

WORK HOLDING & TOOL STEEL

IRWIN
CLAMPS

DESTACO
CLAMPS

PONY
CLAMPS

WILTON
CORPORATION
TOOL GROUP
CLAMPS & VISES

'Adjustable'
CLAMPS

**PRECISION
BRAND**
SHIM STOCK, KEY STOCK, FEELER GAGE

Pittsburg
ALLEGHANY
CLAMPS & VISES

CLAMP-RITE
CLAMPS

Jorgensen
MASTER-QUALITY CLAMPS
CLAMPS

MORTON
machine works
JIG FIXTURES

CHICAGO
H-F
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THREADED ROD

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Clamps - DE-STA-CO® Toggle Lock Plus Clamps



DE-STA-CO® has taken several of their popular toggle clamps and have added a locking lever for improved safety. The locking lever helps ensure that the over-center locking condition is maintained. In order to open each clamp, the locking lever must first be released. If a clamp application warrants concerns over accidental clamp opening, severe stresses of vibrations on the clamps, or overhead installations, then the DE-STA-CO® Toggle Lock Plus is the right clamp for the job.

Vertical Style

These clamps are unique in that they lock with the aid of the locking lever in both the clamped and unclamped position. Bolt retainer supplied with solid bar Models 207-LR and 210-SR. Spindle assembly and flanged washers supplied with "U" bar Models 207-UR and 210-UR.

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
207-UR	4352-078	6-29/32	1-1/4	4-37/64	500	\$34.76
210-UR	4352-108	8	1-11/16	6-39/64	750	50.55



Model 207-UR

Horizontal Style

Equipped with a locking lever which locks in the clamped position only. Clamps are supplied with bonded neoprene-tipped spindle assemblies and flanged washers.



Model 225-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
225-UR	4352-251	1-59/64	1-21/64	7-9/64	500	\$32.85
235-UR	4352-351	2-35/64	1-45/64	10-17/32	750	53.89
305-UR	4353-051	1-7/16	1/2	2-1/4	150	25.01
307-UR	4353-071	2-7/16	7/8	3-39/64	350	34.02

Pull Action Latch Style - Horizontal Type

Supplied with a locking lever catch accessory which allows the clamp to lock in the closed position only. Latch plates are supplied with the clamp.



Model 341-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
323-R	4353-233	1-3/16	4	1-11/64	360	\$22.50
323-RSS	4353-234	1-3/16	4	1-11/64	360	42.23
331-R	4353-311	2-5/64	5-31/32	1-3/4	700	31.32
331-RSS	4353-318	2-1/64	6-11/64	2	700	56.88
341-R	4353-411	2-57/64	7-1/2	2-1/2	2000	45.86
341-RSS	4353-414	2-7/8	8-9/32	2-1/2	2000	94.36
375-R	4353-751	4-3/16	9-5/8	3-1/2	4000	82.48
385-R	4353-854	1-3/8	8-3/4	2-3/16	7500	104.77

J-Hook Pull Action

Supplied with a release lever catch accessory which allows the clamp to lock in the closed position only. Large handle pad improves operability of the clamp.



Model 351-R

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
351-R	4353-511	3/4	9-7/64	4	375	\$29.70
371-R	4353-712	1-27/64	12-7/8	5-3/8	750	57.14

Plunger Style

Patented design locks the release lever into the forged steel base to prevent accidental opening. Clamps lock in both the extended and retracted positions while the release lever secures the clamp in the extended position only.



Model 603-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*) OF PLUNGER	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
603-R	4356-032	3-27-64	31/32	4-11/16	1-1/2	600	\$44.95
630-R	4356-301	3-1/16	13/16	7-1/32	2	2500	89.73

Heavy Duty Vertical Hold Down Clamps

Features: High strength forged alloy steel clamping arm, Hardened steel pivot pins and bushings for long life, Large clearance under clamping bar, Black oxide finish.

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5105-R	4397-935	6.54	2.54	4.13	700	\$53.45
5110-R	4397-939	8.7	3.37	6.33	1150	62.65



Model 5110-R

Heavy Duty Horizontal Hold Down Clamps

Features: High strength forged alloy steel clamping arm, Hardened steel pivot pins and bushings for long life, Black oxide finish.



Model 5310-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
5305-R	4397-975	1.51	1.12	8.36	600	\$66.65
5310-R	4397-979	2.00	1.31	11.02	1300	97.26

Vertical Hold Down Clamps

Features: Longer handle with greater hand clearance, Longer clamp arm, Spindle contacts workpiece vertically, Bolts up to legacy model 202

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
2002-UR	4351-902	4.72	0.95	3.29	600	\$27.45
2007-UR	4351-905	7.17	1.25	4.82	1000	40.04
2010-UR	4351-908	9.08	1.7	6.09	1400	54.70



Model 2002-UR

Horizontal Hold Down Clamps

Features: Longer handle with greater hand clearance, Longer clamp arm, Spindle contacts workpiece vertically



Model 2017-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
2013-UR	4351-926	1.3	0.75	5.87	295	\$25.77
2017-UR	4351-927	1.95	0.98	8.65	560	33.26
2027-UR	4351-928	2.25	1.32	9.88	840	36.74

Heavy Duty Straight Line Action Clamps

Features: Hardened plungers, Reverse acting (handle rotates backward as plunger advances) for a low profile, keeps handle out of the work zone, Hardened steel pivot pins and bushings for long life, Black oxide finish

* Square plunger

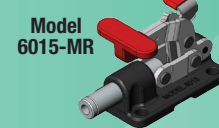
MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OVERALL LENGTH	HOLDING DRAWING MOV*MT	CAPACITY LBS.	PRICE EACH
5130-MR	4397-947	3.63	1.38	11.11	1.9	5800	\$84.05
5131-MR	4397-955	3.15	1.1	7.37	1.1	2500	69.74
5133-MR	4397-963	4.22	1.38	12.89	3.18	4600	103.70
5150-MR*	4397-971	3.63	1.38	11.25	1.91	5800	105.91



Model 5130-MR

Straight Line Action Clamps

Features: Smallest machined cast base plunger clamp
• Compact design combined with high holding capacity
• Allow handle to fall below mounting plane to lock in retracted position



Model 6015-MR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OVERALL LENGTH	HOLDING DRAWING MOV/MT	CAPACITY LBS.	PRICE EACH
6015-R	4356-114	1-19/32	1/2	2-61/64	45/64	560	\$41.00
6015-MR	4356-014	1-39/64	1/2	2-61/64	45/64	560	\$42.60

Clamps



Model Identification Code:
 S Solid Holding Bar (bolt retainer furnished)
 SS Stainless Steel
 U Shaped Holding Bar
 *Measured to (C) of mounting holes on straight base models.

2 SS = 7

Straight-Line Action Clamps

Straight-Line Toggle Clamps

Smallest of the straight-line clamps, ideal for electronic applications and similar small fixturing. Model 601 has an 8-32 nylon spindle.

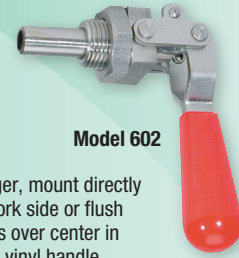
MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (C) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
601	4356-010	1-3/16	1/2	2-5/8	5/8	150	\$11.91
601-O	4356-016	1-3/16	1/2	2-55/64	5/8	100	13.26
601-SS	4356-019	1-3/16	1/2	2-5/8	5/8	100	25.80
6001	4356-003	1-17/64	1/2	2-5/8	5/8	150	18.81
6001-SS*	4356-005	1-17/64	1/2	2-5/8	5/8	150	35.53



Model 601

Fully Retractable Plunger Clamps

These models have fully retractable plunger, mount directly through a member by a jam nut on the work side or flush by drilling and tapping the member. Locks over center in either extended or retracted position. Red vinyl handle.



Model 602

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
602	4356-020	3-9/64	2-7/16	3/4	200	\$16.83
602-SS	4356-029	3-9/64	2-7/16	3/4	200	56.33
604	4356-040	4-5/32	4-25/32	1-1/2	300	18.79
604-SS	4356-049	4-5/32	4-25/32	1-1/2	400	50.40
624	4356-240	5-5/8	6-11/16	2-5/8	700	40.54
624-SS	4356-249	5-5/8	6-11/16	2-5/8	700	105.33

Compact Straight-Line Action Clamps

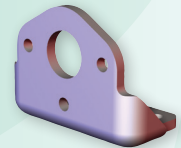
MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
6015	4356-115	0.5	2.96	0.7	560	\$30.89
6015-SS	4356-113	0.5	2.96	0.7	630	53.96
6015-M	4356-015	1/2	2-61/64	45/64	560	30.89
6015-MSS	4356-013	1/2	2-61/64	45/64	630	49.05



Model 6015

Fully Retractable Plunger Clamp Mounting Brackets

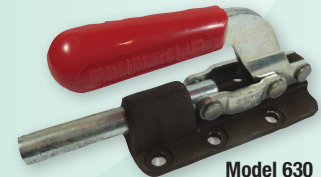
MODEL NO.	ORDER NO.	USE WITH CLAMP	HT. TO (C) OF PLUNGER	PRICE EACH
604106	4356-041	604	1/2	\$10.67
624106-M	4356-244	624	53/64	11.94



1 604106 Mounting Plate for 604
5

Low Profile Plunger Clamps

Compact models feature De-Sta-Co balanced construction for durability and rigid holding ability. Red vinyl grip. Clamps lock in both the extended and retracted position.



Model 630

Heavy Duty Straight Line Action Clamps

Features: Hardened plungers, Reverse acting (handle rotates backward as plunger advances) for a low profile, keeps handle out of the work zone, Hardened steel pivot pins and bushings for long life, Black oxide finish.

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5130	4397-940	1.38	11.11	1.9	5800	\$49.48
5130-B	4397-941	1.14	11.11	1.9	5800	48.44
5131	4397-948	1.1	7.37	1.1	2500	37.64
5131-B	4397-949	0.87	7.37	1.1	2500	35.20
5133	4397-956	1.38	12.89	3.18	4600	55.97
5133-B	4397-957	1.14	12.89	3.18	4600	52.97



Model 5130

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (C) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
607	4356-070	3-19/32	11/16	6-1/64	1-5/8	800	\$35.23
610	4356-100	4-3/8	1-45/64	6-23/32	1-5/8	800	32.36
630	4356-300	3-3/32	13/16	7-1/32	2	2500	43.09
640	4356-400	4-3/8	1-1/4	12-21/32	4	7500	118.80

Heavy Duty Straight Line Action Clamps - Square Plunger

Features: Smallest machined cast base plunger clamp
 • Compact design combined with high holding capacity
 • Allow handle to fall below mounting plane to lock in retracted position

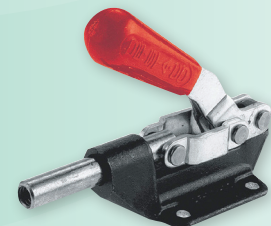
MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5150	4397-964	3.63	1.38	11.25	1.91	5800	\$62.88
5150-B	4397-965	3.4	1.14	11.25	1.91	5800	61.18



Model 5150

Push-Pull Plunger Clamps

These units have a large holding capacity for their size, and are well suited for use in confined areas. Equipped with red ergonomic grips. Locks in either extended or retracted position.

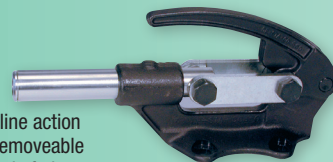


Model 603

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HUT. BASE TO (C) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
603	4356-030	3-9/32	31/32	4-23/32	1-1/4	600	\$22.41
603-SS	4356-039	3-9/32	31/32	4-23/32	1-1/4	840	52.02
605	4356-050	3-5/32	31/32	5-7/16	1-1/4	300	18.05
608	4356-080	4-3/64	1-1/4	6-1/8	1-5/8	850	40.48
609	4356-090	3-1/4	31/32	5-7/16	1-1/4	300	20.85

Large Capacity Clamps

Model has the largest capacity of the straight-line action clamps. Forged alloy steel base and handle. Removeable ring pivot pin construction permits easy removal of plunger after mounting. Locks over center in both extended and retracted position.



Model 650

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (C) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
650	4356-500	4-7/8	2-1/4	11-1/4	3	16000	\$140.60

Hold Down Clamps



Vertical Handle Hold-Down Clamps

Model 2002-S



These clamps deliver two to three times the holding capacity of our legacy models in the same envelope. Now you can save valuable space in all your applications without sacrificing holding capacity or clamp performance. The open "U" bar has a knob on the end to prevent the spindle from slipping off the end of the arm. Unique design delivers greater hand clearance in the open position eliminating pinch points and improving safety and ergonomics. Clamp comes complete with ergonomic handle grip, two flanged washers and spindle assembly ("U" bar models only). All "S" bar models supplied with bolt retainer. To order without a spindle, include a -LS suffix.

MODEL NO.	ORDER NO.	OVERALL HEIGHT (IN.)	HEIGHT UNDER BAR (IN.)	OVERALL LENGTH (IN.)	HOLDING CAPACITY LBS.	PRICE EACH
2002-S	4352-003	4.73	0.95	3.29	600	\$17.13
2002-U	4352-002	4.73	0.95	3.29	600	16.34
2002-UB	4352-004	5.07	1.27	3.29	600	18.20
2007-U	4352-007	7.21	1.25	4.82	1000	21.28
2007-UB*	4352-006	7.64	1.68	4.82	1000	22.88
2010-U	4352-001	9.00	1.70	6.09	1400	31.77

*Code = 7

Hold-Down Action Clamps Vertical Hold-Down Clamps

All models have a red vinyl handle grip. Many options are available in most model sizes including straight or flanged bases, solid or U-bars, extra length bars and stainless steel. Bolt retainer is furnished with solid bar models, flanged washers with U-bar models. Model 2002-U207 is mounting pattern interchangeable with Model 207-U.

Model 207-U



MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
201-U	4352-010	3-1/32	5/8	2-1/64	100	\$11.59
201-USS	4352-019	3-1/32	5/8	2-1/64	125	23.25
202	4352-020	4-7/32	15/16	2-5/16	200	12.16
202-SS	4352-029	4-7/32	15/16	2-5/16	250	29.28
202-U	4352-026	4-7/32	15/16	2-47/64	200	12.16
202-UL	4352-120	4-7/32	15/16	3-17/64	200	14.08
202-USS	4352-039	4-7/32	15/16	2-47/64	250	29.28
207-L	4352-084	6-57/64	1-1/4	5-1/64	500	18.52
207-S	4352-080	6-57/64	1-1/4	3-3/4	500	16.28
207-U	4352-070	6-57/64	1-1/4	3-11/16	375	15.89
2002-U207	4352-202	5.01	1-1/4	3.29	600	16.34
207-UL	4352-074	6-57/64	1/14	5-13/32	375	16.55
207-USS	4352-079	5-5/8	1-1/4	4-3/8	450	37.71
210-S	4352-101	8	1-43/64	5-17/32	750	26.58
210-U	4352-100	8	1-43/64	5-17/32	600	23.77
210-USS	4352-109	8	1-43/64	5-17/32	750	52.38
247-S	4352-471	8-11/16	2	6-7/8	1000	40.43
247-U	4352-470	8-11/16	2	6-7/8	1000	34.86
267-U	4352-670	11-7/8	3-5/64	8-59/64	1200	56.25

Heavy Duty Vertical Handle Hold-Down Clamps

- High strength forged alloy steel clamping arm
- Hardened steel pivot pins and bushings for long life
- Black oxide finish

Model 5110



MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	CAPACITY LBS.	PRICE EACH
5905	4397-980	6.75	1.51	4.02	750	\$45.22
5905-B	4397-981	6.24	1.27	4.02	750	39.77
5910	4397-982	9.27	1.99	6.02	1600	56.63
5910-B	4397-983	8.72	1.75	6.02	1600	55.13
5915	4397-984	11.25	2.72	7.5	2750	88.73
LARGE CLEARANCE UNDER CLAMPING BAR						
5105	4397-932	6.54	2.54	4.13	700	\$32.60
5105-B	4397-933	6.14	2.14	4.13	700	33.32
5110	4397-936	8.7	3.37	6.33	1150	43.30

Horizontal Handle Hold-Down Clamps



Model 2013-U

- 60% more holding capacity than legacy product
- Robust Design
- Low arm deflection under load (greater stiffness)
- Long Handle, increased operator comfort
- DE-STA-CO locks handle in open and closed positions
- Available standard or as an add-on kit
- Large Hand Clearance eliminates "knuckle busters"
- Adjustable Pre-load eliminates arm play for locating applications
- Low Pivot Point Provides perpendicular clamping force
- Bushings at key pivot points provides long life and smooth operation
- Fixed Handle Pivot eliminates sticking points, provides smooth action

MODEL NO.	ORDER NO.	OVERALL HEIGHT (IN.)	HEIGHT UNDER BAR (IN.)	OVERALL LENGTH (IN.)	HOLDING CAPACITY LBS.	PRICE EACH
2013-U	4351-918	1.27	0.75	5.88	295	\$15.48
2017-U	4351-919	1.95	0.98	8.62	560	19.61
2027-U	4351-920	2.20	1.32	9.88	840	21.48

Horizontal Hold-Down Clamps

Low silhouette series requires minimum overhead clearance. Spindle, jam nuts, and flanged washers or bolt retainer are included. Bar opens 90° to completely clear work area. Perfect as OEM component on pressure vessels and in assembly jigs.



200 Series Straight Handle

300 Series T-Handle

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
205-S	4352-060	43/64	3/8	2-25/32	60	\$8.96
205-SSS	4352-069	43/64	3/8	2-25/32	75	17.63
205-U	4352-050	43/64	5/16	2-21/32	60	8.96
205-USS	4352-059	43/64	5/16	2-21/32	75	17.27
206-HSS	4352-037	1-1/16	3/4	2-3/4	100	26.37
206-SS	4352-067	1-1/16	13/32	2-3/4	100	26.37
213-U	4352-130	1-25/64	23/32	4-1/8	150	11.75
213-USS	4352-139	1-25/64	23/32	4-1/8	150	23.88
215-U	4352-150	1-17/32	1	5-1/2	200	12.11
215-USS	4352-159	1-17/32	1	5-1/2	250	24.45
217-U	4352-170	1-61/64	31/32	6-9/16	200	15.60
217-USS	4352-179	1-61/64	31/32	6-9/16	250	28.87
225-U	4352-250	1-27/32	1-21/64	6-45/64	500	13.82
225-USS	4352-259	1-27/32	1-21/64	6-45/64	600	33.87
227-U	4352-270	2-7/16	1-19/64	7-9/16	500	17.20
227-USS	4352-279	2-7/16	1-19/64	7-9/16	600	38.59
235-U	4352-350	2-35/64	1-3/4	10-7/8	750	23.93
235-USS	4352-359	2-35/64	1-3/4	10-7/8	850	58.47
237-U	4352-370	3-13/64	1-5/8	10-43/64	750	29.02
245-U	4352-450	4-1/4	2-1/4	12-21/64	1000	46.48
305-U	4353-050	1-3/8	1/2	2-7/32	150	11.44
305-USS	4353-059	1-3/8	1/2	2-7/32	200	22.79
307-U	4353-070	2-13/32	7/8	3-39/64	350	17.55
307-USS	4353-079	2-13/32	7/8	3-39/64	350	36.82
309-U*	4353-090	3-35/64	1-19/64	5-3/16	750	29.13

*Model 309-U = 7

Heavy Duty Horizontal Handle Hold-Down Clamps

Model 5310



MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	CAPACITY LBS.	PRICE EACH
5305	4397-972	1.51	1.12	8.36	600	\$42.98
5305-B	4397-973	1.2	0.81	8.36	600	39.35
5310	4397-976	2.00	1.31	11.02	1300	63.98
5310-B	4397-977	1.69	1	11.02	1300	58.23

Low Silhouette - Drop Handle Clamp

Combined low silhouette and mounting flexibility provide easy operation for part loading and unloading. Available in U-bar and solid bar models.



Model 317-S

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
317-U	4353-170	5-5/8	2-43/64	6-13/16	375	\$25.15
317-S	4353-171	5-5/8	2-43/64	6-13/16	375	23.93

Pull Action Clamps



Model Identification Code:
S Solid Holding Bar (bolt retainer furnished)
SS Stainless Steel
U Shaped Holding Bar
 *Measured to (C) of mounting holes on straight base models.

2 SS = 7

Latch Type Clamp

Latch-type pull action clamps are convenient to operate. One hand engages or disengages the latch bar while the other moves the handle. Red vinyl grip for comfortable handling.

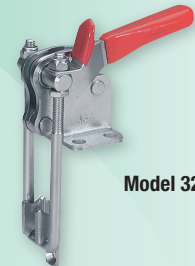


Model 301

MODEL NO.	ORDER NO.	HEIGHT TO (C)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
301	4353-010	1-5/8	8-13/32	4	375	\$21.69
311	4353-110	2-1/16	9-33/64	3-3/8	1200	28.70

Vertical Latch Type

Ideal for lid closure applications where it is better to mount the latch on the lid or door and the latch plate on the vessel or container. Height is measured from base to top of handle.



Model 324

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
324	4353-240	2-63/64	3-23/64	1-17/32	500	\$19.85
324-SS	4353-249	2-63/64	3-23/64	1-17/32	500	37.14
334	4353-340	3-55/64	4-1/4	2	1000	24.61
334-SS	4353-349	3-55/64	4-1/4	2	1000	43.74
344	4353-440	5-19/64	5-23/64	2-1/2	2000	37.25
344-SS	4353-449	5-19/64	5-23/64	2-1/2	2000	73.96

J-Hook Pull-Action Clamps

Pull actions are excellent for many types of latching operations. When base is welded or bolted in place units can be used for latching pressure vessels, clean out doors, etc. J-hook is threaded for easy adjustment. Ergonomic grip.



Model 330

MODEL NO.	ORDER NO.	HEIGHT TO (C)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
330	4353-300	9/16	5-41/64	2-5/16	200	\$15.81
330-SS	4353-309	4-7/32	15/16	2-47/64	200	28.35
351	4353-510	3/4	8-9/16	4	375	13.10
351-B	4353-515	55/64	8-9/16	4	375	15.13
351-SS	4353-519	3/4	8-9/16	4	450	28.87
371	4353-710	750	11.89	5.38	750	32.16
371-SS	4353-719	750	11.89	5.38	750	74.17
3814353-810	101-27/64	12	5-3/8	750	37.30	

Horizontal Pull-Action Clamps

These units combine maximum holding capacity with easy operation and simple adjustment. All use threaded U-bolts for adjustment. An optional forged latch plate is available on some models for applications such as holding two piece molds.



Model 331-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
323	4353-230	1-1/8	4	1-3/16	360	\$12.89
323-SS	4353-239	1-1/8	4	1-3/16	360	28.55
331	4353-310	1-31/32	4	2	700	17.13
331-SS	4353-319	1-31/32	5-5/8	2	700	34.23
341	4353-410	2-3/4	7-1/2	2-1/2	2000	27.38
341-SS	4353-419	2-3/4	7-1/2	2-1/2	2000	61.74
375†	4353-750	4-3/16	10-3/4	3-1/2	4000	61.55
385†	4353-850	3-3/4	8-5/8	2-3/16	7500	80.27
385-L	4353-851	1-27/32	10-1/4	2-3/16	7500	96.83

† Latch plate not included

Pull-Action Latch Clamps 5

Controlled Latch Clamps



Model 3051-R

Innovative controlled motion allows for single handed operation. Once locked over-center, the included J-hook is completely restrained in all directions. Upon opening the hook travels forward 3/4" and then pivots out of the way.

FEATURES:

- Safe, single handed operation
- Innovative controlled motion
- Secure toggle-locking action
- Simple set-up and adjustment
- Clamp hook/arm moves and stays safely out of the way

APPLICATIONS:

- Molding
- Closures for doors, lids, covers
- Assembly
- Checking fixtures

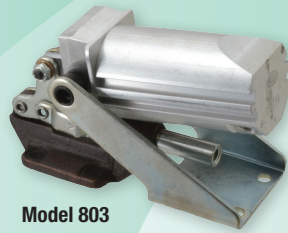
MODEL NO.	ORDER NO.	HEIGHT TO (C)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
3051	4353-052	0.69	8.98	0.75	1500	\$35.42
3051-R	4353-063					51.15

MODEL NO.	MAX. HOLDING CAPACITY	WEIGHT	EF:AF	DRAWING MOVEMENT	REPLACEMENT HOOK ASSEMBLY
3051	1500lbf	1.0lb	12:1	0.75	3051208
3051-R					

Pneumatic Power Clamps

Powered Straight-Line Action

Air or hydraulic powered straight-line action clamps provide an economical holding device suited to a wide variety of uses.



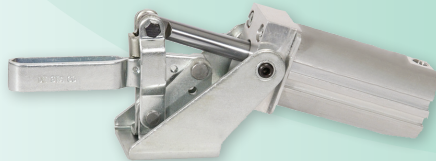
Model 803

7

MODEL NO.	ORDER NO.	OVERALL LENGTH	OVERALL HEIGHT	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
803	4358-030	2-23/32	9-53/64	3/4	600	\$172.17
830	4358-300	3-17/64	14-5/64	1-1/4	2500	286.08
850	4358-500	7-11/64	21-11/64	2	16000	520.91

Powered Hold-Down Action

DE-STA-CO over center toggle action linkage combined with pneumatic cylinder provides an economical holding device, easily adapted to a wide variety of applications. Units are completely assembled and ready to operate.



Model 807-U

7

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
812-U*	4358-120	1-9/16	11/16	5-39/64	150	\$108.23
802-U	4358-020	2-11/32	1-1/16	7-25/64	200	117.00
807-S	4358-071	3	1-3/8	9-31/32	500	129.56
807-U	4358-070	3	1-3/8	9-7/32	375	129.56
810-S	4358-101	3-51/64	1-51/64	12-1/8	750	218.44
810-U	4358-100	3-51/64	1-51/64	12-9/32	600	211.01
817-S	4358-171	7-27/64	2-11/16	6-3/4	450	155.72
817-U	4358-170	7-27/64	2-11/16	6-3/16	350	155.72
827-S	4358-271	9-21/32	3-7/8	8-41/64	700	258.91
827-U	4358-270	9-21/32	3-7/8	8-3/4	600	258.91
847-S	4358-471	4-11/32	2-1/4	16	1000	381.00
847-U	4358-470	4-11/32	2-1/4	16	800	381.00
858	4358-580	7-1/8	3-27/32	18-3/32	4000	486.80
868	4358-680	14-21/64	4-3/16	10-7/64	4000	565.24

*Model 812-U= 6

Swing Clamps - 9500 Series

The 9500 Series Swing Clamps have been redesigned with flexible mounting options and an additional size with a larger bore.

- Ideal for tight spaces with an arm motion that rotates at the top of the stroke.
- Includes a rod weld cover to protect the rod throughout the entire stroke
- 9500 Swing Clamps can be mounted on any face with optional mounting kit (sold separately)
- Swing arms also sold separately



Model 9522-2L 6

MODEL NO.	ORDER NO.	CLAMPING STROKE	OVERALL HEIGHT	BASE WIDTH	CLAMPING FORCE AT 87PSI	SWING	PRICE EACH
9522-2L	4395-220	0.50	5.22	1.42	34lb.	LH	\$273.36
9522-2R	4395-221	0.50	5.22	1.42	34lb.	RH	273.36
9530-2L	4395-300	0.50	6.54	1.81	76lb.	LH	306.00
9530-2R	4395-302	0.50	6.54	1.81	76lb.	RH	306.00
9540-2L	4395-400	0.79	6.73	2.05	123lb.	LH	331.50
9540-2R	4395-402	0.79	6.73	2.05	123lb.	RH	331.50
9550-2L	4395-500	0.79	7.85	2.52	196lb.	LH	420.75
9550-2R	4395-502	0.79	7.85	2.52	196lb.	RH	420.75



Heavy-Duty Power Roller

These air operated power clamps use a roller and cam principle to clamp work of inconsistent thickness and still maintain a locked condition.

Model 871-2
(Clamp shown in closed position)



14

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL WIDTH	ARM POSITION: WHEN CLOSED	HOLDING CAPACITY LBS.	PRICE EACH
870-2	4358-700	11-13/32	2-1/8	180	2000	\$510.68
871-2	4358-710	11-3/4	2-1/8	90	2000	510.68

Swing Clamps

These versatile pneumatic clamps provide a quick swing-and-clamp movement while exerting just the force your operation requires, without deforming delicate parts.

All pneumatic swing clamps are equipped with sensing capabilities as a standard feature. Multiple mounting options allow the clamp to be adapted to the fixture for the best use of space and to minimize installation time.



