

TOOLHOLDING



BORING HEADS



DRILL CHUCKS & ARBORS



ARBOR SPACERS & SHIMS



TAPPING HEADS



TOOLHOLDER CARTS,
COLLET RACKS



GLOBALLY SOURCED
TOOLS PROVIDING A
BALANCE OF QUALITY & PRICE



COLLIS

TOOL CORPORATION
THE TOOL HOLDER PEOPLE

HOLDERS, ADAPTORS
& COLLETS



CENTERS, TOOL POSTS,
TOOLHOLDERS,
& KNURLING TOOLS

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Tapping Heads

SFT II SynchroFlex II Series,

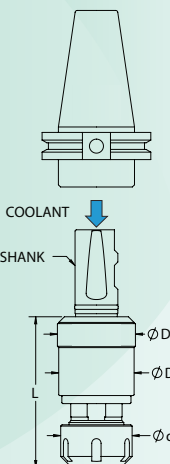
The Only Rigid Tap Driver Guaranteed To Double Tap Life
For Synchronous Tapping On CNC Machines

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.

TAPMATIC®

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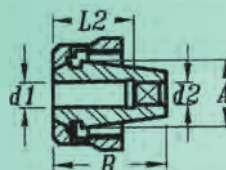
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MODEL	CAPACITY (STEEL)	SHANK	COLLETS	WEIGHT (Kg.)	D	D1	d	L	ORDER NO.	PRICE EACH
SFT II 10	M2-M5 #2-#10 20mm 16mm	25mm 1"	ER11	0.4	23.5	23.5	19	52	3158-515 3158-512 3158-514 3158-513	\$475.00 475.00 475.00 475.00
SFT II 50	M4.5-M12 #8-1/2" 20mm	25mm 1"	ER20	0.5	34.6	36.3	34	69	3158-522* 3158-517* 3158-519*	517.00 517.00 542.00
SFT II 75	M8-M20 1/4"-3/4"	25mm 1"	ER25	1.0	44.0	45.6	42	88	3158-536* 3158-533*	626.00 626.00
SFT II 100	M16-M30 5/8"-1"	25mm 1"	ER40	2.0	62.0	63.6	63	117	3158-549* 3158-546*	1089.00 1089.00

*Includes seal nut for use with sealing discs. All dimensions are shown in mm. 25.4mm + 1".

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).

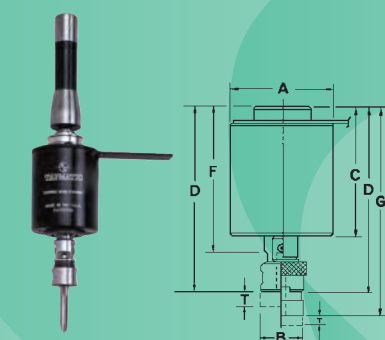
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FEATURES

- **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



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.

MODEL	CAPACITY IN STEEL	WEIGHT	REC. MAX SPEED	COLLETS (order separately)	STANDARD	OPTIONAL	A	B	T SELF-FEED	JACOBS TAPER MTS.	THREADED MTS.	C	D	F
SPD3	M1.4-M6 #0-1/4"	.45 Kg. 1 lb.	2000 RPM	21600 (#0-#8) 21700 (#10-1/8")	21500 (.040-.098)	21600 (.040-.098)	52mm 2.062	19mm .750	3mm .125	#6, #33		79mm 3.125	115mm 4.540	96mm 3.812
											5/16-24 %24	65mm 2.575	101mm 4.000	83mm 3.275
											%20, %16 *%16	73mm 2.910	110mm 4.350	92mm 3.625
SPD5	M3-M12 #6-1/2"	1.36 Kg. 3 lbs.	1500 RPM	22100 (#0-1/2") 22200 (%1/2-1/2")	22000 (.194-.318) 22300 (.090-.180)	22100 (.194-.318)	69mm 2.718	27mm 1.070	5mm .187	#6, #33		98mm 3.885	139mm 5.485	114mm 4.520
											%24, %20 %16, %16 *%16-20	92mm 3.625	132mm 5.230	108mm 4.255
SPD7	M5-M18 #10-3/4"-16 NP %8-3/4"	2.04 Kg. 4 lbs. 8 ozs.	1200 RPM	24100 (#10-1/2") 24500 (%1/2-3/4")	24300 (.110-.280) 24000 (.318-.480)	24100 (.110-.280)	76mm 3.000	36mm 1.450	7mm .250	#3		107mm 4.250	170mm 6.710	137mm 5.420
											%20, %16 %16, %20	95mm 3.765	158mm 6.225	125mm 4.940
SPD9A	M10-M28 #1/2"-1 1/8" NP-3/4"	5.00 Kg. 11 lbs.	600 RPM	26100 (%1/2-3/4") 26200 (%1/2-1 1/8")		26100 (%1/2-3/4")	103mm 4.090	57mm 2.250	10mm .400	#4	1 1/2-18 %16	143mm 5.650	240mm 9.550	200mm 7.875
												115mm 4.550	215mm 8.450	170mm 6.700

Tapping Heads

TAPMATIC®

Rx New Rx Series, Self Reversing Tap Attachments, For Manually Operated Drilling and Milling (Replaces R Series and X Series Tapping Attachments)

PERFORMANCE ADVANTAGES

- New Durable, Rugged Design For Higher Production On Manual Applications
- Accurate Depth Control • Heavy Duty Ball Clutch

FEATURES

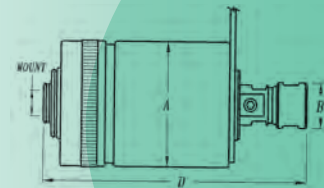
Self-Feed: Permits the tap to act as its own lead screw, allowing even inexperienced operators to produce gage perfect threads. Thread depth repeatability can be maintained accurately.

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.



	Rx 30 (#0-1/4")			Rx 50 (#6-1/2")			Rx 70 (#10-3/4")		
MOUNT TYPE	ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH		ORDER NO.	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

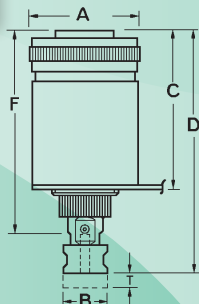
- Has the standard features of the X Series, plus depth control that eliminates the possibility of bottoming in your work piece and breaking taps.
- Self-Feed: Permits the tap to act as its own lead screw and consistently produce gage perfect threads.

