147-153 | 52.70 |
| 5 to 4 | 5 | 4 | 3147-154 | 52.70 |
| 5 to 5 | 5 | 5 | 3147-155 | 52.70 |
| 5 to 6 | 5 | 6 | 3147-156 | 69.30 |

## Drill Drifts

| SIZE | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1 | Fitting #1 Sockets & Sleeves | 3147-221 | $2.40 |
| 2 | Fitting #2 Sockets & Sleeves | 3147-222 | 2.55 |
| 3 | Fitting #3 Sockets & Sleeves | 3147-223 | 3.20 |
| 4 | Fitting #4 & #5 Sockets & Sleeves | 3147-224 | 4.05 |

## Vari-Saw Holder

- Spring loaded mechanism accepts saw blades with hole diameters from 1/2” to 1”.
- Blades are firmly secured in position with hex head screw.
- Offers flexibility in sawing operation.

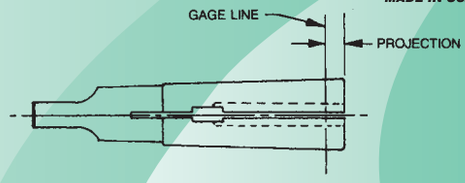
**R8 Shank Order No. 3142-022 Price Each .....$23.85**
**1/2” Shank Order No. 3142-020 Price Each .....$15.00**

# Split Sleeve Drill & Reamer Drivers

MADE IN USA

COLLIS

6




| DRILL SIZE | #0 M.T. | PRICE EACH | #1 M.T. | PRICE EACH | #2 M.T. | PRICE EACH |
|---|---|---|---|---|---|---|
| 53 | 4870-115 | $30.00 | – | – | – | – |
| 1.55MM | – | – | 4871-116 | $21.00 | 4872-201 | $23.00 |
| 1/16 | 4870-117 | 30.00 | 4871-117 | 21.00 | 4872-202 | 23.00 |
| 1.60MM | 4870-117 | 30.00 | 4871-117 | 21.00 | 4872-202 | 23.00 |
| 52 | 4870-119 | 30.00 | 4871-119 | 21.00 | 4872-204 | 23.00 |
| 1.70MM | – | – | 4871-121 | 21.00 | 4872-206 | 23.00 |
| 51 | – | – | 4871-121 | 21.00 | 4872-206 | 23.00 |
| 50 | – | – | – | – | 4872-207 | 23.00 |
| 1.80MM | – | – | – | – | 4872-207 | 23.00 |
| 1.85MM | – | – | 4871-123 | 21.00 | 4872-208 | 23.00 |
| 49 | – | – | 4871-123 | 21.00 | 4872-208 | 23.00 |
| 48 | – | – | 4871-124 | 21.00 | 4872-209 | 23.00 |
| 1.95MM | – | – | 4871-124 | 21.00 | 4872-209 | 23.00 |
| 5/64 | – | – | 4871-125 | 21.00 | – | – |
| 47 | – | – | 4871-126 | 21.00 | 4872-211 | 23.00 |
| 2.00MM | – | – | 4871-126 | 21.00 | 4872-211 | 23.00 |
| 2.05MM | – | – | 4871-127 | 21.00 | 4872-212 | 23.00 |
| 46 | – | – | 4871-127 | 21.00 | 4872-212 | 23.00 |
| 45 | – | – | 4871-128 | 21.00 | 4872-213 | 23.00 |
| 2.10MM | – | – | 4871-128 | 21.00 | 4872-213 | 23.00 |
| 44 | 4870-130 | 30.00 | 4871-130 | 21.00 | 4872-215 | 23.00 |
| 2.20MM | 4870-130 | 30.00 | 4871-130 | 21.00 | 4872-215 | 23.00 |
| 2.25MM | 4870-131 | 30.00 | 4871-131 | 21.00 | 4872-216 | 23.00 |
| 43 | 4870-131 | 30.00 | 4871-131 | 21.00 | 4872-216 | 23.00 |
| 2.30MM | – | – | – | – | 4872-217 | 23.00 |
| 2.35MM | 4870-279 | 30.00 | – | – | – | – |
| 42 | – | – | 4871-134† | 13.80 | 4872-219 | 23.00 |
| 3/32 | – | – | 4871-134† | 13.80 | 4872-219 | 23.00 |
| 2.40MM | – | – | 4871-420 | 21.00 | 4872-620 | 23.00 |
| 41 | – | – | 4871-135 | 21.00 | 4872-220 | 23.00 |
| 2.45MM | – | – | 4871-135 | 21.00 | 4872-220 | 23.00 |
| 40 | – | – | 4871-136 | 21.00 | – | – |
| 2.50MM | – | – | 4871-136 | 21.00 | – | – |
| 39 | – | – | 4871-137 | 21.00 | 4872-222 | 23.00 |
| 2.55MM | – | – | 4871-137 | 21.00 | 4872-222 | 23.00 |
| 38 | – | – | 4871-138 | 21.00 | 4872-223 | 23.00 |
| 2.60MM | – | – | 4871-138 | 21.00 | 4872-223 | 23.00 |
| 2.70MM | 4870-141 | 30.00 | 4871-141 | 21.00 | 4872-226 | 23.00 |
| 36 | 4870-141 | 30.00 | 4871-141 | 21.00 | 4872-226 | 23.00 |
| 7/64 | – | – | 4871-142† | 13.80 | 4872-227 | 23.00 |
| 35 | – | – | – | – | 4872-228 | 23.00 |
| 2.80MM | – | – | – | – | 4872-228 | 23.00 |
| 34 | – | – | – | – | 4872-229 | 23.00 |
| 2.85MM | – | – | 4871-145 | 21.00 | 4872-230 | 23.00 |
| 33 | – | – | 4871-145 | 21.00 | 4872-230 | 23.00 |
| 32 | 4870-146 | 30.00 | 4871-146 | 21.00 | 4872-231 | 23.00 |
| 2.95MM | 4870-146 | 30.00 | 4871-146 | 21.00 | 4872-231 | 23.00 |
| 3.00MM | 4870-292 | 30.00 | 4871-432 | 21.00 | 4872-632 | 23.00 |
| 31 | 4870-147 | 30.00 | 4871-147 | 21.00 | 4872-232 | 23.00 |
| 3.05MM | 4870-147 | 30.00 | 4871-147 | 21.00 | 4872-232 | 23.00 |
| 3.10MM | – | – | 4871-148 | 21.00 | 4872-233 | 23.00 |
| 1/8 | 4870-149 | 30.00 | 4871-149 | 21.00 | 4872-234 | 23.00 |
| 3.20MM | 4870-149 | 30.00 | 4871-149 | 21.00 | 4872-234 | 23.00 |
| 3.25MM | 4870-150 | 30.00 | 4871-150 | 21.00 | 4872-235 | 23.00 |
| 30 | 4870-150 | 30.00 | 4871-150 | 21.00 | 4872-235 | 23.00 |
| 3.30MM | 4870-151 | 30.00 | 4871-151 | 21.00 | 4872-236 | 23.00 |
| 3.40MM | – | – | 4871-152 | 21.00 | 4872-237 | 23.00 |
| 29 | – | – | 4871-153 | 21.00 | 4872-238 | 23.00 |
| 3.50MM | 4870-154 | 30.00 | 4871-154 | 21.00 | – | – |
| 28 | – | – | 4871-156 | 21.00 | 4872-241 | 23.00 |
| 9/64 | – | – | 4871-156 | 21.00 | 4872-241 | 23.00 |
| 3.60MM | 4870-354 | 30.00 | – | – | 4872-638 | 23.00 |
| 27 | – | – | 4871-157 | 21.00 | 4872-242 | 23.00 |
| 3.70MM | – | – | 4871-439 | 21.00 | – | – |
| 26 | – | – | 4871-158 | 21.00 | 4872-243 | 23.00 |

† Limited Quantities

| DRILL SIZE | #0 M.T. | PRICE EACH | #1 M.T. | PRICE EACH | #2 M.T. | PRICE EACH |
|---|---|---|---|---|---|---|
| 3.75MM | – | – | 4871-158 | $21.00 | 4872-243 | $23.00 |
| 25 | – | – | 4871-159 | 21.00 | – | – |
| 3.80MM | – | – | 4871-159 | 21.00 | – | – |
| 24 | – | – | 4871-160 | 21.00 | 4872-245 | 23.00 |
| 23 | – | – | 4871-161 | 21.00 | 4872-246 | 23.00 |
| 5/32 | 4870-162 | $30.00 | 4871-162 | 21.00 | 4872-247 | 23.00 |
| 22 | – | – | 4871-163 | 21.00 | 4872-248 | 23.00 |
| 4.00MM | – | – | 4871-163 | 21.00 | 4872-248 | 23.00 |
| 21 | – | – | 4871-164 | 21.00 | 4872-249 | 23.00 |
| 20 | – | – | 4871-165 | 21.00 | – | – |
| 4.10MM | – | – | 4871-165 | 21.00 | – | – |
| 4.20MM | 4870-166 | 30.00 | 4871-166 | 21.00 | – | – |
| 19 | 4870-166 | 30.00 | 4871-166 | 21.00 | – | – |
| 4.30MM | – | – | 4871-167 | 21.00 | 4872-252 | 23.00 |
| 18 | – | – | 4871-167 | 21.00 | 4872-252 | 23.00 |
| 11/64 | 4870-168 | 30.00 | 4871-168 | 21.00 | 4872-253 | 23.00 |
| 17 | – | – | – | – | 4872-254 | 23.00 |
| 4.40MM | – | – | – | – | 4872-254 | 23.00 |
| 16 | 4870-170 | 30.00 | 4871-170 | 21.00 | 4872-255 | 23.00 |
| 4.50MM | 4870-170 | 30.00 | 4871-170 | 21.00 | 4872-255 | 23.00 |
| 15 | – | – | – | – | 4872-256 | 23.00 |
| 4.60MM | – | – | – | – | 4872-648 | 23.00 |
| 14 | 4870-172 | 30.00 | 4871-172 | 21.00 | 4872-257 | 23.00 |
| 13 | – | – | 4871-173 | 21.00 | 4872-258 | 23.00 |
| 4.70MM | – | – | 4871-173 | 21.00 | 4872-258 | 23.00 |
| 4.75MM | 4870-174 | 30.00 | 4871-174 | 21.00 | 4872-259 | 23.00 |
| 3/16 | 4870-174 | 30.00 | 4871-174 | 21.00 | 4872-259 | 23.00 |
| 4.80MM | 4870-175 | 30.00 | 4871-175 | 21.00 | – | – |
| 12 | 4870-175 | 30.00 | 4871-175 | 21.00 | – | – |
| 11 | 4870-176 | 30.00 | 4871-176 | 21.00 | – | – |
| 4.90MM | – | – | 4871-177 | 21.00 | 4872-262 | 23.00 |
| 10 | – | – | 4871-177 | 21.00 | 4872-262 | 23.00 |
| 9 | 4870-178 | 30.00 | 4871-178 | 21.00 | 4872-263 | 23.00 |
| 5.00MM | 4870-178 | 30.00 | 4871-178 | 21.00 | 4872-263 | 23.00 |
| 8 | – | – | 4871-179 | 21.00 | 4872-264 | 23.00 |
| 5.10MM | – | – | 4871-180 | 21.00 | 4872-265 | 23.00 |
| 7 | – | – | 4871-180 | 21.00 | 4872-265 | 23.00 |
| 13/64 | 4870-181 | 30.00 | 4871-181 | 21.00 | 4872-266 | 23.00 |
| 6 | – | – | 4871-182 | 21.00 | 4872-267 | 23.00 |
| 5.20MM | – | – | 4871-182 | 21.00 | 4872-267 | 23.00 |
| 5 | – | – | 4871-183 | 21.00 | 4872-268 | 23.00 |
| 5.30MM | 4870-184 | 30.00 | 4871-184 | 21.00 | 4872-269 | 23.00 |
| 4 | 4870-184 | 30.00 | 4871-184 | 21.00 | 4872-269 | 23.00 |
| 5.40MM | 4870-185 | 30.00 | 4871-185 | 21.00 | 4872-270 | 23.00 |
| 3 | 4870-185 | 30.00 | 4871-185 | 21.00 | 4872-270 | 23.00 |
| 5.50MM | 4870-373 | 30.00 | 4871-457 | 21.00 | 4872-657 | 23.00 |
| 7/32 | – | – | 4871-186 | 21.00 | 4872-271 | 23.00 |
| 5,60MM | – | – | 4871-187 | 21.00 | 4872-271 | 23.00 |
| 2 | – | – | 4871-187 | 21.00 | 4872-271 | 23.00 |
| 5.70MM | – | – | – | – | 4872-273 | 23.00 |
| 1 | – | – | 4871-189 | 21.00 | 4872-274 | 23.00 |
| 5.80MM | – | – | 4871-189 | 21.00 | 4872-274 | 23.00 |
| A | 4870-191 | 30.00 | 4871-191 | 21.00 | 4872-276 | 23.00 |
| 15/64 | 4870-191 | 30.00 | 4871-191 | 21.00 | 4872-276 | 23.00 |
| 6.00MM | 4870-378 | 30.00 | 4871-462 | 21.00 | 4872-662 | 23.00 |
| B | – | – | 4871-192 | 21.00 | 4872-277 | 23.00 |
| 6.10MM | 4870-193 | 30.00 | – | – | 4872-278 | 23.00 |
| C | – | – | 4871-194 | 21.00 | 4872-279 | 23.00 |
| D | – | – | 4871-195 | 21.00 | 4872-280 | 23.00 |
| 6.25MM | – | – | 4871-195 | 21.00 | 4872-280 | 23.00 |
| 6.30MM | – | – | 4871-465 | 21.00 | – | – |
| 1/4 | 4870-196 | 30.00 | 4871-196 | 21.00 | 4872-281 | 23.00 |
| 6.40MM | – | – | – | – | 4872-282 | 23.00 |
| 6.50MM | – | – | 4871-467 | 21.00 | 4872-667 | 23.00 |
| F | – | – | 4871-198 | 21.00 | 4872-283 | 23.00 |
| 6.60MM | – | – | 4871-468 | 21.00 | – | – |

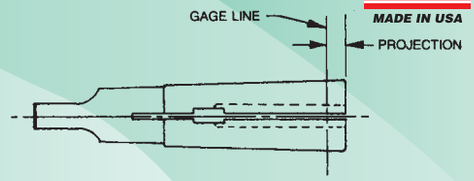
(Continued)

# Split Sleeve Drill & Reamer Drivers

MADE IN USA

COLLIS

6




| DRILL SIZE | #1 M.T. | PRICE EACH | #2 M.T. | PRICE EACH | #3 M.T. | PRICE EACH |
|---|---|---|---|---|---|---|
| G | 4871-199 | $21.00 | 4872-284 | $23.00 | – | – |
| 6.70MM | 4871-469 | 21.00 | 4872-669 | 23.00 | – | – |
| 17/64 | 4871-200 | 21.00 | 4872-285 | 23.00 | – | – |
| 6.75MM | 4871-200 | 21.00 | 4872-285 | 23.00 | – | – |
| H | 4871-200 | 21.00 | 4872-285 | 23.00 | – | – |
| 6.80MM | 4871-470 | 21.00 | – | – | – | – |
| 6.90MM | 4871-202 | 21.00 | 4872-287 | 23.00 | – | – |
| I | 4871-202 | 21.00 | 4872-287 | 23.00 | – | – |
| 7.00MM | 4871-472 | 21.00 | 4872-672 | 23.00 | – | – |
| J | 4871-203 | 21.00 | 4872-288 | 23.00 | – | – |
| 7.10MM | 4871-473 | 21.00 | 4872-673 | 23.00 | – | – |
| K | 4871-205 | 21.00 | 4872-290 | 23.00 | – | – |
| 9/32 | 4871-205 | 21.00 | 4872-290 | 23.00 | – | – |
| 7.20MM | 4871-474 | 21.00 | 4872-674 | 23.00 | – | – |
| 7.25MM | 4871-206 | 21.00 | 4872-291 | 23.00 | – | – |
| 7.30MM | 4871-475 | 21.00 | 4872-675 | 23.00 | – | – |
| L | 4871-207 | 21.00 | 4872-292 | 23.00 | – | – |
| 7.40MM | – | – | 4872-293 | 23.00 | – | – |
| M | 4871-209 | 21.00 | – | – | – | – |
| 7.50MM | 4871-209 | 21.00 | – | – | – | – |
| 19/64 | 4871-210 | 21.00 | 4872-295 | 23.00 | – | – |
| N | 4871-211 | 21.00 | 4872-296 | 23.00 | – | – |
| 7.80MM | 4871-212 | 21.00 | – | – | – | – |
| 7.90MM | – | – | 4872-681 | 23.00 | – | – |
| 5/16 | 4871-213 | 21.00 | 4872-298 | 23.00 | – | – |
| 8.00MM | 4871-482 | 21.00 | 4872-682 | 23.00 | – | – |
| O | 4871-214 | 21.00 | 4872-299 | 23.00 | – | – |
| 8.10MM | – | – | 4872-683 | 23.00 | – | – |
| 8.20MM | 4871-215 | 21.00 | 4872-300 | 23.00 | – | – |
| P | 4871-215 | 21.00 | 4872-300 | 23.00 | – | – |
| 8.30MM | – | – | 4872-685 | 23.00 | – | – |
| 21/64 | 4871-216 | 21.00 | 4872-301 | 23.00 | – | – |
| 8.40MM | – | – | 4872-686 | 23.00 | – | – |
| Q | 4871-217 | 21.00 | 4872-302 | 23.00 | – | – |
| 8.50MM | 4871-487 | 21.00 | 4872-687 | 23.00 | – | – |
| 8.60MM | 4871-218 | 21.00 | 4872-303 | 23.00 | – | – |
| R | 4871-218 | 21.00 | 4872-303 | 23.00 | – | – |
| 8.70MM | 4871-489 | 21.00 | 4872-689 | 23.00 | – | – |
| 11/32 | 4871-219 | 21.00 | 4872-304 | 23.00 | – | – |
| 8.80MM | 4871-490 | 21.00 | 4872-690 | 23.00 | – | – |
| S | 4871-220 | 21.00 | 4872-305 | 23.00 | – | – |
| 9.00MM | 4871-221 | 21.00 | 4872-306 | 23.00 | – | – |
| T | – | – | 4872-307 | 23.00 | – | – |
| 9.10MM | – | – | 4872-307 | 23.00 | – | – |
| 23/64 | 4871-223 | 21.00 | 4872-308 | 23.00 | – | – |
| 9.20MM | – | – | 4872-694 | 23.00 | – | – |
| U | 4871-224 | 21.00 | 4872-309 | 23.00 | – | – |
| 9.50MM | – | – | 4872-697 | 23.00 | – | – |
| 3/8 | 4871-225 | 21.00 | 4872-310 | 23.00 | – | – |
| V | – | – | 4872-311 | 23.00 | 4873-000 | $32.00 |
| 9.60MM | – | – | 4872-698 | 23.00 | – | – |
| 9.70MM | – | – | 4872-699 | 23.00 | 4873-101 | 32.00 |
| 9.8MM | – | – | 4872-312 | 23.00 | 4873-001 | 32.00 |
| W | – | – | 4872-312 | 23.00 | 4873-001 | 32.00 |
| 9.90MM | – | – | 4872-313 | 23.00 | 4873-002† | 25.50 |
| 25/64 | – | – | 4872-313 | 23.00 | 4873-002† | 25.50 |
| 10.00MM | – | – | 4872-702 | 23.00 | 4873-104 | 32.00 |
| X | – | – | 4872-314 | 23.00 | 4873-003 | 32.00 |
| 10.10MM | – | – | 4872-314 | 23.00 | 4873-003 | 32.00 |
| 10.20MM | – | – | 4872-704 | 23.00 | 4873-106 | 32.00 |
| Y | – | – | 4872-315 | 23.00 | 4873-004 | 32.00 |
| 10.30MM | – | – | 4872-316 | 23.00 | 4873-005 | 32.00 |
| 13/32 | – | – | 4872-316 | 23.00 | 4873-005 | 32.00 |
| 10.40MM | – | – | 4872-706 | 23.00 | 4873-108 | 32.00 |
| Z | – | – | 4872-317 | 23.00 | – | – |
| 10.50MM | – | – | 4872-317 | 23.00 | – | – |
| 10.70MM | – | – | 4872-318 | 23.00 | 4873-007 | 32.00 |
| 27/64 | – | – | 4872-318 | 23.00 | 4873-007 | 32.00 |
| 10.80MM | – | – | 4872-710 | 23.00 | – | – |
| 10.90MM | – | – | 4872-711 | 23.00 | – | – |