Model 8015 Model 8115 6

MODEL NO.	ORDER NO.	BODY STYLE	OVERALL HEIGHT	BASE WIDTH	SWING	CLAMPING FORCE @ 80 PSI	PRICE EACH
8015	4358-015	Threaded Body	4-7/8	1 1/8-16	RH	22	\$290.92
8016	4358-016	Threaded Body	4-7/8	1 1/8-16	LH	22	290.92
8115	4358-115	Block Style	4-7/8	1-1/4	RH	22	277.87
8116	4358-116	Block Style	4-7/8	1-1/4	LH	22	277.87
8215	4358-215	Threaded Body	6-23/64	2 1/4-12	RH	80	384.94
8216	4358-216	Threaded Body	6-23/64	2 1/4-12	LH	80	384.94
8315	4358-315	Block Style	6-23/64	3	RH	80	374.39
8316	4358-316	Block Style	6-23/64	3	LH	80	374.39
8415	4358-415	Threaded Body	6-9/64	1 3/4-12	RH	62	353.64
8416	4358-416	Threaded Body	6-9/64	1 3/4-12	LH	62	353.64

Miniature

- Compact Design
- Long life cycle
- High holding torques
- Low weight (aluminum body)
- Two mounting areas (front, rear)
- Toggle action mechanism
- Models can be fitted with magnetic end sensors

Model 81L20-10100



14

MODEL NO.	ORDER NO.	HEIGHT (mm)	WIDTH (mm)	PISTON DIA. (mm)	HLDG. TQ. MAX. [in-lbf.]	PRICE EACH
81L12-10100	4358-130	104	28	12	220	\$384.08
81L16-10100	4358-132	119	30	16	528	417.19
81L20-10100	4358-134	151	35	20	885	485.61
81L25-10100	4358-136	151	35	25	885	485.61

Swing Clamps - 89R Series

Model 89R32-010-2

These robust swing clamps feature field changeable swing direction for easy ordering and flexible configuration. Sensor ready for round or T-slot style sensors. Clamp arm sold separately.

6



MODEL NO.	ORDER NO.	VERTICAL CLAMPING STROKE	OVERALL HEIGHT	BASE WIDTH	CLAMPING FORCE AT 87PSI	SWING	PRICE EACH
89R20-010-2	4358-947	0.39	4.93	1.26	22lb.	LH	\$257.26
89R32-010-2	4358-948	0.39	5.85	1.77	67lb.	RH	285.86
89R40-010-2	4358-949	0.39	6.49	2.15	103lb.	LH	319.78
89R40-025-2	4358-951	0.98	7.67	2.15	103lb.	RH	333.78
89R50-025-2	4358-950	0.98	8.94	2.56	167lb.	LH	386.61
89R63-025-2	4358-963	0.98	9.63	3.15	263lb.	RH	454.75

Pneumatic Lever Clamps - 8700 Series

- Alternative clamping solution to swing clamps when space is limited
- Lever arm can be positioned left, forward, or right within the same clamp body
- Consistent clamping force over a range of part thickness
- Up to 25% more clamping force than comparably sized swing clamps
- Convenient mounting using the upper flange or through a clearance hole using optional jam nuts



6

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	CAPACITY LBS.	PRICE EACH
8725	4387-250	5.67	15-25	1.97	43	\$263.16
8732	4387-320	6.65	16-30	2.36	64	273.36
8740	4387-400	6.93	19-29	2.35	106	283.56
8750	4387-500	7.87	22-33	2.95	167	303.96

Accessories

1

Polyurethane Caps—Flat Tipped



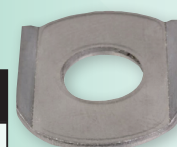
MODEL NO.	FOR SPINDLE DIAMETER	ORDER NO.	PRICE EACH
215219	1/4-20	4359-110	\$1.67
225219	5/16-18	4359-111	1.67
235219	3/8-16	4359-112	1.99

Neoprene Caps For Hex Head Spindles



MODEL NO.	FOR SPINDLE DIAMETER	ORDER NO.	PRICE EACH
215119	1/4	4359-102	\$0.66
225119	5/16	4359-103	0.71
235119	3/8	4359-105	0.84

Flanged Washers



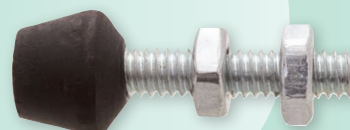
MODEL NO.	SIZE	ORDER NO.	PRICE EACH
102111	For No. 10 Spindle	4359-121	\$0.39
105106	For No. 8 Spindle	4359-122	0.32
215105	For 1/4 Spindle	4359-123	0.39
235106	For 3/8 Spindle	4359-124	0.58
247109	For 1/2 Spindle	4359-126	1.02
267102	For 5/8 Spindle	4359-127	2.48
507107	For 5/16 Spindle	4359-125	0.46

Hex Head Spindle Assembly w/Locknuts



MODEL NO.	SIZE	ORDER NO.	PRICE EACH
105203	8-32 x 27/32 (Nylon)	4359-301	\$1.33
202203	1/4-20 x 3-1/8	4359-303	1.67
205203	1/4-20 x 1-7/8	4359-302	1.53
207203	5/16-18 x 2-3/4	4359-304	1.50
210203	3/8-16 x 3	4359-305	1.60
220203	1/2-13 x 3-5/16	4359-306	2.75
240203	3/8-16 x 4-1/4	4359-307	3.08
250203	5/8-11 x 4-3/8	4359-308	4.94
305203	10-32 x 1-3/32	4359-313	1.33
325203	1/2-13 x 2-3/4	4359-317	2.74
441203	5/16-18 x 1-15/16	4359-312	1.96
461203	5/16-18 x 1-3/16	4359-314	1.74
491203	3/8-16 x 1-11/16	4359-315	2.02

Bolt Assembly with Bonded Cap & Locknuts



MODEL NO.	ORDER NO.	SIZE	LENGTH	PRICE EACH
201208	4359-816	10-32	1-3/8	\$ 1.87
201208-M	4359-824	M4 X 0.7	1-17/64	1.94
202208	4359-803	1/4-20	1-5/8	2.17
202208-M	4359-825	M6 X 1.0	1-47/64	2.39
205208-M	4359-836	M4 X 0.7	7/8	2.33
215208	4359-805	1/4-20	2-1/8	2.57
215208-M	4359-827	M6 X 1.0	2-1/8	2.67
225208	4359-807	5/16-18	2-3/16	2.57
225208-M	4359-828	M8 X 1.25	2-3/32	2.67
507208	4359-812	5/16-18	3"	2.62

MODEL NO.	ORDER NO.	SIZE	LENGTH	PRICE EACH
507208-M	4359-831	M8 X 1.25	3-17/64	\$2.78
240208	4359-809	3/8-16	3-1/4	3.39
240208-M	4359-830	M10 X 1.50	3-7/64	3.69
527208	4359-815	3/8-16	3-1/2	3.81
235208	4359-808	3/8-16	5-3/4	4.67
247208	4359-820	1/2-13	4"	5.22
247208-M	4359-835	M12 X 1.75	3-53/64	7.21
267208	4359-821	5/8-11	5"	6.74
307208-M	4359-839	M8 X 1.25	1-9/64	2.55
305208-M	4359-838	M5 X 0.8	1-11/16	2.21

Swing Clamp Arms



MODEL NO.	ORDER NO.	USE WITH CLAMP	OVERALL LENGTH	SPINDLE SIZE	PRICE EACH
9522150	4395-222	9522-2	1.77	M6	\$29.46
9522153	4395-223	9522-2	2.56	M6	37.59
9540150	4395-404	9530-2/9540-2	1.97	M8	31.98
9540153	4395-405	9530-2/9540-2	3.15	M8	41.51
9550150	4395-504	9550-2	2.56	M10	33.10
9550153	4395-505	9550-2	3.54	M10	42.64
8JG-215-1	4358-870	89R20	2.64	M6	42.34
8JG-217-1	4358-871	89R32	3.15	M8	46.84
8JG-218-1	4358-872	89R40	3.74	M8	50.28
8JG-219-1	4358-873	89R50	4.17	M8	63.47
8JG-220-1	4358-874	89R63	4.72	M10	65.85

Sensors

These sensors are used along with pneumatic clamps to sense position of the cylinder piston.

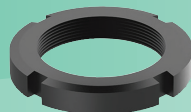


MODEL NO.	ORDER NO.	MOUNT STYLE	CONNECTOR	FUNCTION	PRICE EACH
810169	4358-188	Round	M8 Male	Reed	\$58.33
810173	4358-192	Round	M8 Male	PNP	59.46
810174	4358-193	Round	M8 Male	NPN	58.91
8EA-109-1	4358-195	T-Slot	M8 Male	Reed	93.28
810170	4358-189	T-Slot	M8 Male	Reed	78.11
810171	4358-190	T-Slot	M8 Male	Reed	85.92
810151	4358-510	Tie Rod	None, 9ft. cord	Reed	113.87
810153	4358-104	Tie Rod	None, 9ft. cord	Reed	186.43
810155	4358-155	Tie Rod	None, 9ft. cord	Reed	126.27
810157	4358-157	Tie Rod	None, 9ft. cord	Reed	138.90
810156	4358-156	Bnd. Clp.	None, 9ft. cord	Reed	113.87
810158	4358-158	Bnd. Clp.	None, 9ft. cord	Reed	126.27

Jam Nuts

6

MODEL NO.	ORDER NO.	THREAD SIZE	USE WITH CLAMP	PRICE EACH
872550	4387-255	M40X1.50	8725	\$10.40
873250	4387-325	M50X1.50	8732/8732G	11.22
874050	4387-405	M55X1.50	8740/8740G	14.69
875050	4387-505	M65X1.50	8750/8750G	17.14



Extension Cables

14

MODEL NO.	ORDER NO.	CONNECTOR	PRICE EACH
CABL-010	4359-202	M8	\$31.21
CABL-013	4359-203	M8	33.41

Side Flange Mounting Kits



6

MODEL NO.	ORDER NO.	WEIGHT	USE WITH CLAMP	PRICE EACH
952260	4395-224	0.14	9522-2	\$26.03
953060	4395-304	0.25	9530-2	29.64
954060	4395-406	0.26	9540-2	29.64
955060	4395-506	0.51	9550-2	30.89

Tapped Hole Mounting Kits



6

MODEL NO.	ORDER NO.	WEIGHT (LBS.)	USE WITH CLAMP	PRICE EACH
952261	4395-225	0.09	9522-2	\$22.88
953061	4395-305	0.16	9530-2	25.17
954061	4395-407	0.16	9540-2	24.02
955061	4395-507	0.34	9550-2	27.46

Standard Mounting Kits



6

MODEL NO.	ORDER NO.	WEIGHT (LBS.)	BOLT SIZE	USE W/ CLAMP	PRICE EACH
952262	4395-226	0.15	M5 x 100	9522-2	\$9.67
953062	4395-306	0.26	M6 x 120	9530-2, 9540-2	7.85
955062	4395-508	0.59	M8 x 150	9550-2	9.30

Clamps



Carver Clamps ¹⁴

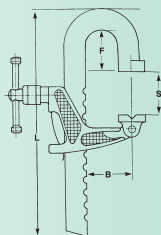
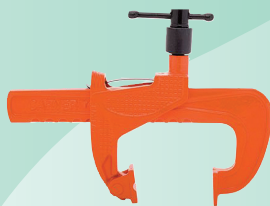
"C" Clamps

SPEED- Quick adjustment by sliding jaw and only a short turn of the tightening screw assembly.

POWER- Short, fine pitch thread for maximum grip. Only hand tightening is required.

VERSATILITY- Squeezes and spreads or locates by reversing jaws. Ideal for welding.

MODEL	ORDER NO.	OVERALL LENGTH	WIDTH OPENING	THROAT DEPTH	HOLDING CAPACITY LBS.	PRICE EACH
T186-6	4351-866	9-5/8	0 - 6"	2-3/8	2500	\$ 86.64
T186-12	4351-812	15-1/2	0 - 12"	2-3/8	2500	104.97
T321-10	4353-210	14-1/4	0 - 10"	4-3/4	1500	122.54
T290-9	4352-909	16-1/2	0 - 9"	3-1/2	4000	262.20



T-Slot Clamps

SAFETY- No loose parts. Clamps and bases are one unit.

EASE OF OPERATION- Loosen adjusting screw and release safety catch to adjust height instantly.

VERSATILITY- Selection of bases gives clamping height from 0" to 18".

A QUALITY TOOL BUILT TO LAST- The design applies 100% of the holding force onto the workpiece.

MODEL NO.	CLAMP RANGE	HOLDING CAPACITY	ORDER NO.	PRICE EACH
T400-4	1-4"	5,000	4354-004	\$274.65
T402-12	0-12"	8,000	4354-212	414.46
T402-18	6-18"	8,000	4354-218	465.50



Buttress Clamps

These work-holding clamps are designed for use on thin or low-profile workpieces instead of ordinary strap clamps. They feature a self-aligning pivot so that the bolt is always vertical and induces no slide forces.



MODEL NO.	HOLDING CAPACITY	WORKING HUT. RANGE	BOLT SIZE	ORDER NO.	PRICE EACH
T614-0	2,875	0 - 1-3/4"	1/2 (13) dia.	4356-140	\$ 79.45
T614-1	13,750	0 - 2-1/4"	3/4 (20) dia.	4356-141	153.85

NEW ITEM

Squeeze Action Clamps ²

Squeeze Action

Most models have De-Sta-Co trigger release for easy one hand operation. These clamps are ideal for a wide range of applications for clamping and fixturing, holding and processing, etc.



Model 325



Model 431



Model 441



Model 424



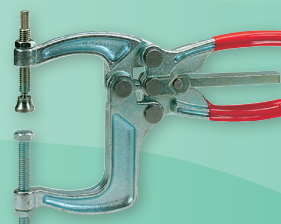
Model 462



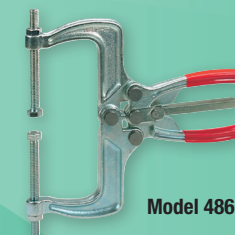
Model 463



Model 482



Model 484



Model 486

MODEL NO.	ORDER NO.	OVERALL LENGTH	WIDTH OPENING	THROAT DEPTH	HOLDING CAPACITY LBS.	PRICE EACH
325	4353-250	8-11/16	1-25/32	1-1/4	800	\$27.87
325-SS**	4353-259	8-11/16	1-25/32	1-1/4	800	72.61
424	4354-240	4-3/4	1	1-5/64	200	18.43
431*	4354-310	6-7/8	3/4	2-59/64	100	32.33
441	4354-410	6-1/16	1-1/4	1-49/64	350	24.33
462	4354-620	8-1/2	1-3/4	2-23/32	700	36.01
463	4354-630	8-1/2	3	2-23/32	700	41.31
482*	4354-820	9-3/16	1-45/64	2-9/16	1200	48.71
484*	4354-840	9-1/16	3-53/64	2-9/16	1200	50.66
486*	4354-860	9-7/32	6	2-9/16	1000	54.33

** SS = ⁷

* Code = ¹⁴

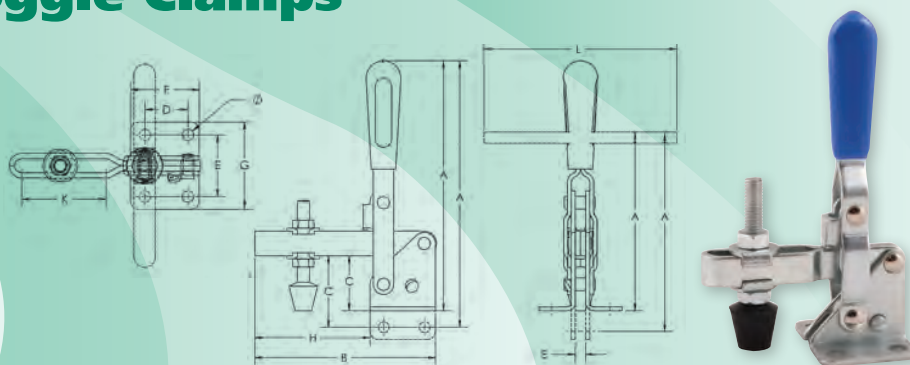
**New Models Added Daily
Call for any models not shown**

Vertical Handle Toggle Clamps

4 CLAMP-RITE

Models 11011CR-11012CR

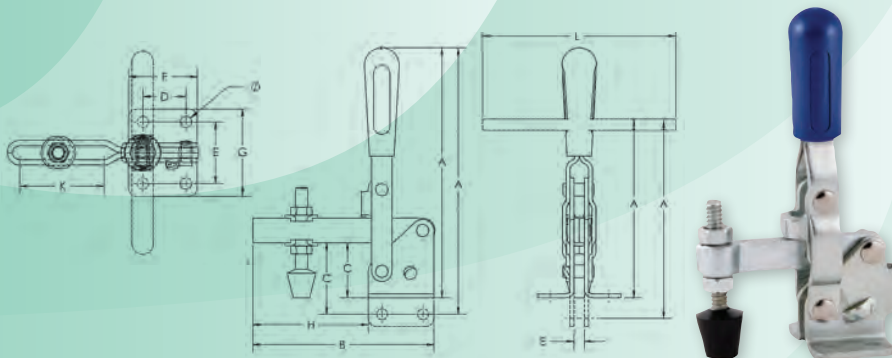
- Bar Opens: 100°
- Handle Opens: 56°
- Spindle Type: Bonded Neoprene
- Spindle Size: #10-24 x 1.38



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11011CR	201-U	4311-011	\$7.65	100	.13	Flanged	U-bar	Std.	3.38	2.07	0.73	0.63	0.95	1.00	1.32	1.06	0.17	0.77	-
11011CR-SS	201-USS	4311-011SS	15.65	100	.13	Flanged	U-bar	Std.	3.38	2.07	0.73	0.63	0.95	1.00	1.32	1.06	0.17	0.77	-
11012CR	201-UB	4311-012	8.23	100	.13	Straight	U-bar	Std.	3.65	2.04	1	0.63	0.14	1	-	1.03	0.17	0.82	-

Models 11020CR-11025CR

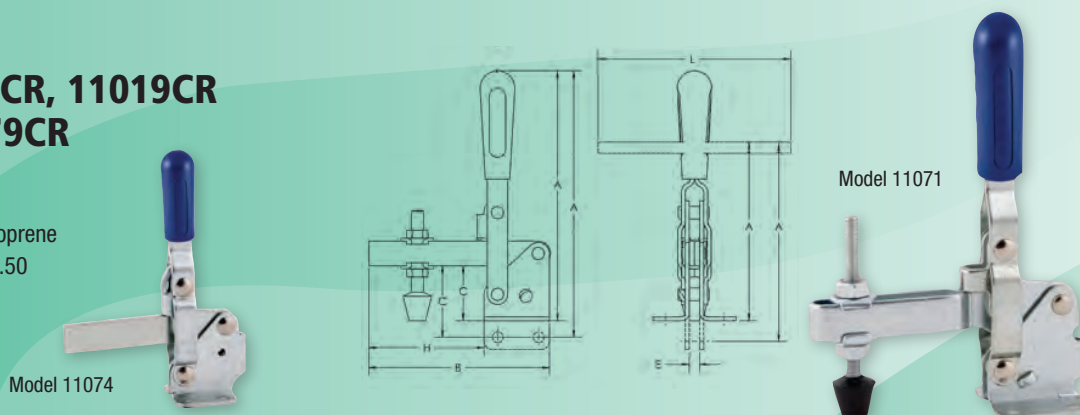
- Bar Opens: 100°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 1.75



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11020CR	202	4311-020	\$8.35	200	.37	Flanged	Solid	Std.	4.01	2.5	0.98	0.51	1	0.98	1.5	1.28	0.21	-	-
11021CR	202-U	4311-021	8.35	200	.37	Flanged	U-bar	Std.	4.01	2.68	0.95	0.52	1.03	0.98	1.5	1.68	0.2	1.08	-
11021CR-SS	202-USS	4311-021SS	19.71	200	.35	Flanged	U-bar	Std.	4.33	2.75	0.94	0.50	1.06	1	1.57	1.75	0.22	1	-
11022CR	202-UB	4311-022	9.06	200	.37	Straight	U-bar	Std.	4.27	2.68	1.18	0.51	0.26	0.98	-	1.68	0.2	1.08	-
11025CR	202-B	4311-025	9.06	200	.37	Straight	Solid	Std.	Std.	4.23	2.48	1.15	0.72	0.24	0.98	-	1.24	0.21	-

Models 11018CR, 11019CR 11071CR-11079CR

- Bar Opens: 100°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50



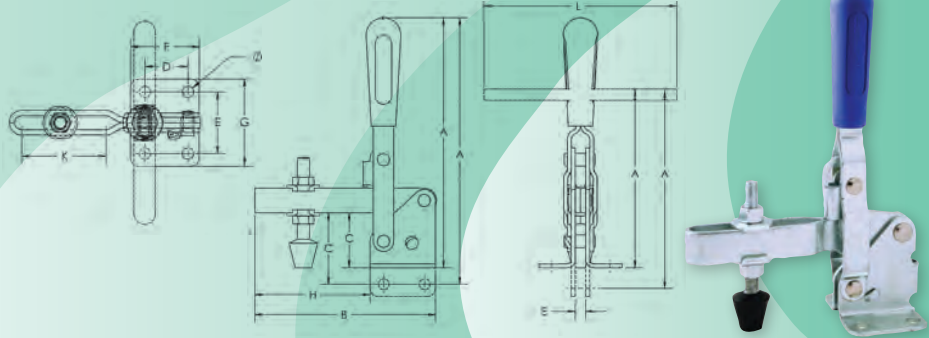
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11018CR	207-UL	4311-018	\$10.95	500	.82	Flanged	U-bar	Std.	5.6	5.43	1.25	0.78	1.25	1.38	1.77	3.75	0.27	2.79	-
11071CR	207-U	4311-071	10.75	200	.78	Flanged	U-bar	Std.	5.88	4.59	1.23	0.75	1.25	1.38	1.82	2.85	0.27	2.05	-
11071CR-SS	207-USS	4311-071SS	25.38	200	.78	Flanged	U-bar	Std.	5.88	4.59	1.23	0.75	1.25	1.38	1.82	2.85	0.27	2.05	-
11072CR	207-UB	4311-072	11.41	375	.78	Flanged	U-bar	Std.	5.93	4.61	1.57	0.75	0.24	1.38	-	2.86	0.28	2.03	-
11073CR	207-TU	4311-073	12.29	375	.82	Flanged	U-bar	Std.	4.1	4.6	1.23	0.75	1.25	1.38	1.77	2.86	0.27	2.1	3.86
11074CR	207-S	4311-074	10.75	375	.75	Flanged	U-bar	Std.	5.9	3.75	1.26	0.74	1.25	1.37	1.8	2.24	0.27	-	-

Vertical Handle Toggle Clamps

4 CLAMP-RITE

Models 11101CR-11107CR

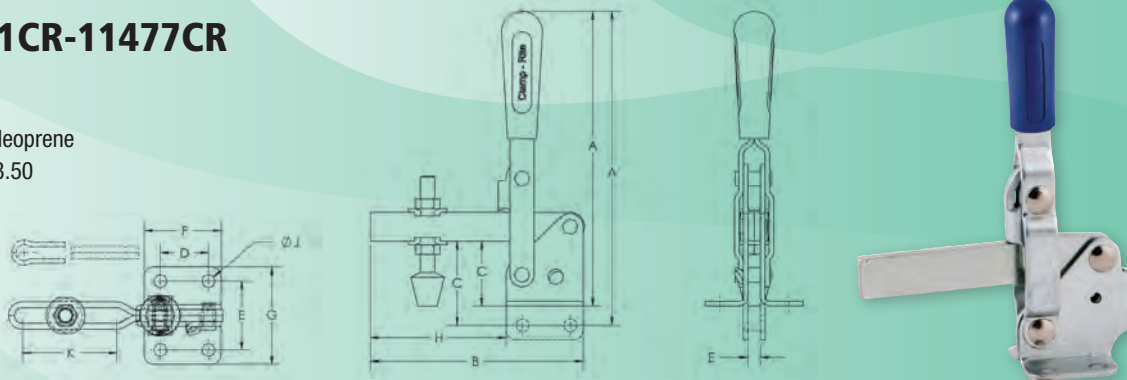
- Bar Opens: 105°
- Handle Opens: 58°
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11101CR	210-U	4311-101	\$15.65	600	1.4	Flanged	U-bar	Std.	7.96	5.65	1.66	1.25	1.8	1.94	2.55	3.56	0.31	2.31	-
11104CR	210-S	4311-104	16.10	750	1.5	Flanged	Solid	Std.	7.89	5.59	1.26	1.25	1.81	1.94	2.56	3.53	0.31	-	-
11107CR	210-SB	4311-107	17.45	750	1.5	Flanged	Solid	Std.	8.46	5.59	2.16	1.25	0.35	1.94	-	3.59	0.31	-	-

Models 11471CR-11477CR

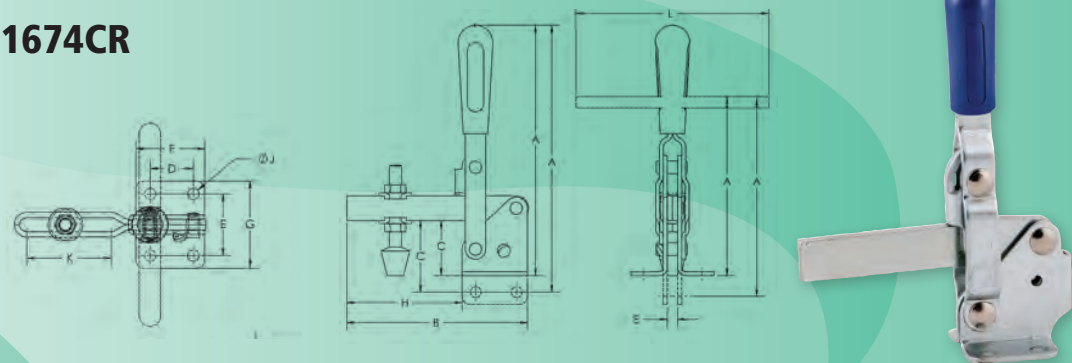
- Bar Opens: 135°
- Handle Opens: 70°
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11471CR	247-U	4311-471	\$23.50	1000	2.76	Flanged	U-bar	Std.	8.81	6.89	1.95	1.25	1.77	2	2.56	4.87	0.35	2.98	-
11474CR	247-S	4311-474	24.13	1000	2.76	Flanged	Solid	Std.	8.81	7.12	2	1.26	1.78	2.01	2.56	4.95	0.35	-	-

Models 11671CR-11674CR

- Bar Opens: 140°
- Handle Opens: 60°
- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 3.50



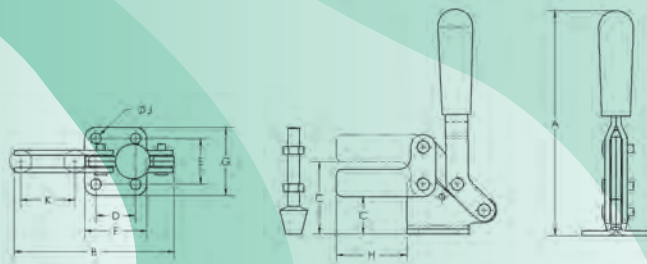
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11671CR	267-U	4311-671	\$34.95	1200	5.6	Flanged	U-bar	Std.	11.87	9	3.08	2	2.75	2.99	3.75	5.99	0.48	4.33	-

Vertical Handle Toggle Clamps

4 CLAMP-RITE

Model 11352CR

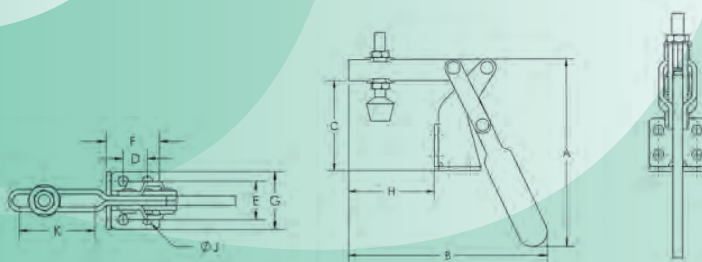
- Bar Opens: 90°
- Handle Opens: 85°
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11352CR	136-DI	4311-352	\$10.85	850	1.32	Flanged high U-bar	Std.		6.85	4.22	2.26	1.26	1.44	1.97	2.2	2.25	0.33	1.53	-