	30 TC/DC (#0-1/4")			50 TC/DC (#6-1/2")			70 TC/DC (#10-5/8")		
MOUNT TYPE	ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH		ORDER NO.	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)		A	B	E SELF-FEED	JACOBS TAPER MTS.	THREADED MTS.	C	D	F
30 TC/DC	M1.4-M6 #0-1/4"	.45 Kg. 1 lb.	2000 RPM	21600 (#0-#8) 21700 (#10-1/4")	21500 (.040-.098)	48mm 1.875	19mm .750	6mm .250	#6, #33	1/20, 1/16 1/16	81mm 3.220	109mm 4.300	92mm 3.650
50 TC/DC	M3-M12 #6-1/2"	1.36 Kg. 3 lbs.	1500 RPM	22100 (#0-1/4") 22200 (1/4"-1/2")	22000 (.194-.318) 22300 (.090-.180)	70mm 2.750	27mm 1.070	9mm .375	#6, #33	1/16, 1/16 1/24, 1/20	109mm 4.300	148mm 5.830	122mm 4.812
70 TC/DC	M5-M16 #10-3/4" NP 1/8"	2.04 Kg. 4 lbs. 8 ozs.	1200 RPM	24100 (#10-1/2") 24000 (5/16"-3/4")	24300 (.110-.280) 24500 (.393-.590)	76mm 3.000	36mm 1.450	9mm .375	#3	1/20, 1/16 1/16, 1/20	119mm 4.685	168mm 6.650	137mm 5.400

Rubber Flex Collets

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MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE	MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE	MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE
21400	.198-.255	3158-914	\$31.50	22000	.194-.318	3158-920	\$57.00	24000	5/16"-5/8" Standard	3158-940	\$61.00
21500	.040-.098	3158-915	57.00	22100	#0-1/4" Standard	3158-921	57.00	24100	#10-1/2" Standard	3158-941	61.00
21600	#0-#8 Standard	3158-916	57.00	22200	#1/4" -1/2" Standard	3158-922	57.00	24300	.110-.280	3158-943	61.00
21700	#10-1/4" Standard	3158-917	57.00	22300	.090-.180	3158-923	57.00	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 10



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 10



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	3/8-24	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 10

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.



CAPACITY RANGE							
MODEL JKP	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 stop.



CAPACITY RANGE							
MODEL JKT	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

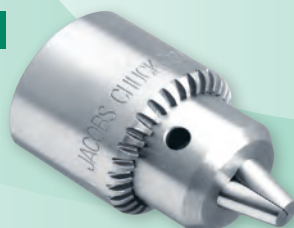


- High precision keyless drill chuck - arbor is integrated into the internal socket of the drill chuck.
- Self-tightening feature automatically increases gripping force proportional to increased torque to prevent tool shank slippage. For right hand rotation applications only.
- 100% individually controlled to ensure not to exceed a maximum total integrated run-out of 0.04 mm.

MODEL/ PART NO.	CAPACITY RANGE					DIMENSIONS								ORDER NO.	PRICE EACH
	MINIMUM		MAXIMUM			CLOSED LGTH.		OPEN LGTH.		SLEEVE DIA.					
	IN	MM	IN	MM	MOUNT	IN.	MM.	IN.	MM.	IN.	MM.				
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.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT STYLE	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
OM-6624	0(1)	0	0.156	4	0-JT(2)	KOM	3147-560	\$182.15
OBM-6625	0(1)	0	0.156	4	5/16-24	KOM	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.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
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.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
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.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
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



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				MOUNT THREAD	KEY NO.	PRICE EACH
	MINIMUM		MAXIMUM				
	IN	MM	IN	MM			
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				MOUNT THREAD	PRICE EACH
	MINIMUM		MAXIMUM			
IN	MM	IN	MM			
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

FOR JACOBS			FOR ROHM		FOR LFA		FOR JACOBS		USA MADE	
JACOBS	ROHM	LFA	CHUCK NOS.	CHUCK NOS.	CHUCK NOS.	PILOT SIZE	ORDER NO.	PRICE EACH	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, 63A, 63AB	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



		Pittsburg ALLSOUTH		Jacobs	
MORSE TAPER	JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	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



		Pittsburg ALLSOUTH		Jacobs	
SA. SHANK	JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	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



		Pittsburg ALLSOUTH		Jacobs	
FROM R8 TAPER	TO JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	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



		Pittsburg ALLSOUTH		Jacobs	
SIZE		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2 x 3/8-24		3142-160	\$5.05	—	—
1/2 x 1/2-20		3142-161	5.05	—	—
1MT x 3/8-24		3142-165	5.70	—	—
1MT x 1/2-20		3142-166	5.70	—	—
2MT x 3/8-24		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

2

Drill Sleeves



SIZE	M.T. HOLE	M.T. O.D.	SOFT WITH HARDENED TANG		HARDENED AND GROUND THROUGHOUT	
			ORDER NO.	PRICE EACH	ORDER NO.	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

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

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

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

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

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

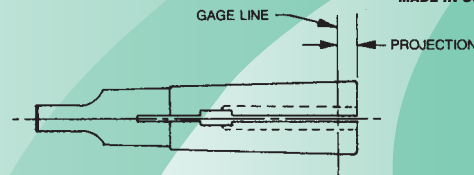
1/2" Shank Order No. 3142-020 Price Each\$15.00

Split Sleeve Drill & Reamer Drivers



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

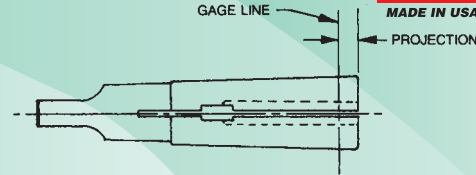
DRILL SIZE	#0 M.T.	PRICE EACH	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH
3.75MM	—	—	4871-158	\$21.00	4872-243	\$23.00
25	—	—	4871-159	21.00	—	—
3.80MM	—	—	4871-159	21.00	—	—
24	—	—	4871-160	21.00	4872-245	23.00
23	—	—	4871-161	21.00	4872-246	23.00
5/32	4870-162	\$30.00	4871-162	21.00	4872-247	23.00
22	—	—	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