| DRILL SIZE | #2 M.T. | PRICE EACH | #3 M.T. | PRICE EACH | #4 M.T. | PRICE EACH |
|---|---|---|---|---|---|---|
| 11.00MM | – | – | 4872-712 | $23.00 | 4873-114 | $32.00 |
| 11.10MM | – | – | 4872-319 | 23.00 | 4873-008 | 32.00 |
| 7/16 | – | – | 4872-319 | 23.00 | 4873-008 | 32.00 |
| 11.20MM | – | – | 4872-714 | 23.00 | 4873-116 | 32.00 |
| 11.30MM | – | – | 4872-715 | 23.00 | 4873-117 | 32.00 |
| 11.40MM | – | – | 4872-716 | 23.00 | – | – |
| 11.50MM | – | – | 4872-320 | 23.00 | 4873-009 | 32.00 |
| 29/64 | – | – | 4872-320 | 23.00 | 4873-009 | 32.00 |
| 11.60MM | – | – | 4872-718 | 23.00 | 4873-120 | 32.00 |
| 11.70MM | 4872-719 | $23.00 | 4873-121 | 32.00 | – | – |
| 11.80MM | – | – | 4873-122 | 32.00 | – | – |
| 11.90MM | 4872-321 | 23.00 | 4873-010 | 32.00 | – | – |
| 15/32 | 4872-321 | 23.00 | 4873-010 | 32.00 | – | – |
| 12.00MM | 4872-722 | 23.00 | 4873-124 | 32.00 | – | – |
| 12.20MM | 4872-724 | 23.00 | – | – | – | – |
| 12.30MM | 4872-322 | 23.00 | 4873-011 | 32.00 | – | – |
| 31/64 | 4872-322 | 23.00 | 4873-011 | 32.00 | – | – |
| 12.40MM | 4872-726 | 23.00 | 4873-128 | 32.00 | – | – |
| 12.50MM | 4872-727 | 23.00 | – | – | – | – |
| 12.60MM | 4872-728 | 23.00 | 4873-130 | 32.00 | – | – |
| 12.70MM | 4872-323 | 23.00 | 4873-012 | 32.00 | – | – |
| 1/2 | 4872-323 | 23.00 | 4873-012 | 32.00 | – | – |
| 12.90MM | 4872-731 | 23.00 | – | – | – | – |
| 13.00MM | 4872-732 | 23.00 | – | – | – | – |
| 33/64 | 4872-324 | 23.00 | 4873-013† | 25.50 | – | – |
| 13.10MM | 4872-324 | 23.00 | 4873-013† | 25.50 | – | – |
| 13.30MM | 4872-735 | 23.00 | 4873-137 | 32.00 | – | – |
| 17/32 | 4872-325 | 23.00 | 4873-014 | 32.00 | – | – |
| 13.50MM | 4872-325 | 23.00 | 4873-014 | 32.00 | – | – |
| 13.60MM | 4872-738 | 23.00 | 4873-140 | 32.00 | – | – |
| 13.80MM | 4872-740 | 23.00 | – | – | – | – |
| 35/64 | 4872-326 | 23.00 | 4873-015 | 32.00 | – | – |
| 13.90MM | 4872-326 | 23.00 | 4873-015 | 32.00 | – | – |
| 14.00MM | 4872-742 | 23.00 | 4873-144 | 32.00 | – | – |
| 14.20MM | 4872-744 | 23.00 | – | – | – | – |
| 9/16 | 4872-327 | 23.00 | 4873-016 | 32.00 | – | – |
| 14.50MM | 4872-747 | 23.00 | – | – | – | – |
| 14.60MM | – | – | – | – | – | – |
| 37/64 | – | – | 4873-017 | 32.00 | 4874-000 | 54.00 |
| 14.70MM | – | – | 4873-017 | 32.00 | 4874-000 | 54.00 |
| 15.00MM | – | – | 4873-154 | 32.00 | – | – |
| 19/32 | – | – | 4873-018 | 32.00 | 4874-001 | 54.00 |
| 15.10MM | – | – | 4873-018 | 32.00 | 4874-001 | 54.00 |
| 39/64 | – | – | 4873-019 | 32.00 | 4874-002 | 54.00 |
| 15.50MM | – | – | 4873-019 | 32.00 | 4874-002 | 54.00 |
| 5/8 | – | – | 4873-020 | 32.00 | 4874-003 | 54.00 |
| 41/64 | – | – | 4873-021 | 32.00 | 4874-004 | 54.00 |
| 16.50MM | – | – | 4873-169 | 32.00 | – | – |
| 21/32 | – | – | 4873-022 | 32.00 | 4874-005 | 54.00 |
| 17.00MM | – | – | 4873-174 | 32.00 | – | – |
| 43/64 | – | – | 4873-023 | 32.00 | 4874-006 | 54.00 |
| 17.40MM | – | – | 4873-178 | 32.00 | – | – |
| 11/16 | – | – | 4873-024 | 32.00 | 4874-007 | 54.00 |
| 17.60MM | – | – | 4873-180 | 32.00 | – | – |
| 45/64 | – | – | 4873-025 | 32.00 | 4874-008 | 54.00 |
| 18.00MM | – | – | 4873-184 | 32.00 | – | – |
| 18,25MM | – | – | 4873-026 | 32.00 | 4874-009 | 54.00 |
| 23/32 | – | – | 4873-026 | 32.00 | 4874-009 | 54.00 |
| 18.50MM | – | – | 4873-189 | 32.00 | – | – |
| 47/64 | – | – | 4873-027 | 32.00 | 4874-010 | 54.00 |
| 3/4 | – | – | 4873-028 | 32.00 | 4874-011 | 54.00 |
| 25/32 | – | – | – | – | 4874-013 | 54.00 |
| 51/64 | – | – | – | – | 4874-014 | 54.00 |
| 13/16 | – | – | – | – | 4874-015 | 54.00 |
| 7/8 | – | – | – | – | 4874-019 | 54.00 |
| 59/64 | – | – | – | – | 4874-022 | 54.00 |
| 15/16 | – | – | – | – | 4874-023 | 54.00 |
| 61/64 | – | – | – | – | 4874-024 | 54.00 |
| 31/32 | – | – | – | – | 4874-025 | 54.00 |
| 25.00MM | – | – | – | – | 4874-026 | 54.00 |
| 63/64 | – | – | – | – | 4874-026 | 54.00 |
| 1 | – | – | – | – | 4874-027 | 54.00 |

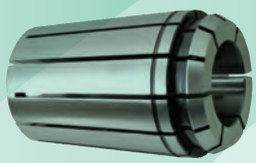
† Limited Quantities

# Collis Toolholder Systems

MADE IN USA

COLLIS

## Precision Grip Single Angle Collets



### SERIES 100 [6]

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 3/32 | 4874-200 | $36.00 |
| 1/8 | 4874-202 | 36.00 |
| 5/32 | 4874-204 | 36.00 |
| 3/16 | 4874-206 | 36.00 |
| 7/32 | 4874-208 | 36.00 |
| 1/4 | 4874-210 | 30.00 |
| 9/32 | 4874-212 | 30.00 |
| 5/16 | 4874-214 | 30.00 |
| 11/32 | 4874-216 | 30.00 |
| 3/8 | 4874-218 | 23.00 |
| 13/32 | 4874-220 | 23.00 |
| 7/16 | 4874-222 | 23.00 |
| 15/32 | 4874-224 | 23.00 |
| 1/2 | 4874-226 | 23.00 |
| 17/32 | 4874-228 | 23.00 |
| 9/16 | 4874-230 | 23.00 |
| 19/32 | 4874-232 | 23.00 |
| 5/8 | 4874-234 | 23.00 |
| 21/32 | 4874-236 | 23.00 |
| 11/16 | 4874-238 | 23.00 |
| 23/32 | 4874-240 | 23.00 |
| 3/4 | 4874-242 | 23.00 |
| 25/32 | 4874-244 | 23.00 |
| 13/16 | 4874-246 | 23.00 |
| 27/32 | 4874-248 | 23.00 |
| 7/8 | 4874-250 | 23.00 |
| 29/32 | 4874-252 | 23.00 |
| 15/16 | 4874-254 | 23.00 |
| 31/32 | 4874-256 | 23.00 |
| 1 | 4874-258 | 23.00 |

### SERIES 150 [6]

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 1/2 | 4874-300 | $41.00 |
| 17/32 | 4874-302 | 41.00 |
| 9/16 | 4874-304 | 41.00 |
| 19/32 | 4874-306 | 41.00 |
| 5/8 | 4874-308 | 41.00 |
| 21/32 | 4874-310 | 41.00 |
| 11/16 | 4874-312 | 41.00 |
| 23/32 | 4874-314 | 41.00 |
| 3/4 | 4874-316 | 33.00 |
| 25/32 | 4874-318 | 33.00 |
| 13/16 | 4874-320 | 33.00 |
| 27/32 | 4874-322 | 33.00 |
| 7/8 | 4874-324 | 33.00 |
| 29/32 | 4874-326 | 33.00 |
| 15/16 | 4874-328 | 33.00 |
| 31/32 | 4874-330 | 33.00 |
| 1 | 4874-332 | 33.00 |
| 1-1/32 | 4874-334 | 33.00 |
| 1-1/16 | 4874-336 | 33.00 |
| 1-3/32 | 4874-338 | 33.00 |
| 1-1/8 | 4874-340 | 33.00 |
| 1-5/32 | 4874-342 | 33.00 |
| 1-3/16 | 4874-344 | 33.00 |
| 1-7/32 | 4874-346 | 33.00 |
| 1-1/4 | 4874-348 | 33.00 |
| 1-9/32 | 4874-350 | 33.00 |
| 1-5/16 | 4874-352 | 33.00 |
| 1-11/32 | 4874-354 | 33.00 |
| 1-3/8 | 4874-356 | 33.00 |
| 1-13/32 | 4874-358 | 33.00 |
| 1-7/16 | 4874-360 | 33.00 |
| 1-15/32 | 4874-362 | 33.00 |
| 1-1/2 | 4874-364 | 33.00 |

## Split Sleeve Tap Drivers

[6]

| OUTSIDE M.T. | TAP SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1 | 0-6 | 4871-300 | $23.00 |
| 1 | 8 | 4871-301 | 23.00 |
| 1 | 10 | 4871-302 | 23.00 |
| 1 | 12 | 4871-303 | 23.00 |
| 1 | 1/4 | 4871-320 | 23.00 |
| 1 | 5/16 | 4871-321 | 23.00 |
| 1 | 3/8 | 4871-322 | 23.00 |
| 2 | 1/4 | 4872-420 | 24.00 |
| 2 | 5/16 | 4872-421 | 24.00 |
| 2 | 3/8 | 4872-422 | 24.00 |
| 2 | 7/16 | 4872-424 | 24.00 |
| 2 | 1/2 | 4872-425 | 24.00 |
| 2 | 9/16 | 4872-426 | 27.00 |
| 2 | 5/8 | 4872-427 | 27.00 |
| 2 | 11/16 | 4872-428 | 27.00 |
| 3 | 1/2 | 4873-420 | 32.00 |
| 3 | 9/16 | 4873-421 | 32.00 |
| 3 | 5/8 | 4873-422 | 32.00 |
| 3 | 11/16 | 4873-423 | 32.00 |
| 3 | 3/4 | 4873-424 | 32.00 |
| 3 | 7/8 | 4873-425 | 32.00 |
| 4 | 3/4 | 4874-420 | 49.00 |
| 4 | 7/8 | 4874-421 | 49.00 |
| 4 | 1 | 4874-422 | 49.00 |
| 4 | 1-1/8 | 4874-423 | 49.00 |
| 4 | 1-1/4 | 4874-424 | 49.00 |
| 5 | 1-1/8 | 4875-100 | 89.00 |
| 5 | 1-1/4 | 4875-101 | 89.00 |
| 5 | 1-3/8 | 4875-102 | 89.00 |
| 5 | 1-1/2 | 4875-103 | 89.00 |
| 5 | 1-3/4 | 4875-104 | 89.00 |

**Heavy Duty: P.O.A.**

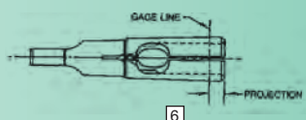
## Split Sleeve Tap Drivers - Pipe Sizes

[6]

| OUTSIDE M.T. | TAP SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 2 | 1/16 SS | 4872-450 | $27.00 |
| 2 | 1/8 LS | 4872-451 | 27.00 |
| 3 | 1/4 | 4873-450 | 32.00 |
| 4 | 3/8 | 4874-450 | 49.00 |
| 4 | 1/2 | 4874-451 | 49.00 |
| 4 | 3/4 | 4874-452 | 49.00 |
| 5 | 3/4 | 4875-110 | 89.00 |
| 5 | 1 | 4875-111 | 89.00 |
| 5 | 1-1/4 | 4875-112 | 89.00 |
| 5 | 1-1/2 | 4875-113 | 89.00 |

**Heavy Duty: P.O.A.**

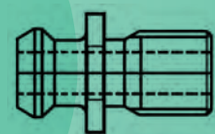
## Collis Center Drill Drivers




[6]

| NOMINAL CENTER DRILL SIZE | CTR. DRILL BODY DIAM. | #1 MORSE TAPER COLLIS NUMBER | PRICE EACH | #2 MORSE TAPER COLLIS NUMBER | PRICE EACH | #3 MORSE TAPER COLLIS NUMBER | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1-11 | 1/8 | 4871-149 | $21.00 | - | - | - | - |
| 2-12 | 3/16 | 4871-502 | 29.00 | 4872-502 | $29.00 | - | - |
| 3-13 | 1/4 | 4871-503 | 29.00 | 4872-503 | 29.00 | - | - |
| 4-14 | 5/16 | 4871-504 | 29.00 | 4872-504 | 29.00 | 4873-503 | $32.00 |
| 5-15 | 7/16 | - | - | 4872-505 | 29.00 | - | - |
| 6-16 | 1/2 | - | - | 4872-506 | 29.00 | - | - |
| 7-17 | 5/8 | - | - | - | - | 4873-501 | 32.00 |
| 8-18 | 3/4 | - | - | - | - | 4873-502 | 32.00 |

## Retention Knobs



[6]

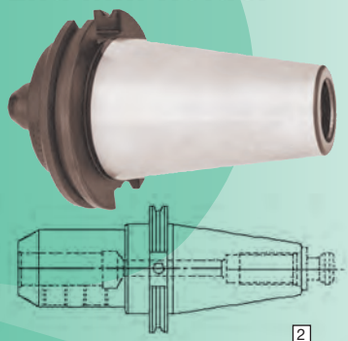
| KNOB PT. NO. | V FLANGE TAPER | THREAD SIZE | PRICE EACH |
|---|---|---|---|
| 4867-751 | #40 | 5/8-11 | $20.00 |
| 4867-752 | #45 | 3/4-10 | 22.00 |
| 4867-753 | #50 | 1-8 | 25.00 |

# Collis Toolholder Systems

MADE IN USA

COLLIS

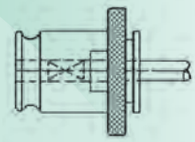
## Caterpillar V-Flange End Mill Holder



2

| BORE | GAGE LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| NO. 40 TAPER | | | |
| 3/8 | 2-1/2 | 4867-690 | $101.00 |
| 3/8 | 4-1/2 | 4867-780 | 125.00 |
| 1/2 | 2-5/8 | 4867-691 | 113.00 |
| 1/2 | 4-5/8 | 4867-781 | 125.00 |
| 1/2 | 6-5/8 | 4867-791 | 125.00 |
| 5/8 | 3-3/4 | 4867-692 | 113.00 |
| 3/4 | 3-3/4 | 4867-693 | 119.00 |
| 3/4 | 5-3/4 | 4867-783 | 136.00 |
| 7/8 | 4 | 4867-694 | 119.00 |
| 7/8 | 5-3/4 | 4867-784 | 136.00 |
| 1 | 4 | 4867-695 | 119.00 |
| 1 | 6 | 4867-785 | 136.00 |
| 1-1/4 | 4-1/4 | 4867-696 | 136.00 |
| 1-1/4 | 6-1/4 | 4867-786 | 146.00 |
| 1-1/2 | 4-5/8 | 4867-697 | 136.00 |
| NO. 50 TAPER | | | |
| 3/8 | 2-1/2 | 4867-840 | 138.00 |
| 3/8 | 4-1/2 | 4867-850 | 154.00 |
| 3/8 | 6-1/2 | 4867-860 | 154.00 |
| 1/2 | 2-5/8 | 4867-841 | 138.00 |
| 1/2 | 4-5/8 | 4867-851 | 154.00 |
| 1/2 | 6-5/8 | 4867-861 | 160.00 |
| 5/8 | 3-3/4 | 4867-842 | 138.00 |
| 5/8 | 5-3/4 | 4867-852 | 160.00 |
| 5/8 | 7-3/4 | 4867-862 | 192.00 |
| 3/4 | 3-3/4 | 4867-843 | 138.00 |
| 3/4 | 5-3/4 | 4867-853 | 160.00 |
| 3/4 | 7-3/4 | 4867-863 | 172.00 |
| 7/8 | 3-3/4 | 4867-844 | 138.00 |
| 7/8 | 5-3/4 | 4867-854 | 148.00 |
| 1 | 4 | 4867-845 | 148.00 |
| 1 | 6 | 4867-855 | 160.00 |
| 1 | 8 | 4867-865 | 172.00 |
| 1-1/4 | 4 | 4867-846 | 148.00 |
| 1-1/4 | 6 | 4867-856 | 160.00 |
| 1-1/4 | 8 | 4867-866 | 172.00 |
| 1-1/2 | 4 | 4867-847 | 154.00 |
| 1-1/2 | 6 | 4867-857 | 166.00 |
| 1-1/2 | 8 | 4867-867 | 190.00 |
| 2 | 5-5/8 | 4867-848 | 225.00 |
| 2 | 7-5/8 | 4867-858 | 237.00 |

## Quick Change Coolant - Through Tap Adapters



6

| ADAPTER SIZE | TAP SIZE | TAP SHANK DIAM. | A LENGTH | B DIAM. | DEPTH TAP ENTERS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 1 | 0-6 H.T. | .141 | .280 | 1.180 | .850 | 4878-911 | $ 35.00 |
| 1 | 8 H.T. | .168 | .280 | 1.180 | .920 | 4878-912 | 35.00 |
| 1 | 10 H.T. | .194 | .280 | 1.180 | .920 | 4878-913 | 35.00 |
| 1 | 12 H.T. | .220 | .280 | 1.180 | .950 | 4878-914 | 35.00 |
| 1 | 14-1/4 H.T. | .255 | .280 | 1.180 | .950 | 4878-915 | 35.00 |
| 1 | 5/16 H.T. | .318 | .280 | 1.180 | .890 | 4878-916 | 35.00 |
| 1 | 3/8 H.T. | .381 | .280 | 1.180 | 1.050 | 4878-917 | 35.00 |
| 1 | 7/16 H.T. | .323 | .280 | 1.180 | 1.080 | 4878-918 | 35.00 |
| 1 | 1/2 H.T. | .367 | .280 | 1.180 | 1.110 | 4878-919 | 35.00 |
| 1 | 9/16 H.T. | .429 | .280 | 1.180 | 1.17 | 4878-920 | 35.00 |
| 1 | 1/8 PIPE (L.S.) | .437 | .280 | 1.180 | 1.050 | 4878-921 | 35.00 |
| 2 | 5/16 H.T. | .318 | .280 | 1.180 | 1.490 | 4878-931 | 52.00 |
| 2 | 3/8 H.T. | .381 | .280 | 1.180 | 1.560 | 4878-932 | 52.00 |
| 2 | 7/16 H.T. | .323 | .280 | 1.180 | 1.590 | 4878-933 | 52.00 |
| 2 | 1/2 H.T. | .367 | .280 | 1.180 | 1.620 | 4878-934 | 52.00 |
| 2 | 9/16 H.T. | .429 | .430 | 1.180 | 1.680 | 4878-935 | 52.00 |
| 2 | 5/8 H.T. | .480 | .430 | 1.180 | 1.740 | 4878-936 | 52.00 |
| 2 | 11/16 H.T. | .542 | .430 | 1.880 | 1.810 | 4878-937 | 52.00 |
| 2 | 3/4 H.T. | .590 | .430 | 1.880 | 1.870 | 4878-938 | 52.00 |
| 2 | 13/16 H.T. | .652 | .430 | 1.880 | 1.870 | 4878-939 | 52.00 |
| 2 | 7/8 H.T. | .697 | .430 | 1.880 | 1.930 | 4878-940 | 52.00 |
| 2 | 1/4 PIPE | .562 | .430 | 1.880 | 1.180 | 4878-941 | 52.00 |
| 2 | 3/8 PIPE | .700 | .350 | 1.880 | 1.240 | 4878-942 | 52.00 |
| 2 | 1/2 PIPE | .687 | .350 | 1.880 | 1.370 | 4878-943 | 52.00 |
| 3 | 13/16 H.T. | .652 | .550 | 2.750 | 2.420 | 4878-951 | 115.00 |
| 3 | 7/8 H.T. | .697 | .550 | 2.750 | 2.420 | 4878-952 | 115.00 |
| 3 | 15/16 H.T. | .760 | .550 | 2.750 | 2.480 | 4878-953 | 115.00 |
| 3 | 1 H.T. | .800 | .550 | 2.750 | 2.540 | 4878-954 | 115.00 |
| 3 | 1-1/8 H.T. | .896 | .550 | 2.750 | 2.610 | 4878-955 | 115.00 |
| 3 | 1-1/4 H.T. | 1.021 | .550 | 2.750 | 2.730 | 4878-956 | 115.00 |
| 3 | 1-3/8 H.T. | 1.108 | .550 | 2.750 | 2.790 | 4878-957 | 115.00 |
| 3 | 3/4 PIPE | .906 | .430 | 2.750 | 1.550 | 4878-958 | 136.00 |
| 3 | 1 PIPE | 1.125 | .430 | 2.750 | 1.680 | 4878-959 | 136.00 |

## V-Flange Morse Taper Tool Holder

2

| MORSE TAPER | GAGE LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| NO. 40 TAPER | | | |
| 1 | 1-3/4 | 4868-211 | $113.00 |
| 2 | 2-3/16 | 4868-212 | 113.00 |
| 3 | 2-3/4 | 4868-213 | 115.00 |
| 4 | 3-9/16 | 4868-214 | 115.00 |
| NO. 50 TAPER | | | |
| 1 | 1-1/2 | 4868-231 | 147.00 |
| 2 | 2 | 4868-232 | 147.00 |
| 3 | 2-1/2 | 4868-233 | 147.00 |
| 4 | 3-3/8 | 4868-234 | 147.00 |
| 5 | 3-3/4 | 4868-235 | 170.00 |

## V-Flange Single Angle Collet Holder

2

| COLLET TYPE | GAGE LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| NO. 40 TAPER | | | |
| 100 | 3 | 4875-650 | $136.00 |
| 100 | 4 | 4875-651 | 142.00 |
| 100 | 6 | 4875-652 | 159.00 |
| NO. 50 TAPER | | | |
| 100 | 3 | 4875-890 | 174.00 |
| 100 | 3-1/2 | 4875-891 | 174.00 |
| 100 | 5-1/2 | 4875-892 | 192.00 |
| 150 | 3-1/2 | 4875-894 | 221.00 |
| 150 | 5-1/2 | 4875-895 | 244.00 |

# Toolholder Carts



## TOOL SCOOT

Keep your tools organized!
Protect them from damage!

- Quality and mobility at an affordable price.
- Durable nylon inserts on both shelves help protect tool holders.
- Lower shelf angled for quick, easy tool access from either side.
- Solid, interlocking side panel construction for maximum strength and stability.
- Two end storage trays with universal mounting holes for tool lock.
- Heavy duty 5" x 1-1/4" casters load rated at 1000 lbs.
- All steel painted with our durable Ecolo-Clad in red & black.