Model 11170CR

- Bar Opens: 185°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50

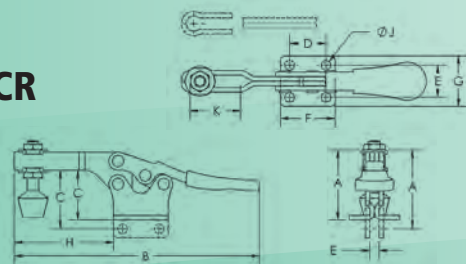


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
11170CR	317-U	4311-170	\$14.71	375	.88	Flanged U-bar	Std.		6.37	5.86	2.8	0.64	1.02	1.39	1.54	2.55	0.26	2.11	-

Horizontal Handle Toggle Clamps

Models 14051CR-14054CR

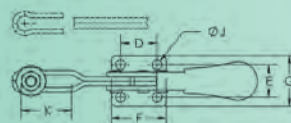
- Bar Opens: 90°
- Handle Opens: 80°
- Spindle Type: Nylon Hex Head
- Spindle Size: #8-32 x .75



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K
14051CR	205-U	4314-051	\$5.95	60	.06	Flanged U-bar	Standard		0.70	3.10	0.34	0.53	0.42	0.95	0.98	0.78	0.17	0.48
14054CR	205-S	4314-054	5.95	60	.06	Flanged Solid	Standard		0.73	5.24	1.42	1.38	0.41	0.95	0.98	0.87	0.17	-

Models 14151CR-14152CR

- Bar Opens: 85°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 2.13



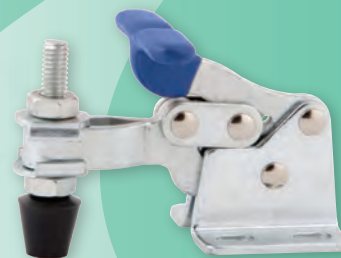
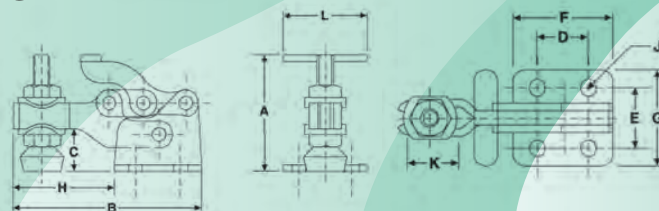
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K
14151CR	215-U	4314-151	\$8.11	200	.29	Flanged U-bar	Standard		1.52	5.90	0.96	0.98	0.86	1.46	1.36	2.29	0.21	1.51
14152CR	215-UB	4314-152	8.95	200	.29	Straight U-bar	Standard		1.76	5.90	1.23	0.98	0.16	1.46	-	2.29	0.21	1.53

Horizontal Handle Toggle Clamps

4 CLAMP-RITE

Models 16051CR-16091CR

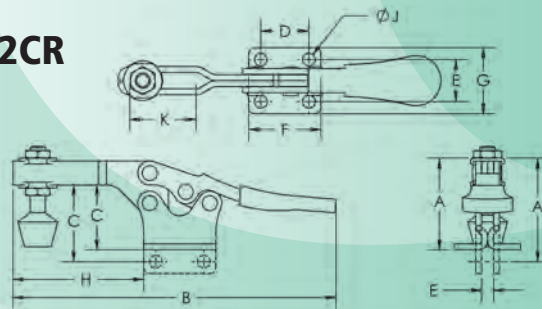
- Bar Opens: 90°
- Handle Opens: 170°
- Spindle Type: Bonded Neoprene
- Spindle Size: #10-24 x 1.38 (16051)
5/16-18 x 2.50 (16071)
3/8-16 x 3.50 (16091)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
16051CR	305-U	4316-051	\$7.40	150	.13	Flanged	U-bar	T-Handle	1.47	2.30	0.65	0.53	0.66	1.03	1.03	1.26	0.17	0.44	1.32
16051CRSS	305-USS	4316-051SS	15.33	150	.13	Flanged	U-bar	T-Handle	1.47	2.30	0.65	0.53	0.66	1.03	1.03	1.26	0.17	0.44	1.32
16071CR	307-U	4316-071	10.90	350	.51	Flanged	U-bar	T-Handle	2.49	3.68	0.89	0.91	1.17	1.72	1.82	1.93	0.28	0.77	2.01
16091CR	309-U	4316-091	16.27	750	1.39	Flanged	U-bar	T-Handle	3.73	5.33	1.31	1.38	1.5	2.52	2.52	2.81	0.31	1.32	2.48

Models 14251CR, 14252CR

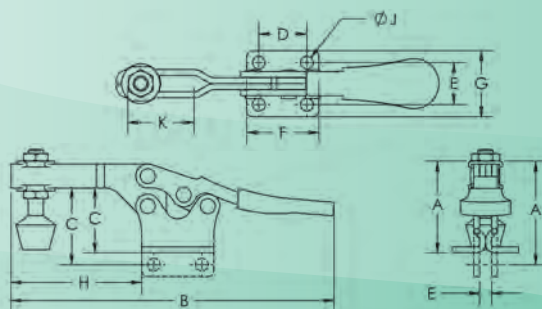
- Bar Opens: 90°
- Handle Opens: 65°
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 3.00



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
14251CR	225-U	4314-251	\$9.55	500	.7	Flanged	U-bar	Std.	1.96	6.88	1.31	0.99	0.89	1.51	1.36	2.91	0.28	1.31	-
14251CRSS	225-USS	4314-251SS	22.79	500	.7	Flanged	U-bar	Std.	1.96	6.88	1.31	0.99	0.89	1.51	1.36	2.91	0.28	1.31	-
14252CR	225-UB	4314-252	10.35	500	.7	Flanged	U-bar	Std.	2.18	6.87	1.66	0.99	0.23	1.51	-	2.91	0.28	1.42	-

Model 14351CR

- Bar Opens: 85°
- Handle Opens: 50°
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	A	B	C	D	E	F	G	H	J	K	L
14351CR	235-U	4314-351	\$15.65	750	1.5	Flanged	U-bar	Std.	2.55	10.4	1.73	1.62	1.6	2.25	2.23	4.29	0.31	2.74	-

Pull Action Clamps

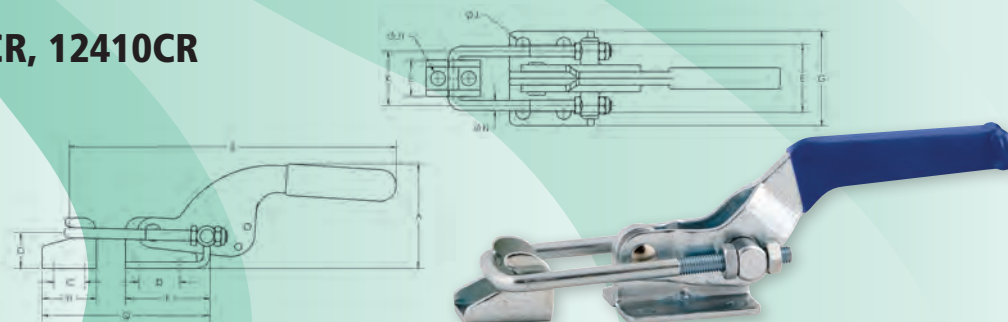
4 CLAMP-RITE

Models 12230CR, 12310CR, 12410CR

- Drawing Movement: 1.81" (12230)
1.75" (12310)
2.50" (12410)

- Spindle Type: U-Hook
- Hook Size: M4 (12230)
M5 (12310)
M8 (12410)

- Base Type: Flanged
- Bar Type: Standard



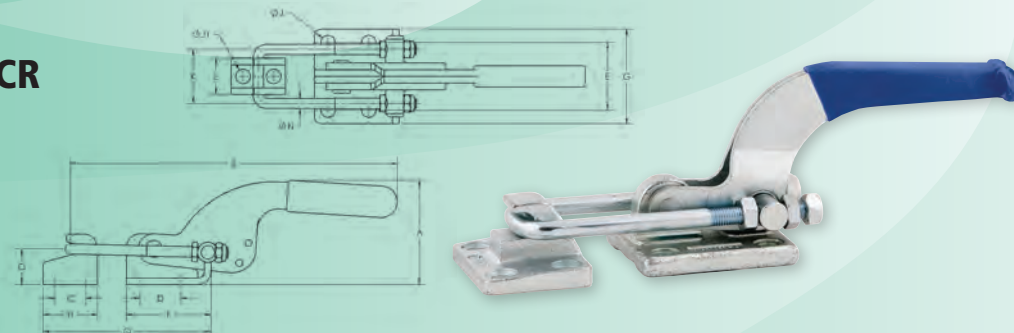
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY. WT.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q MIN	Q MAX
12230CR	323	4312-230	\$9.10	360 .16	1.31	4.18	0.40	0.62	0.76	1.03	1.12	0.78	0.17	0.80	0.55	-	0.13	0.44	-	1.84	2.57
12230CR-SS	323-SS	4312-230SS	19.22	360 .16	1.31	4.18	0.40	0.62	0.76	1.03	1.12	0.78	0.17	0.80	0.55	-	0.13	0.44	-	1.84	2.57
12310CR	331	4312-310	11.56	700 .50	1.91	6.56	0.48	0.78	1.25	1.52	1.75	1.01	0.28	1.00	0.79	-	0.17	0.50	-	2.53	3.69
12410CR	341	4312-410	18.55	2,000 1.5	2.75	8.48	0.76	1.62	1.44	2.39	2.12	1.17	0.34	1.75	1.17	-	0.31	0.83	-	4.39	5.37
12410CRSS	341-SS	4312-410SS	41.55	2,000 1.5	2.75	8.48	0.76	1.62	1.44	2.39	2.12	1.17	0.34	1.75	1.17	-	0.31	0.83	-	4.39	5.37

Models 12750CR, 12850CR

- Drawing Movement: 3.50" (12750)
2.19" (12850)

- Spindle Type: U-Hook
- Hook Size: M10 (12750)
M12 (12850)

- Base Type: Flanged
- Bar Type: Standard



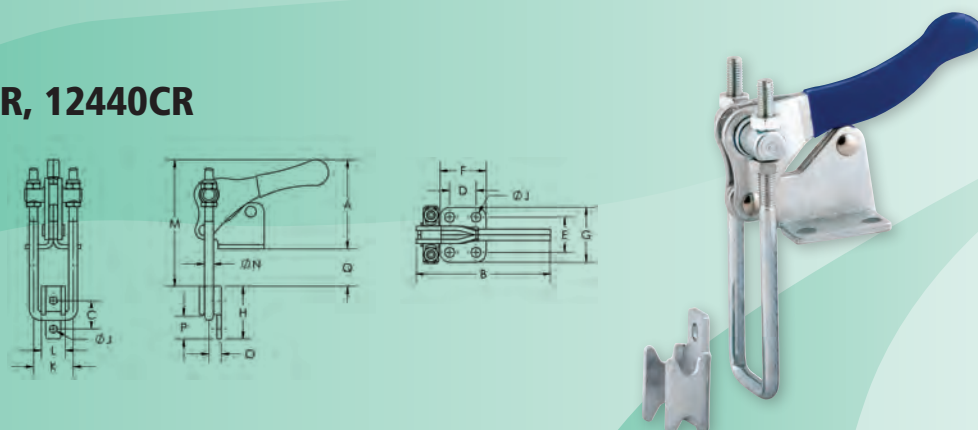
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY. WT.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q MIN	Q MAX
12750CR	375	4312-750	\$39.70	4,000 2.78	3.96	11.39	1.37	2.24	2.28	3.42	3.21	2.32	0.41	1.71	3.14	-	0.39	1.17	-	6.22	7.21
12850CR	385	4312-850	50.25	7,500 3.26	3.63	10.18	1.37	2.24	2.26	3.43	3.17	2.32	0.41	2.06	3.14	-	0.46	1.08	-	6.13	7.25

Models 12240CR, 12340CR, 12440CR

- Drawing Movement: 1.53" (12240)
2.00" (12340)
2.50" (12440)

- Spindle Type: U-Hook
- Hook Size: M4 (12240)
M5 (12340)
M8 (12440)

- Base Type: Flanged
- Bar Type: Standard



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY. WT.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q MIN	Q MAX
12240CR	324	4312-240	\$12.15	500 .25	2.22	3.15	0.57	0.51	0.87	1.02	1.39	1.00	0.21	0.86	0.54	3.43	0.12	0.20	0.43	0.54	1.20
12240CR-SS	324-SS	4312-240SS	24.99	500 .25	2.22	3.15	0.57	0.51	0.87	1.02	1.39	1.00	0.21	0.86	0.54	3.43	0.12	0.20	0.43	0.54	1.20
12340CR	334	4312-340	14.90	1,000 .55	2.86	4.71	0.81	0.75	1.02	1.30	1.56	1.50	0.28	1.06	0.67	4.36	0.23	0.25	0.64	0.54	1.50
12340CR-SS	334-SS	4312-340SS	29.44	1,000 .55	2.86	4.71	0.81	0.75	1.02	1.30	1.56	1.50	0.28	1.06	0.67	4.36	0.23	0.25	0.64	0.54	1.50
12440CR	344	4312-440	22.26	2,000 1.54	3.60	5.25	1.06	1.25	1.47	1.86	2.11	2.13	0.35	1.74	1.19	5.75	0.31	0.50	0.79	2.14	2.11

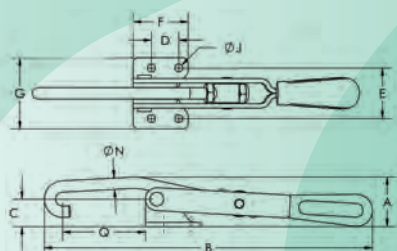
Pull Action Clamps

4 CLAMP-RITE

Models 12510CR - 12810CR

- Drawing Movement: 4.00" (12510, 12515)
5.38" (12710)
6.13" (12810)

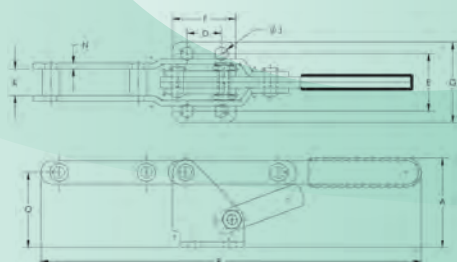
- Spindle Type: U-Hook
- Hook Size: M8 (12510, 12515)
M10 (12710)
M12 (12810)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	HANDLE TYPE	A	B	C	D	E	F	G	J	N	Q MIN	Q MAX
12510CR	351	4312-510	\$9.10	375	.60	Flanged	Std.	1.45	8.33	0.74	0.94	1.44	1.50	1.99	0.24	0.30	1.53	3.11
12510CR-SS	351-SS	4312-510SS	19.43	375	.60	Flanged	Std.	1.45	8.33	0.74	0.94	1.44	1.50	1.99	0.24	0.30	1.53	3.11
12515CR	351-B	4312-515	9.10	375	.50	Narrow	Std.	1.35	8.40	0.73	1.52	-	2.01	0.55	0.25	0.32	1.61	2.20
12710CR	371	4312-710	17.00	750	1.38	Flanged	Std.	2.17	11.46	0.96	1.25	1.97	1.86	2.61	0.35	0.39	2.70	3.44
12810CR	381	4312-810	18.40	1000	2.49	Flanged	Std.	2.62	13.80	1.82	1.13	2.49	2.13	3.30	0.41	0.47	2.75	3.60

Model 12010CR

- Drawing Movement: 4.00"
- Bar Type: U-Hook



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	HANDLE TYPE	A	B	D	E	F	G	J	K	N	O
12010CR	301	4312-010	\$10.30	375	.68	Flanged	Std.	1.88	8.40	0.75	1.22	1.38	1.72	0.28	0.60	0.12	1.59

— Also In Stock —

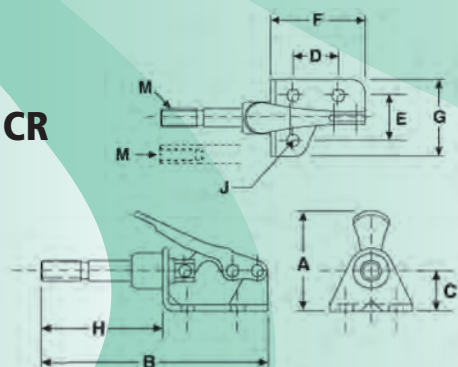
- Aerosol Chemicals
- Tool Steel
- Paint
- Jig Fixtures & Components
- Hand Tools
- Shim Stock
- Markers
- Drill Jig Bushings

Straight-Line Action Clamps

4 CLAMP-RITE

Models 13010CR, 13011CR

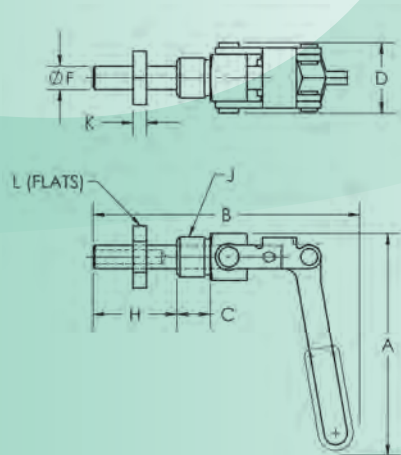
- Spindle Type: Hex Head
- Spindle Size: #8-32 x .50DP (13010)
1/4-20 x .50LG (13011)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.	A	B	C	D	E	F	G	H	J	M
13010CR	610	4313-010	\$8.10	100	.11	0.63	Flanged	Std.	Internal	1.57	2.67	0.52	0.63	0.61	1.31	1.07	1.35	0.17	0.25
13011CR	601-0	4313-011	6.42	100	.11	0.63	Flanged	Std.	External	1.59	2.85	0.57	0.63	0.61	1.32	1.07	1.53	0.17	1/4-20

Models 13020CR, 13040CR, 13240CR

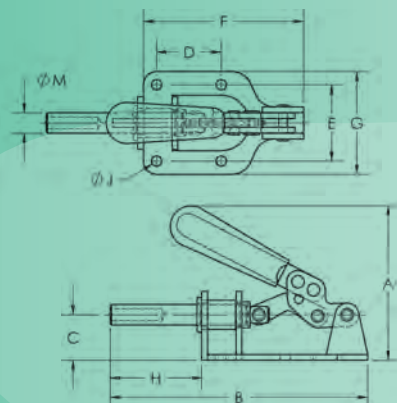
- Spindle Type: Hex Head
- Spindle Size: 1/4-20 x .63 (13020)
5/16-18 x 1.00 (13040)
3/8-16 x 1.25 (13240)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR. TRAVEL	MOUNT TYPE	HANDLE TYPE	A	B	C	D	F	H	J	K	L
13020CR	602	4313-020	\$11.25	200	.25	0.75	Through-hole	Std.	3.06	2.67	0.48	1.03	0.37	0.81	0.58	0.26	0.94
13020CRSS	602-SS	4313-020SS	37.91	200	.25	0.75	Through-hole	Std.	3.06	2.67	0.48	1.03	0.37	0.81	0.58	0.26	0.94
13040CR	604	4313-040	12.65	300	.60	1.50	Through-hole	Std.	4.16	4.26	0.63	1.28	0.43	1.57	0.73	0.25	1.17
13040CRSS	604-SS	4313-040SS	33.92	300	.60	1.50	Through-hole	Std.	4.16	4.26	0.63	1.28	0.43	1.57	0.73	0.25	1.17
13240CR	624	4313-240	25.30	700	1.54	2.63	Through-hole	Std.	5.43	6.73	0.88	1.86	0.63	2.80	1.05	0.35	1.59

Models 13050CR

- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00



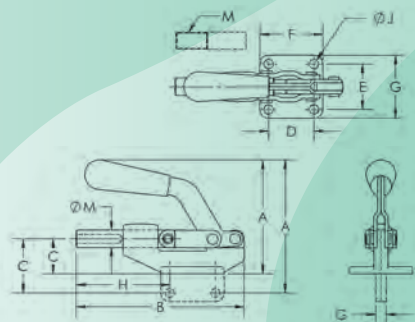
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.	A	B	C	D	E	F	G	H	J	M
13050CR	605	4313-050	\$11.90	300	.66	1.25	Flanged	Std.	Internal	3.14	5.45	0.98	1.38	1.64	3.55	2.22	1.90	0.22	0.47

Straight-Line Action Clamps

4 CLAMP-RITE

Models 13030CR, 13485CR

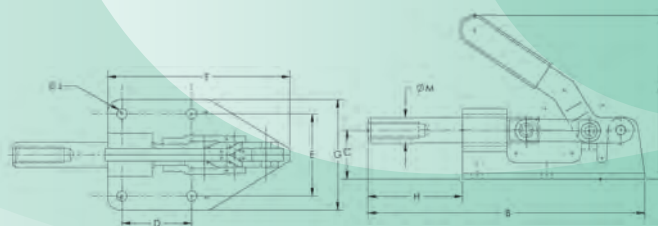
- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00 (13030)
3/8-16 x 1.25 (13485)
1/2-13 x 2.00 (13485)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.	A	B	C	D	E	F	G	H	J	M
13030CR	603	4313-030	\$15.55	600	.7	1.25	Flanged	45°	Internal	3.34	3.64	0.98	1.44	1.32	2.30	1.85	2.03	0.23	0.43
13485CR	608	4313-485	25.75	850	1.28	1.65	Flanged	45°	Internal	4.19	6.41	1.25	1.62	1.63	2.33	2.25	3.13	0.33	0.63

Models 13090CR

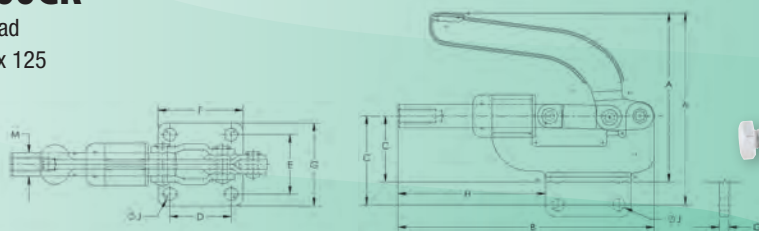
- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.	A	B	C	D	E	F	G	H	J	M
13090CR	609	4313-090	\$12.95	300	.76	1.25	Flanged	Std.	Internal	4.10	5.00	0.85	1.57	1.33	3.27	1.95	1.71	0.26	0.47

Models 13100CR

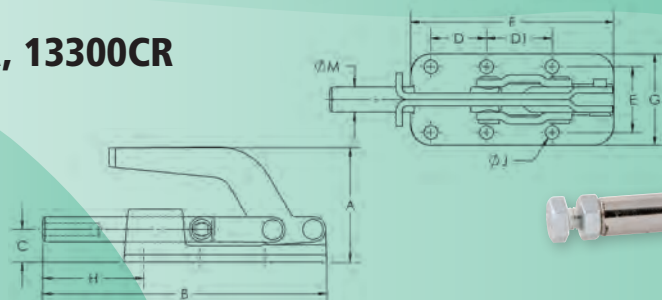
- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 125



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.	A	B	C	D	E	F	G	H	J	M
13100CR	610	4313-100	\$19.95	800	1.76	1.63	Flanged	Std.	Internal	5.04	6.82	1.75	1.63	1.58	2.25	2.20	4.23	0.34	0.62

Models 13070CR, 13300CR

- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 125



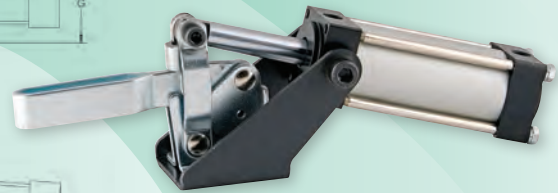
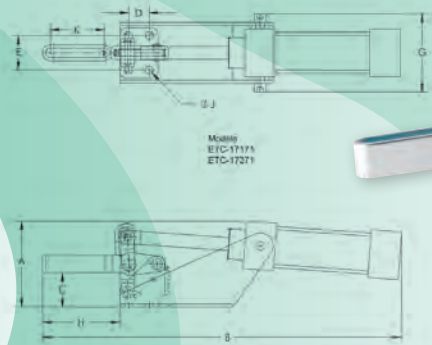
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.	A	B	C	D	E	F	G	H	J	M
13070CR	607	4313-070	\$23.25	800	1.7	1.63	Flanged	Std.	Internal	3.28	6.10	0.68	1.38	1.62	4.30	2.18	1.86	0.28	0.51
13300CR	630	4313-300	29.25	2500	2.06	2.00	Flanged	Std.	Internal	2.93	7.06	0.88	1.39	1.63	5.25	2.24	1.82	0.35	0.63

Pneumatic Hold-Down Clamps

4 **CLAMP-RITE**

Models 17018CR, 17101CR

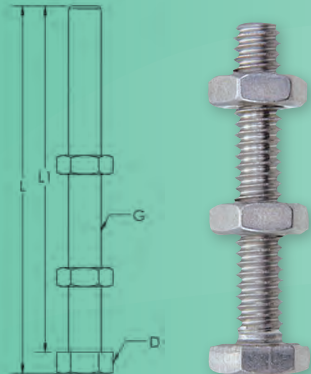
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 1.75 (17024)
5/16-18 x 2.50 (17018)
3/8-16 x 3.50 (17101)
#10-24 x 1.38 (17121)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTV.	WT.	PORT SIZE	TYPE	BAR TYPE	A	B	C	D	F	G	H	J	K
17018CR	807-U	4317-018	\$73.78	375	2.30	1/8 NPT	Horizontal	Adj. Hold-Down	3.04	12.75	1.41	0.74	1.21	2.28	2.83	0.28	2.05
17101CR	810-U	4317-101	120.16	600	4.00	1/8 NPT	Horizontal	Adj. Hold-Down	3.69	15.43	1.74	1.25	1.78	4.00	3.74	0.33	2.31
17121CR	812-U	4317-121	57.62	150	.46	10-32NF	Horizontal	Adj. Hold-Down	1.60	6.63	0.69	0.63	0.94	3.00	0.94	0.13	0.77

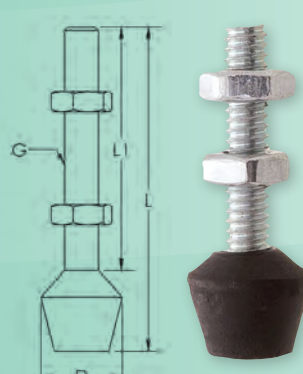
Clamp Accessories

Hex Head Spindle



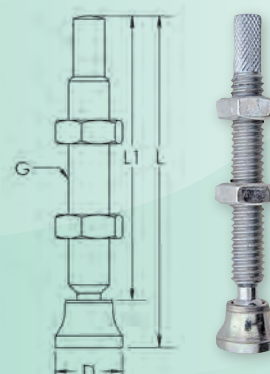
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Bonded Neoprene Spindle



3

Swivel Foot Spindle



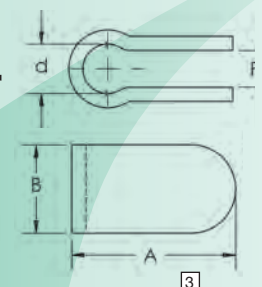
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MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19105CR	4319-105	\$0.45	0.25	#8-32	0.86	0.75
19145CR	4319-145	0.75	0.44	1/4-20	0.80	0.63
19112CR	4319-112	0.82	0.43	1/4-20	1.65	1.50
19518CR	4319-518	1.25	0.50	5/16-18	1.22	1.00
19212CR	4319-212	0.89	0.49	5/16-18	2.71	2.50
19381CR	4319-381	1.53	0.56	3/8-16	1.50	1.25
19338CR	4319-338	1.02	0.55	3/8-16	3.23	3.00
19310CR	4319-310	1.82	0.74	1/2-13	3.31	3.00
19450CR	4319-450	1.91	0.75	1/2-13	4.81	4.50
19421CR	4319-421	0.45	0.27	M4 x 0.7	0.86	0.75
19616CR	4319-616	1.08	0.39	M6 x 1.0	0.87	0.78
19825CR	4319-825	1.20	0.51	M8 x 1.25	1.14	0.98
19103CR	4319-103	1.55	0.67	M10 x 1.5	1.69	1.38

MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19218	4319-218	\$1.34	0.59	1/4-20	2.17	1.59
19316	4319-316	1.48	0.49	5/16-18	3.05	2.31
19312	4319-312	2.00	0.88	3/8-16	3.44	2.60
19420CR	4319-420	0.85	0.31	M4 x 0.7	0.87	0.78
19525CR	4319-525	0.95	0.39	M5 x 0.8	1.14	0.98
19630CR	4319-630	1.35	0.63	M6 x 1.0	1.73	1.18
19836CR	4319-836	1.52	0.75	M8 x 1.25	1.78	1.28
19835CR	4319-835	1.52	0.83	M8 x 1.25	2.09	1.38
19055CR	4319-055	2.10	1.02	M10 x 1.5	3.11	2.17

MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19214	4319-214	\$2.10	0.43	1/4-20	3.20	2.80
19234	4319-234	2.25	0.47	5/16-18	2.72	2.44
19300	4319-300	2.58	0.63	3/8-16	2.91	2.56

Bolt Retainer



3

MODEL NO.	ORDER NO.	PRICE EACH	BOLT SIZE	A	B	F1	d
19516	4319-516	\$0.90	5/16, M8	1.20	0.64	0.25	0.32
19380	4319-380	1.25	3/8, M10	1.47	0.74	0.33	0.41
19120	4319-120	1.35	1/2, M12	1.70	1.19	0.38	0.67

Clamps

WILTON Series 400 Deep Throat Clamps

400 SERIES FEATURES:

- Drop Forged steel frame, regular-duty with extra deep throat.
- Both Black-oxide and copper spindles w/Perma-Pad® and are replaceable.
- Innovative frame geometry for maximum strength.
- Spark Duty Series features copper plated spindles for better resistance to welding spatter and corrosion.
- V-grooved anvil provides secure hold for all material shapes including round, square, and flat.