6



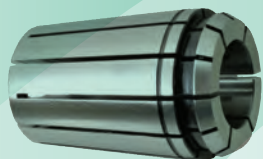
DRILL SIZE	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH	#3 M.T.	PRICE EACH
G	4871-199	\$21.00	4872-284	\$23.00	-	-
6.70MM	4871-469	21.00	4872-669	23.00	-	-
17/64	4871-200	21.00	4872-285	23.00	-	-
6.75MM	4871-200	21.00	4872-285	23.00	-	-
H	4871-200	21.00	4872-285	23.00	-	-
6.80MM	4871-470	21.00	-	-	-	-
6.90MM	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	-	-

† Limited Quantities

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

Collis Toolholder Systems

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



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.



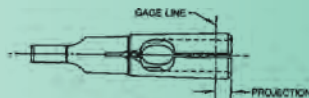
COLLIS

Split Sleeve Tap Drivers - Pipe Sizes

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



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

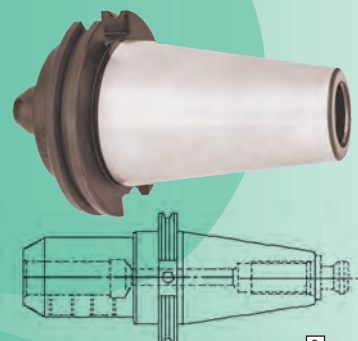
Retention Knobs



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

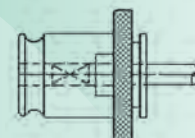
Caterpillar V-Flange End Mill Holder



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

1

Huot

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



Huot 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



Huot

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



Huot

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

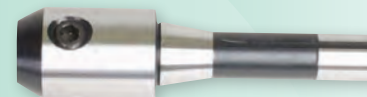


TAPER (THREADS FOR DRAW BAR)	ARBOR HOLE OR BORE	ORDER NO.	PRICE EACH
30 NST (1/2-13)	3/16	3140-541	\$38.30
	3/8	3140-542	38.30
	1/2	3140-543	38.30
	5/8	3140-544	38.30
	3/4	3140-545	38.30
	7/8	3140-546 *	47.80
	1	3140-547 *	47.80
40 NST (5/8-11)	3/16	3140-568	43.90
	3/8	3140-569	43.90
	1/2	3140-570	43.90
	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

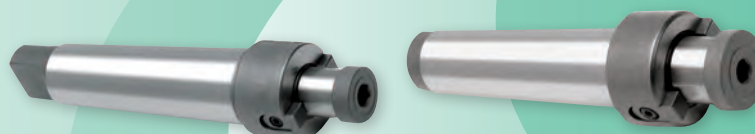
† Limited Quantities

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



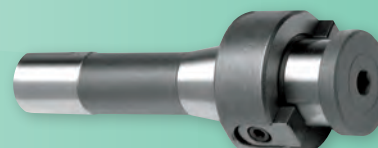
Tang Style

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

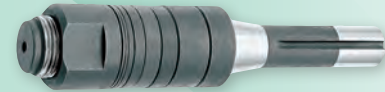


THREAD SIZE	DIAM. FOR BORE IN SHELL END MILL	ORDER NO.	PRICE EACH
1/4-28	1/2	3141-716	\$ 5.70
3/8-24	3/4	3141-724	6.60
1/2-20	1	3141-732	9.40
5/8-18	1-1/4	3141-740	12.50
3/4-16	1-1/2	3141-748	16.40
1-14	2	3141-764	22.80

Milling Machine Arbors



Slitting Saw & Milling Machine Arbor



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 NST (5/8-11)	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
	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
50 NST (1-8)	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
	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

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



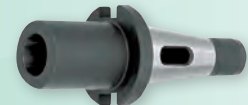
FROM NST (MALE)	TO R8 (FEMALE)	ORDER NO.	PRICE EACH
40	R8	3142-130	\$74.20
50	R8	3142-132	87.80

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

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 NST (5/8-11)	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
	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
50 NST (1-8)	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
	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

Arbors, Arbor Bushings & Nuts



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

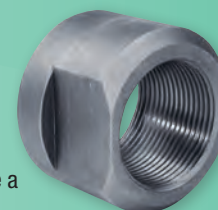
Bushings are hardened and have parallel and perpendicular surfaces precisely ground – accuracy .0002" – to ensure maximum holding power, rigid setup and accurate machining operations. Bushings have standard keyways which allow fixed mounting on arbor and preventing rotation.



BUSHING NO.	O.D.	HOLE DIA.	LGTH	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.	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

- 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)		(1/2 ID x 3/4 OD)		(5/8 ID x 1 OD)		(3/4 ID x 1-1/8 OD)		(1 ID x 1-1/2 OD)	
	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	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)		(1/2 ID x 3/4 OD)		(5/8 ID x 1 OD)		(3/4 ID x 1-1/8 OD)		(1 ID x 1-1/2 OD)	
	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	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



2

Flynn Boring Tools

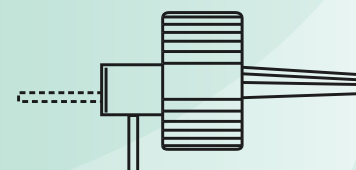
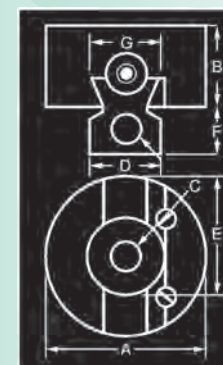
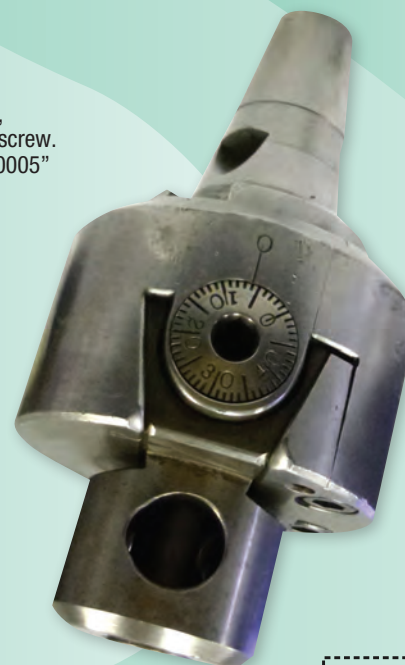
Flynn
Boring Heads

5

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.