Tool Holders, Cutting Tools and Plastic Rack Not Included

| MODEL NO. | TOOL STYLE | TOOL CAPACITY | WEIGHT | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 13940 | BT, CAT "V" Flange, NMTB | 48 | 75 lbs. | 1919-285 | $398.70 |
| 13950 | BT, CAT "V" Flange | 36 | 75 lbs. | 1919-295 | 398.70 |

## Super Scoot

- New outrigger base design for improved stability, easier maneuverability for a safe, smooth tool ride.
- Heavy duty, extra smooth rolling casters load rated 1600 lbs. for long caster life, with locking caster mechanism.
- Finished in beautiful gold vein powder coating, baked on for lasting durability.
- Phosphate pretreatment undercoating for additional toughness.
- Designed for maximum toolholder capacity per square foot of cart space.

Dimensions: 45-1/4" W x 17-1/2" D x 40" H (width includes handle & end tray.) Shipping weight: 132 lbs.

| MODEL NO. | TOOL STYLE | TOOL CAPACITY | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 23940 | 40 taper | 45 per shelf (90 total) | 1919-708 | $507.90 |
| 23950 | 50 taper | 26 per shelf (52 total) | 1919-709 | 507.90 |

## SPEEDY SCOOT

Shown with optional second shelf

Only 15" wide, SpeedyScoot lets you easily move tooling through narrow spaces between machines, and around tight corners. Built heavy duty for the factory floor, SpeedyScoot combines rugged quality and easy mobility. Solid side panel construction for maximum strength, stability and cleanliness.

Features:
- Durable nylon inserts to help prevent tooling damage.
- Heavy duty 4" x 1-1/2" casters load rated at 1000 lbs.
- All steel infrared-baked epoxy finish in textured black with phosphate pretreatment.
- Plus options to suit your production needs including middle shelves, drawers and bumpers.

Tool Holders and Cutting Tools Not Included

| TOOL STYLE | TOOL CAPACITY | WEIGHT | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| BT, CAT "V" Flange, NMTB for 40 taper | 24 | 52 lbs. | 1919-712 | $296.70 |
| BT, CAT "V" Flange, NMTB for 50 taper | 15 | 52 lbs. | 1919-713 | 296.70 |
| Optional Second Shelf | | | 1919-655 | 95.10 |

## CNC Tooling Safety Covers

- Safety: Helps protect machine operator from accidental injuries on sharp tooling.
- Security: Semi-transparent top reduces industrial espionage while still allowing the operator to see tooling.
- Set Up: Top can be written on with a dry erase marker.
- Lock Down: Covers are held in place with "key hole" slots molded into the base.
- Timesaver: Keeps staged tooling clean and ready to go.

For use on Huot Tool Scoots

| MODEL NO. | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 14000 | 40 tapers | 1919-739 | $13.00 |
| 14015 | 50 tapers | 1919-741 | 13.00 |

# End Mill Holders

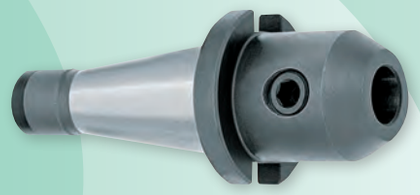


## Morse Taper Shank Tang and Draw Bar Styles

| TAPER (THREADS FOR DRAW BAR) | ARBOR HOLE | TANG ORDER NO. | PRICE EACH | DRAW BAR ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2MTS (3/8-16) | 3/16 | 3140-021 | $ 19.70 | 3140-141 | $ 13.10 |
| | 3/8 | 3140-022 | 19.70 | 3140-142 | 13.10 |
| | 1/2 | 3140-023* | 19.70 | - | - |
| | 5/8 | 3140-024* | 21.40 | 3140-144* | 14.20 |
| 3MTS (3/8-16) | 3/16 | 3140-044 | 22.50 | 3140-164 | 15.00 |
| | 1/4 | 3140-045 | 22.50 | - | - |
| | 3/8 | 3140-046 | 22.50 | - | - |
| | 1/2 | 3140-047 | 22.50 | - | - |
| | 5/8 | 3140-048* | 23.60 | 3140-168* | 15.80 |
| | 3/4 | 3140-049* | 23.60 | - | - |
| 4MTS (1/2-13) | 3/8 | 3140-070 | 24.80 | 3140-190 | 16.50 |
| | 1/2 | 3140-071 | 24.80 | 3140-191 | 16.90 |
| | 5/8 | 3140-072 | 25.30 | 3140-192 | 16.90 |
| | 3/4 | 3140-073 | 25.30 | 3140-193 | 16.90 |
| | 7/8 | 3140-074* | 27.00 | 3140-194* | 18.00 |
| | 1 | 3140-075* | 27.00 | 3140-195* | 18.00 |
| | 1-1/4 | - | - | 3140-196* | 22.50 |
| 5 MTS (5/8-11) | 3/8 | 3140-096 | 39.40 | 3140-216 | 28.10 |
| | 1/2 | 3140-097 | 41.40 | 3140-217 | 28.10 |
| | 5/8 | 3140-098 | 42.60 | 3140-218 | 28.10 |
| | 3/4 | 3140-099 | 42.60 | 3140-219 | 28.10 |
| | 7/8 | 3140-100 | 44.40 | 3140-220 | 28.10 |
| | 1 | 3140-101 | 44.40 | 3140-221 | 28.10 |
| | 1-1/4 | 3140-102* | 51.40 | - | - |
| | 1-1/2 | 3140-103* | 60.50 | - | - |
| | 2 | 3140-104* | 64.70 | 3140-224* | 35.60 |

* FOR SINGLE-END END MILLS ONLY. DRAW BAR - LIMITED QUANTITIES

## 30–40-50 National Standard Taper Draw Bar Styles



| TAPER (THREADS FOR DRAW BAR) | ARBOR HOLE OR BORE | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 30 NST (1/2-13) | 3/16 | 3140-541 | $38.30 |
| | 3/8 | 3140-542 | 38.30 |
| | 1/2 | 3140-543 | 38.30 |
| | 5/8 | 3140-544 | 38.30 |
| | 3/4 | 3140-545 | 38.30 |
| | 7/8 | 3140-546 * | 47.80 |
| | 1 | 3140-547 * | 47.80 |
| 40 NST (5/8-11) | 3/16 | 3140-568 | 43.90 |
| | 3/8 | 3140-569 | 43.90 |
| | 1/2 | 3140-570 | 43.90 |
| | 5/8 | 3140-571 | 43.90 |
| | 3/4 | 3140-572 | 43.90 |
| | 7/8 | 3140-573 | 47.80 |
| | 1 | 3140-574 * | 47.80 |
| | 1-1/4 | 3140-575 * | 56.30 |
| | 1-1/2 | 3140-576 * | 59.10 |
| 50 NST (1-8) | 3/16 | 3140-596 † | 64.70 |
| | 3/8 | 3140-597 | 64.70 |
| | 1/2 | 3140-598 | 64.70 |
| | 5/8 | 3140-599 | 64.70 |
| | 3/4 | 3140-600 | 64.70 |
| | 7/8 | 3140-601 | 70.30 |
| | 1 | 3140-602 | 90.00 |
| | 1-1/4 | 3140-603 * | 104.10 |
| | 1-1/2 | 3140-604 * | 105.80 |
| | 2 | 3140-605 * | 112.50 |

† LIMITED QUANTITIES
* FOR SINGLE-END END MILLS ONLY

## R8 Shank

| ARBOR HOLE OR BORE | ORDER NO. | PRICE EACH |
|---|---|---|
| 3/16 | 3140-712 | $19.10 |
| 3/8 | 3140-724 | 19.10 |
| 1/2 | 3140-732 | 19.10 |
| 5/8 | 3140-740 | 24.20 |
| 3/4 | 3140-748* | 24.20 |
| 7/8 | 3140-756* | 24.20 |
| 1 | 3140-764* | 24.20 |
| 1-1/4 | 3140-780* | 32.10 |
| 1-1/2 | 3140-796* | 38.30 |

* FOR SINGLE-END END MILLS ONLY

# Lathe Mandrels

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1/8 | 2-1/2 | 3146-008 | $4.10 |
| 5/32 | 3 | 3146-010 | 4.40 |
| 13/64 | 3-3/4 | 3146-013 | 4.55 |
| 7/32 | 3-3/4 | 3146-014 | 4.55 |
| 15/64 | 3-3/4 | 3146-015 | 4.55 |
| 11/32 | 4-1/4 | 3146-022 | 5.00 |
| 23/64 | 4-1/4 | 3146-023 | 5.00 |
| 13/32 | 4-1/2 | 3146-026 | 5.25 |
| 15/32 | 5 | 3146-030 | 5.55 |
| 31/64 | 5 | 3146-031 | 5.55 |
| 1/2 | 5 | 3146-032 | 5.55 |
| 33/64 | 5-1/4 | 3146-033 | 6.40 |
| 35/64 | 5-1/4 | 3146-035 | 6.40 |
| 9/16 | 5-1/4 | 3146-036 | 6.40 |
| 37/64 | 5-1/2 | 3146-037 | 6.40 |
| 19/32 | 5-1/2 | 3146-038 | 6.40 |
| 41/64 | 5-3/4 | 3146-041 | 7.00 |
| 21/32 | 5-3/4 | 3146-042 | 7.00 |
| 11/16 | 5-3/4 | 3146-044 | 7.00 |

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 45/64 | 6 | 3146-045 | $7.00 |
| 23/32 | 6 | 3146-046 | 7.00 |
| 47/64 | 6 | 3146-047 | 7.00 |
| 49/64 | 6-1/4 | 3146-049 | 8.55 |
| 25/32 | 6-1/4 | 3146-050 | 8.55 |
| 13/16 | 6-1/4 | 3146-052 | 8.55 |
| 53/64 | 6-1/2 | 3146-053 | 8.55 |
| 27/32 | 6-1/2 | 3146-054 | 8.55 |
| 29/32 | 6-3/4 | 3146-058 | 10.05 |
| 15/16 | 6-3/4 | 3146-060 | 10.05 |
| 31/32 | 7 | 3146-062 | 10.05 |
| 1-1/32 | 7-1/4 | 3146-066 | 12.75 |
| 1-1/16 | 7-1/4 | 3146-068 | 12.75 |
| 1-3/16 | 7-3/4 | 3146-076 | 15.00 |
| 1-7/32 | 8 | 3146-078 | 15.00 |
| 1-1/4 | 8 | 3146-080 | 15.00 |
| 1-15/16 | 8-1/4 | 3146-084 | 18.15 |
| 1-3/8 | 8-1/2 | 3146-088 | 18.15 |
| 1-7/16 | 8-3/4 | 3146-092 | 21.05 |
| 1-15/32 | 9 | 3146-094 | 21.05 |
| 1-9/16 | 9-1/4 | 3146-100 | 23.90 |

| DIAM. | OVERALL LENGTH | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1-5/8 | 9-1/2 | 3146-104 | $23.90 |
| 1-11/16 | 9-3/4 | 3146-108 | 27.05 |
| 1-3/4 | 10 | 3146-112 | 27.05 |
| 1-13/16 | 10-1/4 | 3146-116 | 30.60 |
| 1-27/32 | 10-1/2 | 3146-118 | 30.60 |
| 1-7/8 | 10-1/2 | 3146-120 | 30.60 |
| 1-15/16 | 10-1/2 | 3146-124 | 33.75 |
| 2 | 11 | 3146-128 | 33.75 |
| 2-3/32 | 11-1/2 | 3146-134 | 37.60 |
| 2-1/8 | 11-1/2 | 3146-136 | 37.60 |
| 2-5/32 | 12 | 3146-138 | 41.30 |
| 2-1/4 | 12 | 3146-144 | 41.30 |
| 2-3/8 | 12 | 3146-152 | 45.10 |
| 2-7/16 | 12 | 3146-156 | 49.85 |
| 2-15/32 | 12-1/2 | 3146-158 | 49.85 |
| 2-1/2 | 12-1/2 | 3146-160 | 49.85 |
| 2-9/16 | 12-1/2 | 3146-164 | 64.30 |
| 2-5/8 | 12-1/2 | 3146-168 | 64.30 |
| 2-3/4 | 13 | 3146-176 | 69.80 |
| 2-7/8 | 13 | 3146-184 | 77.05 |

# Arbors



## Stub Arbors

| ARBOR DIAM. | SHANK DIAM. | LG'TH OF SHOULDER TO NUT | RH ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/2 | 1 | 3/4 | 3141-101† | $ 40.50 |
| 5/8 | 1 | 3/4 | 3141-103† | 53.20 |
| 3/4 | 1 | 1 | 3141-105† | 59.30 |
| 7/8 | 1 | 3/4 | 3141-107† | 63.00 |

† Limited Quantities

## Type "C" Shell End Mill Arbor

| TAPER (THREADS FOR DRAW BAR) | SHELL END MILL ARBOR HOLE | DIAM. RANGE FOR SHELL END MILL | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 30 (1/2-13) | 1/2 | 1-1/4" to 1-1/2" | 3141-381 | $ 63.00 |
| | 3/4 | 1-3/4" to 2" | 3141-382 | 63.00 |
| | 1 | 2-1/4" to 2-3/4" | 3141-383 | 63.00 |
| | 1-1/4 | 3" to 3-1/2" | 3141-384 | 65.30 |
| 40 (5/8-11) | 1/2 | 1-1/4" to 1-1/2" | 3141-405 | 72.00 |
| | 3/4 | 1-3/4" to 2" | 3141-406 | 72.00 |
| | 1 | 2-1/4" to 2-3/4" | 3141-407 | 72.00 |
| | 1-1/4 | 3" to 3-1/2" | 3141-408 | 76.50 |
| | 1-1/2 | 4" to 5" | 3141-409 | 76.50 |
| | 2 | 5-1/2" to 6 | 3141-410 | 84.20 |
| 50 (1"-8) | 1/2 | 1-1/4" to 1-1/2" | 3141-430 | 110.20 |
| | 3/4 | 1-3/4" to 2" | 3141-431 | 110.20 |
| | 1 | 2-1/4" to 2-3/4" | 3141-432 | 110.20 |
| | 1-1/4 | 3" to 3-1/2" | 3141-433 | 122.40 |
| | 1-1/2 | 4" to 5" | 3141-434 | 122.40 |
| | 2 | 5-1/2" to 6 | 3141-435 | 128.20 |

## Morse Taper Shell End Mill Arbors

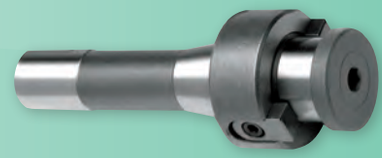
Tang Style

Draw Bar Style

| TAPER (THREADS FOR DRAW BAR) | SHELL END MILL ARBOR HOLE | DIAM. RANGE FOR SHELL END MILL | TANG STYLE ORDER NO. | DRAW BAR STYLE ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 3 MTS (3/8-16) | 1/2 | 1-1/4" to 1-1/2" | 3141-010 | 3141-060† | $ 30.40 |
| | 3/4 | 1-3/4" to 2" | 3141-011 | 3141-061† | 30.40 |
| | 1 | 2-1/4" to 2-3/4" | 3141-012 | 3141-062† | 37.50 |
| | 1-1/4 | 3" to 3-1/2" | 3141-013 | 3141-063† | 37.50 |
| 4 MTS (1/2-13) | 1/2 | 1-1/4" to 1-1/2" | 3141-021 | 3141-071 | 33.80 |
| | 3/4 | 1-3/4" to 2" | - | 3141-072 | 41.20 |
| | 1 | 2-1/4" to 2-3/4" | - | 3141-073 | 45.00 |
| | 1-1/4 | 3" to 3-1/2" | 3141-024 | 3141-074 | 45.00 |
| | 1-1/2 | 4" to 5" | 3141-025 | 3141-075 | 45.00 |
| 5 MTS (5/8-11) | 1 | 2-1/4" to 2-3/4" | - | 3141-095 | 53.20 |
| | 1-1/4 | 3" to 3-1/2" | - | 3141-096 | 65.60 |
| | 1-1/2 | 4" to 5" | - | 3141-097 | 65.60 |
| 6 MTS | 1 | 2-1/4" to 2-3/4" | 3141-052 | - | 66.60 |
| | 1-1/4 | 3" to 3-1/2" | 3141-053 | - | 82.00 |
| | 1-1/2 | 4" to 5" | 3141-054 | - | 82.00 |

† Limited Quantities

## R8 Shank Shell End Mill Arbor



| SHELL END MILL ARBOR HOLE | DIAM.RANGE FOR SHELL END MILL | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1/2 | 1-1/4" to 1-1/2" | 3141-532 | $36.00 |
| 3/4 | 1-3/4" to 2" | 3141-548 | 36.00 |
| 1 | 2-1/4" to 2-3/4" | 3141-564 | 38.20 |
| 1-1/4 | 3" to 3-1/2" | 3141-580 | 50.40 |
| 1-1/2 | 4" to 5" | 3141-596 | 56.20 |

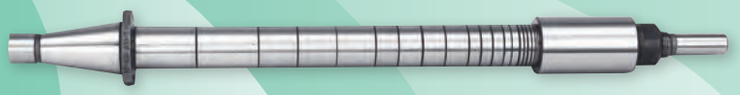
## Screws for Arbors

| THREAD SIZE | DIAM. FOR BORE IN SHELL END MILL | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 1/4-28 | 1/2 | 3141-716 | $ 5.70 |
| 3/8-24 | 3/4 | 3141-724 | 6.60 |
| 1/2-20 | 1 | 3141-732 | 9.40 |
| 5/8-18 | 1-1/4 | 3141-740 | 12.50 |
| 3/4-16 | 1-1/2 | 3141-748 | 16.40 |
| 1-14 | 2 | 3141-764 | 22.80 |

# Milling Machine Arbors

Pittsburg® ALLEGHANY 2

## Style A



| TAPER (THREADS FOR DRAW BAR) | ARBOR NO. | ARBOR DIAM. | LG'TH OF SHOULDER TO NUT | DIAM. OF RUNNING BUSHINGS | BUSHINGS FURNISHED | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 30 NST (1/2-13) | 30-7/8–A10-2 | 7/8 | 10 | 1-5/8 | 1 | 3144-005 | $124.40 |
| | 31–A10-2 | 1 | 10 | 1-5/8 | 1 | 3144-010 | 181.10 |
| | 31-1/4–A10-2 | 1-1/4 | 10 | 1-7/8 | 1 | 3144-015 | 199.20 |
| | 31-1/4–A10-3 | 1-1/4 | 10 | 1-7/8 | 1 | 3144-020 | 206.30 |
| | 40-7/8–A10 | 7/8 | 10 | NONE | NONE | 3144-025 | 181.10 |
| | 40-7/8–A16-3 | 7/8 | 16 | 1-7/8 | 1 | 3144-030 | 207.00 |
| 40 NST (5/8-11) | 41–A8 | 1 | 8 | NONE | NONE | 3144-035 | 169.00 |
| | 41–A10 | 1 | 10 | NONE | NONE | 3144-040 | 181.10 |
| | 41–A12 | 1 | 12 | NONE | NONE | 3144-045 | 202.70 |
| | 41–A16-3 | 1 | 16 | 1-7/8 | 1 | 3144-050 | 215.70 |
| | 41-1/4–A8 | 1-1/4 | 8 | NONE | NONE | 3144-055 | 220.00 |
| | 41-1/4–A10 | 1-1/4 | 10 | NONE | NONE | 3144-060 | 224.40 |
| | 41-1/4–A12 | 1-1/4 | 12 | NONE | NONE | 3144-065 | 228.70 |
| | 41-1/4–A16-3 | 1-1/4 | 16 | 1-7/8 | 1 | 3144-070 | 241.50 |
| | 50-7/8–A10 | 7/8 | 10 | NONE | NONE | 3144-075 | 232.90 |
| | 50-7/8–A18-4 | 7/8 | 18 | 2-1/8 | 1 | 3144-080 | 332.80 |
| 50 NST (1-8) | 51–A8 | 1 | 8 | NONE | NONE | 3144-085 | 271.60 |
| | 51–A12 | 1 | 12 | NONE | NONE | 3144-090 | 301.90 |
| | 51–18-4 | 1 | 18 | 2-1/8 | 1 | 3144-095 | 336.40 |
| | 51-1/4–A8 | 1-1/4 | 8 | NONE | NONE | 3144-100 | 284.70 |
| | 51-1/4–A12 | 1-1/4 | 12 | NONE | NONE | 3144-105 | 314.90 |
| | 51-1/4–A18-4 | 1-1/4 | 18 | 2-1/8 | 1 | 3144-110 | 345.10 |