Wilton's exclusive Perma-Pad® Design.

WILTON Series 800 Standard Throat Clamps

800 SERIES FEATURES:

- Drop-forged, regular-duty with standard throat depth.
- A value alternative for clamping, not requiring as much throat depth or clamping pressure as a 400 series clamp.
- Equipped with Wilton Perma-Pads® and a precision-cut, single lead acme thread.
- ACME rolled spindle and black oxide coating.



Wilton's exclusive Perma-Pad® Design.

Jorgensen MASTER QUALITY CLAMPS



Made in USA



Carriage Clamps

- Most universally-used general-purpose "C" clamps for regular-duty industrial service.
- **Frame** - heat-treated, perlitic and/or ductile iron; ribbed to resist side strain.
- **Anvil** - machine-ground; extra-wide.
- **Screw** - cold-drawn steel with special, smoothly cut acme threads; steel sliding-pin handle.
- **Swivel** - exclusive JORGENSEN design with steel internal tooth washers for positive "stay-on" power.

3

MFG. NO.	OPENING MAX.	MIN.	DEPTH OF THROAT	SCREW DIA.	NORMAL LOAD LMT.	ORDER NO.	PRICE EACH
103	3"	0	1-7/8"	9/16"	1,800 lbs.	9545-041	\$11.65
104	4"	0	2-1/8"	5/8"	2,400 lbs.	9545-042	16.53
105	5"	0	2-1/2"	5/8"	2,400 lbs.	9545-043	19.15
106	6"	0	2-3/4"	5/8"	2,400 lbs.	9545-044	21.49
108	8"	0	3-1/4"	3/4"	2,400 lbs.	9545-045	36.53
110	10"	1-1/2"	3-5/8"	13/16"	2,400 lbs.	9545-046	49.30
112	12"	3-7/16"	3-5/8"	13/16"	2,400 lbs.	9545-047	65.04

'Adjustable'™ "C" Clamps

- Light-duty "C" clamps.
- **Frame** - ductile and/or malleable iron; bright plated finish on frames #1410 - #1434.
- **Anvil** - machine-ground.
- **Screw** - cold-drawn steel with special, smoothly "rolled" threads (U.S.S. on #1410-#1434; Acme on #1440 - #1480); steel sliding-pin handle.
- **Swivel** - bright plated steel; securely fastened to screw; revolves freely.



Made in USA

MFG. NO.	OPENING	DEPTH	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
1410	1"	1"	400 lbs.	9545-250	\$1.76
1413	1"	3"	400 lbs.	9545-251	4.16
1415	1-1/2"	1-1/2"	400 lbs.	9545-252	3.02
1420	2"	1"	400 lbs.	9545-253	2.40
1422	2-1/2"	1-3/8"	600 lbs.	9545-254	4.21
1423	2"	3-1/2"	400 lbs.	9545-255	5.91
1425	2-1/2"	2-1/2"	600 lbs.	9545-256	4.87
1430	3"	2"	800 lbs.	9545-257	5.10
1434	3"	4-1/2"	500 lbs.	9545-258	10.00
1440	4"	3"	1200 lbs.	9545-259	8.68
1450	5"	3-1/4"	1200 lbs.	9545-260	10.09
1460	6"	3-1/2"	1200 lbs.	9545-261	11.40
1480	8"	4"	1200 lbs.	9545-262	16.66

#1491 3-piece set - Contains one each of the following "C" clamps: #1410, #1420, #1430. Features are identical to the preceding ADJUSTABLE Style No. 1400 "C" clamps.

Order No. 9545-305 Price Each...\$ 8.81

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIAMETER	MIN. PROOF TEST (LBS.)	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
400 SERIES							
402	0 - 2-1/8"	2-1/4"	9/16"	3500	2	9540-464	\$13.00
403	0 - 3	2-1/2"	9/16"	3500	3	9540-465	17.20
404	0 - 4-1/4	3-1/4"	3/4"	6200	4	9540-466	25.90
406	0 - 6-1/16	4-1/8"	3/4"	6600	6	9540-467	39.90
408	0 - 8-1/4	5	3/4"	6900	7	9540-468	50.40
410	2 - 10-1/8	6	3/4"	8000	11	9540-469	68.60
412	2 - 12-1/4	6-5/16"	7/8"	9300	15	9540-470	109.20
400 SERIES HI-VISIBILITY							
402SF	0 - 2-1/8"	2-1/4"	9/16"	3500	2	9540-477	\$13.00
403SF	0 - 3	2-1/2"	9/16"	3500	3	9540-478	17.20
404SF	0 - 4-1/4	3-1/4"	3/4"	6200	4	9540-479	25.90
406SF	0 - 6-1/16	4-1/8"	3/4"	6600	6	9540-480	39.90
408SF	0 - 8-1/4	5	3/4"	6900	7	9540-481	50.40
410SF	2 - 10-1/8	6	3/4"	8000	11	9540-482	68.60
412SF	2 - 12-1/4	6-5/16"	7/8"	9300	15	9540-483	109.20
400 SERIES SPARK DUTY (COPPER PLATED SPINDLE)							
402P	0 - 2-1/8"	2-5/8"	9/16"	3500	2	9540-536	\$13.70
403P	0 - 3	2-1/2"	5/8"	3500	3	9540-537	17.90
404P	0 - 4-1/4	3-1/4"	3/4"	6200	4	9540-538	27.30
406P	0 - 6-1/16	4-1/8"	3/4"	6600	6	9540-539	42.00
408P	0 - 8-1/4	5	3/4"	6900	7	9540-540	51.80
410P	2 - 10-1/8	6	3/4"	8000	11	9540-541	74.20
412P	2 - 12-1/4	6-5/16"	7/8"	9300	15	9540-542	117.60

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIAMETER	MIN. PROOF TEST (LBS.)	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
800 SERIES							
803	0 - 3"	1-15/16"	9/16"	3000	1-5/8	9540-516	\$15.00
804	0 - 4	2-5/16"	5/8"	3700	2-7/8	9540-517	21.00
806	0 - 6	2-15/16"	5/8"	4500	3-7/8	9540-518	35.70
808	0 - 8	3-7/16"	3/4"	5200	6-3/4	9540-519	42.00

Pittsburg® C-Clamps



- Malleable Cast Reinforced Frame
- Black Oxide Spindle and Handle

DIMENSIONS	ORDER NO.	PRICE EACH
1 x 1"	7738-110	\$1.67
1-1/2 x 1-1/2"	7738-115	2.00
2 x 1"	7738-120	2.19
2 x 3-1/2"	7738-123	3.43
2-1/2 x 1-3/8"	7738-125	3.19
2-1/2 x 2-1/2"	7738-127	4.02
3 x 2"	7738-130	4.42
3 x 4-1/2"	7738-134	5.90
4 x 3"	7738-144	7.88
5 x 3-1/4"	7738-145	10.04
6 x 3-1/2"	7738-146	11.56
8 x 4"	7738-148	15.85

WILTON Series 100 Clamps

Designed for heavy industrial and construction work. Frames are forged of special quality steel. Standard throat. Forged spindle end permits wrench tightening. Spindles are black oxide coated.



WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIAMETER	MIN. PROOF TEST (LBS.)	ORDER NO.	PRICE EACH
102	0 - 2"	1-1/2"	9/16"	7500	9540-508	\$68.60
103	0 - 3	2	5/8"	8750	9540-509	79.80
104	0 - 4	2-3/8"	5/8"	8750	9540-510	93.80
106	2 - 6	2-1/2"	5/8"	8750	9540-511	109.20
108	4 - 8	2-5/8"	5/8"	8750	9540-512	128.80

WILTON Series 540 Carriage Clamps

The 540 Series is rugged constructed with a hardened steel spindle. To permit a truly acceptable stress point, Wilton engineers selected a high tensile ductile alloy casting for the 540's body.

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIA.	ORDER NO.	PRICE EACH
540A-4	0 - 4	2-1/8"	5/8"	9540-645	\$15.00
540A-6	0 - 6	2-3/4"	5/8"	9540-647	23.10
540A-8	0 - 8	3-11/32"	3/4"	9540-648	30.10



WILTON Super-Junior® Forged C-Clamps

FEATURES:

- Super junior clamps are forged steel with heat treated frames to provide much stronger clamp than pressed steel or malleable clamps.
- Steel screws are nickel plated for longer life.

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	ORDER NO.	PRICE EACH
50	0 - 1"	1"	9540-626	\$5.60
51	0 - 1	1-1/2"	9540-627	6.00
52	0 - 1-1/4	1-1/4"	9540-628	6.30



Clamps

Jorgensen Bar Clamps



- Dual durometer handle design for comfort.
- 10-40% more clamping force.

2

MFG. NO.	BAR LENGTHS	ORDER NO.	PRICE EACH
33006	6"	9545-480	\$20.39
33012	12"	9545-481	23.71
33018	18"	9545-482	25.59
33024	24"	9545-483	29.29
33036	36"	9545-484	33.76

Jorgensen Cabinet Master

90° Parallel Steel Bar Clamps



Made in USA



2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
8024	24"	1,000 lbs.	9545-772	\$46.66
8036	36"	1,000 lbs.	9545-774	53.69
8048	48"	1,000 lbs.	9545-775	59.30

Pittsburg® Bar Clamps



- Sliding Quick Release Precision Steel Jaw,
- Steel Bar, Protective Clamp Pad

3

DIMENSIONS	ORDER NO.	PRICE EACH
6 x 2-1/2"	7738-202	\$6.99
12 x 2-1/2"	7738-204	6.94
18 x 2-1/2"	7738-206	7.80
24 x 2-1/2"	7738-208	10.26
30 x 2-1/2"	7738-210	9.89
36 x 2-1/2"	7738-212	12.51
8 pc. Bar Clamp Pad Set Order No. 7738-398 Price Each: \$0.90		

IRWIN

QUICK-GRIP One-Handed Bar Clamps/Spreaders

FEATURES:

- One-handed QUICK-RELEASE trigger allows for fast and easy positioning.
- QUICK-CHANGE Jaw provides multi-positioning flexibility, converts quickly and easily to a spreader.
- High-tech resin construction provides strength and durability.
- Non-marring, stay-on pads protect workpiece finish.



2

MFG. NO.	CLAMPING CAPACITY	SPREADING CAPACITY	THROAT DEPTH	ORDER NO.	PRICE EACH
506QC	6"	7-1/2" - 14-5/8"	3-1/4"	3255-450	\$22.46
512QC	12"	7-1/2" - 20-5/8"	3-1/4"	3255-451	24.97
518QC	18"	7-1/2" - 26-5/8"	3-1/4"	3255-452	28.71
524QC	24"	7-1/2" - 32-5/8"	3-1/4"	3255-453	31.22
536QC	36"	7-1/2" - 44-5/8"	3-1/4"	3255-454	37.46

IRWIN

QUICK-GRIP XP Clamps



FEATURES:

- Clamping power of 550 lbs. of pressure, delivering 550 lbs of pressure (900 lbs. of two-handed pressure)
- 3" throat depth
- I-Beam Bar resists twisting & bowing under pressure
- Quick Release Trigger allows easy removal of pressure
- Quick-Change Jaw converts quickly into a spreader
- Non-Marring Pads protects workpiece finish

2

MFG. NO.	CLAMPING CAPACITY	SPREADING CAPACITY	THROAT DEPTH	ORDER NO.	PRICE EACH
2021406	6"	7-1/2" - 14-5/8"	3-1/4"	3255-460	\$28.86
2021412	12"	7-1/2" - 20-5/8"	3-1/4"	3255-461	32.18
2021418	18"	7-1/2" - 26-5/8"	3-1/4"	3255-462	35.74
2021424	24"	7-1/2" - 32-5/8"	3-1/4"	3255-463	39.95
2021436	36"	7-1/2" - 44-5/8"	3-1/4"	3255-464	47.73

Jorgensen Steel "I" Bar Clamps

Steel "I" Bar Clamps

2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
7224	24"	7000 lbs.	9545-750	\$45.39
7236	36"	7000 lbs.	9545-752	50.67
7248	48"	7000 lbs.	9545-753	56.41
7272	72"	7000 lbs.	9545-755	67.91



- Clamping faces- approximately 2"x 1-3/4".
- Bar- 1-1/2" x 7/16" high carbon steel; rolled to a special "I" beam shape.

Jorgensen Steel Bar Clamps and Pads

Steel Bar Clamps and Pads



Made in USA



2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
LIGHT DUTY				
3704-LD	4"	300 lbs.	9545-560	\$7.76
3706-LD	6"	300 lbs.	9545-561	7.97
3708-LD	8"	300 lbs.	9545-562	8.38
3712-LD	12"	300 lbs.	9545-563	9.09
MEDIUM DUTY				
3706	6"	600 lbs.	9545-570	\$10.92
3712	12"	600 lbs.	9545-571	12.08
3718	18"	600 lbs.	9545-572	13.34
3724	24"	600 lbs.	9545-573	15.02
3730	30"	600 lbs.	9545-574	17.05
HEAVY DUTY				
3706-HD	6"	1,000 lbs.	9545-580	\$15.27
3712-HD	12"	1,000 lbs.	9545-581	16.25
3718-HD	18"	1,000 lbs.	9545-582	18.31
3724-HD	24"	1,000 lbs.	9545-583	19.54
3730-HD	30"	1,000 lbs.	9545-584	21.12
3736-HD	36"	1,000 lbs.	9545-585	22.27
BAR CLAMP PADS (for light/med. duty only)				
7437	8 piece pack		9545-764	\$3.85

FEATURES FOR LIGHT AND MEDIUM DUTY:

- Clutch discs- hardened, plated steel; two clutch discs and one clutch spring constitute the Multiple-Disc-Clutch.
- Swivel- 3/4" diameter; plated steel; ball-and-socket type.

FEATURES FOR HEAVY DUTY:

These are made for all wood types of heavy-duty clamping. Used by cabinet-makers, woodworkers, metalworkers or for home-shop and do-it-yourself projects. Protective pads made for thick, durable plastic. Clamps rest parallel on work surface for ease of work placement and adjustment.

FEATURES FOR BAR CLAMP PADS:

Protective non-mar, non-stick, non-slip pads.

Clamps

PONY

Spring Clamps

FEATURES:

- Jaws- light-weight, nickel-plated steel.
- Spring- heavy-duty tempered steel for maximum strength
- Handles- designed for optimum comfort with minimized spread.
- Poly-vinyl handles and jaw tips.



MFG. NO.	MAX. OPENING CAPACITY	JAW LENGTH	REACH	ORDER NO.	PRICE EACH
3201-HT	1"	4"	1-1/4"	9545-364	\$1.90
3202-HT	2"	6"	2"	9545-384	2.98
3203-HT	3"	9"	3"	9545-404	8.28

PONY ISO

Hand Clamps

- Dual Durometer Handle design for comfort
- Non-marring jaws and riveted head assembly



MFG. NO.	HAND CLAMP SIZE	ORDER NO.	PRICE EACH
32150	1.5"	9545-460	\$4.74
32225	2.25"	9545-461	6.59
32400	4"	9545-463	8.65

Pittsburg ALLEGHANY

Tool Maker's Parallel Clamps

- Hardened & tempered jaws
- Clamps equipped with spring screw clip.
- Black finish.
- Useful for holding small work together when drilling, welding, assembling.



JAW LENGTH	JAW OPENING	ORDER NO.	PRICE EACH
2	1-1/4	3100-102	\$ 3.85
3	2-1/4	3100-104	6.35
4	2-3/4	3100-106	7.95
5	3-1/2	3100-108	13.50
Complete Set Sizes 2 thru 5		3100-110	20.60

Jorgensen MASTER QUALITY CLAMPS

Adjustable Handscrews

FEATURES:

- The jaws hold odd shapes easily, are capable of overlapping.
- Provide protection against marring of finished surfaces.
- Seasoned hard maple.



MFG. NO.	JAW IN.	MAX OPENING IN.	REACH IN.	ORDER NO.	PRICE EACH
0	8"	4-1/2"	4"	9545-004	\$26.82
1	10"	6"	5"	9545-005	30.46
2	12"	8-1/2"	6"	9545-006	37.92
3	14"	10"	7"	9545-007	44.99

Pittsburg ALLEGHANY

Spring Clamps

- Heavy Gauge Metal Frame
- Extra Thick/Durable PVC/Rubber Tip and Grip



DIMENSIONS	ORDER NO.	PRICE EACH
1"	7738-301	\$1.22
2"	7738-302	2.17
3"	7738-303	4.88

PONY

Pressure-Adjusting Spring Clamps

FEATURES:

- Jaws/Handles- glass filled nylon.
- Spring- heavy-duty tempered steel for maximum strength.
- Jaw Pads- plastic.



MFG. NO.	OPENING	JAW LENGTH	NOMINAL REACH	ORDER NO.	PRICE EACH
3251	1"	4-1/2"	1-1/4"	9545-440	\$6.13
3252	2"	6-1/2"	2-1/8"	9545-442	6.98

PONY

Band Clamps



The small, lightweight Band Clamp features 15 feet of 1-inch width, high-strength nylon webbing which enables the perimeter clamping of round, rectangular and irregular shapes. Positive hold is afforded by the self-locking aluminum cam which is also allows instant release. Four cleverly designed steel "corners" are furnished to assist in clamping mitered joints and to protect the nylon band from sharp corners. A small steel wrench is also furnished to apply final clamping pressure.

MFG. NO.	LOAD LIMIT	ORDER NO.	PRICE EACH
1215	1,000 lbs.	9545-240	\$15.04

Jorgensen MASTER QUALITY CLAMPS

Hold-Down Clamps

#1623 Hold-down clamps offer the advantage of bench-top and machine "surface" clamping. Designed to rotate 360 degrees around the holding bolt. Use anywhere on wood or metal surfaces.

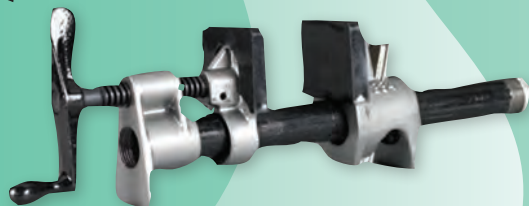


MFG. NO.	OPENING CAPACITY	DEPTH OF THROAT	SCREW DIA.	NORMAL LOAD LMT.	ORDER NO.	PRICE EACH
1623	3"	1-3/4"	9/16"	2,000 lbs.	9545-310	\$19.55

Clamps

Pony & Jorgensen products are subject to availability.

Pittsburg® Pipe Clamps



- Malleable Iron Bodies, Extra Wide Base
- Quick Release Clutch Mechanism
- Pipe not included

DIMENSIONS	ORDER NO.	PRICE EACH
1/2"	7738-332	\$10.37
3/4"	7738-334	15.34
4 pc. Pipe Clamp Pad Set Order No. 7738-399 Price Each \$1.73		

WILTON® Pipe Clamps

Multiple disc clutch provides instant adjustment, secure hold and quick release.



Model #530

WILTON CAT. NO.	PIPE SIZE	CLAMP FACE	SHIP WT. LBS. EA.	ORDER NO.	PRICE EACH
530	3/4"	2" x 1-3/4"	8-1/2	9540-790	\$64.40

WILTON® 90° Steel Angle Clamps

The 90° angle clamp is made of high quality cast iron.

- The copper plated spindle pivots allowing the moveable jaw to securely grip parts at 90°
- Slotted holes are provided in the base for convenient workbench mounting
- Work surfaces (including base) are milled for added precision



WILTON CAT. NO.	CAPACITY MITER	JAW HEIGHT	JAW LENGTH	SHIP WT. LBS. EA.	ORDER NO.	PRICE EACH
AC-326	4-3/8"	2-3/8"	4-1/8"	18	9540-843	\$180.60

PONY® Pipe Clamps



Made in USA

Mounts on any length black pipe with both ends threaded.

FEATURES:

- Castings- malleable and/or ductile iron; powder coated orange finish.
- Screw- steel diameter (#50-5/8", #52-1/2") with special, smoothly cut Acme threads.
- Coil-spring "stop"- one is included with each clamp fixture.

PAD FEATURES:

- Protective, non-mar, non-slip.
- Pipe not included

MFG. NO.	PIPE SIZE	CLAMPING FACES	ORDER NO.	PRICE EACH
50	3/4"	1-3/4" sq.	9545-030	\$17.53
52	1/2"	1-1/2" sq.	9545-032	13.11
PADS				
7456	8 piece pack		9545-766	4.81

PONY® Clamp Fixture for 3/4" Black Pipe



Made in USA

A 2-1/2" deep-reach design. The heads can also be reversed to "spread" work. Mounts on any length black pipe with both ends threaded (pipe not furnished).

MFG. NO.	SCREW SIZE IN.	CLAMPING FACE	ORDER NO.	PRICE EACH
56	5/8"	1-1/4"	9545-035	\$18.86

WILTON® Vise Jaws

Magnefix Vise Jaw Caps

MODEL A-ALUMINUM MAGNEFIX JAW CAPS

- Aluminum alloy design includes six grooves to compensate for the unevenness of the workpiece
- Deeper V-groove for more secure clamping of circular workpieces
- Use together with rubber magnefix jaw caps

MODEL R-RUBBER FACE MAGNEFIX JAW CAPS

- Aluminum alloy with synthetic rubber cover
- Jaw cap conforms to workpiece and grips firmly without slipping while protecting work surface
- Use in combination with aluminum and prism jaw caps to clamp taper pins or tapered workpieces

MODEL P-PRISM MAGNEFIX JAW CAPS

- Aluminum alloy with synthetic rubber cover
- Jaw construction includes a 120° horizontal V-groove, three vertical V-grooves and a 90° groove for marking out and center punching
- Ideal for light tapping and thread cutting

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
A-3	3	9540-399	\$30.25
A-4	4	9540-400	35.70
A-4.5	4-1/2	9540-401	37.10
A-5	5	9540-402	38.50
A-5.5	5-1/2	9540-403	39.90
A-6	6	9540-404	42.00
A-6.5	6-1/2	9540-405	43.40

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
R-3	3	9540-423	\$33.15
R-4	4	9540-424	35.70
R-4.5	4-1/2	9540-425	37.10
R-5	5	9540-426	38.50
R-5.5	5-1/2	9540-427	39.90
R-6	6	9540-428	42.00
R-6.5	6-1/2	9540-429	43.40

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
P-4	4	9540-416	\$38.50
P-4.5	4-1/2	9540-417	39.90
P-5	5	9540-418	42.00
P-5.5	5-1/2	9540-419	43.40
P-6	6	9540-420	44.80
P-6.5	6-1/2	9540-421	46.20

WILTON® Copper Jaw Caps



- Designed to avoid marring the surface of materials
- 100% copper jaw caps have polished faces and pliable copper extensions for a sure-grip fit

WILTON CAT NO.	JAW WIDTH	ORDER NO.	PRICE EACH
404-3	3"	9540-389	\$ 34.30
404-3-1/2	3-1/2"	9540-390	38.50
404-4	4"	9540-391	43.40
404-4-1/2	4-1/2"	9540-392	49.00
404-5	5"	9540-393	65.80
404-5-1/2	5-1/2"	9540-394	77.00
404-6	6"	9540-395	92.40
404-6-1/2	6-1/2"	9540-396	107.80

Bench Vises



Utility Workshop Vises

Versatile, all-around vise recommended for the professional craftsman or home workshop enthusiast.

FEATURES:

- Replaceable, serrated steel top jaws.
- 180° swivel base.
- Large anvil work area.
- Built-in pipe jaws



2

WILTON CAT. NO.	JAW WIDTH	MAX OPENING	PIPE CAP.	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
674	4-1/2"	4"	1/8" - 2"	3-1/2"	19	9540-346	\$ 98.00
675	5-1/2"	5"	1/8" - 2-1/2"	4"	29	9540-347	123.20
676	6-1/2"	5-1/2"	1/8" - 2-1/2"	5"	41	9540-348	168.00
656HD	6"	6"	1/8" - 3"	6"	63	9540-368	224.00
648HD	8"	7-1/2"	1/8" - 3"	8"	79	9540-367	315.00



Cam Action Drill Press Vises



- Simple push or pull on the center bar knob sets the jaw in position
- Easy press locking lever cams the jaw ahead 3/32", exerting a holding pressure that is adjustable from 400 to 1100 lbs.
- Base is designed for clear through drilling applications
- Unique top locking lever can be raised/lowered to tighten/loosen against the work piece.

WILTON CAT. NO.	JAW WIDTH	MAX OPENING	JAW DEPTH	HEIGHT	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
1203	3"	3"	1-1/4"	2-3/4"	10	9540-438	\$149.80
1204	4"	4-11/16"	1-5/16"	3-1/4"	18	9540-439	163.80
1206	6"	6-3/16"	1-13/16"	3-3/4"	35	9540-440	287.00
1208	8"	8-3/16"	2"	4-7/16"	53	9540-441	357.00



Drill Press Vises



FEATURES:

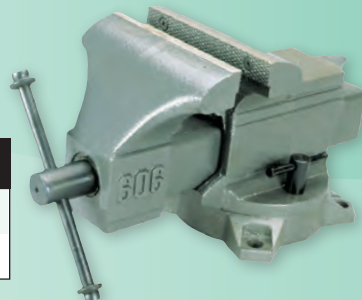
- The 1300 series is made of graded cast irons and offers a ground vise bed for a smooth, consistent jaw movement and hardened top u-groove jaws.
- The 1400 series is made of graded cast iron and features precision 90° machining of the vise's side bodies, which allows them to be used additionally as bases. A rapid action nut for fast loading of production material. The nut provides extra tightening capabilities. Sturdy main castings provides extra strength and increased durability.

WILTON CAT. NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
SERIES 1300						
1335	3"	1-7/8"	2-1/2"	6"	9540-442	\$91.00
1345	4"	2-1/8"	3-3/4"	12"	9540-443	133.00
1360	5"	2-1/8"	4-7/8"	24"	9540-444	182.00
SERIES 1400						
1445	4-1/2"	1-7/8"	4-3/4"	15"	9540-446	210.00
1460	6"	2-1/8"	6-3/4"	38"	9540-447	287.00



Mechanics' Bench Vises

- 30,000 PSI Castings, Heavy Duty Construction
- Chrome Plated Spindle/Handle
- Hardened Steel Replaceable Jaw Faces
- 270° Swivel Base, 4 Lug Reinforcement



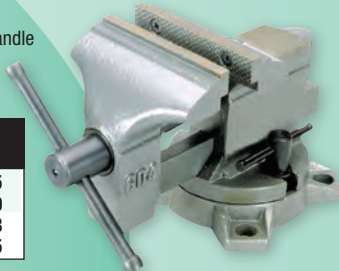
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DIMENSIONS	ORDER NO.	PRICE EACH
4"	7738-614	\$ 80.75
5"	7738-615	117.53
6"	7738-616	169.82
7"	7738-617	172.89



Workshop Series Bench Vises

- 20,000 PSI Castings, Black Oxide Spindle/Handle
- Hardened Steel Replaceable Jaw Faces
- 270° Swivel Base, 4 Lug Reinforcement



3

DIMENSIONS	ORDER NO.	PRICE EACH
3"	7738-603	\$ 33.85
4"	7738-604	50.89
5"	7738-605	93.23
6"	7738-606	130.15



Super Precision 3-Way Tilting Machine Vise

FEATURES:

- Perfect vise for 3 axis jobs in milling, drilling, grinding, shaping and jig boring
- Manufactured from close grain high tensile cast iron
- Jaw plates, hardened and ground
- Hardness of jaws - 55 ±3 HRC
- No jaw tilt
- Accuracy indexed for 3 way angular work
- All ground surfaces are made to close accuracies
- 360° swivel base
- 45° tilting range on either side
- 90° vertical indexing



2

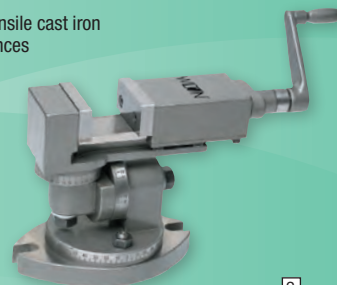
WILTON CAT. NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
TLT/SP-50	2"	2"	5/16"	8	9541-159	\$357.00
TLT/SP-75	3"	3"	1-15/16"	24	9541-160	628.60



Super Precision 2-Way Angular Machine Vise

FEATURES:

- Manufactured from close grained high tensile cast iron
- All ground surfaces made to close tolerances
- Jaw plates, hardened and ground
- Perfect vise for grinding, jig boring, and shaping jobs
- No jaw tilt
- Hardness of jaws - 55 ±3 HRC
- 90° vertical and 180° horizontal indexing
- 360° swivel base
- 90° tilting range
- Perfectly indexed for angular work



2

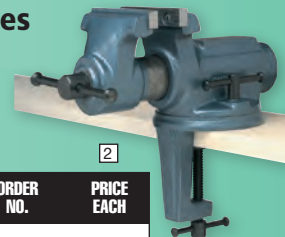
WILTON CAT. NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
AMV/SP-75	3"	3"	1-15/16"	21	9541-163	\$420.00
AMV/SP-100	4"	4"	1-9/16"	38	9541-164	518.00



Super Junior Vises

FEATURES:

- Clamp-on models are portable.
- Top jaws are grooved and replaceable.
- Spindle is fully enclosed.
- Double lockdowns ensure stability.