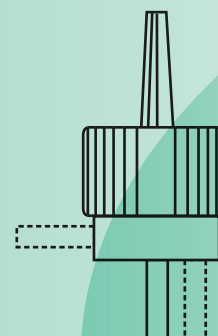
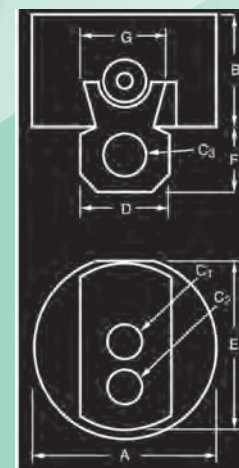
Dimensions and Specifications	No. 43	No. 43B	No. 45	No. 47	No. 48
A-Body Diameter	2-3/4"	2-3/4"	4"	4-1/2"	5"
B-Body Length	2"	2"	2-1/8"	2-5/8"	2-5/8"
C-Bar-Tool Capacity	1/2"	5/8"	3/4"	1"	1-1/4"
D-Tool Block	1-1/2"	1-1/2"	2"	2-1/2"	2-3/4"
E-Extension Length	1-7/8"	1-7/8"	2-3/4"	3"	3-3/8"
F-Extension 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 facilitates 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"	7/8"	1-5/16"	1-3/8"	1-3/4"
Bar Offset	from Center	Eachway	Eachway	Eachway	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

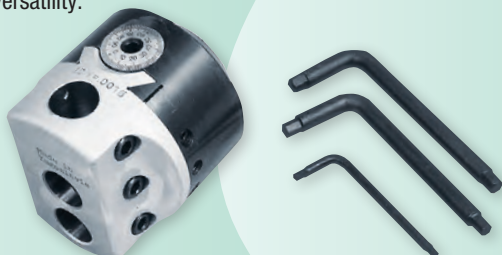


Boring Heads



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.



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

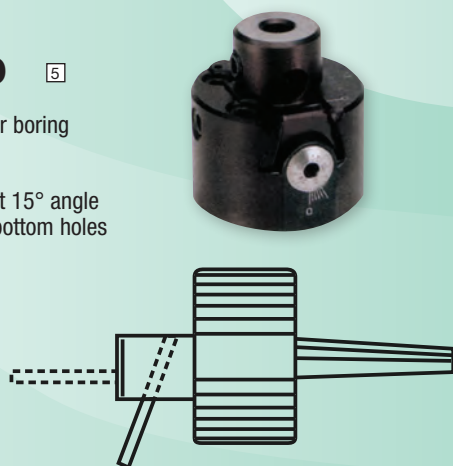
Boring Head Shanks

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

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

Shank Series 175 1-7/16-12			Shank Series 250 2-12			Shank Series 175 1-7/16-12			Shank Series 250 2-12		
Order No.	Price Each		Order No.	Price Each		Order No.	Price Each		Order No.	Price Each	
Morse Taper			Straight Shank			Standard Taper					
2MT	3157-170	\$250.00	3/4 x 4	3157-245	\$250.00	40 5/8-11	3157-220	\$450.00	3157-315	\$450.00	
3MT	3157-175	250.00	1 x 4	3157-250	250.00	50 1-8	3157-225	500.00	3157-320	500.00	
4MT	3157-180	250.00	1-1/4 x 4	3157-255	250.00	Moore	3157-230	100.00	-	-	
5MT	3157-185	250.00	1-1/2 x 4	3157-260	250.00						
6MT	-	-	2 x 6	3157-265	250.00						
7MT	-	-									
Bridgeport Taper											
R-8	3157-235	160.00									

Flynn Boring Head Sets

Set includes R8 Shank, 5 Tools & Case

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

Carbide Tool Holders For Carbide Tipped Square Tool Bits



3

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

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT	RIGHT HAND	LEFT HAND	
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			PRICE EACH
	STRAIGHT SHANK	RIGHT HAND	LEFT HAND	
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

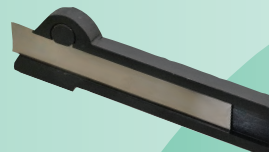


Straight Shank

Cut Off Tool Holders

2

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT SHANK	RIGHT HAND	LEFT HAND	
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

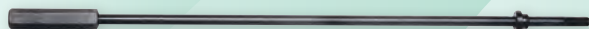


Right Hand

Machine Accessories

Drawbars for Mills

- Made of cold rolled steel.
- Black oxide plated.
- Made in U.S.A.

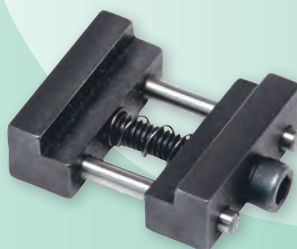


FITS MILLING MACHINE	ORDER NUMBER	PRICE EACH
1J Step Pulley	3143-420	\$15.70
2J Step Pulley	3143-421	17.50
Lagun Vari Speed	3143-424	27.30
Wells Index Vari Speed	3143-425	25.40

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



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

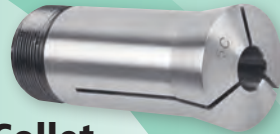
- Steel with Black Oxide plating.
- Made in U.S.A.