## Style B

| TAPER (THREADS FOR DRAW BAR) | ARBOR NO. | ARBOR DIAM. | LG'TH OF SHOULDER TO NUT | DIAM. OF RUNNING BUSHINGS | BUSHINGS FURNISHED | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|
| 30 NST (1/2-13) | 31 B2 | 1 | 2 | NONE | NONE | 3144-205 | $ 172.50 |
| | 40-7/8–B14-3 | 7/8 | 14 | 1-7/8 | 1 | 3144-210 | 172.50 |
| | 40-7/8–B16-3 | 7/8 | 16 | 1-7/8 | 1 | 3144-215 | 184.70 |
| | 41 B-3 | 1 | 3 | NONE | NONE | 3144-220† | 92.20 |
| 40 NST (5/8-11) | 41 B14-3 | 1 | 14 | 1-7/8 | 1 | 3144-225 | 194.10 |
| | 41 B20-3 | 1 | 20 | 1-7/8 | 1 | 3144-230 | 213.20 |
| | 41-1/4–B-3 | 1-1/4 | 3 | NONE | NONE | 3144-235† | 96.70 |
| | 41-1/4–B14-3 | 1-1/4 | 14 | 1-7/8 | 1 | 3144-240 | 241.50 |
| | 41-1/4–B20-3 | 1-1/4 | 20 | 1-7/8 | 1 | 3144-245 | 258.70 |
| | 41-1/2–B20-4 | 1-1/2 | 20 | 2-1/8 | 1 | 3144-250 | 280.30 |
| | 51B-3-1/2 | 1 | 3-1/2 | NONE | NONE | 3144-255† | 114.70 |
| | 51B15-4 | 1 | 15 | 2-1/8 | 1 | 3144-260 | 301.90 |
| | 51B18-4 | 1 | 18 | 2-1/8 | 2 | 3144-265 | 398.50 |
| | 51B24-4 | 1 | 24 | 2-1/8 | 2 | 3144-270 | 434.70 |
| | 51-1/4–B15-4 | 1-1/4 | 15 | 2-1/8 | 1 | 3144-280 | 301.90 |
| | 51-1/4–B18-4 | 1-1/4 | 18 | 2-1/8 | 2 | 3144-285 | 362.20 |
| 50 NST (1-8) | 51-1/4–B24-4 | 1-1/4 | 24 | 2-1/8 | 2 | 3144-290 | 405.50 |
| | 51-1/4–B30-4 | 1-1/4 | 30 | 2-1/8 | 2 | 3144-295 | 474.40 |
| | 51-1/2–B3-1/2 | 1-1/2 | 3-1/2 | NONE | NONE | 3144-300† | 157.50 |
| | 51-1/2–B18-4 | 1-1/2 | 18 | 2-1/8 | 2 | 3144-305 | 371.00 |
| | 51-1/2–B24-5 | 1-1/2 | 24 | 2-3/4 | 2 | 3144-310 | 439.80 |
| | 51-1/2–B30-5 | 1-1/2 | 30 | 2-3/4 | 2 | 3144-315 | 517.50 |
| | 52–B24-5 | 2 | 24 | 2-3/4 | 2 | 3144-325 | 483.00 |
| | 52–B30-5 | 2 | 30 | 2-3/4 | 2 | 3144-330 | 690.00 |
| | 52–B36-5 | 2 | 36 | 2-3/4 | 2 | 3144-335 | 776.30 |
| | 52-1/2–B36-6 | 2-1/2 | 36 | 3-3/8 | 2 | 3144-340 | 1200.60 |

† Limited Quantities

## Slitting Saw & Milling Machine Arbor

| ARBOR SHANK | ARBOR DIAM. | LENGTH OF SHOULDER TO NUT | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| R8 | 1 | 2 | 3142-010 | $62.28 |
| R8 | 1-1/4 | 2 | 3142-012 | 65.56 |

## Milling Machine Adaptors

### R8 to Morse Taper

| FROM R8 (MALE) | TO MORSE (FEMALE) | ORDER NO. | PRICE EACH |
|---|---|---|---|
| R8 | 2 | 3142-150 | $11.20 |
| R8 | 3 | 3142-152 | 12.60 |

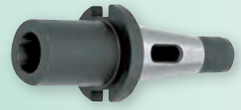
### NST to R8

| FROM NST (MALE) | TO R8 (FEMALE) | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 40 | R8 | 3142-130 | $74.20 |
| 50 | R8 | 3142-132 | 87.80 |

### NST Adaptors

| OUTSIDE TAPER (MALE) | INSIDE TAPER (FEMALE) | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 40 | 30 | 3142-100 | $58.50 |
| 50 | 30 | 3142-102 | 72.00 |
| 50 | 40 | 3142-104 | 72.00 |

### Draw Bar Type



| FROM NST (MALE) TAPER | TO MORSE (FEMALE) TAPER | DRAW BAR THREADS | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 40 | 2 | 5/8-11 | 3142-060 | $33.80 |
| 40 | 3 | 5/8-11 | 3142-062 | 33.80 |
| 40 | 4 | 5/8-11 | 3142-064 | 33.80 |
| 40 | 5 | 5/8-11 | 3142-066 | 38.20 |
| 50 | 2 | 1-8 | 3142-068 | 65.30 |
| 50 | 3 | 1-8 | 3142-070 | 65.30 |
| 50 | 4 | 1-8 | 3142-072 | 65.30 |
| 50 | 5 | 1-8 | 3142-074 | 74.20 |

### NST to MT Open End Type

| FROM NST (MALE) TAPER | TO MORSE (FEMALE) TAPER | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 40 | 2 | 3142-030† | $28.10 |
| 40 | 3 | 3142-032† | 28.10 |
| 40 | 4 | 3142-034† | 28.10 |
| 50 | 3 | 3142-036† | 54.40 |
| 50 | 4 | 3142-038† | 54.40 |
| 50 | 5 | 3142-040† | 60.00 |

† Limited Quantities

# Arbors, Arbor Bushings & Nuts

Pittsburg® ALLEGHANY 1

## Arbor Solid Spacers - With Keyways

Spacers are hardened and have parallel and perpendicular surfaces precisely ground – accuracy .0002" – to ensure precise operation of cutters on milling machine arbors. Import.

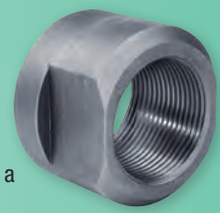
| WIDTH OF SPACER | 7/8" HOLE–1-3/8" O.D. | | 1" HOLE–1-1/2" O.D. | | 1-1/4" HOLE–1-3/4" O.D. | | 1-1/2" HOLE–2-1/8" O.D. | | 2" HOLE–2-3/4" O.D. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH | ORDER NO. | PRICE EACH |
| 1/16 | 3144-370 | $ 3.40 | 3144-387 | $ 4.00 | 3144-404 | $ 4.20 | 3144-421 | $ 6.10 | 3144-438 | $ 6.60 |
| 3/32 | 3144-371 | 3.40 | 3144-388 | 4.00 | 3144-405 | 4.20 | 3144-422 | 6.10 | 3144-439 | 6.60 |
| 1/8 | 3144-372 | 3.40 | 3144-389 | 3.70 | 3144-406 | 4.20 | 3144-423 | 6.10 | 3144-440 | 6.60 |
| 3/16 | 3144-373 | 3.40 | 3144-390 | 3.70 | 3144-407 | 4.20 | 3144-424 | 6.10 | 3144-441 | 6.60 |
| 1/4 | 3144-374 | 3.40 | 3144-391 | 4.00 | 3144-408 | 4.20 | 3144-425 | 6.10 | 3144-442 | 6.60 |
| 5/16 | 3144-375 | 3.40 | 3144-392 | 4.50 | 3144-409 | 4.20 | 3144-426 | 6.80 | 3144-443 | 6.60 |
| 3/8 | 3144-376 | 3.80 | 3144-393 | 4.70 | 3144-410 | 4.70 | 3144-427 | 7.10 | 3144-444 | 6.60 |
| 7/16 | 3144-377 | 5.30 | 3144-394 | 5.80 | 3144-411 | 6.60 | 3144-428 | 7.90 | 3144-445 | 8.70 |
| 1/2 | 3144-378 | 5.30 | 3144-395 | 5.80 | 3144-412 | 6.60 | 3144-429 | 8.30 | 3144-446 | 8.70 |
| 5/8 | 3144-379 | 5.30 | 3144-396 | 5.80 | 3144-413 | 6.60 | 3144-430 | 9.20 | 3144-447 | 8.70 |
| 3/4 | 3144-380 | 5.30 | 3144-397 | 6.80 | 3144-414 | 7.90 | 3144-431 | 10.00 | 3144-448 | 8.70 |
| 7/8 | 3144-381 | 5.80 | 3144-398 | 7.90 | 3144-415 | 8.00 | 3144-432 | 11.10 | 3144-449 | 12.10 |
| 1 | 3144-382 | 5.80 | 3144-399 | 7.90 | 3144-416 | 8.90 | 3144-433 | 11.50 | 3144-450 | 12.10 |
| 1-1/4 | 3144-383 | 6.60 | 3144-400 | 8.30 | 3144-417 | 8.90 | 3144-434 | 15.80 | 3144-451 | 16.60 |
| 1-1/2 | 3144-384 | 6.70 | 3144-401 | 10.50 | 3144-418 | 10.50 | 3144-435 | 15.80 | 3144-452 | 16.60 |
| 2 | 3144-385 | 10.10 | 3144-402 | 12.60 | 3144-419 | 12.60 | 3144-436 | 20.00 | 3144-453 | 21.10 |
| 3 | 3144-386 | 15.30 | 3144-403 | 16.40 | 3144-420 | 17.80 | 3144-437 | 30.60 | 3144-454 | 32.70 |
| Width of Key | 1/8 | | 1/4 | | 5/16 | | 3/8 | | 1/2 | |

## Arbor Running Bushing With Keyways

Bushings are hardened and have parallel and perpendicular surfaces precisely ground – accuracy .0002" – to ensure maximum holding power, rigid setup and accurate machining operations. Bushings have standard keyways which allow fixed mounting on arbor and preventing rotation.

| BUSHING NO. | O.D. | HOLE DIA. | LG'TH | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2 – 7/8 | 1-5/8 | 7/8 | 2-5/8 | 3144-500 | $23.60 |
| 2 – 1 | 1-5/8 | 1 | 2-5/8 | 3144-501 | 23.60 |
| 2 – 1-1/4 | 1-7/8 | 1-1/4 | 2-5/8 | 3144-502 | 22.90 |
| 3 – 7/8 | 1-7/8 | 7/8 | 3-1/8 | 3144-503 | 27.30 |
| 3 – 1 | 1-7/8 | 1 | 3-1/8 | 3144-504 | 27.30 |
| 3 – 1-1/4 | 1-7/8 | 1-1/4 | 3-1/8 | 3144-505 | 27.30 |
| 4 – 7/8 | 2-1/8 | 7/8 | 3-3/4 | 3144-506 | 38.80 |
| 4 – 1 | 2-1/8 | 1 | 3-3/4 | 3144-507 | 38.80 |
| 4 – 1-1/4 | 2-1/8 | 1-1/4 | 3-3/4 | 3144-508 | 38.80 |
| 4 – 1-1/2 | 2-1/8 | 1-1/2 | 3-3/4 | 3144-509 | 39.40 |
| 5 – 7/8 | 2-3/4 | 7/8 | 4-1/4 | 3144-510 | 48.30 |
| 5 – 1 | 2-3/4 | 1 | 4-1/4 | 3144-511 | 48.30 |
| 5 – 1-1/4 | 2-3/4 | 1-1/4 | 4-1/4 | 3144-512 | 48.30 |
| 5 – 1-1/2 | 2-3/4 | 1-1/2 | 4-1/4 | 3144-513 | 48.30 |
| 5 – 2 | 2-3/4 | 2 | 4-1/4 | 3144-514 | 51.40 |

## Nuts For Milling Machine Arbors



Arbor nuts are hardened and have a ground thread and shoulder

| SIZE | FOR ARBOR DIA. | RH ORDER NO. | RH PRICE EACH |
|---|---|---|---|
| 7/8 – 14 | 7/8 | 3144-530 | $18.60 |
| 1 – 14 | 1 | 3144-532 | 23.20 |
| 1-1/4 – 12 | 1-1/4 | 3144-534 | 25.90 |
| 1-1/2 – 12 | 1-1/2 | 3144-536 | 45.50 |
| 2 – 12 | 2 | 3144-538 | 60.30 |
| 2-1/2 – 12 | 2-1/2 | 3144-540 | 97.90 |

## Arbor Spacers and Shims

• Shims DO NOT have a keyway, spacers DO have a keyway

PRECISION BRAND® 2

- Assortments contain one each of the 19 different thicknesses
- SIZES: .001, .0015, .002, .003, .004, .005, .006, .007, .008, .010, .012, .015, .020, .025, .031, .047, .062, .093, .125
- Used for fast, accurate spacing of milling cutters, gang cutters, saws, slitting blades, and grinding tools
- Special sizes, materials, and bulk quantities available on request
- Made of high quality Steel Shim • Finish can be #2 bright or matte • Keyways conform to American standards
- Packaged in airtight poly bags • 10 pieces per bag (except assortments)

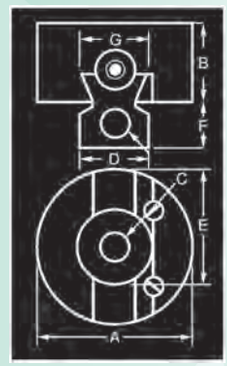
| SPACERS (WITH KEYWAY) ASSORTMENT | (3/8 ID x 5/8 OD) ORDER NUMBER | PRICE EACH | (1/2 ID x 3/4 OD) ORDER NUMBER | PRICE EACH | (5/8 ID x 1 OD) ORDER NUMBER | PRICE EACH | (3/4 ID x 1-1/8 OD) ORDER NUMBER | PRICE EACH | (1 ID x 1-1/2 OD) ORDER NUMBER | PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 19 pcs. | 3234-120 | $ 7.59 | 3234-140 | $ 7.59 | 3234-160 | $ 9.31 | 3234-180 | $ 10.84 | 3234-220 | $ 11.91 |
| **SHIMS (WITHOUT KEYWAY) ASSORTMENT** | **(3/8 ID x 5/8 OD) ORDER NUMBER** | **PRICE EACH** | **(1/2 ID x 3/4 OD) ORDER NUMBER** | **PRICE EACH** | **(5/8 ID x 1 OD) ORDER NUMBER** | **PRICE EACH** | **(3/4 ID x 1-1/8 OD) ORDER NUMBER** | **PRICE EACH** | **(1 ID x 1-1/2 OD) ORDER NUMBER** | **PRICE EACH** |
| 19 pcs. | 3235-120 | $ 7.59 | 3235-140 | $ 7.59 | 3235-160 | $ 9.31 | 3235-180 | $ 10.84 | 3235-220 | $ 11.91 |

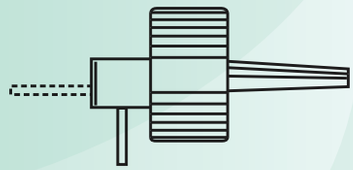
# Flynn Boring Tools



## 40 Series

Flynn's 40 Series designs offer a wide range of sizes and provisions for holding tools, perpendicular or parallel. All boring heads are standard with 20 TPI micrometer lead screw. .001" per graduation of screw dial. A 40 TPI is available at an extra cost permitting .0005" per graduation of the screw dial.

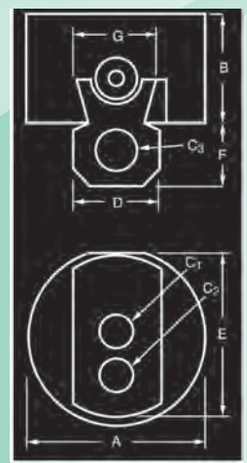


| Dimensions and Specifications | No. 43 | No. 43B | No. 45 | No. 47 | No. 48 |
|---|---|---|---|---|---|
| A-Body Diameter | 2-3/4" | 2-3/4" | 4" | 4-1/2" | 5" |
| B-Body Length | 2" | 2" | 2-1/8" | 2-5/8" | 2-5/8" |
| C-Bar-Tool Capacity | 1/2" | 5/8" | 3/4" | 1" | 1-1/4" |
| D-Tool Block | 1-1/2" | 1-1/2" | 2" | 2-1/2" | 2-3/4" |
| E-Extension Length | 1-7/8" | 1-7/8" | 2-3/4" | 3" | 3-3/8" |
| F-Extension Width | 1-1/8" | 1-1/8" | 1-1/2" | 1-3/4" | 2" |
| G-Extends Past Body | 1-1/4" | 1-1/4" | 1-7/8" | 2-1/4" | 2-1/2" |
| Bar Offset | 5/8" | 5/8" | 1" | 1" | 1-1/4" |
| Bar or Tool Grip | 1-1/2" | 1-1/2" | 2" | 2-1/2" | 2-3/4" |
| Dovetail Depth | 7/8" | 7/8" | 1" | 1-1/4" | 1-1/4" |
| Net Weight | 3 lbs. | 3 lbs. | 8 lbs. | 12 lbs | 15 lbs |
| Shank Series | 175 | 175 | 175 | 250 | 250 |
| Order No. | 3157-015 | 3157-020 | 3157-025 | 3157-030 | 3157-035 |
| Price Each Without Shank | $475.00 | $475.00 | $500.00 | $700.00 | $900.00 |

## 60 Series

The 60 Series features a long and stockier tool block for better securing the tool, particularly horizontal position (Number 63,65 and 67). The horizontal hole is broached for holding either round or square tools. The two vertical mount holes are made possible by the logger tool block, one is centered in the block and the second is offset, greatly increasing the amount of overall offset that can be obtained. A vernier on the body facilities adjustment of the micrometer offset screw, making possible extremely close visual offset adjustment. 20TPI micrometer lead screw is standard. 40TPI micrometer lead screw is available at extra cost.



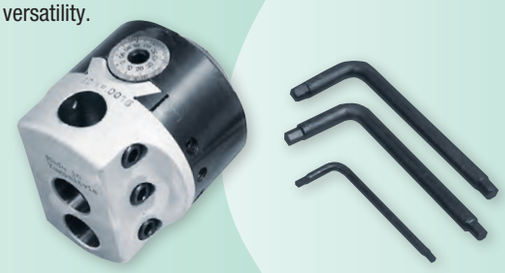
| Dimensions and Specifications | No. 63 | No. 65 | No. 67 | No. 67B | No. 68 |
|---|---|---|---|---|---|
| A-Body Diameter | 2-3/4" | 4" | 5" | 5" | 8" |
| B-Body Length | 2" | 2-1/2" | 3-1/8" | 3-1/8" | 3-1/8" |
| C1-Bar-Tool Capacity | 1/2" | 3/4 | 1" | 1-1/4" | 2" |
| C1-Bar-Tool Capacity | 5/8" | 3/4" | 1" | 1-1/4" | 2" |
| C3-Bar-Tool Capacity | 1/2sq" | 3/4sq" | 1sq" | 1-1/4" | 2" |
| D-Tool Block | 1-1/2" | 2" | 2-1/2" | 2-1/2" | 3" |
| E-Tool Block | 2-5/8" | 3-3/4" | 4-13/16" | 4-13/16" | 7-1/2" |
| F-Tool Block | 1-1/8" | 1-1/2" | 1-3/4" | 2-1/8" | 2-3/4" |
| G-Tool Block | 1-1/4" | 1-7/8" | 2-1/4" | 2-1/2" | 3" |
| Bar Offset | 5/8" from Center | 7/8" Eachway | 1-5/16" Eachway | 1-3/8" Eachway | 1-3/4" from Center |
| Bar Offset | 1/2 back from Center | | | | 2-5/8 Back from Center |
| Bar Grip C-1,C-2 | 1-1/2" | 2" | 2-1/2" | 2-1/2" | 3-5/16" |
| Bar Grip C-3 | 2-5/8" | 3-3/4" | 4-13/16" | 4-13/16" | - |
| Dovetail Depth | 7/8" | 1" | 1-1/4" | 1-1/4" | 1-1/4" |
| Net Weight | 3-3/4 lbs. | 9-1/2 lbs. | 19 lbs. | 20 lbs. | 52 lbs. |
| Shank Series | 175 | 250 | 250 | 250 | 250 |
| Order No. | 3157-045 | 3157-050 | 3157-055 | 3157-060 | 3157-065 |
| Price Each Without Shank | $525.00 | $750.00 | $1200.00 | $1250.00 | $3350.00 |

# Boring Heads

Pittsburg® ALLEGHANY

## Boring Heads

- Wide bearing surface assures maximum rigidity even when the bar is in an offset position.
- Features direct reading dial.
- Threaded back will accept a variety of shanks.
- Two vertical and one horizontal holes.
- Provides great versatility.



[1]

| ACTUAL SIZE | OVERALL LGTH. | BORING BAR HOLE SIZE | CENTER DIST. BETWEEN HOLES | CROSS HOLE DIA. | OFFSET | THREAD BACK | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|---|---|
| 2” | 2-13/32” | 1/2” | 5/8” | 1/2” | 5/8” | 7/8-20 | 3157-405 | $101.35 |
| 3” | 3-5/32” | 3/4” | 15/16” | 3/4” | 1” | 1-1/2 -18 | 3157-410 | 141.25 |
| 4” | 3-3/4” | 1” | 1-1/4” | 1” | 1-5/8” | - | 3157-415 | 217.00 |

## Boring Head Shanks

[1]

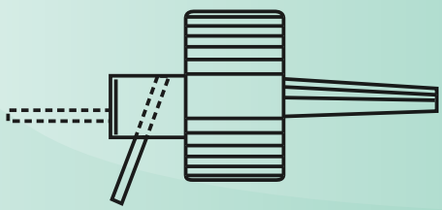
| FOR 2” HEAD | ORDER NO. | PRICE EACH | FOR 3”& 4” HEAD | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 2MTS Draw Bar | 3157-490 | $23.50 | 3MTS Tang | 3157-430 | $29.50 |
| 2MT Tang | 3157-495 | 23.50 | 4MTS Tang | 3157-435 | 29.50 |
| 3MT Tang | 3157-500 | 23.50 | 5MTS Tang | 3157-440 | 29.50 |
| 4MT Tang | 3157-505 | 23.50 | 1” Straight | 3157-445 | 24.95 |
| 1/2” Straight | 3157-510 | 11.95 | 1-1/4” Straight | 3157-450 | 24.95 |
| 1” Straight | 3157-515 | 11.95 | 1-1/2” Straight | 3157-455 | 24.95 |
| R8 Bridgeport | 3157-520 | 25.00 | R8 Bridgeport | 3157-460 | 29.50 |

## Flynn Number 25-ED

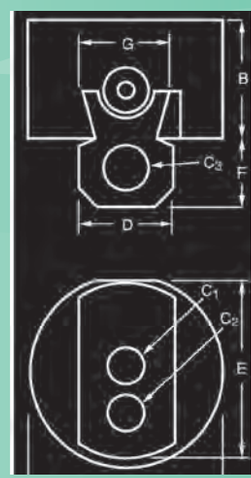
[5]

With two-way tool holder for boring small and large holes.