2

WILTON CAT. NO.	JAW WIDTH	MAX. OPENING	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
CLAMP-ON BASE					
CBV-65	2-1/2"	2-1/2"	9	9540-378	\$112.00
CBV-100	4"	4"	15	9540-377	141.40
SWIVEL BASE					
SBV-65	2-1/2"	2-1/2"	8	9540-380	96.60
SBV-100	4"	4"	14	9540-379	113.40



Arbor Presses



3

MODEL NO.	PRESS TONS	HT. OF PRESS	BASE DIAM.	MAX HEIGHT	LARGEST ARBOR	ORDER NO.	PRICE EACH
0	1/2 TON	10"	4" x 9-1/2"	4-1/2'	1-1/8"	2904-000	\$ 55.20
1	1 TON	12"	5" x 11"	5-1/4'	1-3/8"	2904-010	61.00
2	2 TON	17"	6-3/4" x 17"	8-1/2'	1-3/4"	2904-020	131.40
3	3 TON	21-1/2"	8" x 18"	12-1/2'	2-1/2"	2904-030	188.60

Drill Bushings

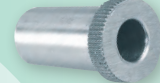
NOTE: Standard sizes in a given I.D. range are sizes listed in the decimal equivalent chart either as a fraction, number or letter size. Any other decimal or millimeter size within a given range is considered special and will be priced accordingly.

1-5 pcs.....List	Quantity Discounts:	200-499 pcs...-51%
6-11 pcs.....-18%	24-49 pcs.....-34%	500 pcs. up.....-52%
12-23 pcs.....-29%	50-99 pcs.....-43%	Same Size - No Mix
	100-199 pcs...-47%	

ANSI Tolerances – Sizes Not Listed Available on Request



TYPE "P"



TYPE "H"



TYPE "SF"

Headless Press Fit

O.D.				BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE															
I.D. RANGE (STD. DRILL SIZE)		NOM.	ACTUAL	ANSI SYMBOL	1/4	5/16	3/8	1/2	5/8	3/4	1"	1-1/4	1-3/8	1-1/2	1-3/4	2"	2-1/8	2-1/2	3"
NOM.	DECIMAL				-4	-5	-6	-8	-10	-12	-16	-20	-22	-24	-28	-32	-34	-40	-48
#55-1/16	.0520-.0625	5/32	.1578-.1575	P-10	\$18.53	\$19.21	\$19.70	\$19.90	-	\$21.58	-	-	-	-	-	-	-	-	-
#52-#39	.0625-.0995	13/64	.2046-.2043	P-13	8.68	9.69	10.38	10.70	-	11.73	\$12.75	-	\$19.37	-	-	-	-	-	-
#40-9/64	.0980-.1406	1/4	.2516-.2513	P-16	7.99	8.50	9.17	9.69	\$10.38	10.88	12.05	-	19.05	\$19.94	\$20.90	-	-	-	-
1/8-#10	.1250-.1935	5/16	.3141-.3138	P-20	6.65	6.97	7.30	7.66	7.99	8.33	8.68	-	12.75	14.79	16.83	-	-	-	-
#10-#1	.1935-.2280	3/8	.3766-.3763	P-24	5.77	5.94	6.46	6.65	6.97	7.30	8.50	-	-	-	-	-	-	-	-
3/16-F	.1875-.2570	13/32	.4078-.4075	P-26	5.77	5.94	6.46	6.65	-	7.30	8.50	-	9.69	10.88	12.05	-	-	-	-
A-L	.2340-.2900	7/16	.4392-.4389	P-28	5.77	5.94	6.46	6.65	6.97	7.30	8.50	-	-	-	-	-	-	-	-
3/16-O	.1875-.3160	1/2	.5017-.5014	P-32	5.77	5.94	6.46	6.65	-	7.30	8.50	-	9.69	10.88	12.05	-	\$24.31	-	-
M-11/32	.2950-.3437	9/16	.5642-.5639	P-36	6.65	5.77	6.13	6.13	6.46	6.65	6.97	-	-	-	-	-	-	-	-
5/16-7/16	.3125-.4375	5/8	.6267-.6264	P-40	6.65	5.77	6.13	6.13	6.46	6.65	6.97	\$ 9.53	9.53	10.02	10.88	-	13.08	-	-
5/16-17/32	.3125-.5312	3/4	.7518-.7515	P-48	6.97	5.94	6.65	6.65	6.97	6.97	7.66	9.69	9.69	10.38	11.24	-	13.25	\$24.31	-
1/2-21/32	.5000-.6562	7/8	.8768-.8765	P-56	-	8.68	9.00	7.99	8.33	8.33	8.68	9.53	9.53	10.38	11.39	-	13.08	15.13	-
1/2-49/64	.5000-.7656	1"	1.0018-1.0015	P-64	-	-	-	8.33	8.33	8.33	8.84	9.53	9.53	10.70	11.73	-	13.08	15.13	\$25.33
5/8-1-1/32	.6250-1.0312	1-3/8	1.3772-1.3768	P-88	-	-	-	13.08	12.40	10.88	13.08	14.45	14.45	15.81	17.13	\$19.70	19.94	22.26	30.75

Boxed prices indicate counterbored bushings.

Head Press Fit

O.D.				BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE															
I.D. RANGE (STD. DRILL SIZE)		NOM.	ACTUAL	ANSI SYMBOL	1/4	5/16	3/8	1/2	5/8	3/4	1"	1-1/4	1-3/8	1-1/2	1-3/4	2"	2-1/8	2-1/2	3"
NOM.	DECIMAL				-4	-5	-6	-8	-10	-12	-16	-20	-22	-24	-28	-32	-34	-40	-48
#55-1/16	.0520-.0625	5/32	.1578-.1575	H-10	\$19.37	\$19.70	\$19.94	\$20.22	-	\$22.60	-	-	-	-	-	-	-	-	-
#52-#39	.0635-.0995	13/64	.2046-.2043	H-13	11.24	11.39	12.05	12.40	-	14.10	\$18.19	-	-	-	-	-	-	-	-
#40-9/64	.0980-.1406	1/4	.2516-.2513	H-16	9.69	10.38	10.88	11.24	\$12.40	13.76	17.52	-	\$25.33	\$27.02	-	-	-	-	-
1/8-#10	.1250-.1935	5/16	.3141-.3138	H-20	7.99	8.50	9.00	9.17	9.36	9.53	11.39	-	19.21	21.76	-	-	-	-	-
#10-#1	.1935-.2280	3/8	.3766-.3763	H-24	7.30	7.99	8.33	8.50	8.84	9.00	10.70	-	-	-	-	-	-	-	-
3/16-F	.1875-.2570	13/32	.4078-.4075	H-26	7.30	7.66	8.33	8.50	-	9.00	10.70	-	12.05	13.43	\$14.79	-	-	-	-
A-L	.2340-.2900	7/16	.4392-.4389	H-28	7.30	7.99	8.33	8.50	8.84	9.00	10.70	-	-	-	-	-	-	-	-
3/16-O	.1875-.3160	1/2	.5017-.5014	H-32	7.30	7.66	8.33	8.50	-	9.00	10.70	-	12.40	13.43	14.79	-	-	-	-
M-11/32	.2950-.3437	9/16	.5642-.5639	H-36	8.33	7.30	7.99	7.99	8.33	8.33	9.00	-	-	-	-	-	-	-	-
5/16-7/16	.3125-.4375	5/8	.6767-.6264	H-40	8.33	7.30	7.66	7.66	8.33	8.33	9.00	-	12.05	12.75	13.76	-	-	-	-
5/16-17/32	.3125-.5312	3/4	.7518-.7515	H-48	9.00	7.99	8.33	8.33	8.68	9.00	9.69	\$12.40	12.40	13.08	13.92	-	\$16.32	-	-
1/2-21/32	.5000-.6562	7/8	.8768-.8765	H-56	-	-	-	10.02	10.02	10.21	10.70	11.73	11.73	13.08	14.45	-	16.32	\$19.57	-
1/2-49/64	.5000-.7656	1"	1.0018-1.0015	H-64	-	-	-	10.38	-	10.38	11.24	-	12.05	14.10	15.81	-	18.53	21.24	\$32.80
5/8-1-1/32	.6250-1.0312	1-3/8	1.3772-1.3768	H-88	-	-	-	16.83	-	15.46	17.01	-	18.86	20.22	21.58	-	24.67	27.68	38.91

Boxed prices indicate counterbored bushings.

Slip-Fixed Renewable

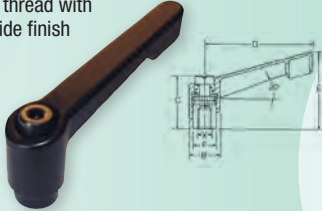
O.D.				BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE															
I.D. RANGE (STD. DRILL SIZE)		NOM.	ACTUAL	ANSI SYMBOL	1/4	5/16	3/8	1/2	5/8	3/4	1"	1-1/4	1-3/8	1-1/2	1-3/4	2"	2-1/8	2-1/2	3"
NOM.	DECIMAL				-4	-5	-6	-8	-10	-12	-16	-20	-22	-24	-28	-32	-34	-40	-48
#39-9/64	.0995-.1406	1/4	.2500-.2498	SF-16	\$12.05	\$12.05	\$12.40	\$13.08	\$13.92	\$14.79	-	-	-	-	-	-	-	-	-
#55-1/16	.0520-.0625	5/16	.3125-.3123	SF-20	-	21.92	22.60	22.75	-	25.00	-	-	-	-	-	-	-	-	-
#52-#43	.0635-.0890	5/16	.3125-.3123	SF-20	-	13.25	13.59	14.10	-	15.98	\$19.57	-	-	-	-	-	-	-	-
#42-#31	.0935-.1200	5/16	.3125-.3123	SF-20	-	12.05	12.40	13.08	-	14.79	17.52	-	\$22.21	-	-	-	-	-	-
1/8-#10	.1250-.1935	5/16	.3125-.3123	SF-20	-	11.73	12.05	12.58	-	14.27	17.13	-	21.92	-	-	-	-	-	-
#10-#1	.1935-.2280	3/8	.3750-.3748	SF-24	8.33	8.84	9.17	9.69	\$10.02	10.38	11.73	-	-	-	-	-	-	-	-
A-L	.2340-.2900	7/16	.4375-.4373	SF-28	8.33	8.84	9.17	9.69	10.02	10.38	11.73	-	-	-	-	-	-	-	-
#28-3/16	.1405-.1875	1/2	.5000-.4998	SF-32	-	10.02	10.38	10.70	-	11.73	13.43	-	15.46	16.49	17.85	-	-	-	-
#12-11/32	.1890-.3437	1/2	.5000-.4998	SF-32	-	8.84	9.17	9.53	-	10.38	11.73	-	14.10	14.79	16.15	-	\$30.09	-	-
M-11/32	.2950-.3437	9/16	.5625-.5623	SF-36	8.33	8.84	9.17	9.69	10.02	10.38	11.73	-	-	-	-	-	-	-	-
S-7/16	.3480-.4375	5/8	.6250-.6248	SF-40	-	-	9.36	9.36	9.69	10.02	10.54	\$14.10	-	-	-	-	-	-	-
9/32-9/16	.2812-.5625	3/4	.7500-.7498	SF-48	-	-	9.17	9.36	-	10.02	10.70	-	\$14.10	15.13	16.32	-	18.53	\$31.61	\$43.84
35/64-21/32	.5469-.6562	7/8	.8750-.8748	SF-56	-	-	-	11.73	12.05	12.24	13.08	14.27	-	15.81	-	-	-	-	-
15/32-25/32	.4687-.7812	1"	1.0000-.9998	SF-64	-	-	-	11.73	-	12.05	13.08	-	14.27	15.46	17.13	-	20.54	33.63	44.35
21/32-1-1/16	.7187-1.0625	1-3/8	1.3750-1.3747	SF-88	-	-	-	-	-	17.85	20.22	-	21.92	23.29	25.16	-	28.21	38.06	49.45

Boxed prices indicate counterbored bushings.

Jig Fixtures & Components

Adjustable Clamping Levers Plastic Handle and Die-Cast Zinc Handle

- Black thermoplastic handle with metal insert.
- Zinc die-cast handle with black finish
- All steel parts ensure durability
- Internal thread with black oxide finish



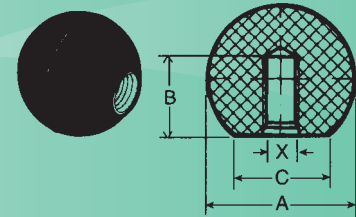
X THREAD	B	C	D	E	F	PLASTIC HANDLE			DIE-CAST HANDLE		
						REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
#10-24	.55	.95	1.65	1.30	.39	AH-101	3161-968	\$ 4.30	MH-101	3163-658	\$5.75
#10-32	.55	.95	1.65	1.30	.39	AH-102	3161-969	4.30	MH-102	3163-659	5.75
#1/4"-20	.55	.95	1.65	1.30	.39	AH-103	3161-970	4.30	MH-103	3163-660	5.75
# 1/4"-20	.71	1.22	2.56	1.77	.53	AH-104	3161-971	5.10	MH-104	3163-661	6.65
#5/16"-18	.71	1.22	2.56	1.77	.53	AH-105	3161-972	5.10	MH-105	3163-662	6.65
#5/16"-18	.86	1.41	3.07	2.12	.63	AH-106	3161-973	6.20	MH-106	3163-663	7.70
#3/8"-16	.86	1.41	3.07	2.12	.63	AH-107	3161-974	6.20	MH-107	3163-664	7.70
3/8"-16	.98	1.69	3.62	2.52	.75	AH-108	3161-975	7.75	MH-108	3163-665	8.85
1/2"-13	.98	1.69	3.62	2.52	.75	AH-109	3161-976	7.75	MH-109	3163-666	8.85
1/2"-13	1.18	1.98	4.25	2.95	.91	-	-	-	MH-112	3163-667	11.30
5/8"-11	1.18	1.98	4.25	2.95	.91	-	-	-	MH-113	3163-668	11.30



Hand Knobs — Zinc Plated

CAST IRON						ALUMINUM					
A	B	C	D	R REAM	T TAPPED	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1-1/2	5/8	7/8	3/8		5/16-18	HK 307	3160-523	\$3.85	HK 307A	3161-923	\$4.40
1-1/2	5/8	7/8	3/8	.3115		HK 308	3160-524	3.80	HK 308A	3161-924	4.35
1-1/2	5/8	7/8	3/8	BLANK		HK 309	3160-525	2.90	HK 309A	3161-925	3.45
2	3/4	7/8	3/8		3/8-16	HK 410	3160-526	4.25	HK 410A	3161-926	4.80
2	3/4	7/8	3/8	.3115		HK 411	3160-527	4.15	HK 411A	3161-927	4.80
2	3/4	7/8	3/8	.374		HK 412	3160-528	4.15	HK 412A	3161-928	4.80
2	3/4	7/8	3/8	BLANK		HK 413	3160-529	3.20	HK 413A	3161-929	3.55
2-1/2	1	2-1/4	1/2	BLANK		HK 515	3160-531†	5.35	-	-	-
2-1/2	1-1/8	1-1/2	1/2		1/2-13	HK 616	3160-532	5.80	HK 616A	3161-932	6.80
2-1/2	1-1/8	1-1/2	1/2	.499		HK 617	3160-533	5.80	HK 617A	3161-933	6.70
2-1/2	1-1/8	1-1/2	1/2		5/8-11	HK 618	3160-534	5.80	HK 618A	3161-934	6.70
2-1/2	1-1/8	1-1/2	1/2	.624		HK 619	3160-535	6.20	HK 619A	3161-935	7.10
2-1/2	1-1/8	1-1/2	1/2	.374		HK 620	3160-536	6.65	HK 620A	3161-936	7.20
2-1/2	1-1/8	1-1/2	1/2	BLANK		HK 621	3160-537	4.85	HK 621A	3161-937	5.40
3	1-1/4	1-3/4	1/2	BLANK		HK 725	3160-541†	5.10	-	-	-
3	1-1/2	1-3/4	1/2		3/4-10	HK 826	3160-542†	6.90	HK 826A	3161-942	11.60
3	1-1/2	1-3/4	1/2	.624		-	-	-	HK 827A	3161-943	11.60
3	1-1/2	1-3/4	1/2	.749		-	-	-	HK 828A	3161-944	11.60
3	1-1/2	1-3/4	1/2	BLANK		HK 829	3160-545†	5.55	HK 829A	3161-945	9.15

Plastic Ball Knobs



Plastic Ball Knobs have brass insert

A	B TAP	REF. NO.	ORDER NO.	PRICE EACH
3/4	#10-32	PB5	3160-809	\$1.30
1	1/4-20	PB9	3160-810	1.45
1	5/16-1/8	PB 10	3160-811	1.60
1-3/8	3/8-16	PB 11	3160-812	2.10
1-1/2	1/2-13	PB 13	3160-814	4.25

† Limited Quantities

Hand Knob Screws



CAST IRON						ALUMINUM			
A	B	C	D	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1/4-20	1			HKS-2510	3160-546	\$5.45	HKS-2510A	3161-946	\$5.60
	1-1/2			HKS-2515	3160-547	5.70	HKS-2515A	3161-947	5.80
	1-3/4	1/2	7/8	HKS-2517	3160-548	6.25	HKS-2517A	3161-948	6.30
	2			HKS-2520	3160-549	6.70	HKS-2520A	3161-949	6.50
	3			HKS-2530	3160-550	7.15	HKS-2530A	3161-950	6.80
5/16-18	1-3/4			HKS-3117	3160-551	6.65	HKS-3117A	3161-951	6.90
	2-1/2			HKS-3125	3160-552	7.00	HKS-3125A	3161-952	7.50
	3			HKS-3130	3160-553	7.60	HKS-3130A	3161-953	7.70
3/8-16	1-1/4	2	7/8	HKS-3712	3160-554	7.00	HKS-3712A	3161-954	7.25
	1-3/4			HKS-3717	3160-555	7.15	HKS-3717A	3161-955	7.30
	2			HKS-3720	3160-556	7.60	HKS-3720A	3161-956	7.55
	2-1/2			HKS-3725	3160-557	7.75	HKS-3725A	3161-957	7.70
	3			HKS-3730	3160-558	8.35	HKS-3730A	3161-958	8.20
1/2-13	1-1/2			HKS-5015	3160-559	8.95	HKS-5015A	3161-959	8.95
	1-3/4			HKS-5017	3160-560	9.50	HKS-5017A	3161-960	9.35
	2			HKS-5020	3160-561	9.95	HKS-5020A	3161-961	9.50
	2-1/2			HKS-5025	3160-562	10.20	HKS-5025A	3161-962	10.10
	3	2-1/2	1-1/2	HKS-5030	3160-563	10.35	HKS-5030A	3161-963	10.25
5/8-11	1-3/4			HKS-6217	3160-564	10.40	HKS-6217A	3161-964	10.75
	2-1/2			HKS-6225	3160-565	11.25	HKS-6225A	3161-965	11.55
	3			HKS-6230	3160-566	11.35	HKS-6230A	3161-966	11.75
	3-1/2			HKS-6235	3160-567	11.95	HKS-6235A	3161-967	12.35

Precision Stainless Steel Thumb Screw



- Made from 303 stainless steel
- Diamond knurl on head
- Longer head length than standard thumb screw

A	D	B	C	PART #	ORDER NO.	PRICE EACH
4-40	1"	3/16	3/8	4118	3164-825	\$1.85
6-32	1"	3/16	3/8	4122	3164-826	1.90
8-32	1/2	3/16	3/8	4219	3164-828	1.80
8-32	1"	3/16	3/8	4228	3164-829	1.85
10-24	1/2	1/4	1/2	4310	3164-831	2.15
10-24	1"	1/4	1/2	4326	3164-833	2.20
10-32	1/2	1/4	1/2	4359	3164-835	2.15
10-32	1"	1/4	1/2	4374	3164-836	2.25
1/4-20	1/2	5/16	1/2	4410	3164-838	2.25
1/4-20	1"	5/16	1/2	4413	3164-840	2.20

Jig Fixtures & Components

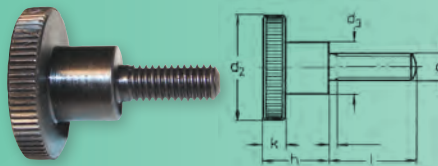
Adjustable Clamping Levers Plastic Handle w/ Stud and Die-Cast Zinc Handle w/ Stud

- Black thermoplastic handle with metal insert
- Steel parts give increased stability and rigidity
- External steel stud with black oxide finish
- Additional thread lengths available upon request



X THREAD	L	B	C	D	E	F	PLASTIC HANDLE			DIE-CAST HANDLE		
							REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
#10-24	.63	.55	.95	1.65	1.30	.39	AH-301	3161-986	\$4.85	MH-301	3163-680	\$6.15
#10-32	.63	.55	.95	1.65	1.30	.39	AH-302	3161-987	4.85	MH-302	3163-681	6.15
#10-32	1.25	.55	.95	1.65	1.30	.39	AH-3027	3162-085	4.85	MH-3027	3163-732	6.20
1/4"-20	.78	.55	.95	1.65	1.30	.39	AH-303	3161-988	4.85	MH-303	3163-682	6.15
1/4"-20	1.25	.55	.95	1.65	1.30	.39	AH-3034	3162-087	4.85	MH-3034	3163-734	6.20
1/4"-20	1.57	.55	.95	1.65	1.30	.53	AH-3038	3162-091	5.75	MH-3038	3163-738	6.85
1/4"-20	.98	.71	1.22	2.56	1.77	.53	AH-3035	3162-088	6.50	MH-3035	3163-735	7.75
5/16"-18	.78	.71	1.22	2.56	1.77	.53	AH-3037	3162-090	6.50	MH-3037	3163-737	7.55
5/16"-18	1.26	.71	1.22	2.56	1.77	.53	AH-3039	3162-092	6.50	MH-3039	3163-739	7.55
5/16"-18	1.57	.71	1.22	2.56	1.77	.53	AH-304	3161-989	6.50	MH-304	3163-683	7.55
5/16"-18	2.48	.71	1.22	2.56	1.77	.53	AH-3045	3162-094	6.50	MH-3045	3163-741	7.55
3/8"-16	.78	.71	1.22	2.56	1.77	.53	AH-3047	3162-095	6.50	MH-3047	3163-742	7.55
3/8"-16	1.25	.71	1.22	2.56	1.77	.53	AH-3048	3162-096	6.50	MH-3048	3163-743	7.55
3/8"-16	1.57	.71	1.22	2.56	1.77	.53	AH-305	3161-990	6.50	MH-305	3163-684	7.55
5/16"-18	1.97	.86	1.41	3.07	2.12	.63	AH-3053	3162-097	8.10	MH-3053	3163-744	8.90
3/8"-16	.98	.86	1.41	3.07	2.12	.63	AH-3056	3162-098	8.00	MH-3056	3163-745	8.90
3/8"-16	1.26	.86	1.41	3.07	2.12	.63	AH-3058	3162-099	8.10	MH-3058	3163-746	8.90
3/8"-16	1.57	.86	1.41	3.07	2.12	.63	AH-306	3161-991	8.10	MH-306	3163-685	8.90
3/8"-16	1.97	.86	1.41	3.07	2.12	.63	AH-307	3161-992	8.10	MH-307	3163-686	8.90
3/8"-16	2.48	.86	1.41	3.07	2.12	.63	AH-3079	3162-102	8.10	MH-3079	3163-749	9.00
3/8"-16	1.57	.98	1.69	3.62	2.52	.75	AH-3075	3162-100	9.20	MH-3075	3163-747	10.70
3/8"-16	1.97	.98	1.69	3.62	2.52	.75	AH-3078	3162-101	9.20	MH-3078	3163-748	10.70
1/2"-13	1.25	.98	1.69	3.62	2.52	.75	AH-308	3161-993	9.20	MH-308	3163-687	10.70
1/2"-13	1.57	.98	1.69	3.62	2.52	.75	AH-3085	3162-103	9.20	MH-3085	3163-750	10.70
1/2"-13	1.97	.98	1.69	3.62	2.52	.75	AH-309	3161-994	9.20	MH-309	3163-688	10.70
1/2"-13	2.48	.98	1.69	3.62	2.52	.75	AH-310	3161-995	9.40	MH-310	3163-689	10.70
1/2"-13	1.57	1.18	1.98	4.25	2.95	.91	-	-	-	MH-321	3163-690	13.45
1/2"-13	2.48	1.18	1.98	4.25	2.95	.91	-	-	-	MH-322	3163-691	13.45
5/8"-11	1.57	1.18	1.98	4.25	2.95	.91	-	-	-	MH-324	3163-692	13.45
5/8"-11	2.48	1.18	1.98	4.25	2.95	.91	-	-	-	MH-325	3163-693	13.45

Knurled Thumb Screws



- Metric and Inch sizes available
- Available in stainless steel and steel
- Solid one-piece construction
- Straight knurl

d ²	THREAD	THREAD LGTH	d ³	h	k	STEEL			STAINLESS STEEL		
						PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
1	1/4-20	5/16	1/2	5/8	1/4	KK-2531	3163-061	\$4.00	KK-2531SS	3163-106	\$6.95
1	1/4-20	3/8	1/2	5/8	1/4	KK-2537	3163-062	4.10	KK-2537SS	3163-107	7.30
1	1/4-20	1/2	1/2	5/8	1/4	KK-2550	3163-063	4.30	KK-2550SS	3163-108	7.65
1	1/4-20	5/8	1/2	5/8	1/4	KK-2562	3163-064	4.50	KK-2562SS	3163-109	8.15
1	1/4-20	3/4	1/2	5/8	1/4	KK-2575	3163-065	4.70	KK-2575SS	3163-110	8.70
1	1/4-20	1	1/2	5/8	1/4	KK-2510	3163-060	5.00	KK-2510SS	3163-105	9.25
1-1/4	5/16-18	1/2	5/8	3/4	1/4	KK-3150	3163-069	5.90	KK-3150SS	3163-114	10.65
1-1/4	5/16-18	5/8	5/8	3/4	1/4	KK-3162	3163-070	6.05	KK-3162SS	3163-115	11.10
1-1/4	5/16-18	3/4	5/8	3/4	1/4	KK-3175	3163-071	6.40	KK-3175SS	3163-116	11.75
1-1/4	5/16-18	1	5/8	3/4	1/4	KK-3110	3163-066	7.10	KK-3110SS	3163-111	13.15
1-1/4	5/16-18	1-1/4	5/8	3/4	1/4	KK-3112	3163-067	7.35	KK-3112SS	3163-112	14.25
1-1/4	5/16-18	1-1/2	5/8	3/4	1/4	KK-3115	3163-068	8.30	KK-3115SS	3163-113	15.20
1-3/8	3/8-16	5/8	3/4	1	5/16	KK-3762	3163-075	8.50	KK-3762SS	3163-120	17.10
1-3/8	3/8-16	3/4	3/4	1	5/16	KK-3775	3163-076	9.25	KK-3775SS	3163-121	18.05
1-3/8	3/8-16	1	3/4	1	5/16	KK-3710	3163-072	10.15	KK-3710SS	3163-117	18.75
1-3/8	3/8-16	1-1/4	3/4	1	5/16	KK-3712	3163-073	11.20	KK-3712SS	3163-118	19.45
1-3/8	3/8-16	1-1/2	3/4	1	3/4	KK-3715	3163-074	12.35	KK-3715SS	3163-119	19.80