ORDER NO.	PRICE EACH
3143-403	\$8.20



Collets

2



5C Round Collet

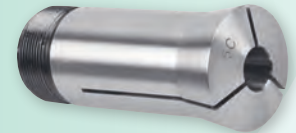
Pittsburg [®] ALLEGHANY					
SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3155-104	\$6.25	39/64	3155-139	\$4.60
5/64	3155-105	6.25	5/8	3155-140	4.60
3/32	3155-106	6.25	41/64	3155-141	4.60
7/64	3155-107	6.25	21/32	3155-142	4.60
1/8	3155-108	4.60	43/64	3155-143	4.60
9/64	3155-109	4.60	11/16	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

Pittsburg [®] ALLEGHANY		
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	SIZE	ORDER NO.	PRICE EACH
3.0mm	3156-506	\$ 7.05	15.0mm	3156-530	\$ 7.05
4.0mm	3156-508	7.05	16.0mm	3156-532	7.05
5.0mm	3156-510	7.05	17.0mm	3156-534	7.05
6.0mm	3156-512	7.05	18.0mm	3156-536	7.05
7.0mm	3156-514	7.05	19.0mm	3156-538	7.05
8.0mm	3156-516	7.05	20.0mm	3156-540	7.05
9.0mm	3156-518	7.05	21.0mm	3156-542	7.05
10.0mm	3156-520	7.05	22.0mm	3156-544	7.05
11.0mm	3156-522	7.05	23.0mm	3156-546	7.05
12.0mm	3156-524	7.05	24.0mm	3156-548	7.05
13.0mm	3156-526	7.05	25.0mm	3156-550	7.05
14.0mm	3156-528	7.05			

Metric 5C Sets Without stands

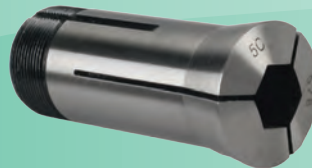
SIZE	ORDER NO.	PRICE EACH
5C 3-25mm x 1mm	3156-582	\$ 162.15

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

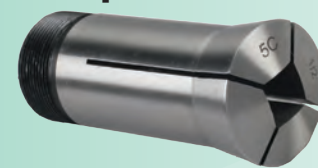
5C Hex Collets



Pittsburg [®] ALLEGHANY		
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



Pittsburg [®] ALLEGHANY		
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



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	-	-	-



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 Collet.
- 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 5 1/4"W x 9" D. Wt. 2 lbs.

ER/DR/RD 16 Series Collet Rack

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



NEW ITEM!



Metric R8 Collets



SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
3mm	3156-706	\$ 6.45	12mm	3156-724	\$ 6.45
4mm	3156-708	6.45	13mm	3156-726	6.45
5mm	3156-710	6.45	14mm	3156-728	6.45
6mm	3156-712	6.45	15mm	3156-730	6.45
7mm	3156-714	6.45	16mm	3156-732	6.45
8mm	3156-716	6.45	17mm	3156-734	6.45
9mm	3156-718	6.45	18mm	3156-736	6.45
10mm	3156-720	6.45	19mm	3156-738	6.45
11mm	3156-722	6.45	20mm	3156-740	6.45

† Limited Quantity

R8 Sets Without stands

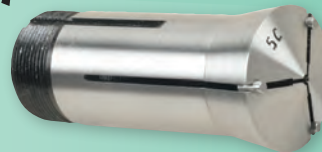
SIZE	ORDER NO.	PRICE EACH
R8 1/8 - 7/8 by 8ths	3156-120	\$ 31.15
R8 1/8- 7/8 by 16ths	3156-125	57.85
R8 1/8 - 7/8 by 32nds	3156-130	111.25

Metric R8 Set Without stand

SIZE	ORDER NO.	PRICE EACH
R8 3mm - 20mm x 1mm	3156-762	\$ 116.10



5C Emergency Collet



Order No. 3156-201

Price Each: \$8.20



5C Brass Emergency Collet



Order No. 3156-202

Price Each: \$18.65



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



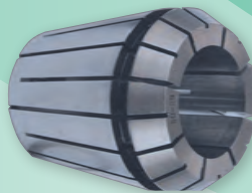
3C Collets



SIZE	ORDER NO.	PRICE EA.	SIZE	ORDER NO.	PRICE EA.
1/16	3154-904	\$5.25	21/64	3154-921	\$5.25
9/64	3154-909	5.25	11/32	3154-922	5.25
3/16	3154-912	5.25	23/64	3154-923	5.25
17/64	3154-917	5.25	29/64	3154-929	5.25
9/32	3154-918	5.25	31/64	3154-931	5.25
19/64	3154-919	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		ER16		ER 20		ER25		ER32		ER40	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/32"	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

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

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

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



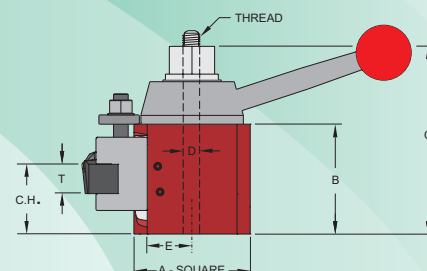
SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
R8	ER-32	.08-.787	7/16-20	3142-530	\$70.00
R8	ER-40	.12 - 1.02	7-16-20	3142-532	74.00

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
- 15° Locking Handle Position Adjustment
- Industry-Standard Interchangeable Holders
- Thousands of pounds of locking force with a finger tip