Square cross hole (1/2) is at 15° angle to slide to facilitate boring bottom holes and for fly cutting.



| Dimensions and Specifications | No.25-ED |
|---|---|
| A-Body Diameter | 2-3/4” |
| B-Body Length | 2” |
| C-Bar-Tool Capacity | 1/2” |
| D-Tool Block | 1-1/2” |
| E-Extension Length | 1-7/8” |
| F-Extension Width | 1-1/8” |
| G-Extends Past Body | 1-1/4” |
| Bar Offset | 5/8” |
| Bar or Tool Grip | 1-1/2” |
| Dovetail Depth | 7/8” |
| Net Weight | 3 lbs. |
| Shank Series | 175 |
| Order No. | 3157-010 |
| Price Each Without Shank | $475.00 |




## Arbors for Flynn Boring Heads

[5]

| | Shank Series 175 1-7/16-12 | | Shank Series 250 2-12 | |
|---|---|---|---|---|
| | Order No. | Price Each | Order No. | Price Each |
| **Morse Taper** | | | | |
| 2MT | 3157-170 | $250.00 | - | - |
| 3MT | 3157-175 | 250.00 | - | - |
| 4MT | 3157-180 | 250.00 | 3157-275 | $250.00 |
| 5MT | 3157-185 | 250.00 | 3157-280 | 250.00 |
| 6MT | - | - | 3157-285 | 600.00 |
| 7MT | - | - | 3157-290 | 700.00 |
| **Bridgeport Taper** | | | | |
| R-8 | 3157-235 | 160.00 | - | - |

| | Shank Series 175 1-7/16-12 | | Shank Series 250 2-12 | |
|---|---|---|---|---|
| | Order No. | Price Each | Order No. | Price Each |
| **Straight Shank** | | | | |
| 3/4 x 4 | 3157-245 | $250.00 | - | - |
| 1 x 4 | 3157-250 | 250.00 | - | - |
| 1-1/4 x 4 | 3157-255 | 250.00 | - | - |
| 1-1/2 x 4 | 3157-260 | 250.00 | - | - |
| 2 x 6 | 3157-265 | 250.00 | - | - |

| | Shank Series 175 1-7/16-12 | | Shank Series 250 2-12 | |
|---|---|---|---|---|
| | Order No. | Price Each | Order No. | Price Each |
| **Standard Taper** | | | | |
| 40 5/8-11 | 3157-220 | $450.00 | 3157-315 | $450.00 |
| 50 1-8 | 3157-225 | 500.00 | 3157-320 | 500.00 |
| Moore | 3157-230 | 100.00 | - | - |

## Flynn Boring Head Sets

**Set includes R8 Shank, 5 Tools & Case**

[5]

| BORING HEAD NUMBER | HEAD DIA. | BORING BAR HOLE SIZE | SHANK SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 25ED-Set | 2-3/4 | 1/2 | R-8 | 3157-080 | $475.00 |
| 43-Set | 2-3/4 | 1/2 | R-8 | 3157-085 | 475.00 |
| 63-Set | 2-3/4 | 1/2-5/8 | R-8 | 3157-090 | 575.00 |
| 43B-Set | 2-3/4 | 5/8 | R-8 | 3157-095 | 475.00 |
| 63B-Set | 2-3/4 | 3/4 | R-8 | 3157-100 | 575.00 |

# Fly Cutters & Toolholders

## Fly Cutter Sets

[3]

| SHANK SIZE | HEAD DIA. | TOOL BIT SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 1/2 | 3/4 | 3/16 | 3143-301 | $20.70 |
| | 1-1/8 | 1/4 | | |
| | 1-1/2 | 5/16 | | |
| 3/4 | 1-1/2 | 5/16 | 3143-302 | 35.20 |
| | 2 | 5/16 | | |
| | 2-1/2 | 5/16 | | |

## 5 Piece Fly Cutter Set

[3]

- (4) tools with 3/16", 1/4", 5/16" & 3/8" tool bit capacity have 1/2" shanks
- (1) tool with 1/2" tool bit capacity has 5/8" shank
- Attractive wooden stand included.

**Order No. 3143-303 Price Each…$49.25**

## R8 Shank Fly Tool Cutter

- Counterbalanced to get smoother finishes
- Made of Hardened Steel
- Quality Import

[3]

| TOOL BIT SIZE | HEAD DIA. | ORDER NO. | PRICE EACH |
|---|---|---|---|
| 3/8 | 2-1/2" | 3143-300 | $32.90 |

## Carbide Tool Holders For Carbide Tipped Square Tool Bits

[3]

| TOOL BIT SIZE | ORDER NUMBER STRAIGHT | RIGHT HAND | LEFT HAND | PRICE EACH |
|---|---|---|---|---|
| 1/4 | 3143-015 | 3143-001 | 3143-008 | $12.80 |
| 5/16 | 3143-016 | 3143-002 | 3143-009 | 15.90 |
| 3/8 | 3143-017 | 3143-003 | 3143-010 | 18.55 |
| 7/16 | 3143-018 | 3143-004 | 3143-011 | 21.60 |
| 1/2 | 3143-019 | 3143-005 | 3143-012 | 27.00 |
| 5/8 | 3143-020 | 3143-006 | 3143-013 | 47.85 |
| 3/4 | 3143-021 | 3143-007 | 3143-014 | 70.25 |

## Turning Tool Holders

[2]

| TOOL BIT SIZE | ORDER NUMBER STRAIGHT SHANK | RIGHT HAND | LEFT HAND | PRICE EACH |
|---|---|---|---|---|
| 3/16 | 3143-102 | 3143-120 | 3143-111 | $9.70 |
| 1/4 | 3143-103 | 3143-121 | 3143-112 | 10.20 |
| 5/16 | 3143-104 | 3143-122 | 3143-113 | 12.60 |
| 3/8 | 3143-105 | 3143-123 | 3143-114 | 15.85 |
| 7/16 | 3143-106 | 3143-124 | 3143-115 | 18.65 |
| 1/2 | 3143-107 | 3143-125 | 3143-116 | 25.25 |
| 5/8 | 3143-108 | 3143-126 | 3143-117 | 33.75 |
| 3/4 | 3143-109 | 3143-127 | 3143-118 | 61.65 |

Right Hand

Left Hand

Straight Shank

## Cut Off Tool Holders

[2]

| TOOL BIT SIZE | ORDER NUMBER STRAIGHT SHANK | RIGHT HAND | LEFT HAND | PRICE EACH |
|---|---|---|---|---|
| 3/32 x 1/2 | 3143-217 | 3143-201 | 3143-209 | $ 9.50 |
| 3/32 x 5/8 | 3143-218 | 3143-202 | 3143-210 | 10.70 |
| 1/8 x 3/4 | 3143-219 | 3143-203 | 3143-211 | 12.85 |
| 1/8 x 7/8 | 3143-220 | 3143-204 | 3143-212 | 17.95 |
| 3/16 x 1 | 3143-221 | 3143-205 | 3143-213 | 25.65 |
| 3/16 x 1-1/8 | 3143-222 | 3143-206 | 3143-214 | 34.90 |
| 1/4 x 1-1/4 | 3143-223 | 3143-207 | 3143-215 | 41.85 |
| 1/4 x 1-3/8 | 3143-224 | – | – | 52.45 |

Straight Shank

Left Hand

Right Hand

# Machine Accessories

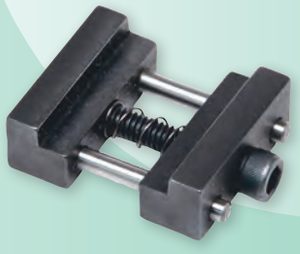
## Drawbars for Mills

- Made of cold rolled steel.
- Black oxide plated.
- Made in U.S.A.

| FITS MILLING MACHINE | ORDER NUMBER | PRICE EACH |
|---|---|---|
| 1J Step Pulley | 3143-420 | $15.70 |
| 2J Step Pulley | 3143-421 | 17.50 |
| Lagun Vari Speed | 3143-424 | 27.30 |
| Wells Index Vari Speed | 3143-425 | 25.40 |

## Easy Vise Stop

- Made from hardened steel with Black Oxide coating.
- Stop is 1" wide by 1-7/16" long.
- Made in U.S.A.



| ORDER NO. | PRICE EACH |
|---|---|
| 3143-407 | $14.80 |

## Vise Speed Handle

For 6" Kurt Style Milling Machine Vises

- Made in U.S.A.

| DESCRIPTION | ORDER NUMBER | PRICE EACH |
|---|---|---|
| Fits 6" Vise (3/4" Hex) | 3143-412 | $24.00 |

## Quill Stop

For All Milling Machines

- Quickly Sets Quill Depth.
- 1/2 – 20 threads for Mills.
- Made in U.S.A.

| ORDER NO. | PRICE EACH |
|---|---|
| 3143-417 | $15.70 |

## Universal Collet Stop –

5 piece Set converts standard 1" Lathe Collets into solid or ejector stop collets.

- Comes complete with all attachments and springs.
- Made from steel with black oxide plating.
- Made in U.S.A.

| ORDER NO. | PRICE EACH |
|---|---|
| 3143-400 | $44.40 |

2

## Spider Handle for Mills

- Sturdy construction features a solid aluminum center with protective plating, and 3 heavy duty solid steel spokes and knobs.
- Black Oxide Plated.
- Made in U.S.A.

| ORDER NO. | PRICE EACH |
|---|---|
| 3143-415 | $21.30 |

## Quill Feed Handle –

For all Bridgeport type Milling Machines

- All steel construction with heavy duty spring action.
- All parts Black Oxide Plated.
- Made in U.S.A.

| ORDER NO. | PRICE EACH |
|---|---|
| 3143-416 | $25.40 |

## Adjustable Mill Stop

- 1/2" hole for T Slot mounting
- 3/8" Diameter Rod.
- Base 2" x 4-1/2".
- Overall height: 7".
- Steel, Black Oxide Plated".
- Made in U.S.A.

| ORDER NO. | PRICE EACH |
|---|---|
| 3143-408 | $27.60 |

## 5C Precision Chucks 1

Includes 2 sets of hardened steel jaws (internal & external) for increased clamping range.

- Made in U.S.A.

| CHUCK DIAM. | T. I. R. REPEATABILITY | DESCRIPTION | ORDER NO. | PRICE EACH |
|---|---|---|---|---|
| 3" | .003 | 3 Jaw – Self Centering | 3143-440 | $175.00 |
| 3" | .005 | 4 Jaw – Independent | 3143-442 | 150.00 |
| 4" | .003 | 3 Jaw –Self Centering | 3143-444 | 200.00 |

## Expanding Arbors

A handy accessory for Lathe Collets

- Made in U.S.A.

| DESCRIPTION | ORDER NUMBER | PRICE EACH |
|---|---|---|
| 8 pc. Set – 1/4" to 1-1/4" in Wooden Stand | 3143-438 | $73.10 |
| 3 pc. Set – 1-1/2" to 2" in Wooden Stand | 3143-433 | 91.60 |

## 5C Adjustable Collet Stop

- Steel with Black Oxide plating.
- Made in U.S.A.

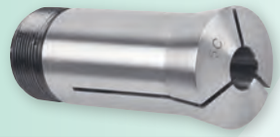
| ORDER NO. | PRICE EACH |
|---|---|
| 3143-403 | $8.20 |

## 5C Round Collet

| SIZE | ORDER NO. | PRICE EACH | SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3155-104 | $6.25 | 39/64 | 3155-139 | $4.60 |
| 5/64 | 3155-105 | 6.25 | 5/8 | 3155-140 | 4.60 |
| 3/32 | 3155-106 | 6.25 | 41/64 | 3155-141 | 4.60 |
| 7/64 | 3155-107 | 6.25 | 21/32 | 3155-142 | 4.60 |
| 1/8 | 3155-108 | 4.60 | 43/64 | 3155-143 | 4.60 |
| 9/64 | 3155-109 | 4.60 | 11/16 | 3155-144 | 4.60 |
| 5/32 | 3155-110 | 4.60 | 45/64 | 3155-145 | 4.60 |
| 11/64 | 3155-111 | 4.60 | 23/32 | 3155-146 | 4.60 |
| 3/16 | 3155-112 | 4.60 | 47/64 | 3155-147 | 4.60 |
| 13/64 | 3155-113 | 4.60 | 3/4 | 3155-148 | 4.60 |
| 7/32 | 3155-114 | 4.60 | 49/64 | 3155-149 | 4.60 |
| 15/64 | 3155-115 | 4.60 | 25/32 | 3155-150 | 4.60 |
| 1/4 | 3155-116 | 4.60 | 51/64 | 3155-151 | 4.60 |
| 17/64 | 3155-117 | 4.60 | 13/16 | 3155-152 | 4.60 |
| 9/32 | 3155-118 | 4.60 | 53/64 | 3155-153 | 4.60 |
| 19/64 | 3155-119 | 4.60 | 27/32 | 3155-154 | 4.60 |
| 5/16 | 3155-120 | 4.60 | 55/64 | 3155-155 | 4.60 |
| 21/64 | 3155-121 | 4.60 | 7/8 | 3155-156 | 4.60 |
| 11/32 | 3155-122 | 4.60 | 57/64 | 3155-157 | 4.60 |
| 23/64 | 3155-123 | 4.60 | 29/32 | 3155-158 | 4.60 |
| 3/8 | 3155-124 | 4.60 | 59/64 | 3155-159 | 4.60 |
| 25/64 | 3155-125 | 4.60 | 15/16 | 3155-160 | 4.60 |
| 13/32 | 3155-126 | 4.60 | 61/64 | 3155-161 | 4.60 |
| 27/64 | 3155-127 | 4.60 | 31/32 | 3155-162 | 4.60 |
| 7/16 | 3155-128 | 4.60 | 63/64 | 3155-163 | 4.60 |
| 29/64 | 3155-129 | 4.60 | 1 | 3155-164 | 4.60 |
| 15/32 | 3155-130 | 4.60 | 1-1/64 | 3155-165 | 4.60 |
| 31/64 | 3155-131 | 4.60 | 1-1/32 | 3155-166 | 4.60 |
| 1/2 | 3155-132 | 4.60 | 1-3/6 | 3155-167 | 4.60 |
| 33/64 | 3155-133 | 4.60 | 1-1/16 | 3155-168 | 4.60 |
| 17/32 | 3155-134 | 4.60 | 1-5/64 | 3155-169 | 4.60 |
| 35/64 | 3155-135 | 4.60 | 1-3/3 | 3155-170 | 4.60 |
| 9/16 | 3155-136 | 4.60 | 1-7/6 | 3155-171 | 4.60 |
| 37/64 | 3155-137 | 4.60 | 1-1/8 | 3155-172 | 4.60 |
| 19/32 | 3155-138 | 4.60 | - | - | - |

## 5C Sets Without stands

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 5C 1/16 - 1-1/8 by 16ths | 3156-005 | $84.45 |
| 5C 1/16 - 1-1/8 by 32nds | 3156-010 | 164.30 |
| 5C 1/16 - 1-1/8 by 64ths | 3156-015 | 324.00 |



## Metric 5C Collets

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 3.0mm | 3156-506 | $ 7.05 |
| 4.0mm | 3156-508 | 7.05 |
| 5.0mm | 3156-510 | 7.05 |
| 6.0mm | 3156-512 | 7.05 |
| 7.0mm | 3156-514 | 7.05 |
| 8.0mm | 3156-516 | 7.05 |
| 9.0mm | 3156-518 | 7.05 |
| 10.0mm | 3156-520 | 7.05 |
| 11.0mm | 3156-522 | 7.05 |
| 12.0mm | 3156-524 | 7.05 |
| 13.0mm | 3156-526 | 7.05 |
| 14.0mm | 3156-528 | 7.05 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 15.0mm | 3156-530 | $ 7.05 |
| 16.0mm | 3156-532 | 7.05 |
| 17.0mm | 3156-534 | 7.05 |
| 18.0mm | 3156-536 | 7.05 |
| 19.0mm | 3156-538 | 7.05 |
| 20.0mm | 3156-540 | 7.05 |
| 21.0mm | 3156-542 | 7.05 |
| 22.0mm | 3156-544 | 7.05 |
| 23.0mm | 3156-546 | 7.05 |
| 24.0mm | 3156-548 | 7.05 |
| 25.0mm | 3156-550 | 7.05 |

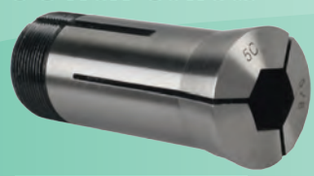
## Metric 5C Sets
### Without stands

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 5C 3-25mm x 1mm | 3156-582 | $ 162.15 |

## 5C Step Collets

| SIZE | ITEM NO. | PRICE EACH |
|---|---|---|
| 5C Step Collet 2” Head | 3156-302 | $20.45 |
| 5C Step Collet 3” Head | 3156-303 | 29.30 |
| 5C Step Collet 4” Head | 3156-304 | 43.70 |
| 5C Step Collet 5” Head | 3156-305 | 54.85 |
| 5C Step Collet 6” Head | 3156-306 | 61.85 |

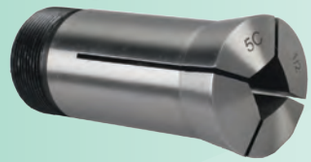
## 5C Hex Collets



| SIZE | ITEM NO. | PRICE EACH |
|---|---|---|
| 1/8 | 3155-208 | $16.50 |
| 3/16 | 3155-212 | 16.50 |
| 1/4 | 3155-216 | 16.50 |
| 5/16 | 3155-220 | 16.50 |
| 3/8 | 3155-224 | 16.50 |
| 7/16 | 3155-228 | 16.50 |
| 1/2 | 3155-232 | 16.50 |
| 9/16 | 3155-236 | 16.50 |
| 5/8 | 3155-240 | 16.50 |
| 11/16 | 3155-244 | 16.50 |
| 3/4 | 3155-248 | 16.50 |
| 13/16 | 3155-252 | 16.50 |
| 7/8 | 3155-256 | 16.50 |
| 15/16 | 3155-260† | 16.50 |

† Limited Quantities

## 5C Square Collets



| SIZE | ITEM NO. | PRICE EACH |
|---|---|---|
| 1/8 | 3155-308 | $15.75 |
| 3/16 | 3155-312 | 15.75 |
| 1/4 | 3155-316 | 15.75 |
| 5/16 | 3155-320 | 15.75 |
| 3/8 | 3155-324 | 15.75 |
| 7/16 | 3155-328 | 15.75 |
| 1/2 | 3155-332 | 15.75 |
| 9/16 | 3155-336 | 15.75 |
| 5/8 | 3155-340 | 15.75 |
| 11/16 | 3155-344 | 15.75 |
| 3/4 | 3155-348 | 15.75 |
| 13/16 | 3155-352† | 15.75 |

† Limited Quantities

# Collets



## Pittsburg® ALLEGHANY R8 Round Collet

| SIZE | ORDER NO. | PRICE EACH | SIZE | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 1/16 | 3155-404 | $ 5.75 | 1/2 | 3155-432 | $4.45 |
| 3/32 | 3155-406 | 5.75 | 17/32 | 3155-434 | 4.45 |
| 1/8 | 3155-408 | 4.45 | 9/16 | 3155-436 | 4.45 |
| 5/32 | 3155-410 | 4.45 | 19/32 | 3155-438 | 4.45 |
| 3/16 | 3155-412 | 4.45 | 5/8 | 3155-440 | 4.45 |
| 7/32 | 3155-414 | 4.45 | 21/32 | 3155-442 | 4.45 |
| 1/4 | 3155-416 | 4.45 | 11/16 | 3155-444 | 4.45 |
| 9/32 | 3155-418 | 4.45 | 23/32 | 3155-446 | 4.45 |
| 5/16 | 3155-420 | 4.45 | 3/4 | 3155-448 | 4.45 |
| 11/32 | 3155-422 | 4.45 | 25/32 | 3155-450 | 4.45 |
| 3/8 | 3155-424 | 4.45 | 13/16 | 3155-452 | 4.45 |
| 13/32 | 3155-426 | 4.45 | 27/32 | 3155-454 | 4.45 |
| 7/16 | 3155-428 | 4.45 | 7/8 | 3155-456 | 4.45 |
| 15/32 | 3155-430 | 4.45 | - | - | - |

## Pittsburg® ALLEGHANY 5C Universal Collet Stop

- Converts Standard 1" capacity Lathe Collets into Solid Stop or Spring Ejector Stop Collets without alteration of the Standard Collet.
- Fits directly into Colllet.
- Shiny Black Finish.

**Order No. 3143-401 Price Each: $14.90**

## Collet Racks

- Angled for visibility and easier selection of stored collets
- Tough, solvent free, epoxy finish: Ecolo-Clad for long-lasting protection
- Mounted on bench top • Heavy gauge steel

**Order No. 1919-545 Price Each: $32.40**
Holds up to 30 pieces 5C Collets.
Dimensions: Top 9"W x 12" D. Wt. 3 lbs.

**Order No. 1919-550 Price Each: $32.40**
Holds up to 16 pieces R8 Collets.
Dimensions: Top 5¼"W x 9" D. Wt. 2 lbs.

## ER/DR/RD 16 Series Collet Rack

NEW ITEM!

Holds up to 48 collets, hole size 29/32"
Dimensions: 17" W x 9 1/8" D x 2" H

**Order No. 1919-552 Price Each: $46.40**

## Pittsburg® ALLEGHANY Metric R8 Collets

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 3mm | 3156-706 | $ 6.45 |
| 4mm | 3156-708 | 6.45 |
| 5mm | 3156-710 | 6.45 |
| 6mm | 3156-712 | 6.45 |
| 7mm | 3156-714 | 6.45 |
| 8mm | 3156-716 | 6.45 |
| 9mm | 3156-718 | 6.45 |
| 10mm | 3156-720 | 6.45 |
| 11mm | 3156-722 | 6.45 |

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| 12mm | 3156-724 | $ 6.45 |
| 13mm | 3156-726 | 6.45 |
| 14mm | 3156-728 | 6.45 |
| 15mm | 3156-730 | 6.45 |
| 16mm | 3156-732 | 6.45 |
| 17mm | 3156-734 | 6.45 |
| 18mm | 3156-736 | 6.45 |
| 19mm | 3156-738 | 6.45 |
| 20mm | 3156-740 | 6.45 |

† Limited Quantity

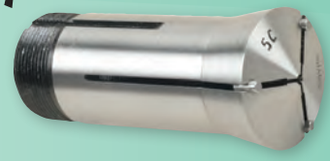
## R8 Sets Without stands

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| R8 1/8 - 7/8 by 8ths | 3156-120 | $ 31.15 |
| R8 1/8- 7/8 by 16ths | 3156-125 | 57.85 |
| R8 1/8 - 7/8 by 32nds | 3156-130 | 111.25 |

## Metric R8 Set Without stand

| SIZE | ORDER NO. | PRICE EACH |
|---|---|---|
| R8 3mm – 20mm x 1mm | 3156-762 | $ 116.10 |

## Pittsburg® ALLEGHANY 5C Emergency Collet



**Order No. 3156-201**
**Price Each: $8.20**

## Pittsburg® ALLEGHANY 5C Brass Emergency Collet

**Order No. 3156-202**
**Price Each: $18.65**

## Pittsburg® ALLEGHANY 5C Adjustable Collet Stop

- Fully threaded.
- For Chucking Parts to a depth of 3" from face of collet.
- Shiny Black Finish.