Metric Thumb Screws

- Carbon steel, black oxide finish
- Straight knurl



X THREAD	THREAD LENGTH D	B	C	PART NO.	ORDER NO.	PRICE EACH
M3	6mm	12mm	2.5mm	521203006	3165-050	\$1.80
M3	10	12	2.5	521203013	3165-051	1.80
M3	16	12	2.5	521203016	3165-052	1.85
M4	8	16	3.5	521604008	3165-053	2.05
M4	10	16	3.5	521604010	3165-054	2.10
M4	12	16	3.5	521604012	3165-055	2.10
M4	16	16	3.5	521604016	3165-056	2.35
M4	20	16	3.5	521604020	3165-057	2.65
M5	10	20	4	522005010	3165-058	2.45
M5	12	20	4	522005012	3165-059	2.50
M5	16	20	4	522005016	3165-060	2.70
M5	20	20	4	522005020	3165-061	3.15
M6	12	24	5	522406012	3165-062	3.35
M6	16	24	5	522406016	3165-063	3.40
M6	20	24	5	522406020	3165-064	3.55
M6	30	24	5	522406030	3165-065	4.65
M6	40	24	5	522406040	3165-066	5.65
M8	16	30	6	523008016	3165-067	4.65
M8	20	30	6	523008020	3165-068	5.00
M8	25	30	6	523008025	3165-069	5.35
M8	30	30	6	523008030	3165-070	6.40
M8	40	30	6	523008040	3165-071	8.10
M10	20	36	8	523610020	3165-072	7.20
M10	25	36	8	523610025	3165-073	8.30
M10	30	36	8	523610030	3165-074	9.60
M10	40	36	8	523610040	3165-075	11.55

Precision Thumb Screws w/Shoulder

- Precision thumb screw for a wide variety of applications
- 303 stainless steel or carbon steel with black oxide finish
- Shoulder provides an excellent bearing surface
- Diamond knurl on head



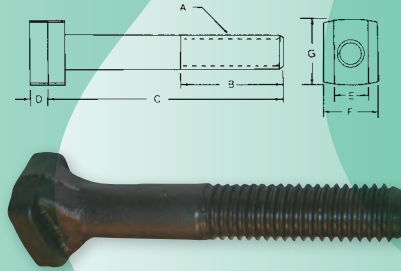
A THREAD	B	C	D	E	F	STEEL			STAINLESS STEEL		
						PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
4-40	3/8	1/4	1/4	3/16	3/32	3101	3164-619	\$1.85	-	-	-
4-40	3/8	1/4	1/4	3/16	3/32	3102	3164-620	1.85	-	-	-
6-32	7/16	3/8	7/6	5/16	3/32	3202	3164-621	2.00	4202	3164-853	\$2.45
6-32	7/16	3/8	9/16	5/16	3/32	3204	3164-622	2.00	4204	3164-854	2.45
8-32	7/16	3/8	5/16	5/16	3/32	3205	3164-623	2.00	4205	3164-855	2.45
8-32	7/16	3/8	3/8	5/16	3/32	3206	3164-624	2.00	4206	3164-856	2.45
8-32	7/16	3/8	7/16	5/16	3/32	3207	3164-625	2.00	4207	3164-857	2.45
8-32	7/16	3/8	1/2	5/16	3/32	3208	3164-626	2.15	4208	3164-858	2.65
8-32	7/16	3/8	9/16	5/16	3/32	3209	3164-627	2.15	4209	3164-859	2.65
8-32	1/2	3/8	5/16	5/16	3/32	3301	3164-628	2.27	4301	3164-860	3.15
8-32	1/2	3/8	3/8	5/16	3/32	3302	3164-629	2.27	4302	3164-861	3.15
8-32	1/2	3/8	7/16	5/16	3/32	3303	3164-630	2.32	4303	3164-862	3.20
8-32	1/2	3/8	1/2	5/16	3/32	3304	3164-631	2.42	4304	3164-863	3.30
8-32	1/2	3/8	5/8	5/16	3/32	3305	3164-632	2.42	4305	3164-864	3.30
10-32	1/2	3/8	5/16	5/16	3/32	3401	3164-646	2.20	4401	3164-865	3.20
10-32	1/2	3/8	3/8	5/16	3/32	3402	3164-647	2.20	4402	3164-866	3.20
10-32	1/2	3/8	7/16	5/16	3/32	3403	3164-648	2.27	4403	3164-867	3.30
10-32	1/2	3/8	1/2	5/16	3/32	3403	3164-649	2.42	4404	3164-868	3.40
10-32	1/2	3/8	9/16	5/16	3/32	3405	3164-650	2.42	4405	3164-869	3.40
10-32	1/2	3/8	5/8	5/16	3/32	3406	3164-651	2.47	4406	3164-870	3.40

Jig Fixtures & Components

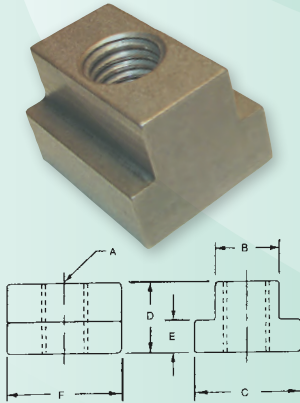
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A	B	C	D	E	F	G	REF. NO.	ORDER NO.	PRICE EACH
3/8-16	5/8	1	13/16	3/8	5/8	3/4	TB-3710	3161-640	\$3.90
3/8-16	1	1-1/2	13/16	3/8	5/8	3/4	TB-3715	3161-641	4.15
3/8-16	1-1/4	2	13/16	3/8	5/8	3/4	TB-3720	3161-642	4.30
3/8-16	1-1/2	2-1/2	13/16	3/8	5/8	3/4	TB-3725	3161-643	4.45
3/8-16	1-1/2	3	13/16	3/8	5/8	3/4	TB-3730	3161-644	4.75
3/8-16	1-1/2	3-1/2	13/16	3/8	5/8	3/4	TB-3735	3161-645	4.85
3/8-16	1-1/2	4	13/16	3/8	5/8	3/4	TB-3740	3161-646	5.05
1/2-13	1	1-1/2	1/4	1/2	13/16	15/16	TB-5015	3161-647	6.10
1/2-13	1-1/4	2	1/4	1/2	13/16	15/16	TB-5020	3161-648	6.60
1/2-13	1-1/2	2-1/2	1/4	1/2	13/16	15/16	TB-5025	3161-649	6.80
1/2-13	1-1/2	3	1/4	1/2	13/16	15/16	TB-5030	3161-650	6.85
1/2-13	1-1/2	3-1/2	1/4	1/2	13/16	15/16	TB-5035	3161-651	6.95
1/2-13	1-1/2	4	1/4	1/2	13/16	15/16	TB-5040	3161-652	7.30
1/2-13	1-1/2	5	1/4	1/2	13/16	15/16	TB-5050	3161-653	7.95
1/2-13	2	6	1/4	1/2	13/16	15/16	TB-5060	3161-654	8.40
5/8-11	1	1-1/2	5/16	5/8	1-1/64	1-1/8	TB-6215	3161-655	7.30
5/8-11	1-1/4	2	5/16	5/8	1-1/64	1-1/8	TB-6220	3161-656	7.45
5/8-11	1-1/2	2-1/2	5/16	5/8	1-1/64	1-1/8	TB-6225	3161-657	7.90
5/8-11	1-1/2	3	5/16	5/8	1-1/64	1-1/8	TB-6230	3161-658	8.20
5/8-11	1-1/2	3-1/2	5/16	5/8	1-1/64	1-1/8	TB-6235	3161-659	8.45
5/8-11	1-1/2	4	5/16	5/8	1-1/64	1-1/8	TB-6240	3161-660	8.95
5/8-11	1-1/2	5	5/16	5/8	1-1/64	1-1/8	TB-6250	3161-661	9.50
5/8-11	2	6	5/16	5/8	1-1/64	1-1/8	TB-6260	3161-662	10.15
5/8-11	3	8	5/16	5/8	1-1/64	1-1/8	TB-6280	3161-663	10.85
3/4-10	1-1/2	3	3/8	3/4	1-1/4	1-3/8	TB-7530	3161-664	10.35
3/4-10	1-1/2	3-1/2	3/8	3/4	1-1/4	1-3/8	TB-7535	3161-665	10.85
3/4-10	1-1/2	4	3/8	3/4	1-1/4	1-3/8	TB-7540	3161-666	11.60

T-Slot Bolts



T-Slot Nuts

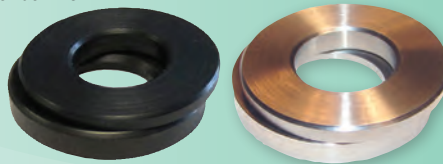
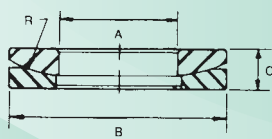


						CARBON STEEL			STAINLESS STEEL		
A TAP	B	C	D	E	F	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
5/16-18	.343	5/8	13/32	7/32	3/4	TN 0	3161-129	\$3.15	TN 0SS	3170-365	\$5.75
5/16-18	.418	11/16	3/8	1/4	11/16	TN 00	3161-130	2.90	TN 00SS	3170-366	5.55
3/8-16	.430	3/4	1/2	7/32	1	TN 05	3161-131	2.65	TN 05SS	3170-367	5.95
3/8-16	.490	7/8	5/8	1/4	7/8	TN 10	3161-132	2.90	TN 10SS	3170-368	6.20
3/8-16	.543	7/8	5/8	5/16	1-1/4	TN 15	3161-133	3.10	TN 15SS	3170-369	6.20
1/2-13	.555	7/8	3/4	11/32	1-1/4	TN 20	3161-134	3.40	TN 20SS	3170-370	7.15
1/2-13	.562	7/8	3/4	5/16	1-1/4	TN 1	3161-135	3.55	TN 1SS	3170-371	7.35
1/2-13	.562	1-1/8	3/4	25/64	1-1/4	TN 2	3161-136	3.55	TN 2SS	3170-372	7.65
1/2-13	.625	1	3/4	3/8	1-1/4	TN 22	3161-137	3.40	TN 22SS	3170-373	7.45
1/2-13	.625	1-1/8	3/4	7/16	1-1/4	TN 23	3161-138	4.00	TN 23SS	3170-374	7.70
1/2-13	.665	1-1/8	3/4	13/32	1-1/4	TN 21	3161-139	3.40	TN 21SS	3170-375	7.75
5/8-11	.675	1-1/8	1-1/8	15/32	1-1/2	TN 30	3161-140	4.90	TN 30SS	3170-376	9.40
5/8-11	.687	1-1/4	1	15/32	1-1/2	TN 3	3161-141	4.90	TN 3SS	3170-377	9.25
5/8-11	.780	1-1/4	1	17/32	1-1/2	TN 31	3161-142	4.90	TN 31SS	3170-378	9.10
3/4-10	.800	1-3/8	1-3/8	17/32	1-3/4	TN 40	3161-143	6.75	TN 40SS	3170-379	13.80
3/4-10	.812	1-1/2	1	9/16	1-3/4	TN 5	3161-144	6.80	TN 5SS	3170-380	14.05
3/4-10	.968	1-5/8	1	9/16	1-3/4	TN 4	3161-145	6.80	TN 4SS	3170-381	14.90
3/4-10	1.030	1-5/8	1	9/16	1-3/4	TN 41	3161-150	6.75	TN 41SS	3170-382	15.35

Carbon steel is case hardened. Black oxide finish. **Note:** An imperfect thread is left in the base to eliminate the danger of damaging the table by screwing the stub through.

Spherical Washer Sets

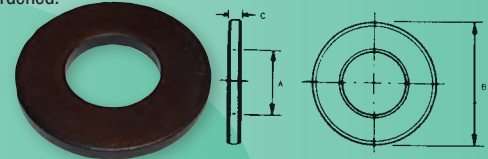
Carbon steel is case hardened. Black oxide finish.



					CARBON STEEL			STAINLESS STEEL		
BOLT SIZE	A	B	C	R	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1/4	9/32	5/8	3/16	3/4	SP 0	3161-009	\$2.14	SP 0SS	3170-187	\$4.42
5/16	11/32	3/4	1/4	1	SP 01	3161-010	2.32	SP 01SS	3170-188	5.12
3/8	13/32	7/8	1/4	1-1/4	SP 1	3161-011	2.66	SP 1SS	3170-189	5.86
1/2	17/32	1-1/8	5/16	1-1/2	SP 2	3161-012	3.36	SP 2SS	3170-190	7.14
5/8	21/32	1-3/8	5/16	1-3/4	SP 3	3161-013	4.44	SP 3SS	3170-191	9.00
3/4	25/32	1-5/8	3/8	2-1/4	SP 4	3161-014	4.94	SP 4SS	3170-192	10.60
7/8	15/16	1-3/4	3/8	2-1/2	SP 5	3161-015	6.30	SP 5SS	3170-193	13.30
1	1-1/16	2	1/2	2-3/4	SP 6	3161-016	7.44	SP 6SS	3170-194	15.60
1-1/8	1-3/16	2-1/4	1/2	3	SP 7	3161-017	11.86	SP 7SS	3170-195	23.30
1-1/4	1-5/16	2-5/8	1/2	3	SP 8	3161-018	14.52	SP 8SS	3170-196	27.00
1-1/2	1-9/16	2-7/8	9/16	3-1/2	SP 9	3161-019	17.92	SP 9SS	3170-197	34.30
1-5/8	1-11/16	3-1/4	11/16	3-1/2	SP 10	3161-020	22.30	SP 10SS	3170-198	39.40
1-3/4	1-13/16	3-1/4	11/16	3-1/2	SP 11	3161-021	23.90	SP 11SS	3170-199	43.30
2	2-1/16	3-7/8	3/4	4	SP 12	3161-022	28.20	SP 12SS	3170-200	53.60

Precision Flat Washers

Carbon steel is case hardened. Black oxide finish.



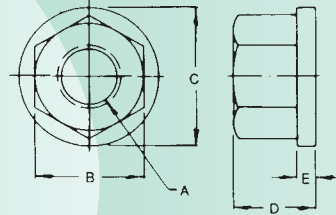
CARBON STEEL					STAINLESS STEEL				
BOLT SIZE	A	B	C	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1/4	9/32	5/8	1/8	FW 0	3160-474	\$0.47	FW OSS	3170-100	\$1.30
5/16	11/32	3/4	1/8	FW 01	3160-475	0.55	FW 01SS	3170-101	1.42
3/8	13/32	7/8	1/8	FW 1	3160-476	0.56	FW 1SS	3170-102	1.65
1/2	17/32	1-1/8	1/8	FW 2	3160-477	0.63	FW 2SS	3170-103	2.16
5/8	21/32	1-3/8	1/8	FW 3	3160-478	0.79	FW 3SS	3170-104	2.50
3/4	25/32	1-5/8	5/32	FW 4	3160-479	0.90	FW 4SS	3170-105	2.75
7/8	29/32	1-3/4	5/32	FW 5	3160-480	1.30	FW 5SS	3170-106	3.50
1	1-1/32	2	3/16	FW 6	3160-481	1.75	FW 6SS	3170-107	4.70

Jig Fixtures & Components

Collar Nuts

					LOW CARBON STEEL			STAINLESS STEEL		
A	B	C	D	E	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1/4-20	1/2	5/8	5/16	3/32	CN 0	3160-298	\$ 2.05	CN 0SS	3170-045	\$ 4.20
5/16-18	9/16	3/4	3/8	3/32	CN 00	3160-299	2.20	CN 00SS	3170-046	4.45
3/8-16	11/16	7/8	1/2	1/8	CN 10	3160-300	2.35	CN 10SS	3170-047	4.70
7/16-14	3/4	1	9/16	5/32	CN 15	3160-301	2.60	CN 15SS	3170-048	5.50
1/2-13	7/8	1-1/8	11/16	5/32	CN 20	3160-302	2.65	CN 20SS	3170-049	6.30
5/8-11	1-1/16	1-3/8	13/16	3/16	CN 30	3160-303	3.35	CN 30SS	3170-050	7.50
3/4-10	1-1/4	1-5/8	1	1/4	CN 40	3160-304	4.45	CN 40SS	3170-051	10.65
7/8-9	1-7/16	1-3/4	1-1/8	1/4	CN 50	3160-305	6.40	CN 50SS	3170-052	15.80
1-8	1-5/8	2	1-1/4	1/4	CN 60	3160-306	7.55	CN 60SS	3170-053	18.75
1-1/8-7	1-13/16	2-1/4	1-1/4	1/4	CN 70	3160-307	13.30	CN 70SS	3170-054	35.05
1-1/4-7	1-13/16	2-1/4	1-1/4	1/4	CN 80	3160-308	15.90	CN 80SS	3170-055	46.35
1/4-28	1/2	5/8	5/16	3/32	CN 100	3160-310	2.10	CN 100SS	3170-056	4.35
5/16-24	9/16	3/4	3/8	3/32	CN 105	3160-309	2.20	CN 105SS	3170-057	4.55
3/8-24	11/16	7/8	1/2	1/8	CN 110	3160-311	2.35	CN 110SS	3170-058	4.95
7/16-20	3/4	1	9/16	5/32	CN 115	3160-312	2.65	CN 115SS	3170-059	5.65
1/2-20	7/8	1-1/8	11/16	5/32	CN 120	3160-313	2.80	CN 120SS	3170-060	6.75
5/8-18	1-1/16	1-3/8	13/16	3/16	CN 130	3160-314	3.45	CN 130SS	3170-061	7.70
3/4-16	1-1/4	1-5/8	1	1/4	CN 140	3160-315	4.65	CN 140SS	3170-062	11.05
7/8-14	1-7/16	1-3/4	1-1/8	1/4	CN 150	3160-316	6.50	CN 150SS	3170-063	16.25
1-14	1-5/8	2	1-1/4	1/4	CN 160	3160-317	7.65	CN 160SS	3170-064	18.95
1-1/8-12	1-13/16	2-1/4	1-1/4	1/4	CN 170	3160-318	13.55	CN 170SS	3170-065	35.05
1-1/4-12	1-13/16	2-1/4	1-1/4	1/4	CN 180	3160-319	16.05	CN 180SS	3170-066	46.35

CARBON STEEL IS CASE HARDENED AND BLACK OXIDE FINISHED.



Acorn Nuts

- Available in case hardened steel or stainless steel
- Excellent for protecting exposed threads



					LOW CARBON STEEL		
A	THREAD	HEX	C		PART NO.	ORDER NO.	PRICE EACH
5/16-18	5/8	5/8			AN-0	3160-000	\$ 3.15
3/8-16	3/4	3/4			AN-1	3160-002	3.40
1/2-13	7/8	15/16			AN-2	3160-003	4.00
5/8-11	1-1/16	1-3/16			AN-3	3160-004	5.25
3/4-10	1-1/4	1-3/8			AN-4	3160-005	6.50
7/8-9	1-3/8	1-5/8			AN-5	3160-006	7.60

Swing Bolts

- Available in case hardened black oxide finish steel or stainless steel.
- Precision machined from bar stock.
- Swing bolts are not to be used for lifting.

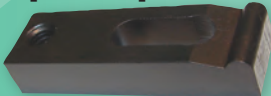


							STEEL			STAINLESS STEEL		
A THREAD	B	C	D	E	F	G	PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
1/4-20	1/4	3/4	1-3/16	1-1/2	1/2	5/16	SWB-01	3161-119	\$ 5.65	SWB-01SS	3170-350	\$ 10.55
1/4-20	1/4	1-1/4	2-3/16	2-1/2	1/2	5/16	SWB-02	3161-120	6.25	SWB-02SS	3170-351	12.80
5/16-18	5/16	1	1-5/8	2	5/8	3/8	SWB-03	3161-121	6.10	SWB-03SS	3170-352	13.25
5/16-18	5/16	1-3/8	2-5/8	3	5/8	3/8	SWB-04	3161-122	7.55	SWB-04SS	3170-353	15.20
3/8-16	3/8	1-3/8	2-5/8	3	5/8	3/8	SWB-1	3161-123	8.95	SWB-1SS	3170-354	17.95
3/8-16	3/8	2	3	3-1/2	3/4	1/2	SWB-10	3161-126	9.05	SWB-10SS	3170-357	20.95
1/2-13	1/2	1-5/8	2-1/2	3-1/8	1	5/8	SWB-2	3161-124	9.75	SWB-2SS	3170-355	25.45
1/2-13	1/2	2-1/2	3-1/2	4-1/8	1	5/8	SWB-20	3161-127	11.55	SWB-20SS	3170-358	29.60
5/8-11	5/8	1-5/8	2-3/4	3-1/2	1-1/4	3/4	SWB-3	3161-125	11.75	SWB-3SS	3170-356	35.95
5/8-11	5/8	2-1/2	4	4-3/4	1-1/4	3/4	SWB-30	3161-128	14.65	SWB-30SS	3170-359	39.75

					STAINLESS STEEL		
A	THREAD	HEX	C		PART NO.	ORDER NO.	PRICE EACH
5/16-18	5/8	5/8			AN-0SS	3170-000	\$3.80
3/8-16	3/4	3/4			AN-1SS	3170-001	4.95
1/2-13	7/8	15/16			AN-2SS	3170-002	6.45
5/8-11	1-1/16	1-3/16			AN-3SS	3170-003	11.25
3/4-10	1-1/4	1-3/8			AN-4SS	3170-004	13.50
7/8-9	1-3/8	1-5/8			AN-5SS	3170-005	18.50

Tapped End Clamp Straps

- Case hardened, black oxide finish
- Machined from carbon steel



A	B	C	D	E	F	G	H	PART NO.	ORDER NO.	PRICE EACH
3/8	5/8	2	1/2	1	9/32	1/4-20	7/32	CS-7A	3160-338	\$6.25
3/8	5/8	2-1/2	1/2	1-1/8	9/32	1/4-20	1/32	CS-107	3160-374	6.35
1/2	1	2-3/4	7/16	1-1/2	11/32	5/16-18	9/32	CS-71	3160-365	8.70
1/2	1	3-1/4	13/16	1-1/2	11/32	5/16-18	9/32	CS-72	3160-366	9.45
1/2	1	3-3/4	1-3/16	1-1/2	11/32	5/16-18	9/32	CS-73	3160-367	10.85
5/8	1-1/4	3	3/4	1-11/16	13/32	3/8-16	5/16	CS-74	3160-368	11.10
5/8	1-1/4	4	1	2-3/16	13/32	3/8-16	5/16	CS-75	3160-369	11.15
5/8	1-1/4	5	1-1/2	2-11/16	13/32	3/8-16	5/16	CS-76	3160-370	13.30
5/8	1-1/4	6	2	3-3/16	13/32	3/8-16	5/16	CS-77	3160-371	13.40
5/8	1-1/4	4	1	2-1/4	17/32	1/2-13	7/16	CS-7	3160-340	13.45
5/8	1-1/4	4-1/2	1	2-1/4	17/32	1/2-13	7/16	CS-700	3160-392	13.65
5/8	1-1/4	5	1-1/2	2-1/4	17/32	1/2-13	7/16	CS-8	3162-342	13.30
5/8	1-1/4	6	1-1/2	2-1/4	17/32	1/2-13	7/16	CS-9	3160-341	14.55
3/4	1-1/2	4-1/2	1	2-1/2	21/32	5/8-11	1/2	CS-10	3160-342	14.55
3/4	1-1/2	5	1-1/2	2-1/2	21/32	5/8-11	1/2	CS-1000	3160-393	14.85
3/4	1-1/2	5-1/2	1-1/2	2-1/2	21/32	5/8-11	1/2	CS-11	3160-343	14.85
3/4	1-1/2	6	1-1/2	2-1/2	21/32	5/8-11	1/2	CS-12	3160-344	17.40

Stainless Steel Clamp Straps

- Made from 300 series stainless steel



A	B	C	D	E	F	G	H	J	PART NO.	ORDER NO.	PRICE EACH
1/4	1/2	1-1/2	5/16	5/8	5/64	10-32	7/32	11/16	1503	3164-503	\$9.00
1/4	1/2	1-3/4	7/16	3/4	5/64	10-32	7/32	13/16	1504	3164-504	9.50
1/4	1/2	2	9/16	7/8	5/64	10-32	7/32	15/16	1505	3164-505	9.90
5/16	5/8	1-3/4	3/8	3/4	3/32	1/4-20	9/32	3/4	1628	3164-518	11.20
5/16	5/8	2	1/2	7/8	3/32	1/4-20	9/32	7/8	1629	3164-519	12.00
5/16	5/8	2-1/2	11/16	1-1/16	3/32	1/4-20	9/32	1-3/16	1630	3161-193	13.15
3/8	3/4	2	1/2	7/8	1/8	5/16-18	11/32	13/16	1753	3164-528	11.50
3/8	3/4	2-1/2	3/4	1-1/8	1/8	5/16-18	11/32	1-1/16	1754	3164-529	12.70
3/8	3/4	3	7/8	1-5/16	1/8	5/16-18	11/32	1-3/8	1755	3164-530	13.70
1/2	7/8	3	3/4	1-5/16	1/8	3/8-16	13/32	1-5/16	1878	3164-536	17.70
1/2	7/8	3-1/2	1	1-1/2	1/8	3/8-16	13/32	1-5/8	1879	3164-537	18.95
1/2	7/8	4	1-1/8	1-5/8	1/8	3/8-16	13/32	2	1879	3164-538	19.60

Jig Fixtures & Components

1

Stainless Steel Available Upon Request

Set-Up Studs



STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	1-1/2	3161-459	\$2.30
1/4	2	3161-460	2.20
1/4	2-1/2	3161-461	1.55
1/4	3	3161-462	1.60
1/4	3-1/2	3161-463	1.60
1/4	4	3161-464	1.65
5/16	1-1/2	3161-473	2.00
5/16	2	3161-474	1.85
5/16	2-1/2	3161-475	1.85
5/16	3	3161-476	1.85
5/16	3-1/2	3161-477	1.85
5/16	4	3161-478	1.95
5/16	4-1/2	3161-479	2.15
5/16	5	3161-480	2.15
5/16	6	3161-482	2.25
5/16	7	3161-483	2.30
5/16	8	3161-485	2.35
3/8	1-1/2	3161-487	1.95
3/8	2	3161-488	1.75
3/8	2-1/2	3161-489	\$1.75
3/8	3	3161-490	1.80
3/8	3-1/2	3161-491	1.75
3/8	4	3161-492	1.75
3/8	4-1/2	3161-493	1.80
3/8	5	3161-494	1.85
3/8	5-1/2	3161-495	1.85
3/8	6	3161-496	1.85
3/8	6-1/2	3161-497	1.90
3/8	7	3161-498	1.95

STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
3/8	7-1/2	3161-499	\$1.95
3/8	8	3161-500	2.00
1/2	1-1/2	3161-501	1.88
1/2	2	3161-502	1.75
1/2	2-1/2	3161-503	1.75
1/2	3	3161-504	1.75
1/2	3-1/2	3161-505	1.90
1/2	4	3161-506	1.90
1/2	4-1/2	3161-507	1.90
1/2	5	3161-508	2.05
1/2	5-1/2	3161-509	2.05
1/2	6	3161-510	2.05
1/2	6-1/2	3161-511	2.15
1/2	7	3161-512	2.20
1/2	7-1/2	3161-513	2.35
1/2	8	3161-514	2.40
1/2	9	3161-515	3.75
1/2	10	3161-516	4.35
1/2	12	3161-517	5.30
1/2	14	3161-518	5.80
5/8	1-1/2	3161-519	2.60
5/8	2	3161-520	2.15
5/8	2-1/2	3161-521	1.95
5/8	3	3161-522	2.15
5/8	3-1/2	3161-523	2.20
5/8	4	3161-524	2.35
5/8	4-1/2	3161-525	2.45
5/8	5	3161-526	2.60
5/8	5-1/2	3161-527	2.70
5/8	6	3161-528	2.75

STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
5/8	6-1/2	3161-529	\$2.80
5/8	7	3161-530	2.95
5/8	7-1/2	3161-531	3.05
5/8	8	3161-532	3.15
5/8	9	3161-533	5.20
5/8	10	3161-534	5.40
5/8	12	3161-535	5.90
5/8	14	3161-536	6.85
3/4	3	3161-538	2.50
3/4	4	3161-540	2.85
3/4	5	3161-542	3.15
3/4	6	3161-544	3.45
3/4	7	3161-546	3.75
3/4	8	3161-548	3.95
3/4	9	3161-549	7.65
3/4	10	3161-550	7.90
3/4	12	3161-551	8.60
3/4	14	3161-552	9.45
7/8	3	3161-553	7.20
7/8	4	3161-555	6.70
7/8	4-1/2	3161-556	6.70
7/8	5	3161-557	6.75
7/8	5-1/2	3161-558	7.25
7/8	6	3161-559	7.60
7/8	6-1/2	3161-560	7.95
7/8	7	3161-561	8.20
7/8	7-1/2	3161-562	8.55
7/8	8	3161-563	9.00

STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
7/8	9	3161-564	\$10.55
7/8	10	3161-565	11.60
7/8	12	3161-566	13.30
7/8	14	3161-567	14.40
1	3	3161-568	7.00
1	4	3161-570	7.60
1	5	3161-572	8.45
1	6	3161-574	8.45
1	7	3161-575	9.15
1	8	3161-577	9.85
1	9	3161-578	12.50
1	10	3161-579	13.95
1	12	3161-580	15.35
1	14	3161-581	17.00

† Limited Quantities

Eye Bolts

A THREAD	B	C	D	E	F	STEEL REF.	STEEL ORDER	STEEL PRICE	STAINLESS REF.	STAINLESS ORDER	STAINLESS PRICE
1/4-20	7/8	2-1/8	3/16	1/4	1/2	EB 0	3160-444	\$ 6.05	EB 0SS	3170-070	\$ 12.70
1/4-20	7/8	2-1/8	1/4	1/4	1/2	EB 05	3160-445	6.05	EB 05SS	3170-071	12.65
1/4-20	1-1/4	3	3/16	1/4	1/2	EB 010	3160-446	6.55	EB 010SS	3170-072	13.60
1/4-20	1-1/4	3	1/4	1/4	1/2	EB 020	3160-447	6.55	EB 020SS	3170-073	13.60
5/16-18	1-1/4	2-1/2	1/4	1/4	5/8	EB 030	3160-448	6.65	EB 030SS	3170-074	13.85
5/16-18	1-1/4	2-1/2	5/16	5/16	5/8	EB 040	3160-449	6.65	EB 040SS	3170-075	13.95
5/16-18	1-1/2	3-1/2	1/4	1/4	5/8	EB 050	3160-450	7.55	EB 050SS	3170-076	15.55
5/16-18	1-1/2	3-1/2	5/16	5/16	5/8	EB 060	3160-451	7.55	EB 060SS	3170-077	15.55
5/16-18	2	4	1/4	1/4	5/8	EB 061	3160-452	8.60	EB 061SS	3170-078	17.45
5/16-18	2	4	5/16	5/16	5/8	EB 062	3160-453	8.60	EB 062SS	3170-079	17.45
3/8-16	1-1/2	3-1/2	5/16	5/16	3/4	EB 070	3160-454	8.70	EB 070SS	3170-080	19.20
3/8-16	1-1/2	3-1/2	3/8	3/8	3/4	EB 080	3160-455	8.70	EB 080SS	3170-081	19.20
3/8-16	2	3-3/4	5/16	5/16	3/4	EB 090	3160-456	8.40	EB 090SS	3170-082	20.10
3/8-16	2	3-3/4	3/8	3/8	3/4	EB 100	3160-469	9.60	EB 100SS	3170-083	20.10
3/8-16	2-1/2	5	5/16	3/8	3/4	EB 101	3160-470	10.15	EB 101SS	3170-084	22.40
3/8-16	2-1/2	5	3/8	1/2	3/4	EB 102	3160-471	10.15	EB 102SS	3170-085	22.40
1/2-13	1-1/2	3-3/4	3/8	3/8	1	EB 1	3160-457	12.35	EB 1SS	3170-086	23.90
1/2-13	1-1/2	3-3/4	1/2	1/2	1	EB 5	3160-459	12.30	EB 5SS	3170-087	23.80
1/2-13	2	5	3/8	3/8	1	EB 10	3160-460	13.60	EB 10SS	3170-088	21.20
1/2-13	2	5	1/2	1/2	1	EB 15	3160-461	13.60	EB 15SS	3170-089	21.20
1/2-13	2-1/2	5-1/2	3/8	1/2	1	EB 16	3160-462	16.10	EB 16SS	3170-090	35.65
1/2-13	2-1/2	5-1/2	1/2	1/2	1	EB 17	3160-463	16.10	EB 17SS	3170-091	35.65
5/8-11	1-3/4	4-1/2	5/8	5/8	1-1/4	EB 20	3160-464	17.30	EB 20SS	3170-092	35.65
5/8-11	2	4-1/2	5/8	5/8	1-1/4	EB 2	3160-458	17.30	EB 2SS	3170-093	39.15
5/8-11	2-1/2	6	5/8	5/8	1-1/4	EB 25	3160-465	23.45	EB 25SS	3170-094	45.80
5/8-11	3	6	5/8	5/8	1-1/4	EB 26	3160-466	23.80	EB 26SS	3170-095	48.95
3/4-10	4-1/2	4-1/2	3/4	3/4	1-1/2	EB 30	3160-467	32.75	EB 30SS	3170-096	47.20
3/4-10	6	6	3/4	3/4	1-1/2	EB 35	3160-468	39.50	EB 35SS	3170-097	52.55



Stainless Steel



Steel - Black Oxide



Jig Fixtures & Components

Steel Ball Plungers

- Steel body, stainless steel ball nose.
- All plungers equipped with nylon pellet for positive holding. If you require plungers without the nylon locking element, please specify when ordering.
- Ideal for locating or positioning applications.



A	B	C	DIAM. D	END PRESSURES LBS.		PART. NO.	ORDER NO.	PRICE EACH
				START	FULL			
#4-48	3/16	.020	.062	.12	.5	MBP-100	3163-508	\$4.25
#5-40	1/4	.020	.062	.12	.5	MBP-101	3163-509	4.10
#6-40	5/16	.023	.078	.5	1.0	MBP-102	3163-510	4.00
#8-36	11/32	.025	.093	.5	1.25	MBP-103	3163-511	3.85
#8-32	11/32	.025	.093	.5	1.25	MBP-104	3163-512	3.85
#10-32	33/64	.025	.093	.5	1.5	MBP-106	3160-751	3.65
#10-32	33/64	.025	.093	1.5	3.0	MBP-105	3160-750	3.65
#10-32	33/64	.025	.093	2.0	5.0	MBP-107	3160-752	3.65
1/4-20	17/32	.035	1.25	2.0	4.0	MBP-111	3160-754	3.70
1/4-20	17/32	.035	1.25	3.0	7.0	MBP-110	3160-753	3.70
1/4-20	17/32	.035	1.25	4.0	12.0	MBP-112	3160-755	3.70
5/16-18	37/64	.040	.156	2.0	4.5	MBP-116	3160-757	3.75
5/16-18	37/64	.040	.156	4.0	9.0	MBP-115	3160-756	3.75
5/16-18	37/64	.040	.156	6.0	17.0	MBP-117	3160-758	3.75
3/8-16	5/8	.048	.187	2.5	5.0	MBP-121	3160-760	3.80
3/8-16	5/8	.048	.187	5.0	10.0	MBP-120	3160-759	3.80
3/8-16	5/8	.048	.187	6.0	21.0	MBP-122	3160-749	3.80
1/2-13	3/4	.072	.281	3.0	6.0	MBP-126	3160-762	3.95
1/2-13	3/4	.072	.281	6.0	12.0	MBP-125	3160-761	3.95
1/2-13	3/4	.072	.281	6.0	30.0	MBP-127	3160-763	3.95
5/8-11	63/64	.096	.375	4.5	9.0	MBP-131	3160-765	4.85
5/8-11	63/64	.096	.375	9.0	18.0	MBP-130	3160-764	4.85
5/8-11	63/64	.096	.375	7.0	50.0	MBP-132	3160-766	4.85

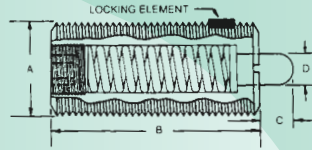
Stainless Steel Ball Plungers

- All parts are made of stainless steel.
- All plungers equipped with nylon pellet for positive holding. If you require plungers without the nylon locking element, please specify when ordering.
- Ideal for locating or positioning applications.



A	B	C	DIAM. D	END PRESSURES LBS.		PART. NO.	ORDER NO.	PRICE EACH
				START	FULL			
#4-48	3/16	.020	.062	.12	.5	MBP-090SS	3163-589	\$4.10
#5-40	1/4	.020	.062	.12	.5	MBP-091SS	3163-590	4.10
#6-40	5/16	.023	.078	.5	1.0	MBP-092SS	3163-591	4.10
#8-36	11/32	.025	.093	.5	1.25	MBP-093SS	3163-592	4.10
#8-32	11/32	.025	.093	.5	1.25	MBP-094SS	3163-593	4.10
#10-32	33/64	.025	.093	.5	1.5	MBP-106SS	3163-595	4.25
#10-32	33/64	.025	.093	1.5	3.0	MBP-105SS	3163-594	4.25
#10-32	33/64	.025	.093	2.0	5.0	MBP-107SS	3163-596	4.25
1/4-20	17/32	.035	1.25	2.0	4.0	MBP-111SS	3163-598	4.45
1/4-20	17/32	.035	1.25	3.0	7.0	MBP-110SS	3163-597	4.45
1/4-20	17/32	.035	1.25	4.0	12.0	MBP-112SS	3163-599	4.45
5/16-18	37/64	.040	.156	2.0	4.5	MBP-116SS	3163-601	4.85
5/16-18	37/64	.040	.156	4.0	9.0	MBP-115SS	3163-600	4.85
5/16-18	37/64	.040	.156	6.0	17.0	MBP-117SS	3163-602	4.85
3/8-16	5/8	.048	.187	2.5	5.0	MBP-121SS	3163-604	5.50
3/8-16	5/8	.048	.187	5.0	10.0	MBP-120SS	3163-603	5.50
3/8-16	5/8	.048	.187	6.0	21.0	MBP-122SS	3163-605	5.50
1/2-13	3/4	.072	.281	3.0	6.0	MBP-126SS	3163-607	6.05
1/2-13	3/4	.072	.281	6.0	12.0	MBP-125SS	3163-606	6.05
1/2-13	3/4	.072	.281	6.0	30.0	MBP-127SS	3163-608	6.05
5/8-11	63/64	.096	.375	4.5	9.0	MBP-131SS	3163-610	7.75
5/8-11	63/64	.096	.375	9.0	18.0	MBP-130SS	3163-609	7.75
5/8-11	63/64	.096	.375	7.0	50.0	MBP-132SS	3163-611	7.75

Spring Plungers - Light Spring Pressures



A	B	C	D	END PRESSURES			REF. NO.	ORDER NO.	PRICE EACH
				START	1/2 WAY	FULL			
#6-32	17/32	.062	.046	0.5	1.0	1.5	MSP-21	3160-780	\$4.20
#8-32	5/8	.093	.070	0.7	1.5	2.3	MSP-22	3160-781	4.20
#10-32	3/4	.125	.093	1.3	2.0	2.7	MSP-23	3160-782	3.85
1/4-20	1	.187	.119	1.0	2.5	4.0	MSP-24	3160-783	3.85
1/4-28	1	.187	.119	1.0	2.5	4.0	MSP-25	3160-784	3.85
5/16-18	1	.187	.135	1.5	3.0	4.5	MSP-26	3160-785	3.85
3/8-16	1-1/8	.187	.186	2.8	5.0	7.2	MSP-27	3160-786	3.90
1/2-13	1-1/4	.250	.248	2.7	6.0	9.3	MSP-28	3160-787	3.90
5/8-11	1-1/2	.312	.310	3.5	7.0	10.5	MSP-29	3160-788	4.95
3/4-10	1-3/4	.312	.374	4.0	10.0	16.0	MSP-30	3160-789	7.90
1-8	2-13/32	.500	.499	4.0	17.5	31.0	MSP-31	3160-790	10.85

Spring Plungers - Heavy Pressures



A	B	C	D	END PRESSURES			REF. NO.	ORDER NO.	PRICE EACH
				START	1/2 WAY	FULL			
#6-32	17/32	.062	.046	1.5	3.0	4.5	MSP-1	3160-767	\$4.25
#6-32	3/8	.062	.046	1.0	1.3	1.6	MSP-2	3160-768	4.25
#8-32	5/8	.093	.070	2.7	5.0	7.3	MSP-3	3160-769	4.25
#10-32	3/4	.125	.093	2.9	7.0	11.1	MSP-4	3160-770	4.25
1/4-20	1	.187	.119	3.0	8.0	13.0	MSP-5	3160-771	4.10
1/4-28	1	.187	.119	3.0	8.0	13.0	MSP-6	3160-772	4.10
1/4-20	3/4	.125	.119	2.0	5.5	9.0	MSP-7	3160-773	4.10
5/16-18	1	.187	.135	3.0	9.0	15.0	MSP-8	3160-774	4.10
3/8-16	1-1/8	.187	.186	5.5	10.0	14.5	MSP-9	3160-775	4.20
1/2-13	1-1/4	.250	.248	6.6	12.0	17.4	MSP-10	3160-776	4.20
5/8-11	1-1/2	.312	.310	10.5	18.0	25.5	MSP-11	3160-777	5.20
3/4-10	1-3/4	.312	.374	6.7	22.0	37.3	MSP-12	3160-778	7.90
1-8	2-13/32	.500	.499	16.0	42.0	68.0	MSP-13	3160-779	14.40

Metric Ball Plungers

- Steel body, stainless steel ball nose, zinc plated finish.
- All plungers equipped with nylon pellet for positive holding. If you require plungers without the nylon locking element, please specify when ordering.
- Ideal for locating or positioning applications.



A	B	C	DIAM. D	END PRESSURES KILOGRAMS		PART. NO.	ORDER NO.	PRICE EACH
				START	FULL			
M 4 x 0.7	9.00	0.60	2.36	.25	.50	MBP-150	3163-513	\$5.30
M 5 x 0.8	13.00	0.60	2.36	.25	.70	MBP-151	3163-514	5.40
M 5 x 0.8	13.00	0.60	2.36	.70	1.35	MBP-152	3163-515	5.40
M 5 x 0.8	13.00	0.60	2.36	.90	2.25	MBP-153	3163-516	5.40
M 6 x 1.0	13.50	0.90	3.20	.90	1.80	MBP-154	3163-517	5.55
M 6 x 1.0	13.50	0.90	3.20	1.35	3.15	MBP-155	3163-518	5.55
M 6 x 1.0	13.50	0.90	3.20	1.80	5.40	MBP-156	3163-519	5.55
M 8 x 1.25	15.00	1.00	3.96	.90	2.00	MBP-157	3163-520	5.65
M 8 x 1.25	15.00	1.00	3.96	1.80	4.00	MBP-158	3163-521	5.65
M 8 x 1.25	15.00	1.00	3.96	2.70	7.65	MBP-159	3163-522	5.65
M 10 x 1.5	16.00	1.20	4.75	1.13	2.25	MBP-160	3163-523	5.75
M 10 x 1.5	16.00	1.20	4.75	2.25	4.50	MBP-161	3163-524	5.75
M 10 x 1.5	16.00	1.20	4.75	2.70	9.50	MBP-162	3163-525	5.75
M 12 x 1.75	19.00	2.00	7.14	1.35	2.70	MBP-163	3163-526	5.80
M 12 x 1.75	19.00	2.00	7.14	2.70	5.40	MBP-164	3163-527	5.80
M 12 x 1.75	19.00	2.00	7.14	2.70	13.50	MBP-165	3163-528	5.80

Precision Ground Flat Stock - Oil Hardening

2

AISI/SAE Type 0-1

0-1 GROUND FLAT STOCK is an electric furnace melt oil-hardening tool steel supplied with a fully spheroidized structure. A non-shrinking general-purpose tool steel, it has excellent abrasion resistance, toughness and machinability characteristics.

Tolerance:
Thickness ±.001" Width +.000"/.005"

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/64	1/2	3190-010	\$ 78.21	-	-
	3/4	3190-020	81.32	-	-
	1	3190-030	85.42	-	-
	1-1/4	3190-040	89.51	-	-
	1-1/2	3190-050	98.58	-	-
	2	3190-060	122.47	-	-
	2-1/2	3190-070	140.43	-	-
	3	3190-080	168.23	-	-
	4	3190-090	226.53	-	-
1/32	1/2	3190-100	14.19	-	-
	3/4	3190-110	19.16	-	-
	1	3190-120	22.33	-	-
	1-1/4	3190-130	26.47	-	-
	1-1/2	3190-140	30.60	-	-
	2	3190-150	38.68	-	-
	2-1/2	3190-160	46.86	-	-
	3	3190-170	55.25	-	-
	4	3190-180	71.09	-	-
	6	3190-190	126.38	-	-
3/64	1/4	3190-200†	26.74	-	-
	5/16	3190-210†	23.38	-	-
	3/8	3190-220†	14.83	-	-
	1/2	3190-230	12.44	3200-230	\$21.65
	3/4	3190-240	16.04	-	-
	1	3190-250	19.56	3200-250	34.01
	1-1/4	3190-260	22.95	3200-260	39.93
	1-1/2	3190-270	26.49	3200-270	46.10
	2	3190-280	33.55	-	-
	2-1/2	3190-290	40.48	-	-
	3	3190-300	47.50	-	-
	3-1/2	3190-310	54.53	-	-
	4	3190-320	74.44	-	-
	5	3190-325†	34.83	-	-
	6	3190-330	89.39	-	-
1/16	1/4	3190-340	29.44	-	-
	5/16	3190-350†	15.82	-	-
	3/8	3190-360	14.72	-	-
	1/2	3190-370	8.78	3200-370	15.27
	3/4	3190-380	11.09	3200-380	19.27
	1	3190-390	13.37	3200-390	23.27
	1-1/4	3190-400	15.61	3200-400	27.15
	1-1/2	3190-410	17.92	3200-410	31.16
	1-3/4	3190-420	20.18	3200-420	35.09
	2	3190-430	22.49	3200-430	39.09
	2-1/2	3190-440	27.00	3200-440	46.99
	3	3190-450	31.56	3200-450	54.86
	3-1/2	3190-460	36.21	3200-460	62.95
	4	3190-470	40.66	3200-470	70.69
	4-1/2	3190-475†	19.48	-	-
	5	3190-480	49.80	3200-480	86.61
	5-1/2	3190-485†	23.45	-	-
	6	3190-490	58.92	3200-490	102.47
	8	3190-500	88.32	3200-500	153.62
	10	3190-510	109.19	3200-510	189.89
	12	-	-	-	-
5/64	3/8	3190-550†	9.69	-	-
	1/2	3190-560	11.47	-	-
	3/4	3190-570	14.20	-	-
	1	3190-580	16.98	-	-
	1-1/2	3190-590	22.44	-	-
	2	3190-600	27.96	-	-
	2-1/2	3190-610	33.23	-	-
	3	3190-620	38.77	-	-
	4	3190-630	49.92	-	-
	6	3190-640	72.23	-	-
3/32	1/4	3190-650	37.08	-	-
	5/16	3190-660†	15.16	-	-
	3/8	3190-670	20.36	-	-
	1/2	3190-680	11.47	3200-680	19.93
	3/4	3190-690	14.20	3200-690	24.68
	1	3190-700	16.98	3200-700	29.55
	1-1/4	3190-710	19.68	3200-710	34.20
	1-1/2	3190-720	22.44	3200-720	39.02

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/32	1-3/4	3190-730	\$25.19	3200-730	\$43.84
	2	3190-740	27.96	3200-740	48.64
	2-1/2	3190-750	33.53	3200-750	58.29
	3	3190-760	39.06	3200-760	67.95
	3-1/2	3190-770†	19.40	-	-
	4	3190-780	50.10	3200-780	87.11
	5	3190-790	61.14	3200-790	106.35
	6	3190-800	72.20	3200-800	125.55
	8	3190-810	107.97	3200-810	187.77
	10	3190-820	142.17	3200-820	247.26
7/64	1/2	3190-840	13.64	-	-
	3/4	3190-850	16.94	-	-
	1	3190-860	20.16	-	-
	1-1/4	3190-870	23.29	-	-
	1-1/2	3190-880	26.58	-	-
	2	3190-890	33.10	-	-
	2-1/2	3190-900	41.42	-	-
	3	3190-910	46.12	-	-
	4	3190-920	59.13	-	-
1/8	1/8	3190-930	25.28	-	-
	1/4	3190-940	9.08	-	-
	5/16	3190-950	9.92	-	-
	3/8	3190-960	10.47	-	-
	1/2	3190-970	11.56	3200-970	20.09
	5/8	3190-980	12.87	3200-980	22.36
	3/4	3190-990	14.20	3200-990	24.68
	1	3191-000	16.80	3201-000	29.21
	1-1/4	3191-010	19.25	3201-010	33.46
	1-1/2	3191-020	21.83	3201-020	37.99
	1-3/4	3191-030	24.46	3201-030	42.54
	2	3191-040	27.04	3201-040	47.04
	2-1/2	3191-050	32.21	3201-050	56.00
	3	3191-060	37.42	3201-060	65.10
	3-1/2	3191-070	42.61	3201-070	74.12
	4	3191-080	47.81	3201-080	83.15
	4-1/2	3191-090†	30.84	3201-090†	56.82
	5	3191-100	58.19	3201-100	101.17
	6	3191-110	68.55	3201-110	119.22
	7	3191-120	90.54	3201-120	157.48
	8	3191-130	102.61	3201-130	178.46
	10	3191-140	126.51	3201-140	220.02
	12	3191-150	150.53	3201-150	261.78
	14	3191-160	173.83	3201-160	302.33
9/64	9/64	3191-170†	13.28	-	-
	1/2	3191-180	14.35	-	-
	3/4	3191-190	16.36	-	-
	1	3191-200	19.36	-	-
	1-1/4	3191-210	23.31	-	-
	1-1/2	3191-220	25.16	-	-
	2	3191-230	31.15	-	-
	3	3191-240	43.02	-	-
	4	3191-250	54.92	-	-
5/32	5/32	3191-260	23.47	-	-
	1/4	3191-270	35.09	-	-
	5/16	3191-280†	16.98	-	-
	3/8	3191-290	20.37	-	-
	1/2	3191-300	14.22	3201-300	24.73
	3/4	3191-310	17.44	3201-310	30.31
	1	3191-320	20.60	3201-320	35.84
	1-1/4	3191-330	23.59	3201-330	41.05
	1-1/2	3191-340	26.70	3201-340	46.44
	1-3/4	3191-350	29.88	3201-350	51.97
	2	3191-360	33.10	3201-360	57.55
	2-1/2	3191-370	39.34	3201-370	68.41
	3	3191-380	45.69	3201-380	79.49
	3-1/2	3191-390	52.04	3201-390	90.49
	4	3191-400	58.35	3201-400	101.48
	5	3191-410	71.02	3201-410	123.50
	6	3191-420	83.61	3201-420	145.41
	8	3191-430	124.68	3201-430	216.86
	10	-	-	-	-
	12	-	-	-	-
3/16	3/16	3191-460	21.94	-	-
	1/4	3191-470	12.11	-	-
	5/16	3191-480	13.12	-	-
	3/8	3191-490	13.71	-	-
	1/2	3191-500	15.09	3201-500	26.26
	3/4	3191-510	18.08	3201-510	31.45
	1	3191-520	21.19	3201-520	36.87
	1-1/4	3191-530	24.09	3201-530	41.90
	1-1/2	3191-540	27.18	3201-540	47.27
	1-3/4	3191-550	30.24	3201-550	52.62
3/8	2	3191-560	33.37	3201-560	58.03
	2-1/2	3191-570	39.52	3201-570	68.71
	3	3191-580	45.73	3201-580	79.50

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	3-1/2	3191-590	\$51.93	3201-590	\$90.31
	4	3191-600	58.03	3201-600	100.91
	4-1/2	3191-605†	34.13	-	-
	5	3191-610	70.40	3201-610	122.42
	6	3191-620	82.74	3201-620	143.90
	8	3191-630	123.02	3201-630	213.98
	10	3191-640	151.33	3201-640	263.19
	12	3191-650	179.86	-	-
7/32	7/32	3191-660	21.08	-	-
	5/16	3191-670†	19.02	-	-
	3/8	3191-680†	14.99	-	-
	1/2	3191-690	18.06	3201-690	31.41
	3/4	3191-700	21.76	3201-700	37.85
	1	3191-710	25.48	3201-710	44.28
	1-1/4	3191-720	28.92	3201-720	50.33
	1-1/2	3191-730	32.62	3201-730	56.73
	2	3191-740	39.98	3201-740	69.53
	2-1/2	3191-750	47.72	3201-750	82.99
1/4	3	3191-760	54.74	3201-760	95.1

Precision Ground Flat Stock - Oil Hardening

AISI/SAE Type 0-1

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18" LENGTH				36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
3/8	3-1/2	3192-450	\$85.73	3202-450	\$149.09
	4	3192-460	95.68	3202-460	166.40
	4-1/2	3192-470	105.62	3202-470	183.68
	5	3192-480	115.56	3202-480	200.96
	5-1/2	3192-490†	125.60	3202-490	218.42
	6	3192-500	135.54	3202-500	235.72
	7	3192-510	177.73	3202-510	309.07
	8	3192-520	200.82	3202-520	349.25
	10	3192-540	246.49	3202-540	428.68
	12	3192-550	292.43	3202-550	508.58
	7/16	3192-560	34.61	3202-560	60.18
	1/2	3192-570	31.29	3202-570	54.40
7/16	3/4	3192-580	37.08	3202-580	64.48
	1	3192-590	42.86	3202-590	74.53
	1-1/4	3192-600	48.21	3202-600	83.84
	1-1/2	3192-610	54.01	3202-610	93.90
	2	3192-620	65.57	3202-620	114.05
	2-1/2	3192-630	77.16	3202-630	134.19
	3	3192-640	88.73	3202-640	154.33
	4	3192-650	109.10	3202-650	189.73
1/2	6	3192-660	158.26	3202-660	275.22
	1/2	3192-670	33.21	3202-670	57.74
	5/8	3192-680	36.30	3202-680	63.15
	3/4	3192-690	39.40	3202-690	68.53
	1	3192-700	45.57	3202-700	79.27
	1-1/4	3192-710	51.56	3202-710	89.67
	1-1/2	3192-720	57.71	3202-720	100.37
	1-3/4	3192-730	64.11	3202-730	111.49
	2	3192-740	70.12	3202-740	121.94
	2-1/2	3192-750	82.51	3202-750	143.49
	3	3192-760	94.90	3202-760	165.05
	3-1/2	3192-770	107.27	3202-770	186.56
	4	3192-780	119.68	3202-780	208.14
	4-1/2	3192-790	132.09	3202-790	229.71
	5	3192-800	145.32	3202-800	252.71
	6	3192-810	178.10	3202-810	309.75
	7	3192-820	225.25	3202-820	391.74
	8	3192-830	254.39	3202-830	442.42
	10	3192-850	306.21	3202-850	532.52
	12	3192-860	357.50	-	-
	14	3192-870†	265.18	-	-