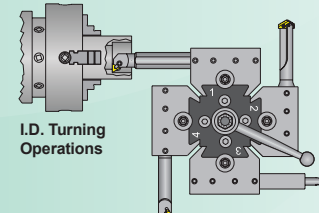
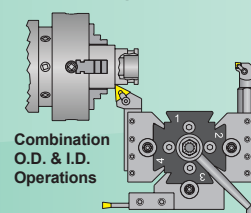
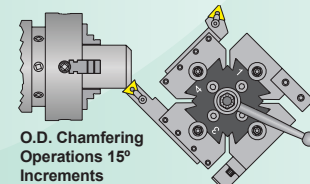
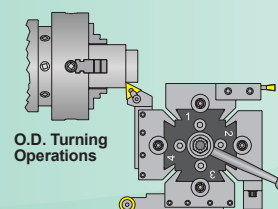
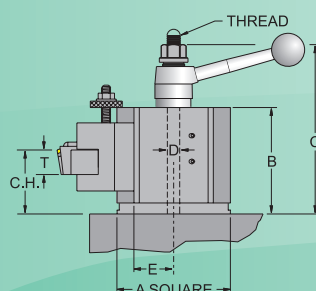
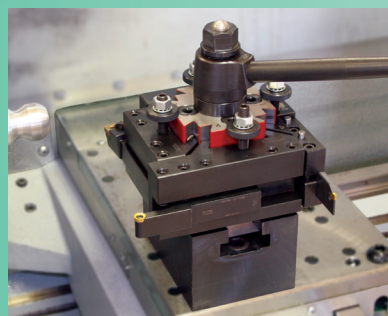
SUPER Quick Change Tool Post						
Description	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Order Number	8001-000	8001-002	8001-004	8001-006	8001-008	8001-010
Price Each	\$ 343.56	\$ 429.81	\$ 587.93	\$ 739.15	\$ 1058.51	\$ 1633.74
Lathe Swing Over Bed	≤12	13-15	14-17	16-20	17-32	≥25
A	2.625	3.000	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	1.0-1 1/4	1 1/4-1 1/2	1 1/2
Optimum 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	1 1/8-12

** 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	1.0-1 1/4	25-32	1 1/4 - 1 1/2	32-40	1 1/2	40.0
Optimum 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	1 1/8-12	M27x3,0

*Optimum center height is calculated with the smaller tool size of the tool capacity.

Tool Post & Toolholder Standard Sets

2

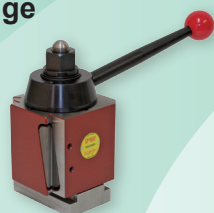


Super Quick Change Standard Sets

(1) Tool Post
(4) Holders

Tooling Not Included

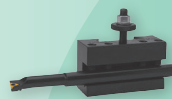
NEW



D1



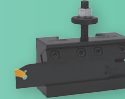
D2



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 (1) D25AXA-2 (1) D25AXA-4-CNC (1) D25AXA-7-71C	(1) D30BXA-1 (1) D30BXA-2 (1) D30BXA-4-CNC (1) D30BXA-7-71C	(1) D35CXA-1 (1) D35CXA-2 (1) D35CXA-4-CNC (1) D35CXA-7-71C	(1) D40CA-1 (1) D40CA-2 (1) D40CA-4-CNC (1) D40CA-7-71C	(1) D50DA-1 (1) D50DA-2 (1) D50DA-4-CNC (1) D50DA-7-71C	(1) D60EA-1 (1) D60EA-2 (1) D60EA-4-CNC (1) D60EA-7-71C

Quadra Indexing Standard Sets

(1) Tool Post
(4) Holders

Tooling Not Included

NEW



QITP-1



QITP-2



QITP-4-CNC



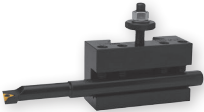
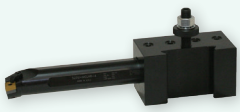
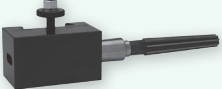
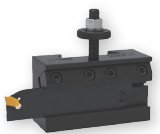
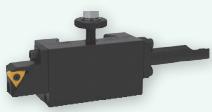
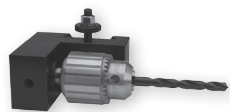
QITP-7-71C



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 (1) QITP25N-2 (1) QITP25N-4-CNC (1) QITP25N-7-71C	(1) QITP30N-1 (1) QITP30N-2 (1) QITP30N-4-CNC (1) QITP30N-7-71C	(1) QITP35N-1 (1) QITP35N-2 (1) QITP35N-4-CNC (1) QITP35N-7-71C	(1) QITP40N-1 (1) QITP40N-2 (1) QITP40N-4-CNC (1) QITP40N-7-71C	(1) QITP50N-1 (1) QITP50N-2 (1) QITP50N-4-CNC (1) QITP50N-7-71C	(1) QITP60N-1 (1) QITP60N-2 (1) QITP60N-4-CNC (1) QITP60N-7-71C

SUPER Quick Change Toolholders



Use With SDN Tool Post	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Turning & Facing 	D25AXA-1 Tool Capacity 1/2"	D30BXA-1 Tool Capacity 5/8"	D35CXA-1 Tool Capacity 3/4"	D40CA-1 Tool Capacity 1"	D50DA-1 Tool Capacity 1 1/4"	D60EA-1 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 Tool Capacity 1/2"	D30BXA-2 Tool Capacity 5/8"	D35CXA-2 Tool Capacity 3/4"	D40CA-2 Tool Capacity 1"	D50DA-2 Tool Capacity 1 1/4"	D60EA-2 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 Tool Capacity 3/4"	D30BXA-4-CNC Tool Capacity 1"	D35CXA-4-CNC Tool Capacity 1"	D40CA-4-CNC Tool Capacity 1 1/4"	D50DA-4-CNC Tool Capacity 1 1/2"	D60EA-4-CNC 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 Tool Capacity 1"	D30BXA-41-CNC Tool Capacity 1 1/4"	D35CXA-41-CNC Tool Capacity 1 1/4"	D40CA-41-CNC Tool Capacity 1 1/2"	D50DA-41-CNC Tool Capacity 2"	D60EA-41-CNC 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 Tool Capacity Morse Taper 4	D40CA-5-4 Tool Capacity Morse Taper 4	D50DA-5-5 Tool Capacity Morse Taper 5	D60EA-5-5 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 Blade Size 19-2	D30BXA-7-71C Blade Size 19-2	D35CXA-7-71C Blade Size 26-2 to 26-6	D40CA-7-71C Blade Size 26-2 to 26-6	D50DA-7-71C Blade Size 32-3 to 32-9	D60EA-7-71C 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 On Edge for OD Laydown for ID	D30BXA-881-OE On Edge for OD Laydown for ID	D35CXA-881-OE On Edge for OD Laydown for ID	D40CA-881-OE 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 Tool Capacity 0-12"	D30BXA-35 Tool Capacity 0-12"	D35CXA-35 Tool Capacity 0-12"	D40CA-35 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 5C Collet	D30BXA-36 5C Collet	D35CXA-36 5C Collet	D40CA-36 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 Tool Capacity 3/4"	QITP30N-1 Tool Capacity 3/4"	QITP35N-1 Tool Capacity 1"	QITP40N-1 Tool Capacity 1 1/4"	QITP50N-1 Tool Capacity 1 1/2"	QITP60N-1 Tool Capacity 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 Tool Capacity 3/4"	QITP30N-2 Tool Capacity 3/4"	QITP35N-2 Tool Capacity 1"	QITP40N-2 Tool Capacity 1 1/4"	QITP50N-2 Tool Capacity 1 1/2"	QITP60N-2 Tool Capacity 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 Tool Capacity 3/4"	QITP30N-4-CNC Tool Capacity 1"	QITP35N-4-CNC Tool Capacity 1"	QITP40N-4-CNC Tool Capacity 1 1/4"	QITP50N-4-CNC Tool Capacity 1 1/2"	QITP60N-4-CNC Tool Capacity 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 Tool Capacity 1 1/4"	QITP40N-41-CNC Tool Capacity 1 1/2"	QITP50N-41-CNC Tool Capacity 2"	QITP60N-41-CNC Tool Capacity 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 Tool Capacity Morse Taper 4	QITP40N-5-4 Tool Capacity Morse Taper 4	QITP50N-5-5 Tool Capacity Morse Taper 5	QITP60N-5-5 Tool Capacity 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 Blade Size 19-2	QITP30N-7-71C Blade Size 19-2	QITP35N-7-71C Blade Size 26-2 to 26-6	QITP40N-7-71C Blade Size 26-2 to 26-6	QITP50N-7-71C Blade Size 32-3 to 32-9	QITP60N-7-71C Blade Size 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 Laydown Threading Bar Sold Separately 	QITP25N-881-OE On Edge for OD Laydown for ID	QITP30N-881-OE On Edge for OD Laydown for ID	QITP35N-881-OE On Edge for OD Laydown for ID	QITP40N-881-OE On Edge for OD 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 5C Collet	QITP30N-36 5C Collet	QITP35N-36 5C Collet	QITP40N-36 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