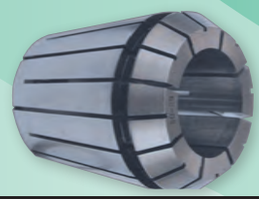
**Order No. 3143-402 Price Each: $6.10**

## Pittsburg® ALLEGHANY 3C Collets

| SIZE | ORDER NO. | PRICE EA. |
|---|---|---|
| 1/16 | 3154-904 | $5.25 |
| 9/64 | 3154-909 | 5.25 |
| 3/16 | 3154-912 | 5.25 |
| 17/64 | 3154-917 | 5.25 |
| 9/32 | 3154-918 | 5.25 |
| 19/64 | 3154-919 | 5.25 |

| SIZE | ORDER NO. | PRICE EA. |
|---|---|---|
| 21/64 | 3154-921 | $5.25 |
| 11/32 | 3154-922 | 5.25 |
| 23/64 | 3154-923 | 5.25 |
| 29/64 | 3154-929 | 5.25 |
| 31/64 | 3154-931 | 5.25 |

# ER Collets & Chucks



- Unique 8 degree taper design provides highest gripping power
- 16 Jaws give powerful gripping and parallel clamping
- True double angle for extreme concentricity

| SIZES | NOMINAL SIZE (IN.) | COLLET RANGE (IN.) MIN-MAX | COLLET RANGE (MM.) MIN - MAX | ER11 ORDER NO. | ER11 PRICE EACH | ER16 ORDER NO. | ER16 PRICE EACH | ER 20 ORDER NO. | ER 20 PRICE EACH | ER25 ORDER NO. | ER25 PRICE EACH | ER32 ORDER NO. | ER32 PRICE EACH | ER40 ORDER NO. | ER40 PRICE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/32” | 1/32 | 0.020 - 0.040 | 0.5 - 1.0 | 3156-801 | $9.20 | 3156-811 | $10.20 | – | – | – | – | – | – | – | – |
| 1/16” | 3/64, 1/16, 5/64 | 0.040 - 0.080 | 1.0 - 2.0 | 3156-802 | 9.20 | 3156-812 | 10.20 | 3156-832 | $10.20 | 3156-852 | $10.85 | – | – | – | – |
| 3/32” | 3/32, 7/64 | 0.080 - 0.120 | 2.0 - 3.0 | 3156-803 | 9.20 | 3156-813 | 10.20 | 3156-833 | 10.20 | 3156-853 | 10.85 | 3156-883 | $11.10 | – | – |
| 1/8” | 1/8, 9/64, 5/32 | 0.120 - 0.160 | 3.0 - 4.0 | 3156-804 | 9.20 | 3156-814 | 10.20 | 3156-834 | 10.20 | 3156-854 | 10.85 | 3156-884 | 11.10 | 3156-914 | $11.80 |
| 3/16 | 11/64, 3/16 | 0.160 - 0.200 | 4.0 - 5.0 | 3156-806 | 9.20 | 3156-816 | 10.20 | 3156-836 | 10.20 | 3156-856 | 10.85 | 3156-886 | 11.10 | 3156-916 | 11.80 |
| 7/32 | 13/64, 7/32, 15/64 | 0.200 - 0.236 | 5.0 - 6.0 | 3156-807 | 9.20 | 3156-817 | 10.20 | 3156-837 | 10.20 | 3156-857 | 10.85 | 3156-887 | 11.10 | 3156-917 | 11.80 |
| 1/4 | 1/4, 17/64 | 0.236 - 0.275 | 6.0 - 7.0 | 3156-808 | 9.20 | 3156-818 | 10.20 | 3156-838 | 10.20 | 3156-858 | 10.85 | 3156-888 | 11.10 | 3156-918 | 11.80 |
| 5/16 | 9/32, 19/64, 5/16 | 0.275 - 0.315 | 7.0 - 8.0 | – | – | 3156-820 | 10.20 | 3156-840 | 10.20 | 3156-860 | 10.85 | 3156-890 | 11.10 | 3156-920 | 11.80 |
| 11/32 | 21/64, 11/32 | 0.315 - 0.354 | 8.0 - 9.0 | – | – | 3156-821 | 10.20 | 3156-841 | 10.20 | 3156-861 | 10.85 | 3156-891 | 11.10 | 3156-921 | 11.80 |
| 3/8 | 23/64, 3/8, 25/64 | 0.354 - 0.393 | 9.0 - 10.0 | – | – | 3156-822 | 10.20 | 3156-842 | 10.20 | 3156-862 | 10.85 | 3156-892 | 11.10 | 3156-922 | 11.80 |
| 13/32 | 13/32, 27/64 | 0.393 - 0.433 | 10.0 -11.0 | – | – | – | – | 3156-843 | 10.20 | 3156-863 | 10.85 | 3156-893 | 11.10 | 3156-923 | 11.80 |
| 7/16 | 7/16, 29/64, 15/32 | 0.433 - 0.472 | 11.0 -12.0 | – | – | – | – | 3156-844 | 10.20 | 3156-864 | 10.85 | 3156-894 | 11.10 | 3156-924 | 11.80 |
| 1/2 | 31/64, 1/2 | 0.472 - 0.511 | 12.0 -13.0 | – | – | – | – | 3156-846 | 10.20 | 3156-866 | 10.85 | 3156-896 | 11.10 | 3156-926 | 11.80 |
| 17/32 | 33/64, 17/32, 35/64 | 0.511 - 0.551 | 13.0 -14.0 | – | – | – | – | – | – | 3156-867 | 10.85 | 3156-897 | 11.10 | 3156-927 | 11.80 |
| 9/16 | 9/16, 37/64 | 0.551 -0.590 | 14.0 -15.0 | – | – | – | – | – | – | 3156-868 | 10.85 | 3156-898 | 11.10 | 3156-928 | 11.80 |
| 5/8 | 19/32, 39/64, 5/8 | 0.590 - 0.629 | 15.0 -16.0 | – | – | – | – | – | – | 3156-870 | 10.85 | 3156-900 | 11.10 | 3156-930 | 11.80 |
| 21/32 | 41/64, 21/32 | 0.629 - 0.669 | 16.0 -17.0 | – | – | – | – | – | – | – | – | 3156-901 | 11.10 | 3156-931 | 11.80 |
| 11/16 | 43/64, 11/16, 45/64 | 0.669 - 0.708 | 17.0 -18.0 | – | – | – | – | – | – | – | – | 3156-902 | 11.10 | 3156-932 | 11.80 |
| 3/4 | 23/32, 47/64, 3/4 | 0.708 - 0.748 | 18.0 -19.0 | – | – | – | – | – | – | – | – | 3156-904 | 11.10 | 3156-934 | 11.80 |
| 25/32 | 49/64, 25/32 | 0.748 - 0.787 | 19.0 -20.0 | – | – | – | – | – | – | – | – | 3156-905 | 11.10 | 3156-935 | 11.80 |
| 13/16 | 51/64, 13/16 | 0.787 - 0.826 | 20.0 -21.0 | – | – | – | – | – | – | – | – | – | – | 3156-936 | 11.80 |
| 27/32 | 53/64, 27/32, | 0.826 - 0.866 | 21.0 -22.0 | – | – | – | – | – | – | – | – | – | – | 3156-937 | 11.80 |
| 7/8 | 7/8, 57/64, 55/64 | 0.866 - 0.905 | 22.0 -23.0 | – | – | – | – | – | – | – | – | – | – | 3156-938 | 11.80 |
| 15/16 | 29/32, 59/64, 15/16 | 0.905 - 0.944 | 23.0 -24.0 | – | – | – | – | – | – | – | – | – | – | 3156-940 | 11.80 |
| 31/32 | 61/64, 31/32 | 0.944 - 0.984 | 24.0 -25.0 | – | – | – | – | – | – | – | – | – | – | 3156-941 | 11.80 |
| 1 | 63/64, 1, 1-1/64 | 0.984 - 1.020 | 25.0 -26.0 | – | – | – | – | – | – | – | – | – | – | 3156-942 | 11.80 |

# Sets

- Wooden stand included

| SERIES | NO. OF COLLETS | SIZES | COLLET RANGE MIN-MAX (IN.) | COLLET RANGE MIN-MAX (MM.) | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| ER11 | 7 | 1/32 to 1/4 | 0.020 - 0.275 | 0.5 to 7 | 3156-963 | $74.65 |
| ER16 | 10 | 1/32 to 3/8 | 0.020 - 0.393 | 0.5 to 10 | 3156-966 | 91.95 |
| ER20 | 12 | 1/16 to 1/2 | 0.039 - 0.511 | 1.0 to 13 | 3156-969 | 111.15 |
| ER25 | 15 | 1/16 to 5/8 | 0.039 - 0.629 | 1.0 to 16.0 | 3156-972 | 146.45 |
| ER32 | 18 | 3/32 to 3/4 | 0.078 - 0.787 | 2.0 to 20.0 | 3156-975 | 180.40 |
| ER40 | 23 | 1/8 to 1 | 0.118 - 1.023 | 3.0 to 26.0 | 3156-978 | 255.75 |

# Straight Shank

| SHANK | TYPE | CAPACITY | DRAWBAR END | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 5/8 x 2-1/2 | ER-11 | .02-.275 | 3/8-16 | 3142-540 | $64.00 |
| 3/4 x 2-1/2 | ER-11 | .02-.275 | 3/8-16 | 3142-545 | 64.00 |
| 3/4 x 4 | ER-11 | .02-.275 | 3/8-16 | 3142-550 | 64.00 |
| 3/4 x 2-1/2 | ER-16 | .02-.393 | 3/8-16 | 3142-555 | 70.00 |
| 3/4 x 4 | ER-16 | .02-.393 | 3/8-16 | 3142-560 | 72.00 |
| 3/4 x 6 | ER-16 | .02-.393 | 3/8-16 | 3142-565 | 75.00 |
| 3/4 x 2-1/2 | ER-20 | .04-.511 | 3/8-16 | 3142-570 | 66.00 |
| 3/4 x 4 | ER-20 | .04-.511 | 3/8-16 | 3142-575 | 72.00 |
| 3/4 x 6 | ER-20 | .04-.511 | 3/8-16 | 3142-580 | 75.00 |
| 3/4 x 2 | ER-25 | .04-.629 | 3/8-16 | 3142-585 | 72.00 |
| 3/4 x 4 | ER-25 | .04-.629 | 3/8-16 | 3142-590 | 87.00 |
| 1 x 2 | ER-32 | .08-.787 | 1/2-13 | 3142-595 | 66.00 |
| 1-1/4 x 6 | ER-32 | .08-.787 | 5/8-11 | 3142-600 | 89.00 |
| 1 x 2-3/8 | ER-40 | .12 - 1.02 | 1/2-13 | 3142-605 | 95.00 |
| 1-1/4 - 2-3/8 | ER-40 | .12 - 1.02 | 5/8-11 | 3142-610 | 95.00 |

# Morse Taper Shank

| SHANK | TYPE | CAPACITY | DRAWBAR END | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| MT2 | ER-20 | .04-.511 | 3/8-16 | 3142-650 | $78.00 |
| MT2 | ER-25 | .04-.629 | 3/8-16 | 3142-655 | 67.00 |
| MT3 | ER-32 | .08-.787 | 1/2-13 | 3142-660 | 77.00 |
| MT3 | ER-40 | .12 - 1.02 | 1/2-13 | 3142-665 | 85.00 |
| MT4 | ER-40 | .12 - 1.02 | 5/8-11 | 3142-670 | 87.00 |

# NST Shank

| SHANK | TYPE | CAPACITY | DRAWBAR END | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| 30 | ER-32 | .08-.787 | 1/2-13 | 3142-510 | $70.00 |
| 30 | ER-40 | .12 - 1.02 | 1/2-13 | 3142-520 | 86.00 |
| 40 | ER-40 | .12 - 1.02 | 5/8-11 | 3142-522 | 88.00 |

# R8 Shank

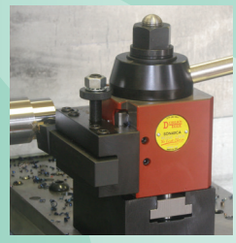
| SHANK | TYPE | CAPACITY | DRAWBAR END | ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|
| R8 | ER-32 | .08-.787 | 7/16-20 | 3142-530 | $70.00 |
| R8 | ER-40 | .12 - 1.02 | 7-16-20 | 3142-532 | 74.00 |

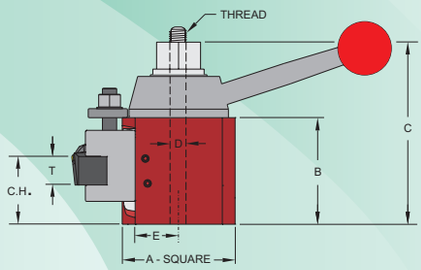
# Tool Posts



## SUPER Quick Change Tool Post with Triple Action Wedge Style Locking System

- Rigidity • Repeatability • Quality • Zero Backlash
- Triple Action Wedge Style Locking System
- Precise Repeatability within .0001
- 15º Locking Handle Position Adjustment
- Industry-Standard Interchangeable Holders
- Thousands of pounds of locking force with a finger tip





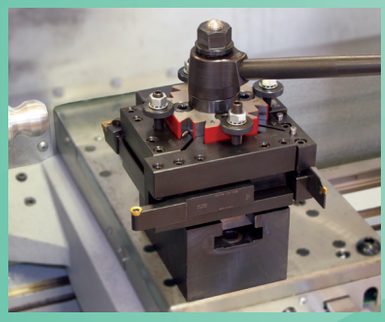

| SUPER Quick Change Tool Post | | | | | | |
|---|---|---|---|---|---|---|
| **Description** | SDN25AXA | SDN30BXA | SDN35CXA | SDN40CA | SDN50DA | SDN60EA |
| **Order Number** | **8001-000** | **8001-002** | **8001-004** | **8001-006** | **8001-008** | **8001-010** |
| **Price Each** | **$ 343.56** | **$ 429.81** | **$ 587.93** | **$ 739.15** | **$ 1058.51** | **$ 1633.74** |
| Lathe Swing Over Bed | ≤12 | 13-15 | 14-17 | 16-20 | 17-32 | ≥25 |
| A | 2.625 | 3.000 | 3.500 | 4.000 | 5.000 | 6.000 |
| B | 2.500 | 2.750 | 3.250 | 3.750 | 4.625 | 5.000 |
| C | 4.240 | 4.710 | 5.650 | 6.335 | 7.435 | 8.060 |
| D | 0.500 | 0.625 | 0.750 | 0.875 | 1.000 | 1.125 |
| E | 0.880 | 1.115 | 1.199 | 1.530 | 1.900 | 2.207 |
| T-Tool Capacity* | 1/2-3/4 | 5/8-1.0 | 3/4-1.0 | 1.0-1¼ | 1¼-1½ | 1 1/2 |
| Optimim C.H.** | 1.250 | 1.312 | 1.625 | 1.937 | 2.562 | 3.000 |
| C.H. MIN. | 0.875 | 1.062 | 1.250 | 1.562 | 2.000 | 2.500 |
| C.H. MAX. | 1.875 | 1.937 | 2.250 | 2.562 | 3.575 | 3.500 |
| Thread | 1/2-20 | 5/8-18 | 3/4-16 | 7/8-14 | 1.0-14 | 1⅛-12 |

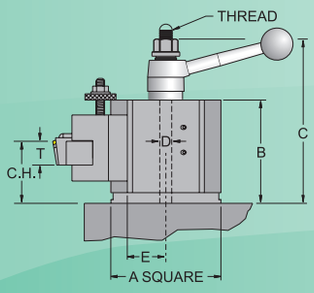
** Optimum center height is calculated with the smaller tool size of the tool capacity. If the higher size tool is to be used, add 1/8″ to the optimum center height.

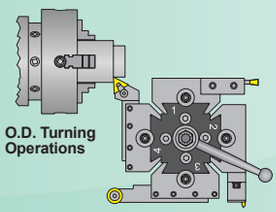
## Quadra Indexing Quick Change Tool Post

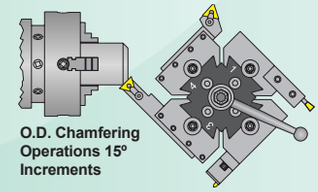
### The Multi-Patented Tool Post with The Most Advanced Indexing and Locking Technology

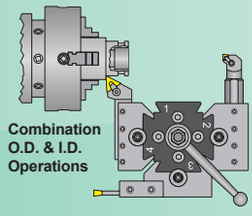
24 Super Precise Positioning Ball Bearings & 2 Pre-Loaded Indexing Pins
• Strong • Rigid • Precise!

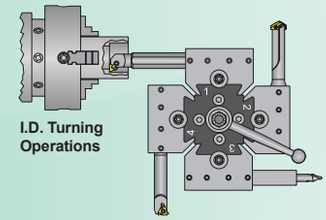





| **Description** | QITP25N | | QITP30N | | QITP35N | | QITP40N | | QITP50N | | QITP60N | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Order Number** | **8000-000** | | **8000-002** | | **8000-004** | | **8000-006** | | **8000-008** | | **8000-010** | |
| **Price Each** | **$ 934.68** | | **$ 1050.64** | | **$ 1264.98** | | **$ 1648.31** | | **$ 2196.15** | | **$ 3127.32** | |
| Size | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm |
| Lathe Swing Over Bed | ≤12" | ≤300,0 | 13-15" | 320,0 | 14-17" | 400,0 | 16-20" | 450,0 | 17-32" | 500,0 | ≥25-XHD | XHD |
| A | 2.500 | 63.5 | 3.000 | 76.2 | 3.500 | 88.9 | 4.000 | 101.60 | 5.000 | 127.0 | 6.000 | 152.4 |
| B | 2.570 | 65.3 | 3.205 | 81.4 | 3.460 | 87.9 | 4.070 | 103.4 | 5.230 | 132.8 | 5.615 | 142.6 |
| C | 5.210 | 132.3 | 5.720 | 145.3 | 6.415 | 162.9 | 7.525 | 191.1 | 9.135 | 232.0 | 9.855 | 250.3 |
| D | 0.500 | 12.7 | 0.500 | 12.7 | 0.625 | 16.0 | 0.750 | 19.0 | 1.000 | 25.40 | 1.125 | 28.6 |
| E | 0.880 | 22.4 | 1.115 | 28.3 | 1.245 | 31.6 | 1.530 | 38.9 | 1.897 | 48.2 | 2.207 | 56.1 |
| T-Tool Capacity | 1/2-3/4 | 12-20 | 5/8-1.0 | 16-25 | 3/4-1.0 | 20-25 | 1.0-1¼ | 25-32 | 1¼ - 1½ | 32-40 | 1 ½ | 40.0 |
| Optimim C.H.* | 1.422 | 36.1 | 1.747 | 44.4 | 1.835 | 46.6 | 2.202 | 55.9 | 2.995 | 76.1 | 3.440 | 87.4 |
| C.H. MIN. | 0.995 | 25.3 | 1.213 | 30.8 | 1.445 | 36.7 | 1.757 | 44.6 | 2.245 | 57.0 | 2.750 | 69.9 |
| C.H. MAX. | 1.849 | 50.0 | 2.282 | 58.0 | 2.225 | 56.5 | 2.646 | 67.2 | 3.744 | 95.1 | 4.129 | 104.9 |
| Thread | 1/2-20 | M12x1,75 | 1/2-20 | M12x1,75 | 5/8-18 | M16x2,0 | 3/4-16 | M18x2,5 | 1.0-14 | M24x3,0 | 1⅛-12 | M27x3,0 |

*Optimum center height is calculated with the smaller tool size of the tool capacity.