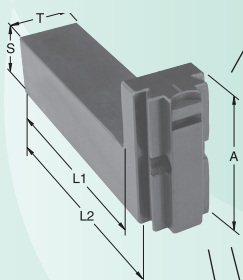
CNC Modular Knurling Tools



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.



1 - Small Diamond Cutting Knurling Tool- Cutting Range 5/16" to 1-1/2" Best for up to 1"



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

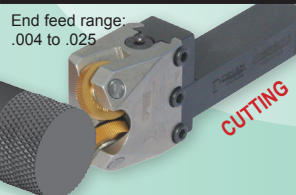
2 - HD Diamond Cutting Knurling Tool-Cutting Range 1.0" to 5" Best for up to 3"



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

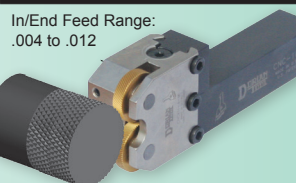
3 - Extra HD Diamond Cutting Knurling Tool-Cutting range 2.0" & up Best for over 2-1/2"



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

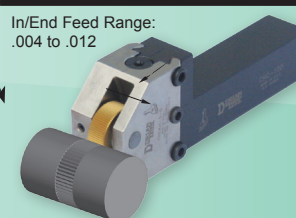
4 - Double Wheel Forming Knurling Tool



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



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



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"



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

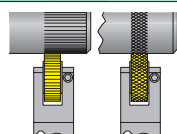
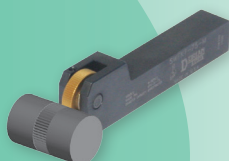
CNC Modular Knurling Tool Shank						
Desc.	S	T	L1	L2	A	
CNC-75	21010	.75	1.0	3.5	3.875	2.0
CNC-100	21020	1.0	1.0	3.5	3.875	2.0
CNC-125	21030	1.25	1.0	4.0	4.375	2.25

Supplied with Lock Screw and Adjustment Screw.

CNC Knurling Tools



SWFKT

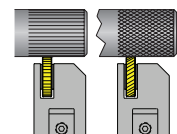


SWFKT - Single Wheel Fixed Knurling Tool

Description	Order No.	Knurl Wheel Style	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

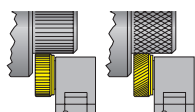
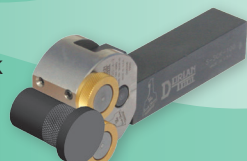


SCKN - Self-Centering Knurling Tool for C.N.C. Lathe

Description	Order No.	Knurl Wheel Style	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

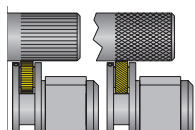
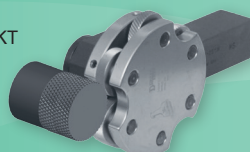


SSCK -Shoulder Self-Centering Knurling Tool for C.N.C. Lathe

Description	Order No.	Knurl Wheel Style	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.

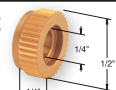
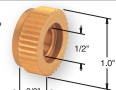
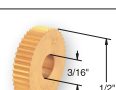
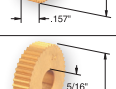
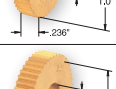
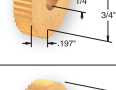
3SHKT



3SHKT - Three Swivel Head Knurling Tool

Description	Order No.	Knurl Wheel Style	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



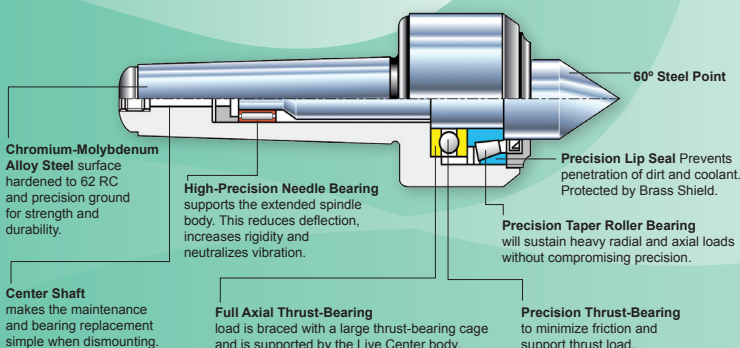
Live Center



Dead Center

MT NO.	DEAD CENTERS				LIVE CENTERS	
	HIGH SPEED		CARBIDE TIPPED		HIGH SPEED	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	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

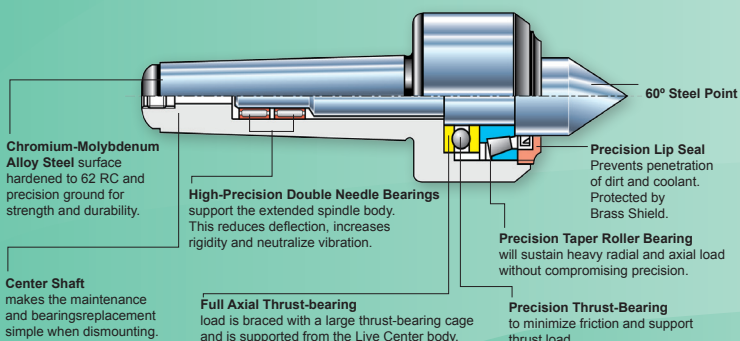
Precision General Purpose Live Center - High Quality • Long Life • Low Price



- 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			Specifications			
Order No.	Price Each	Description	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

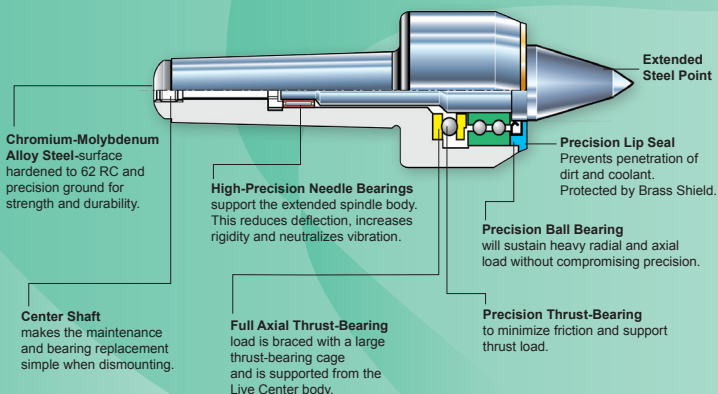
Heavy Duty Live Center - For High Performance Heavy Duty Turning Applications



- 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			Specifications			
Order No.	Price Each	Description	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



- 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 60° Steel Tip			Specifications			
Order No.	Price Each	Description	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

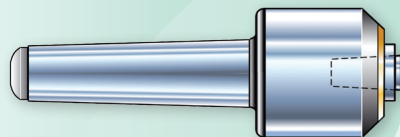
CNC High Speed Heavy Duty Live Center With Extended Point			Specifications			
Order No.	Price Each	Description	Morse Taper	Max. RPM	Max. workpiece weight (lb)	Thrust load (lb)
8048-232	\$466.17	PLC-CNC-ELSP-MT3	3	7000	1386	1144
8048-233	518.82	PLC-CNC-ELSP-MT4	4	5500	1883	1439
8048-234	718.45	PLC-CNC-ELSP-MT5	5	4500	2860	2486
8048-235	1572.91	PLC-CNC-ELSP-MT6	6	3200	3300	2508

High Performance Live Centers

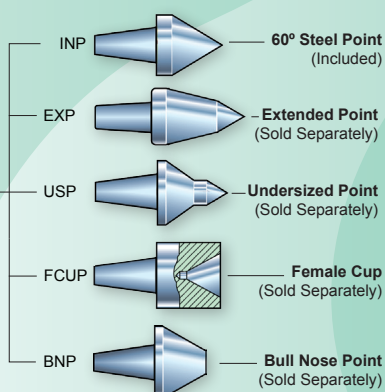


Interchangeable Point Live Centers

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 60° Steel Point

Order No.	Price Each	Description	Morse Taper	Specifications		
				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

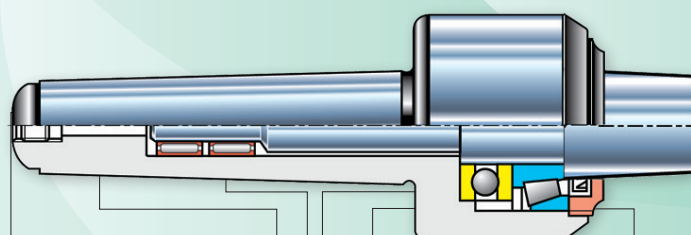
CNC High Speed Heavy Duty Live Center Includes (1) Interchangeable 60° Steel Point

Order No.	Price Each	Description	Morse Taper	Specifications		
				Max. RPM	Max. workpiece weight (lb)	Thrust load (lb)
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.

Precision Thrust-Bearing to minimize friction and build up thrust load.

Full Axial Thrust-Bearing Load is braced with a large thrust-bearing cage and is supported from the Live Center body.

Precision Taper Roller Bearing will sustain heavy radial and axial load without compromising precision.

Sealed with Lip Seal and Protected by Brass Shield.

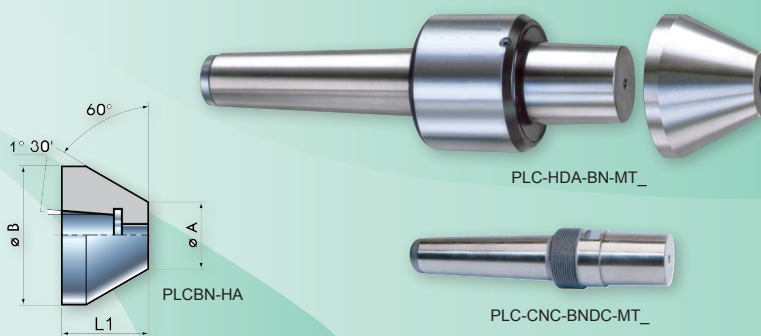
Precision Ground Taper Nose for maximum concentricity and high running accuracy of the bull head.

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 Simplifies changing the bull nose head without damaging the contact surface.



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	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°