# Tool Post & Toolholder Standard Sets



## Super Quick Change Standard Sets

**(1) Tool Post**
**(4) Holders**

Tooling Not Included

NEW

D1

D2

D4-CNC

D7-71C

| Description | SDN25AXA-SS | SDN30BXA-SS | SDN35CXA-SS | SDN40CA-SS | SDN50DA-SS | SDN60EA-SS |
|---|---|---|---|---|---|---|
| Lathe Swing | Up to 12" | 13" to 15" | 14" to 17" | 16" to 20" | 17" to 32" | ≥ 25" |
| Order Number | 8001-020 | 8001-021 | 8001-022 | 8001-023 | 8001-024 | 8001-025 |
| Price Each | $ 738.57 | $ 877.33 | $ 1114.93 | $ 1370.15 | $ 1970.92 | $ 2937.35 |
| **5 Piece Standard Set Includes** | | | | | | |
| (1) Tool Post | SDN25AXA | SDN30BXA | SDN35CXA | SDN40CA | SDN50DA | SDN60EA |
| (4) Holders | (1) D25AXA-1<br>(1) D25AXA-2<br>(1) D25AXA-4-CNC<br>(1) D25AXA-7-71C | (1) D30BXA-1<br>(1) D30BXA-2<br>(1) D30BXA-4-CNC<br>(1) D30BXA-7-71C | (1) D35CXA-1<br>(1) D35CXA-2<br>(1) D35CXA-4-CNC<br>(1) D35CXA-7-71C | (1) D40CA-1<br>(1) D40CA-2<br>(1) D40CA-4-CNC<br>(1) D40CA-7-71C | (1) D50DA-1<br>(1) D50DA-2<br>(1) D50DA-4-CNC<br>(1) D50DA-7-71C | (1) D60EA-1<br>(1) D60EA-2<br>(1) D60EA-4-CNC<br>(1) D60EA-7-71C |

## Quadra Indexing Standard Sets

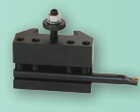
**(1) Tool Post**
**(4) Holders**

Tooling Not Included

NEW

QITP-1

QITP-2

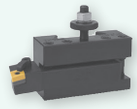
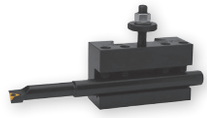
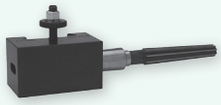
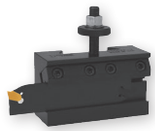
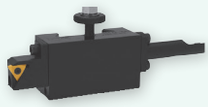
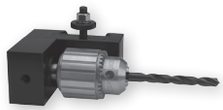
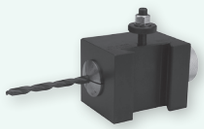


QITP-4-CNC

QITP-7-71C

| Description | QITP25N-SS | QITP30N-SS | QITP35N-SS | QITP40N-SS | QITP50N-SS | QITP60N-SS |
|---|---|---|---|---|---|---|
| Lathe Swing | Up to 12" | 13" to 15" | 14" to 17" | 16" to 20" | 17" to 32" | ≥ 25" |
| Order Number | 8000-020 | 8000-021 | 8000-022 | 8000-023 | 8000-024 | 8000-025 |
| Price Each | $ 1464.38 | $ 1653.44 | $ 1987.64 | $ 2469.59 | $ 3840.07 | $ 4771.24 |
| **5 Piece Standard Set Includes** | | | | | | |
| (1) Tool Post | QITP25N | QITP30N | QITP35N | QITP40N | QITP50N | QITP60N |
| (4) Holders | (1) QITP25N-1<br>(1) QITP25N-2<br>(1) QITP25N-4-CNC<br>(1) QITP25N-7-71C | (1) QITP30N-1<br>(1) QITP30N-2<br>(1) QITP30N-4-CNC<br>(1) QITP30N-7-71C | (1) QITP35N-1<br>(1) QITP35N-2<br>(1) QITP35N-4-CNC<br>(1) QITP35N-7-71C | (1) QITP40N-1<br>(1) QITP40N-2<br>(1) QITP40N-4-CNC<br>(1) QITP40N-7-71C | (1) QITP50N-1<br>(1) QITP50N-2<br>(1) QITP50N-4-CNC<br>(1) QITP50N-7-71C | (1) QITP60N-1<br>(1) QITP60N-2<br>(1) QITP60N-4-CNC<br>(1) QITP60N-7-71C |

# SUPER Quick Change Toolholders

| Use With SDN Tool Post | SDN25AXA | SDN30BXA | SDN35CXA | SDN40CA | SDN50DA | SDN60EA |
|---|---|---|---|---|---|---|
| **Turning & Facing**  | D25AXA-1<br>Tool Capacity 1/2" | D30BXA-1<br>Tool Capacity 5/8" | D35CXA-1<br>Tool Capacity 3/4" | D40CA-1<br>Tool Capacity 1" | D50DA-1<br>Tool Capacity 1 1/4" | D60EA-1<br>Tool Capacity 1 1/2" |
| | **8001-100** | **8001-250** | **8001-400** | **8001-550** | **8001-700** | **8001-850** |
| **Price Each** | **$ 58.70** | **$ 66.64** | **$ 86.65** | **$ 107.61** | **$ 172.98** | **$ 268.33** |
| **Turning, Facing and Boring**  | D25AXA-2<br>Tool Capacity 1/2" | D30BXA-2<br>Tool Capacity 5/8" | D35CXA-2<br>Tool Capacity 3/4" | D40CA-2<br>Tool Capacity 1" | D50DA-2<br>Tool Capacity 1 1/4" | D60EA-2<br>Tool Capacity 1 1/2" |
| | **8001-104** | **8001-254** | **8001-404** | **8001-554** | **8001-704** | **8001-854** |
| **Price Each** | **$ 61.49** | **$ 73.50** | **$ 90.85** | **$ 114.60** | **$ 185.22** | **$ 277.92** |
| **Heavy Duty Boring** | D25AXA-4-CNC<br>Tool Capacity 3/4" | D30BXA-4-CNC<br>Tool Capacity 1" | D35CXA-4-CNC<br>Tool Capacity 1" | D40CA-4-CNC<br>Tool Capacity 1 1/4" | D50DA-4-CNC<br>Tool Capacity 1 1/2" | D60EA-4-CNC<br>Tool Capacity 2" |
| | **8001-110** | **8001-260** | **8001-410** | **8001-560** | **8001-710** | **8001-860** |
| **Price Each** | **$ 104.18** | **$ 121.59** | **$ 139.76** | **$ 167.71** | **$ 263.54** | **$ 428.34** |
| **Extra Heavy Duty Boring** | D25AXA-41-CNC<br>Tool Capacity 1" | D30BXA-41-CNC<br>Tool Capacity 1 1/4" | D35CXA-41-CNC<br>Tool Capacity 1 1/4" | D40CA-41-CNC<br>Tool Capacity 1 1/2" | D50DA-41-CNC<br>Tool Capacity 2" | D60EA-41-CNC<br>Tool Capacity 2 1/2" |
| | **8001-114** | **8001-264** | **8001-414** | **8001-564** | **8001-714** | **8001-864** |
| **Price Each** | **$ 109.26** | **$ 127.05** | **$ 152.46** | **$ 171.52** | **$ 287.50** | **$ 441.41** |
| **Morse Taper**  | – | – | D35CXA-5-4<br>Tool Capacity Morse Taper 4 | D40CA-5-4<br>Tool Capacity Morse Taper 4 | D50DA-5-5<br>Tool Capacity Morse Taper 5 | D60EA-5-5<br>Tool Capacity Morse Taper 5 |
| | – | – | **8001-424** | **8001-572** | **8001-722** | **8001-872** |
| **Price Each** | – | – | **$ 175.33** | **$ 182.95** | **$ 263.54** | **$ 386.52** |
| **Extra HD Cut-Off Blade Toolholder**  | D25AXA-7-71C<br>Blade Size 19-2 | D30BXA-7-71C<br>Blade Size 19-2 | D35CXA-7-71C<br>Blade Size 26-2 to 26-6 | D40CA-7-71C<br>Blade Size 26-2 to 26-6 | D50DA-7-71C<br>Blade Size 32-3 to 32-9 | D60EA-7-71C<br>Blade Size 32-3 to 32-9 |
| | **8001-126** | **8001-276** | **8001-428** | **8001-576** | **8001-726** | **8001-876** |
| **Price Each** | **$ 170.64** | **$ 194.54** | **$ 209.74** | **$ 241.09** | **$ 290.69** | **$ 329.02** |
| **ID & OD Threading**  | D25AXA-881-OE<br>On Edge for OD Laydown for ID | D30BXA-881-OE<br>On Edge for OD Laydown for ID | D35CXA-881-OE<br>On Edge for OD Laydown for ID | D40CA-881-OE<br>On Edge for OD Laydown for ID | | |
| | **8001-132** | **8001-282** | **8001-434** | **8001-582** | | |
| **Price Each** | **$ 184.33** | **$ 203.24** | **$ 218.02** | **$ 243.80** | | |
| **Dovetail Drill Chuck Holder**  | D25AXA-35<br>Tool Capacity 0-12" | D30BXA-35<br>Tool Capacity 0-12" | D35CXA-35<br>Tool Capacity 0-12" | D40CA-35<br>Tool Capacity 0-12" | | |
| | **8001-140** | **8001-290** | **8001-442** | **8001-590** | | |
| **Price Each** | **$ 251.56** | **$ 259.55** | **$ 306.13** | **$ 326.10** | | |
| **5C Collet Holder**  | D25AXA-36<br>5C Collet | D30BXA-36<br>5C Collet | D35CXA-36<br>5C Collet | D40CA-36<br>5C Collet | | |
| | **8001-142** | **8001-292** | **8001-444** | **8001-592** | | |
| **Price Each** | **$ 159.74** | **$ 166.60** | **$ 188.16** | **$ 212.66** | | |

**Tooling not included**

# Quadra Indexing Quick Change Toolholders

| Use With Quadra Tool Post | QITP25N | QITP30N | QITP35N | QITP40N | QITP50N | QITP60N |
|---|---|---|---|---|---|---|
| Turning & Facing | QITP25N-1<br>Tool Capacity<br>3/4" | QITP30N-1<br>Tool Capacity<br>3/4" | QITP35N-1<br>Tool Capacity<br>1" | QITP40N-1<br>Tool Capacity<br>1 1/4" | QITP50N-1<br>Tool Capacity<br>1 1/2" | QITP60N-1<br>Tool Capacity<br>1 1/2" |
| Order Number | 8000-100 | 8000-250 | 8000-400 | 8000-550 | 8000-700 | 8000-850 |
| Price Each | $ 91.48 | $ 109.78 | $ 135.70 | $ 150.95 | $ 249.17 | $ 365.76 |
| Turning, Facing and Boring | QITP25N-2<br>Tool Capacity<br>3/4" | QITP30N-2<br>Tool Capacity<br>3/4" | QITP35N-2<br>Tool Capacity<br>1" | QITP40N-2<br>Tool Capacity<br>1 1/4" | QITP50N-2<br>Tool Capacity<br>1 1/2" | QITP60N-2<br>Tool Capacity<br>1 1/2" |
| Order Number | 8000-104 | 8000-254 | 8000-404 | 8000-554 | 8000-704 | 8000-854 |
| Price Each | $ 97.57 | $ 115.87 | $ 150.95 | $ 167.71 | $ 268.33 | $ 375.35 |
| Heavy Duty Boring | QITP25N-4-CNC<br>Tool Capacity<br>3/4" | QITP30N-4-CNC<br>Tool Capacity<br>1" | QITP35N-4-CNC<br>Tool Capacity<br>1" | QITP40N-4-CNC<br>Tool Capacity<br>1 1/4" | QITP50N-4-CNC<br>Tool Capacity<br>1 1/2" | QITP60N-4-CNC<br>Tool Capacity<br>2" |
| Order Number | 8000-110 | 8000-260 | 8000-410 | 8000-560 | 8000-710 | 8000-860 |
| Price Each | $ 136.96 | $ 153.74 | $ 184.48 | $ 223.61 | $ 332.35 | $ 486.08 |
| Extra Heavy Duty Boring | – | – | QITP35N-41-CNC<br>Tool Capacity<br>1 1/4" | QITP40N-41-CNC<br>Tool Capacity<br>1 1/2" | QITP50N-41-CNC<br>Tool Capacity<br>2" | QITP60N-41-CNC<br>Tool Capacity<br>2 1/2" |
| Order Number | – | – | 8000-414 | 8000-564 | 8000-714 | 8000-864 |
| Price Each | – | – | $ 209.64 | $ 265.54 | $ 358.71 | $ 569.54 |
| Morse Taper | – | – | QITP35N-5-4<br>Tool Capacity<br>Morse Taper 4 | QITP40N-5-4<br>Tool Capacity<br>Morse Taper 4 | QITP50N-5-5<br>Tool Capacity<br>Morse Taper 5 | QITP60N-5-5<br>Tool Capacity<br>Morse Taper 5 |
| Order Number | – | – | 8000-424 | 8000-572 | 8000-722 | 8000-872 |
| Price Each | – | – | $ 188.67 | $ 231.23 | $ 328.76 | $ 458.54 |
| Extra HD Cut-Off Blade Toolholder | QITP25N-7-71C<br>Blade Size<br>19-2 | QITP30N-7-71C<br>Blade Size<br>19-2 | QITP35N-7-71C<br>Blade Size<br>26-2 to 26-6 | QITP40N-7-71C<br>Blade Size<br>26-2 to 26-6 | QITP50N-7-71C<br>Blade Size<br>32-3 to 32-9 | QITP60N-7-71C<br>Blade Size<br>32-3 to 32-9 |
| Order Number | 8000-126 | 8000-276 | 8000-428 | 8000-576 | 8000-726 | 8000-876 |
| Price Each | $ 203.69 | $ 223.41 | $ 251.53 | $ 279.02 | $ 297.21 | $ 416.73 |
| ID & OD Threading Toolholder<br>Laydown Threading Bar Sold Separately | QITP25N-881-OE<br>On Edge for OD<br>Laydown for ID | QITP30N-881-OE<br>On Edge for OD<br>Laydown for ID | QITP35N-881-OE<br>On Edge for OD<br>Laydown for ID | QITP40N-881-OE<br>On Edge for OD<br>Laydown for ID | | |
| Order Number | 8000-132 | 8000-282 | 8000-434 | 8000-582 | | |
| Price Each | $ 216.05 | $ 231.90 | $ 255.68 | $ 293.33 | | |
| 5C Collet Holder | QITP25N-36<br>5C Collet | QITP30N-36<br>5C Collet | QITP35N-36<br>5C Collet | QITP40N-36<br>5C Collet | | |
| Order Number | 8000-142 | 8000-292 | 8000-444 | 8000-592 | | |
| Price Each | $ 188.67 | $ 201.25 | $ 231.99 | $ 276.72 | | |

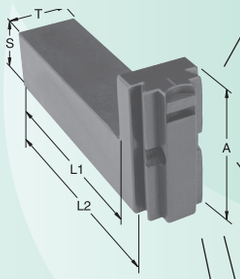
Tools not included

# CNC Modular Knurling Tools

## CNC Modular Knurling Tool Shank

The CNC Modular Knurling Tool includes **three standard shank sizes** and **seven standard knurling heads** to create any knurling tool combination.

- Specifically designed for the CNC Lathe.
- Precision square shank with preset center height.
- Right or Left hand applications.
- One shank fits all heads.
- One head fits all shanks.



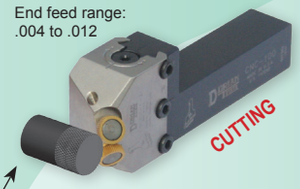

- Cobalt knurl wheels, Tin-C coated.
- Center height adjustment.
- Interchangeable knurl heads.
- Carbide knurl pin.
- Easy set-up.
- High productivity.
- Best knurl quality.
- Long knurl wheel life.
- Low production cost.

| CNC Modular Knurling Tool Shank | | | | | | |
|---|---|---|---|---|---|---|
| Desc. | | S | T | L1 | L2 | A |
| CNC-75 | 21010 | .75 | 1.0 | 3.5 | 3.875 | 2.0 |
| CNC-100 | 21020 | 1.0 | 1.0 | 3.5 | 3.875 | 2.0 |
| CNC-125 | 21030 | 1.25 | 1.0 | 4.0 | 4.375 | 2.25 |

Supplied with Lock Screw and Adjustment Screw.

### 1 - Small Diamond Cutting Knurling Tool- Cutting Range 5/16" to 1-1/2" Best for up to 1"

End feed range: .004 to .012

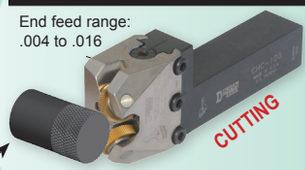



| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style |
|---|---|---|---|---|---|
| CNC-75-1-2 | 8020-410 | $ 749.92 | 3/4 | 5 3/4 | SW2S |
| CNC-100-1-2 | 8020-420 | 819.35 | 1 | 5 3/4 | SW2S |
| CNC-125-1-2 | 8020-430 | 871.11 | 1 1/4 | 6 1/4 | SW2S |

Supplied with set of straight knurl wheels, 30 TPI

### 2 - HD Diamond Cutting Knurling Tool-Cutting Range 1.0" to 5" Best for up to 3"

End feed range: .004 to .016

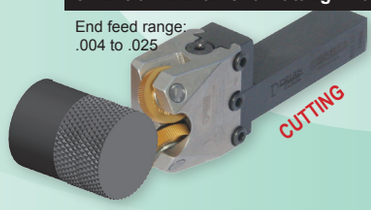



| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style | Knurl Pin Set | Price Each |
|---|---|---|---|---|---|---|---|
| CNC-75-2-R | 8020-510 | $ 881.21 | 3/4 | 5 3/4 | RS | KPS-25- 87-C 8028-925 | $ 35.79 |
| CNC-100-2-R | 8020-520 | 934.23 | 1 | 5 3/4 | RS | | |
| CNC-125-2-R | 8020-530 | 997.35 | 1 1/4 | 6 1/4 | RS | | |

Supplied with set of straight knurl wheels, 25 TPI

### 3 - Extra HD Diamond Cutting Knurling Tool-Cutting range 2.0" & up Best for over 2-1/2"

End feed range: .004 to .025

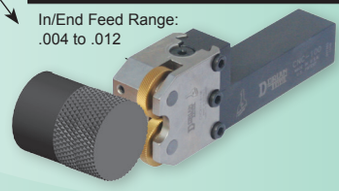



| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style | Knurl Pin Set | Price Each |
|---|---|---|---|---|---|---|---|
| CNC-75-3-M | 8020-610 | $ 901.24 | 3/4 | 5 7/8 | MS | KPS-31-100-C 8028-945 | $ 37.38 |
| CNC-100-3-M | 8020-620 | 945.07 | 1 | 5 7/8 | MS | | |
| CNC-125-3-M | 8020-630 | 999.86 | 1 1/4 | 6 3/8 | MS | | |

Supplied with set of straight knurl wheels, 25 TPI

### 4 - Double Wheel Forming Knurling Tool

In/End Feed Range: .004 to .012

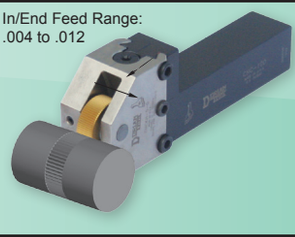


| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style | Knurl Pin Set | Price Each |
|---|---|---|---|---|---|---|---|
| CNC-75-4-M | 8020-646 | $ 830.71 | 3/4 | 6 | M | KPS-31-125-C 8028-950 | $ 39.50 |
| CNC-100-4-M | 8020-648 | 921.61 | 1 | 6 | M | | |
| CNC-125-4-M | 8020-650 | 921.61 | 1 1/4 | 6 1/2 | M | | |

Supplied with set of diagonal knurl wheels, 25 TPI

### 5 - Single Wheel Forming Knurling Tool- Straight Bump Best for Narrow Knurling

In/End Feed Range: .004 to .012

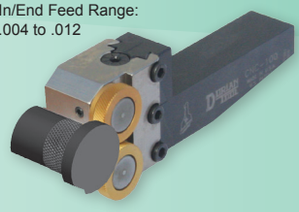


| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style | Knurl Pin Set | Price Each |
|---|---|---|---|---|---|---|---|
| CNC-75-5-O | 8020-710 | $ 739.82 | 3/4 | 5 3/4 | O | KPS-31-125-C 8028-950 | $ 39.50 |
| CNC-100-5-O | 8020-720 | 770.11 | 1 | 5 3/4 | O | | |
| CNC-125-5-O | 8020-730 | 810.51 | 1 1/4 | 6 1/4 | O | | |

Supplied with set of straight knurl wheels, 25 TPI

### 6 - Shoulder Forming Knurling Tool-Diameter range: 5/16" & up

In/End Feed Range: .004 to .012

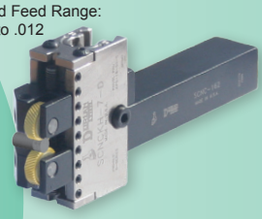


| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style | Knurl Pin Set | Price Each |
|---|---|---|---|---|---|---|---|
| CNC-75-6-4 | 8020-780 | $ 783.69 | 3/4 | 5 3/4 | SW4 | SW4.0P-2S 8029-085 | $ 61.23 |
| CNC-100-6-4 | 8020-790 | 821.80 | 1 | 5 3/4 | SW4 | | |
| CNC-125-6-4 | 8020-800 | 902.25 | 1 1/4 | 6 1/4 | SW4 | | |

Supplied with set of straight knurl wheels, 25 TPI

### 7 - Straddle Forming Knurling Tool -Diameter range: up to 1"

In/End Feed Range: .004 to .012

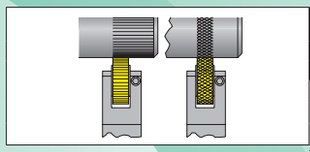


| Description | Order No. | Price Each | Shank Size | Tool Length | Knurl Wheel Style | Knurl Pin Set | Price Each |
|---|---|---|---|---|---|---|---|
| CNC-75-7-R | 8020-910 | $ 877.78 | 3/4 | 6 | R | KPS-25-62-C 8028-915 | $ 30.75 |
| CNC-100-7-R | 8020-920 | 923.64 | 1 | 6 | R | | |
| CNC-125-7-R | 8020-930 | 982.59 | 1 1/4 | 6 1/2 | R | | |

Supplied with set of diagonal knurl wheels, 30 TPI

# CNC Knurling Tools

SWFKT

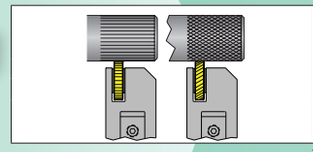


### SWFKT - Single Wheel Fixed Knurling Tool

| Description | Order No. | Knurl Wheel Style | Knurl Pin Set Desc. | Knurl Pin Set Order No. | Shank Size | Price Each |
|---|---|---|---|---|---|---|
| SWFKT-50-D | **8021-730** | D* | KPS-18-50 | **8028-805** | 1/2 | **$ 12.85** |
| SWFKT-75-M | **8021-740** | M** | KPS-31-75 | **8028-840** | 3/4 | **14.29** |
| SWFKT-100-O | **8021-750** | O** | KPS-31-100 | **8028-845** | 1 | **14.29** |

* Supplied with 1 Straight Knurl Wheel 30 TPI. ** Supplied with 1 Straight Knurl Wheel 25 TPI.

SCKN

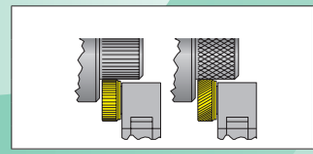


### SCKN - Self-Centering Knurling Tool for C.N.C. Lathe

| Description | Order No. | Knurl Wheel Style | Knurl Pin Set Desc. | Knurl Pin Set Order No. | Shank Size | Price Each |
|---|---|---|---|---|---|---|
| SCKN-50-D | **8022-111** | D* | KPS-18-50 | **8028-805** | 1/2 | **$ 12.85** |
| SCKN-75-M | **8022-121** | M** | KPS-31-75 | **8028-840** | 3/4 | **14.29** |
| SCKN-100-M | **8022-131** | M** | KPS-31-75 | **8028-840** | 1 | **14.29** |

* Supplied with 1 set of 30 TPI Diagonal Knurl Wheels for Diamond Pattern.
** Supplied with 1 set of 25 TPI Diagonal Knurl Wheels for Diamond Pattern.

SSCK

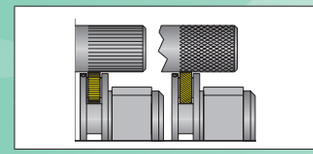


### SSCK -Shoulder Self-Centering Knurling Tool for C.N.C. Lathe

| Description | Order No. | Knurl Wheel Style | Knurl Pin Set Desc. | Knurl Pin Set Order No. | Shank Size | Price Each |
|---|---|---|---|---|---|---|
| SSCK-50-2 | **8022-220** | SW2* | SW2.0P-2S | **8029-055** | 1/2 | **$ 52.23** |
| SSCK-75-4 | **8022-240** | SW4** | SW4.0P-2S | **8029-085** | 3/4 | **61.23** |
| SSCK-100-4 | **8022-250** | SW4** | SW4.0P-2S | **8029-085** | 1 | **61.23** |

* Supplied with 1 set of 30 TPI Diagonal Knurl Wheels for Diamond Pattern.
** Supplied with 1 set of 25 TPI Diagonal Knurl Wheels for Diamond Pattern.

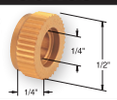
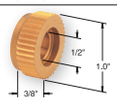
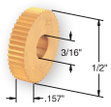
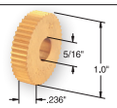
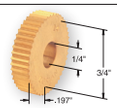
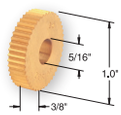
3SHKT



### 3SHKT - Three Swivel Head Knurling Tool

| Description | Order No. | Knurl Wheel Style | Knurl Pin Set Desc. | Knurl Pin Set Order No. | Shank Size | Price Each |
|---|---|---|---|---|---|---|
| 3SHKT-50-D | **8021-510** | D* | KPS-18-50 | **8028-805** | 1/2 | **$ 12.85** |
| 3SHKT-75-M | **8021-530** | M** | KPS-31-100 | **8028-845** | 3/4 | **14.29** |
| 3SHKT-100-M | **8021-540** | M** | KPS-31-100 | **8028-845** | 1 | **14.29** |

* Supplied (2) 20 TPI, (2) 30 TPI & (2) 40 TPI Diagonal Knurl Wheels for Diamond Pattern.
** Supplied (2) 16 TPI, (2) 25 TPI & (2) 35 TPI Diagonal Knurl Wheels for Diamond Pattern.

| Knurl Wheel Series | Specifications | | | | Circular Knurl Pitch | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Description | Pattern | Grade | Edge Prep | 14 | 16 | 20 | 25 | 30 | Price Each |
| **SW2**  | SW2S-XX-C | Straight | Cobalt | Full Faced | - | | 8027-404 | 8027-406 | 8027-408 | $ 44.94 |
| | SW2R-XX-CB | Right Hand | | Beveled | | | 8027-479 | 8027-481 | 8027-483 | 44.94 |
| | SW2L-XX-CB | Left Hand | | Beveled | | | 8027-529 | 8027-531 | 8027-533 | 44.94 |
| **SW4**  | SW4S-XX-CB | Straight | Cobalt | Beveled | 8028-029 | - | 8028-033 | 8028-035 | 8028-037 | 57.16 |
| | SW4R-XX-CB | Right Hand | | Beveled | 8028-083 | 8028-085 | 8028-087 | 8028-089 | 8028-091 | 57.16 |
| | SW4L-XX-CB | Left Hand | | Beveled | 8028-137 | 8028-139 | 8028-141 | 8028-143 | 8028-145 | 57.16 |
| **D**  | DS-XX-CB | Straight | Cobalt | Beveled | - | | 8025-031 | - | 8025-035 | 26.85 |
| | DDR-XX-CB | Right Hand | | Beveled | | | - | | 8025-089 | 26.85 |
| | DDL-XX-CB | Left Hand | | Beveled | | | - | | 8025-143 | 26.85 |
| **M**  | MS-XX-C | Straight | Cobalt | Full Faced | | 8025-310 | 8025-312 | 8025-314 | 8025-316 | 44.55 |
| | MDR-XX-CB | Right Hand | | Beveled | | 8025-409 | 8025-411 | 8025-413 | 8025-415 | 44.55 |
| | MDL-XX-CB | Left Hand | | Beveled | | 8025-475 | 8025-477 | 8025-479 | 8025-481 | 44.55 |
| **R**  | RS-XX-C | Straight | Cobalt | Full Faced | - | | 8026-510 | 8026-512 | 8026-514 | 31.53 |
| **O**  | OS-XX-HSB | Straight | High Speed | Beveled | 8025-641 | - | 8025-645 | 8025-647 | - | 32.03 |
| | ODR-XX-HSB | Right Hand | | Beveled | - | - | 8025-777 | 8025-779 | | 40.04 |
| | ODL-XX-HSB | Left Hand | | Beveled | - | - | 8025-909 | 8025-911 | | 40.04 |
| | OF-XX-HS | Female Diamond | | Full Faced | - | | 8026-074 | 8026-076 | | 45.94 |

# Live Centers

## Economy Live/Dead Centers
## High Speed Steel/Carbide Tipped

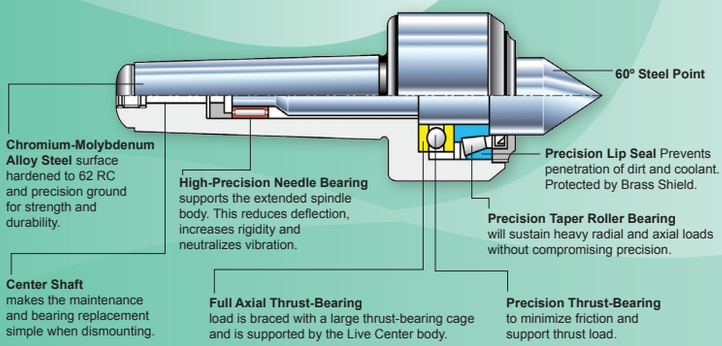
[2] Pittsburg® ALLEGHANY

Live Center | Dead Center

| MT NO. | DEAD CENTERS HIGH SPEED ORDER NO. | PRICE EACH | DEAD CENTERS CARBIDE TIPPED ORDER NO. | PRICE EACH | LIVE CENTERS HIGH SPEED ORDER NO. | PRICE EACH |
|---|---|---|---|---|---|---|
| 0 | 3145-010 | $3.60 | 3145-000 | $ 7.95 | – | – |
| 1 | 3145-011 | 3.90 | 3145-001 | 7.95 | 3145-021 | $ 24.45 |
| 2 | 3145-012 | 4.75 | 3145-002 | 13.60 | 3145-022 | 27.20 |
| 3 | 3145-013 | 6.75 | 3145-003 | 15.85 | 3145-023 | 34.05 |
| 4 | 3145-014 | 11.10 | 3145-004 | 20.10 | 3145-024 | 48.30 |
| 5 | 3145-015 | 20.25 | 3145-005 | 47.45 | 3145-025 | 71.85 |
| 6 | 3145-016 | 48.60 | 3145-006 | 106.60 | 3145-026 | 137.90 |

## Precision General Purpose Live Center - High Quality • Long Life • Low Price

[1] Dorian Tool International

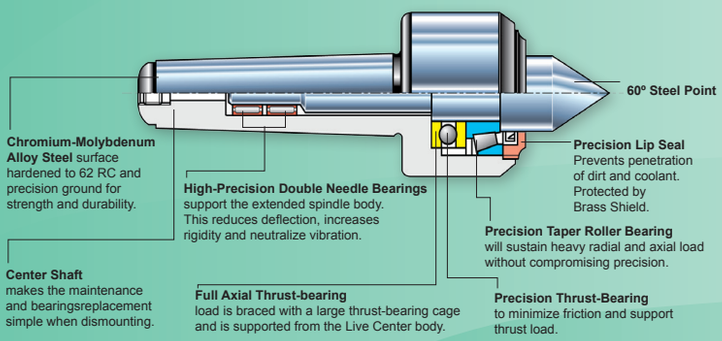



- Precision Concentricity of TIR .00015"
- The Bearings are Permanently Lubricated
- Surface Heat Treated to 62 Rc and Precision Ground
- High Speed Precision Triple Bearings
- Chromium-Molybdenum Alloy Steel
- Ideal For General Purpose Machining

| Precision Live Center Order No. | Price Each | Description | Specifications Morse Taper | Max. RPM | Max. workpiece weight (lb) | Thrust load (lb) |
|---|---|---|---|---|---|---|
| 8048-200 | $297.25 | PLC-PRE-S60-MT1 | 1 | 8500 | 98 | 365 |
| 8048-201 | 321.38 | PLC-PRE-S60-MT2 | 2 | 6000 | 220 | 792 |
| 8048-202 | 357.58 | PLC-PRE-S60-MT3 | 3 | 5000 | 572 | 1144 |
| 8048-203 | 461.78 | PLC-PRE-S60-MT4 | 4 | 4000 | 1078 | 1320 |
| 8048-204 | 587.92 | PLC-PRE-S60-MT5 | 5 | 3000 | 1672 | 1430 |
| 8048-205 | 1121.00 | PLC-PRE-S60-MT6 | 6 | 2500 | 3388 | 3300 |

## Heavy Duty Live Center - For High Performance Heavy Duty Turning Applications

[1] Dorian Tool International

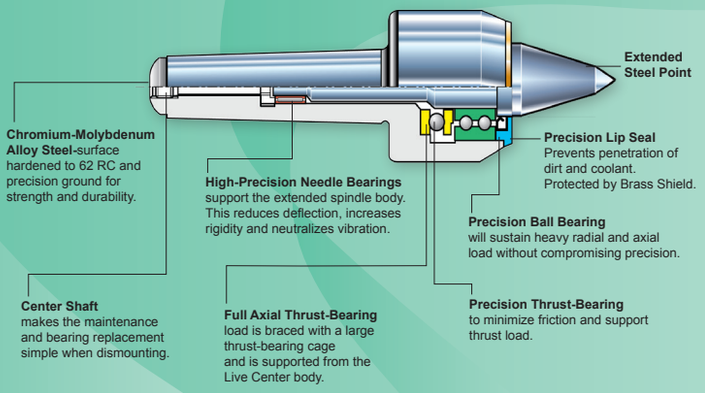



- Precision Concentricity of TIR .00015"
- Super Heavy Duty Quad Bearings
- Chromium-Molybdenum Alloy Steel
- High Speed Precision Triple Bearings
- The Bearings are Permanently Lubricated
- Surface Heat Treated to 62 RC and Precision Ground

| Heavy Duty Live Center Order No. | Price Each | Description | Specifications Morse Taper | Max. RPM | Max. workpiece weight (lb) | Thrust load (lb) |
|---|---|---|---|---|---|---|
| 8048-206 | $415.71 | PLC-HDA-S60-MT2 | 2 | 7500 | 506 | 1012 |
| 8048-207 | 461.78 | PLC-HDA-S60-MT3 | 3 | 6000 | 2090 | 1144 |
| 8048-208 | 576.95 | PLC-HDA-S60-MT4 | 4 | 4500 | 3300 | 1320 |
| 8048-209 | 719.54 | PLC-HDA-S60-MT5 | 5 | 2800 | 4400 | 2460 |
| 8048-210 | 1572.91 | PLC-HDA-S60-MT6 | 6 | 2000 | 10560 | 3300 |
| 8048-211 | 3364.09 | PLC-HDA-S60-MT6-S | 6 | 1700 | 19800 | 6600 |

## CNC High Speed Heavy Duty Live Center - For High Performance CNC Turning Applications

[1] Dorian Tool International




- Precision Concentricity of TIR .0001"
- High Speed Precision
- Longer Life
- Lifetime Lubrication
- Sealed with Lip Seal and Protected by Brass Shield
- Quad Bearings

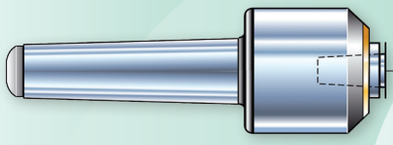
| CNC High Speed Heavy Duty Live Center With 60º Steel Tip Order No. | Price Each | Description | Specifications Morse Taper | Max. RPM | Max. workpiece weight (lb) | Thrust load (lb) |
|---|---|---|---|---|---|---|
| 8048-220 | $435.46 | PLC-CNC-S60-MT3 | 3 | 7000 | 1386 | 1144 |
| 8048-221 | 470.56 | PLC-CNC-S60-MT4 | 4 | 5500 | 1883 | 1439 |
| 8048-222 | 659.22 | PLC-CNC-S60-MT5 | 5 | 4500 | 2860 | 2486 |
| 8048-223 | 1487.35 | PLC-CNC-S60-MT6 | 6 | 3200 | 3740 | 2508 |

| CNC High Speed Heavy Duty Live Center With Extended Point Order No. | Price Each | Description | Specifications Morse Taper | Max. RPM | Max. workpiece weight (lb) | Thrust load (lb) |
|---|---|---|---|---|---|---|
| 8048-232 | $466.17 | PLC-CNC-ELSP-MT3 | 3 | 7000 | 1386 | 1144 |
| 8048-233 | 518.82 | PLC-CNC-ELSP-MT4 | 4 | 5500 | 1883 | 1439 |
| 8048-234 | 718.45 | PLC-CNC-ELSP-MT5 | 5 | 4500 | 2860 | 2486 |
| 8048-235 | 1572.91 | PLC-CNC-ELSP-MT6 | 6 | 3200 | 3300 | 2508 |

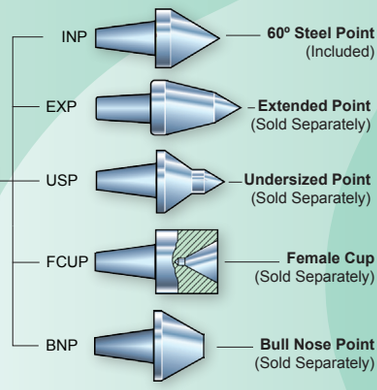
# High Performance Live Centers

## Interchangeable Point Live Centers

**Heavy Duty Live Center &**
**CNC High Speed Heavy Duty Live Center**
**Are Designed for use with**
**Five Different Interchangeable Points**



***Get 5 Applications with 1 Tool***



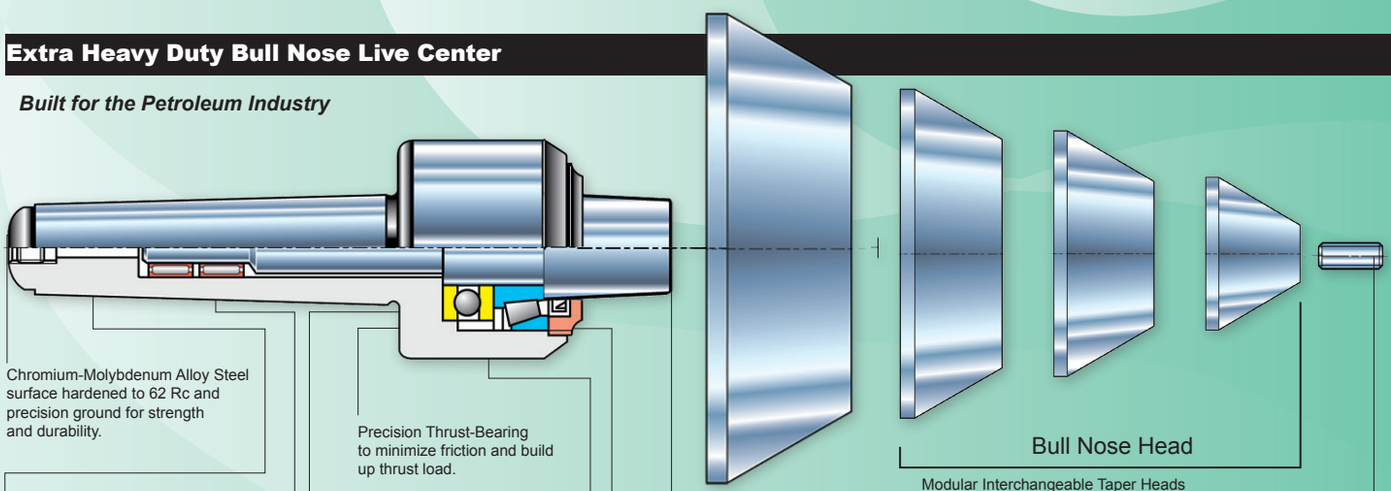

| Heavy Duty Live Center Includes (1) Interchangeable 60º Steel Point | | | Specifications | | | |
|---|---|---|---|---|---|---|
| Order No. | Price Each | Description | Morse Taper | Max. RPM | Max. workpiece weight (lb) | Thrust load (lb) |
| 8048-215 | $ 564.89 | PLC-HDA-INT-MT3 | 3 | 6000 | 2090 | 1144 |
| 8048-216 | 669.09 | PLC-HDA-INT-MT4 | 4 | 4500 | 3300 | 1320 |
| 8048-217 | 853.36 | PLC-HDA-INT-MT5 | 5 | 2800 | 4400 | 2640 |
| 8048-218 | 1741.82 | PLC-HDA-INT-MT6 | 6 | 2000 | 10560 | 3300 |

| CNC High Speed Heavy Duty Live Center Includes (1) Interchangeable 60º Steel Point | | | Specifications | | | |
|---|---|---|---|---|---|---|
| 8048-228 | $ 517.72 | PLC-CNC-INT-MT3 | 3 | 7000 | 1386 | 1144 |
| 8048-229 | 564.89 | PLC-CNC-INT-MT4 | 4 | 5500 | 1883 | 1439 |
| 8048-230 | 780.97 | PLC-CNC-INT-MT5 | 5 | 4500 | 2860 | 2486 |
| 8048-231 | 1601.42 | PLC-CNC-INT-MT6 | 6 | 3200 | 3740 | 2508 |

Extraction Wrench Supplied

## Extra Heavy Duty Bull Nose Live Center

***Built for the Petroleum Industry***



Chromium-Molybdenum Alloy Steel surface hardened to 62 Rc and precision ground for strength and durability.

Center Shaft makes the maintenance and bearing replacement simple when dismounting.

High-Precision Double Needle Bearings support the extended spindle body. This reduces deflection, increases rigidity and neutralizes vibration.

Full Axial Thrust-Bearing Load is braced with a large thrust-bearing cage and is supported from the Live Center body.

Precision Thrust-Bearing to minimize friction and build up thrust load.

Precision Taper Roller Bearing will sustain heavy radial and axial load without compromising precision.

Sealed with Lip Seal and Protected by Brass Shield.

Precision Ground Taper Nose for maximum concentricity and high running accuracy of the bull head.

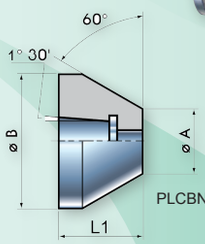
Bull Nose Head

Modular Interchangeable Taper Heads

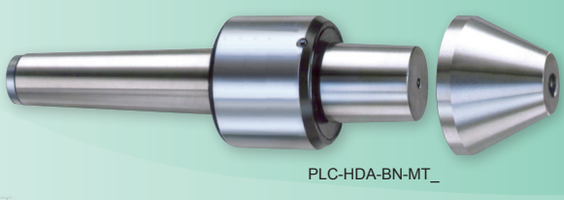
**Capacity range from 1.77 ″ to 23.64 ″**

Interchangeable heads sold separately to accommodate various workpiece diameters.

Extraction Screw Simplifes changing the bull nose head without damaging the contact surface.




PLCBN-HA



PLC-HDA-BN-MT_

PLC-CNC-BNDC-MT_

| Extra Heavy Duty Bull Nose Live Center | | | | | | |
|---|---|---|---|---|---|---|
| Order No. | Price Each | Description | Morse Taper | Max. RPM | Max. workpiece weight (lb) | Thrust load (lb) |
| 8048-400 | $ 649.42 | PLC-HDA-BN-MT3 | 3 | 6000 | 2090 | 1144 |
| 8048-401 | 710.16 | PLC-HDA-BN-MT4 | 4 | 4500 | 3300 | 1320 |
| 8048-402 | 972.18 | PLC-HDA-BN-MT5 | 5 | 2800 | 4400 | 2640 |
| 8048-403 | 1857.89 | PLC-HDA-BN-MT6 | 6 | 2000 | 10560 | 3300 |
| 8048-404 | 3436.07 | PLC-HDA-BN-MT6X | 6 | 1700 | 19800 | 6600 |

| CNC Bull Nose Dead Center | | | |
|---|---|---|---|
| Order No. | Price Each | Description | Morse Taper |
| 8048-406 | $ 200.55 | PLC-CNC-BNDC-MT3 | 3 |
| 8048-407 | 209.74 | PLC-CNC-BNDC-MT4 | 4 |
| 8048-408 | 227.87 | PLC-CNC-BNDC-MT5 | 5 |
| 8048-409 | 496.64 | PLC-CNC-BNDC-MT6 | 6 |

| Bull Nose Head Adapters | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Order No. | 8048-420 | 8048-421 | 8048-422 | 8048-423 | 8048-424 | 8048-425 | 8048-426 | 8048-427 | 8048-428 | 8048-429 | 8048-430 |
| Price Each | $ 303.06 | $ 480.11 | $ 641.07 | $ 808.90 | $ 1073.99 | $ 2015.65 | $ 2336.98 | $ 2837.99 | $ 3287.82 | $ 3958.28 | $ 4907.67 |
| Description | PLCBN-HA-0177-0386 | PLCBN-HA-0374-0583 | PLCBN-HA-0571-0780 | PLCBN-HA-0768-0977 | PLCBN-HA-0965-1174 | PLCBN-HA-1162-1371 | PLCBN-HA-1359-1568 | PLCBN-HA-1556-1765 | PLCBN-HA-1753-1962 | PLCBN-HA-1950-2147 | PLCBN-HA-2147-2364 |
| A | 1.77 | 3.74 | 5.71 | 7.68 | 9.65 | 11.62 | 13.59 | 15.56 | 17.53 | 19.50 | 21.47 |
| B | 3.86 | 5.83 | 7.80 | 9.77 | 11.74 | 13.71 | 15.68 | 17.65 | 19.62 | 21.47 | 23.64 |
| L1 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 |
| Nose Taper | 60º | 60º | 60º | 60º | 60º | 60º | 60º | 60º | 60º | 60º | 60º |