Upsize Available Upon Request

18" LENGTH				36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
9/16	9/16	3192-880	\$39.86	3202-880	\$69.30
	3/4	3192-890	44.94	3202-890	78.17
	1	3192-900	51.81	3202-900	90.10
	1-1/4	3192-910	58.54	3202-910	101.81
	1-1/2	3192-920	65.39	3202-920	113.73
5/8	2	3192-930	79.18	3202-930	137.69
	5/8	3192-940	43.50	3202-940	75.66
	3/4	3192-950	47.09	3202-950	81.90
	1	3192-960	54.19	3202-960	94.22
	1-1/4	3192-970	61.07	3202-970	106.22
	1-1/2	3192-980	68.18	3202-980	118.58
	2	3192-990	82.42	3202-990	143.33
	2-1/2	3193-000	96.62	3203-000	168.06
	3	3193-010	110.86	3203-010	192.82
	3-1/2	3193-020	125.12	3203-020	217.60
	4	3193-030	139.34	3203-030	242.37
	5	3193-040	168.73	3203-040	293.44
	6	3193-050	197.21	3203-050	342.96
	7	3193-060†	161.66	-	-
	8	3193-070†	199.26	3203-070†	332.64
	10	3193-090†	230.83	3203-090†	400.68
	3/4	3193-110	55.98	3203-110	97.39
	1	3193-120	64.32	3203-120	111.86
3/4	1-1/4	3193-130	72.18	3203-130	125.51
	1-1/2	3193-140	80.45	3203-140	139.91
	1-3/4	3193-150	88.75	3203-150	154.35
	2	3193-160	97.03	3203-160	168.75
	2-1/2	3193-170	113.58	3203-170	197.51
	3	3193-180	130.22	3203-180	226.46
	3-1/2	3193-190	146.78	3203-190	255.24
	4	3193-200	163.34	3203-200	284.07
	4-1/2	3193-210	179.93	3203-210	312.93
	5	3193-220	197.44	3203-220	343.38
	5-1/2	3193-225†	123.73	-	-
	6	3193-230	230.60	3203-230	401.02
	8	3193-250	337.36	3203-250	586.71
	10	3193-270	406.89	3203-270	707.60
	12	3193-280	476.45	3203-280	828.61
	7/8	3193-290	70.15	3203-290	121.99
	1	3193-300	74.88	3203-300	130.22
7/8	1-1/4	3193-310	83.75	3203-310	145.67
	1-1/2	3193-320	93.16	3203-320	162.03
	2	3193-330	111.97	3203-330	194.69
	2-1/2	3193-340†	85.69	3203-340†	151.24
	3	3193-350	149.69	3203-350	260.34
	4	3193-370	187.38	3203-370	325.87
	6	3193-390	263.67	3203-390	458.55

18" LENGTH				36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
1	1	3193-450	\$ 80.52	3203-450	\$140.04
	1-1/4	3193-460	89.76	3203-460	156.13
	1-1/2	3193-470	99.68	3203-470	173.37
	1-3/4	3193-480	109.55	3203-480	190.51
	2	3193-490	119.43	3203-490	207.74
	2-1/2	3193-500	139.24	3203-500	242.15
	3	3193-510	158.95	3203-510	276.43
	3-1/2	3193-520	178.72	3203-520	310.81
	4	3193-530	198.49	3203-530	345.21
	4-1/2	3193-540†	145.96	3203-540†	252.27
	5	3193-550	238.94	3203-550	415.54
	6	3193-560	278.51	3203-560	484.38
1-1/8	8	3193-580	406.14	3203-580	706.32
	10	3193-600	490.19	3203-600	852.51
	12	3193-610	574.19	3203-610	998.59
	1-1/2	3193-620	119.57	-	-
	2	3193-630	142.21	3203-630	247.31
	2-1/2	3193-635	94.45	-	-
1-1/4	3	3193-640	187.43	3203-640	325.96
	4	3193-650	232.70	3203-650	404.72
	6	3193-660	324.20	3203-660	563.83
	1-1/4	3193-670	113.37	3203-670	197.19
	1-1/2	3193-680	125.58	3203-680	218.42
	2	3193-690	150.12	3203-690	261.07
	2-1/2	3193-700	174.54	3203-700	303.52
	3	3193-710	198.90	3203-710	345.92
	4	3193-730	247.79	3203-730	430.92
	5	3193-740	297.64	3203-740	517.62
	6	3193-750	346.51	3203-750	602.64
	8	3193-770†	324.24	3203-770†	549.57
1-1/2	10	-	-	3203-790†	663.78
	1-1/2	3193-830	146.54	3203-830	254.85
	2	3193-840	174.56	3203-840	303.59
	2-1/2	3193-850	202.60	3203-850	352.34
	3	3193-860	230.67	3203-860	401.18
	3-1/2	3193-870†	170.03	3203-870†	292.52
	4	3193-880	286.74	3203-880	498.69
	5	-	-	3203-890†	388.77
	6	3193-900	404.73	3203-900	703.90
	8	3193-920	560.20	3203-920	974.27
	10	3193-940†	456.97	3203-940†	765.57
2	2	3193-980	223.65	3203-980	388.93
	3	3193-990	294.12	3203-990	511.54
	4	3194-000	364.72	3204-000	634.27
	6	3194-010	485.53	3204-010	844.40

Precision Ground Flat Stock - Low Carbon

AISI/SAE Type C-1018

Tolerance: Thickness ±.001" Width +.000"/.005"

† Limited Quantities

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
1/16	3/4	3210-380	\$16.00
	1	3210-390	19.04
	1-1/4	3210-400	22.06
	1-1/2	3210-410	25.01
	2	3210-430	32.25
	2-1/2	3210-440	39.09
	3	3210-450	44.78
	3-1/2	3210-460	50.99
	4	3210-470	57.07
	5	3210-480	68.93
	6	3210-490	82.99
	8	3210-500	110.44
3/32	10	3210-510	133.35
	12	3210-520	160.29
	1/2	3210-680	16.46
	3/4	3210-690	20.20
	1	3210-700	23.75
	1-1/4	3210-710	26.83
	1-1/2	3210-720	30.45
	2	3210-740	37.69
	2-1/2	3210-750	44.71
	3	3210-760	51.89
	3-1/2	3210-770	59.24
	4	3210-780	65.55

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
3/32	5	3210-790	\$76.82
	6	3210-800	94.81
	10	3210-820	152.06
	12	3210-830	181.16
7/64	4	3210-920†	29.39
	4-1/2	3210-925†	32.37
	1/2	3210-970	15.93
	3/4	3210-990	19.04
	1	3211-000	22.35
	1-1/4	3211-010	24.76
	1-1/2	3211-020	29.53
	2	3211-040	34.22
	2-1/2	3211-050	40.48
	3	3211-060	45.78
	3-1/2	3211-070	52.20
	4	3211-080	57.01
1/8	5	3211-100	69.19
	10	3211-140	131.93
	12	3211-150	156.54
	1/2	3211-300	19.59
	3/4	3211-310	22.49
	1	3211-320	26.26
	1-1/4	3211-330	27.54
	1-1/2	3211-340	31.40

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
5/32	2	3211-360	\$38.01
	2-1/2	3211-370	45.26
	3	3211-380	50.65
	3-1/2	3211-390	58

Precision Ground Flat Stock - Low Carbon

AISI/SAE Type C-1018 Continued from Previous Page

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
5/16	4	3212-260	\$99.09
	5	3212-280	117.78
	6	3212-290	138.90
	7	3212-300	162.22
	8	3212-310	180.20
	10	3212-330	217.16
	12	3212-340	249.73
3/8	3/8	3212-350	31.80
	1/2	3212-360	34.86
	3/4	3212-370	38.42
	1	3212-380	45.21
	1-1/4	3212-390	49.64
	1-1/2	3212-400	53.69
	2	3212-420	63.66
	2-1/2	3212-430	76.32
	3	3212-440	81.85
	3-1/2	3212-450	95.88
	4	3212-460	103.95
	5	3212-480	127.79
	6	3212-500	149.51
	7	3212-510	170.33
	8	3212-520	189.42
	9	3212-530	209.80
	10	3212-540	230.01
1/2	1/2	3212-670	41.08
	3/4	3212-690	46.26
	1	3212-700	53.49
	1-1/4	3212-710	59.33
	1-1/2	3212-720	65.23
	2	3212-740	75.54
	2-1/2	3212-750	86.99
	3	3212-760	97.28

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
1/2	3-1/2	3212-770	\$110.63
	4	3212-780	120.73
	5	3212-800	145.28
	6	3212-810	168.39
	7	3212-820	183.95
	8	3212-830	212.75
	10	3212-850	255.38
	12	3212-860	292.95
	5/8	3212-940	49.07
	3/4	3212-950	52.64
5/8	1	3212-960	60.32
	1-1/4	3212-970	68.73
	1-1/2	3212-980	74.92
	2	3212-990	88.05
	2-1/2	3213-000	99.41
	3	3213-010	112.80
	3-1/2	3213-020	124.18
	4	3213-030	136.93
	5	3213-040	164.80
	6	3213-050	188.29
	7	3213-060	212.29
	9	3213-080	267.47
	10	3213-090	287.11
	12	3213-100	333.80
3/4	3/4	3213-110	57.83
	1	3213-120	71.66
	1-1/4	3213-130	77.85
	1-1/2	3213-140	85.65
	2	3213-160	99.82
	2-1/2	3213-170	113.51
	3	3213-180	128.59
	3-1/2	3213-190	142.72

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
3/4	4	3213-200	\$155.74
	5	3213-220	183.88
	6	3213-230	213.41
	7	3213-240	240.77
	8	3213-250	271.74
	9	3213-260	295.03
	10	3213-270	320.04
	12	3213-280	370.24
	7/8	3213-290	77.03
	1	3213-300	81.46
7/8	1-1/4	3213-310	88.84
	1-1/2	3213-320	95.86
	2	3213-330	113.21
	2-1/2	3213-340	126.99
	3	3213-350	140.62
	3-1/2	3213-360	156.34
	4	3213-370	172.16
	5	3213-380	211.70
	7	3213-400	271.33
	8	3213-410	305.18
1	9	3213-420	341.30
	10	3213-430	369.23
	1	3213-450	86.12
	1-1/4	3213-460	97.26
	1-1/2	3213-470	105.83
	2	3213-490	122.54
	2-1/2	3213-500	137.89
	3	3213-510	153.23
	3-1/2	3213-520	170.63
	4	3213-530	183.70
	6	3213-560	243.10
	8	3213-580	312.50

Oversize Available
Upon Request

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
1	9	3213-590	\$349.48
	10	3213-600	376.86
	12	3213-610	423.53
1-1/4	1-1/4	3213-670	115.70
	1-1/2	3213-680	129.28
	2	3213-690	147.59
	2-1/2	3213-700	167.90
	3	3213-710	185.82
	3-1/2	3213-720	204.16
	4	3213-730	223.54
	5	3213-740	266.39
	6	3213-750	295.36
	7	3213-760	350.62
	8	3213-770	382.80
	9	3213-780	418.21
1-1/2	10	3213-790	453.52
	12	3213-800	518.39
	1-1/2	3213-830	150.47
	2	3213-840	174.03
	2-1/2	3213-850	196.02
	3-1/2	3213-870	239.27
	7	3213-910	408.18
	8	3213-920	438.97
	9	3213-930	482.83
	10	3213-940	521.29
	12	3213-950	649.25
	16	3213-970	555.53

† Limited Quantities

Precision Ground Flat Stock - Air Hardening

AISI/SAE
Type A-2

Tolerances:

Thickness $\pm .001"$

Width $+.000"/.005"$

A-2 GROUND FLAT STOCK is made from fine grain, electric furnace air hardening, 5% chrome tool steel. It is a superior quality steel which has excellent wear and abrasion resistance properties. AIR-TRUE is furnished with a fully spheroidized structure and is 100% free of decarb and other imperfections. AIR-TRUE's low sulphur content makes it **non-freemachining**.

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	1/2	5330-010	\$11.54	5340-010	\$20.98
	3/4	5330-020	15.52	5340-020	28.21
	1	5330-030	17.81	5340-030	32.41
	1-1/4	5330-040	20.82	5340-040	37.85
	1-1/2	5330-050	23.96	5340-050	43.57
	2	5330-060	30.17	5340-060	54.85
3/32	2-1/2	5330-070	36.50	5340-070	66.35
	3	5330-080	38.68	5340-080	70.31
	4	5330-090	55.33	5340-090	100.61
	1/2	5330-100	15.24	5340-100	27.72
	3/4	5330-110	19.11	5340-110	34.76
	1	5330-120	23.02	5340-120	41.85
1/8	1-1/4	5330-130	26.79	5340-130	48.71
	1-1/2	5330-140	30.70	5340-140	55.82
	2	5330-150	38.51	5340-150	70.01
	2-1/2	5330-160	46.35	5340-160	84.27
	3	5330-170	54.15	5340-170	98.45
	4	5330-180	69.81	5340-180	126.93
1/8	1/2	5330-190	13.17	5340-190	23.95
	5/8	5330-200	14.72	5340-200	26.76
	3/4	5330-210	16.18	5340-210	29.40
	1	5330-220	19.16	5340-220	34.84
	1-1/4	5330-230	21.97	5340-230	39.93
	1-1/2	5330-240	24.98	5340-240	45.39
	1-3/4	5330-250	27.96	5340-250	50.85
	2	5330-260	30.99	5340-260	56.32
	2-1/2	5330-270	36.94	5340-270	67.17
	3	5330-280	42.95	5340-280	78.06
	3-1/2	5330-290	49.92	5340-290	90.77
	4	5330-300	54.97	5340-300	99.95
5/32	5	5330-310	66.93	5340-310	121.71
	6	5330-320	78.93	5340-320	143.52
	7	5330-330	107.33	5340-330	195.15
	8	5330-340	121.65	5340-340	221.19
	10	5330-350	150.06	5340-350	272.86
	12	5330-360	178.54	5340-360	324.61
	1/2	5330-370	16.94	5340-370	30.79
	3/4	5330-380	20.78	5340-380	37.80
	1	5330-390	24.73	5340-390	44.96
	1-1/4	5330-400	28.39	5340-400	51.63
	1-1/2	5330-410	32.23	5340-410	58.61
	1-3/4	5330-420	36.14	5340-420	65.73
3/16	2	5330-430	40.05	5340-430	72.82
	2-1/2	5330-440	47.79	5340-440	86.90
	3	5330-450	55.63	5340-450	101.14
	3-1/2	5330-460	63.40	5340-460	115.25
	4	5330-470	71.18	5340-470	129.42
	5	5330-480	86.77	5340-480	157.76
	6	5330-490	102.29	5340-490	185.99
	8	5330-500	168.66	5340-500	306.63
	3/16	5330-510	30.24	5340-510	54.97
	1/2	5330-520	17.85	5340-520	32.46

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	3/4	5330-530	21.64	5340-530	\$39.34
	1	5330-540	25.53	5340-540	46.42
	1-1/4	5330-550	29.12	5340-550	52.96
	1-1/2	5330-560	32.92	5340-560	59.86
	1-3/4	5330-570	36.82	5340-570	66.93
	2	5330-580	40.71	5340-580	74.03
	2-1/2	5330-590	48.37	5340-590	87.98
	3	5330-600	56.13	5340-600	102.05
	3-1/2	5330-610	64.84	5340-610	117.87
	4	5330-620	71.57	5340-620	130.15
1/4	5	5330-630	87.06	5340-630	158.28
	6	5330-640	102.47	5340-640	186.33
	7	5330-650	132.09	5340-650	240.16
	8	5330-660	158.30	5340-660	287.81
	1/4	5330-670	29.55	5340-670	53.73
	1/2	5330-680	21.72	5340-680	39.47
	3/4	5330-690	26.28	5340-690	47.73
	1	5330-700	30.88	5340-700	56.14
	1-1/4	5330-710	35.00	5340-710	63.65
	1-1/2	5330-720	39.63	5340-720	72.05
5/16	1-3/4	5330-730	44.18	5340-730	80.34
	2	5330-740	48.75	5340-740	88.62
	2-1/2	5330-750	57.83	5340-750	105.17
	3	5330-760	66.95	5340-760	121.73
	3-1/2	5330-770	76.09	5340-770	138.35
	4	5330-780	85.25	5340-780	154.97
	5	5330-790	103.47	5340-790	188.11
	6	5330-800	121.74	5340-800	221.35
	5/16	5330-810	33.40	5340-810	60.75
	1/2	5330-820	25.46	5340-820	46.28
3/8	3/4	5330-830	30.65	5340-830	55.72
	1	5330-840	35.84	5340-840	65.16
	1-1/4	5330-850	40.57	5340-850	73.74
	1-1/2	5330-860	45.83	5340-860	83.34
	1-3/4	5330-870	51.04	5340-870	92.80
	2	5330-910	56.23	5340-880	102.21
	2-1/2	5330-920	66.65	5340-890	121.19
	3	5330-930	77.01	5340-900	140.04
	3-1/2	5330-940	87.43	5340-910	158.94
	4	5330-950	97.81	5340-920	177.83
3/8	5	5330-960	118.60	5340-930	215.65
	6	5330-970	139.45	5340-940	253.53
	3/8	5330-980	40.25	5340-950	73.19
	1/2	5330-990	31.08	5340-960	56.52
	3/4	5331-000	37.42	5340-970	68.04
	1	5331-010	43.72	5340-980	79.47
	1-1/4	5331-020	49.39	5340-990	89.78
	1-1/2	5331-030	55.72	5341-000	101.30
	1-3/4	5331-040	62.05	5341-010	112.82
	2	5331-050	68.36	5341-020	124.27
	2-1/2	5331-060	80.96	5341-030	147.18
	3	5331-070	93.57	5341-040	170.12

Drill Rod - 36" Length

Oil Hardening - AISI/SAE Type 0-1
& Water Hardening - AISI/SAE Type W-1



Fractional Sizes

FRAC. SIZES	OIL HARDENING		WATER HARDENING	
	ORDER NO.	PRICE EACH	ORDER NO. EACH	PRICE EACH
3/64	3220-003	\$1.25	-	-
1/16	3220-004	1.78	3223-004	\$0.98
5/64	3220-005	2.99	3223-005	1.69
3/32	3220-006	2.06	3223-006	1.81
7/64	3220-007	2.99	3223-007	2.63
1/8	3220-008	2.74	3223-008	1.99
9/64	3220-009	3.66	3223-009	2.72
5/32	3220-010	3.43	3223-010	2.54
11/64	3220-011	4.46	3223-011	3.38
3/16	3220-012	3.95	3223-012	2.99
13/64	3220-013	4.98	3223-013	3.80
7/32	3220-014	4.73	3223-014	3.70
15/64	3220-015	5.85	3223-015	4.66
1/4	3220-016	4.48	3223-016	3.66
17/64	3220-017	5.44	3223-017	4.18
9/32	3220-018	5.65	3223-018	4.27
19/64	3220-019	6.76	3223-019	5.21
5/16	3220-020	5.65	3223-020	4.76
21/64	3220-021	7.38	3223-021	6.29
11/32	3220-022	7.48	3223-022	6.36
23/64	3220-023	8.85	3223-023	7.56
3/8	3220-024	7.96	3223-024	6.36
25/64	3220-025	10.19	3223-025	8.30
13/32	3220-026	10.33	3223-026	8.27
27/64	3220-027	11.88	3223-027	9.72
7/16	3220-028	10.79	3223-028	8.66
29/64	3220-029	13.71	3223-029	11.22
15/32	3220-030	13.67	3223-030	10.93
31/64	3220-031	15.66	3223-031	12.75
1/2	3220-032	13.26	3223-032	10.42
33/64	3220-033	16.71	3223-033	13.33
17/32	3220-034	17.26	3223-034	13.53
35/64	3220-035	18.79	3223-035	14.92
9/16	3220-036	18.52	3223-036	14.49
37/64	3220-037	21.01	3223-037	16.71
19/32	3220-038	21.62	3223-038	16.87
39/64	3220-039	23.06	3223-039	18.58
5/8	3220-040	20.50	3223-040	14.68
41/64	3220-041	25.46	3223-041	18.61
21/32	3220-042	26.03	3223-042	18.72
43/64	3220-043	28.02	3223-043	20.44
11/16	3220-044	27.34	3223-044	19.59
45/64	3220-045	30.67	3223-045	22.45
23/32	3220-046	31.24	3223-046	22.47
47/64	3220-047	33.44	3223-047	24.44
3/4	3220-048	28.84	3223-048	20.76
49/64	3220-049	35.59	3223-049	26.08
25/32	3220-050	36.12	3223-050	26.04
51/64	3220-051	38.54	3223-051	28.23
13/16	3220-052	37.30	3223-052	26.88
53/64	3220-053	41.67	3223-053	38.54
27/32	3220-054	42.15	3223-054	30.38
55/64	3220-055	44.84	3223-055	32.85

FRAC. SIZES	OIL HARDENING		WATER HARDENING	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
7/8	3220-056	\$43.22	3223-056	\$31.18
57/64	3220-057	48.18	3223-057	35.27
29/32	3220-058	48.62	3223-058	35.06
59/64	3220-059	51.59	3223-059	37.83
15/16	3220-060	52.00	3223-060	37.46
61/64	3220-061	55.15	3223-061	40.43
31/32	3220-062	55.56	3223-062	39.98
63/64	3220-063	58.81	3223-063	43.13
1	3220-064	48.82	3223-064	36.27
1-1/64	3220-065	59.56	3223-065	44.96
1-1/32	3220-066	59.84	3223-066	44.43
1-3/64	3220-067	63.27	3223-067	47.77
1-1/16	3220-068	63.52	3223-068	47.22
1-5/64	3220-069	67.08	3223-069	50.65
1-3/32	3220-070	66.99	3223-070	50.01
1-7/64	3220-071	71.04	3223-071	53.65
1-1/8	3220-072	68.02	3223-072	50.53
1-9/64	3220-073	75.09	3223-073	56.71
1-5/32	3220-074	75.66	3223-074	56.18
1-11/64	3220-075	79.31	3223-075	59.88
1-3/16	3220-076	79.40	3223-076	59.01
1-13/64	3220-077	83.57	3223-077	63.11
1-7/32	3220-078	83.61	3223-078	62.06
1-15/64	3220-079	87.98	3223-079	66.40
1-1/4	3220-080	79.70	3223-080	61.48
1-17/64	3220-081	87.93	3223-081	69.03
1-9/32	3220-082	87.65	3223-082	67.66
1-19/64	3220-083	92.16	3223-083	72.34
1-5/16	3220-084	92.02	3223-084	71.04
1-21/64	3220-085	96.64	3223-085	75.86
1-11/32	3220-086	96.43	3223-086	74.44
1-23/64	3220-087	101.23	3223-087	79.50
1-3/8	3220-088	96.43	3223-088	74.44
1-25/64	3220-089	105.96	3223-089	83.20
1-13/32	3220-090	105.62	3223-090	81.46
1-27/64	3220-091	110.79	3223-091	86.93
1-7/16	3220-092	110.44	3223-092	85.21
1-29/64	3220-093	115.72	3223-093	90.79
1-15/32	3220-094	115.24	3223-094	88.91
1-31/64	3220-095	120.75	3223-095	94.76
1-1/2	3220-096	113.62	3223-096	81.33
1-9/16	3220-100	122.53	3223-100	87.73
1-5/8	3220-104	139.66	3223-104	100.02
1-11/16	3220-108	150.60	3223-108	107.86
1-3/4	3220-112	154.67	3223-112	110.85
1-13/16	3220-116	173.76	3223-116	124.41
1-7/8	3220-120	185.98	3223-120	133.14
1-15/16	3220-124	198.54	3223-124	142.21
2	3220-128	200.38	3223-128	143.77

Also Available
• Metric Sizes
• Special Diameters
• Special Lengths

Fractional Sizes

Air Hardening -

AISI/SAE Type A-2

FRAC. SIZES	DEC. EQUIV.	ORDER NO.	PRICE EACH
1/16	.0625	3225-100	\$ 2.72
5/64	.0781	3225-101	4.68
3/32	.0937	3225-102	4.39
7/64	.1093	3225-104	5.24
1/8	.1250	3225-105	4.80
9/64	.1406	3225-106	6.76
5/32	.1562	3225-107	6.84
11/64	.1718	3225-108	8.27
3/16	.1875	3225-109	7.32
13/64	.2031	3225-110	9.44
7/32	.2187	3225-111	10.17
15/64	.2343	3225-112	11.70
1/4	.2500	3225-113	10.01
17/64	.2656	3225-114	11.15
9/32	.2812	3225-115	12.52
19/64	.2968	3225-116	13.99
5/16	.3125	3225-117	12.91
21/64	.3281	3225-118	15.73
11/32	.3437	3225-119	17.23
23/64	.3593	3225-120	18.84
3/8	.3750	3225-121	18.36
25/64	.3906	3225-122	21.99
13/32	.4062	3225-123	23.80
27/64	.4218	3225-124	25.67
7/16	.4375	3225-125	25.00
29/64	.4531	3225-126	29.58
15/32	.4687	3225-127	31.72
31/64	.4843	3225-128	33.85
1/2	.5000	3225-129	31.32
17/32	.5312	3225-130	39.68
9/16	.5625	3225-131	39.61
19/32	.5937	3225-132	48.73
5/8	.6250	3225-133	48.34
21/32	.6562	3225-134	58.90
11/16	.6875	3225-135	58.51
23/32	.7187	3225-136	70.70
3/4	.7500	3225-137	69.09
13/16	.8125	3225-138	81.07
7/8	.8750	3225-139	94.01
1	1.0000	3225-140	122.06
1-1/16	1.0625	3225-141	137.80
1-1/8	1.1250	3225-142	154.49
1-1/4	1.2500	3225-143	178.54
1-3/8	1.3750	3225-144	216.09
1-1/2	1.5000	3225-145	254.97
1-3/4	1.7500	3225-146	346.99
2	2.0000	3225-147	449.77

Drill Rod - 36" Length

2

Wire Gage Sizes

Oil Hardening - AISI/SAE Type 0-1

Water Hardening - AISI/SAE Type W-1



WIRE GAGE	OIL HARDENING		WATER HARDENING	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	3221-001	\$ 5.48	3224-001	\$4.36
2	3221-002	5.12	3224-002	4.02
3	3221-003	5.44	3224-003	4.12
4	3221-004	5.16	3224-004	3.93
5	3221-005	5.07	3224-005	3.80
6	3221-006	4.87	3224-006	3.75
7	3221-007	4.76	3224-007	3.66
8	3221-008	4.73	3224-008	3.56
9	3221-009	4.59	3224-009	3.48
10	3221-010	4.39	3224-010	3.38
11	3221-011	4.28	3224-011	3.34
12	3221-012	5.19	3224-012	3.91
13	3221-013	4.98	3224-013	3.77
14	3221-014	4.92	3224-014	3.70
15	3221-015	4.80	3224-015	3.63
16	3221-016	4.62	3224-016	3.48
17	3221-017	4.48	3224-017	3.38
18	3221-018	4.28	3224-018	3.08
19	3221-019	4.07	3224-019	2.92
20	3221-020	3.95	3224-020	2.97
21	3221-021	3.73	3224-021	2.81
22	3221-022	4.41	3224-022	3.38
23	3221-023	4.37	3224-023	3.34
24	3221-024	4.21	3224-024	3.20
25	3221-025	4.07	3224-025	3.08
26	3221-026	3.96	3224-026	2.97
27	3221-027	3.80	3224-027	2.81
28	3221-028	3.59	3224-028	2.67
29	3221-029	3.32	3224-029	2.49
30	3221-030	2.99	3224-030	2.22
31	3221-031	3.59	3224-031	3.20
32	3221-032	3.32	3224-032	2.93
33	3221-033	3.09	3224-033	2.74
34	3221-034	3.02	3224-034	2.67
35	3221-035	2.93	3224-035	2.58
36	3221-036	2.83	3224-036	2.49
37	3221-037	2.65	3224-037	2.35
38	3221-038	2.61	3224-038	2.24
39	3221-039	2.45	3224-039	2.17
40	3221-040	2.33	3224-040	2.13
41	3221-041	2.26	3224-041	2.03
42	3221-042	4.16	3224-042	2.35
43	3221-043	3.77	3224-043	2.17
44	3221-044	3.47	3224-044	2.03
45	3221-045	3.22	3224-045	1.81
46	3221-046	3.04	3224-046	1.71
47	3221-047	2.93	3224-047	1.64
48	3221-048	2.74	3224-048	1.56
49	3221-049	2.54	3224-049	1.42
50	3221-050	2.29	3224-050	1.32
51	3221-051	2.13	3224-051	1.23
52	3221-052	1.96	3224-052	1.14

Letter Sizes

Oil Hardening - AISI/SAE Type 0-1

Water Hardening - AISI/SAE Type W-1



LETTER SIZES	OIL HARDENING		WATER HARDENING	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	3222-001	\$ 5.83	3225-001	\$4.66
B	3222-002	6.06	3225-002	4.78
C	3222-003	6.22	3225-003	4.87
D	3222-004	6.42	3225-004	5.12
E	3222-005	4.30	3225-005	3.50
F	3222-006	5.07	3225-006	3.89
G	3222-007	5.23	3225-007	4.02
H	3222-008	5.44	3225-008	4.23
I	3222-009	5.69	3225-009	4.39
J	3222-010	5.90	3225-010	4.55
K	3222-011	6.08	3225-011	4.68
L	3222-012	6.44	3225-012	4.98
M	3222-013	6.70	3225-013	5.16
N	3222-014	7.02	3225-014	5.40
O	3222-015	6.88	3225-015	5.90
P	3222-016	7.11	3225-016	6.12
Q	3222-017	7.54	3225-017	6.47
R	3222-018	7.88	3225-018	6.76
S	3222-019	8.27	3225-019	7.11
T	3222-020	8.75	3225-020	7.52
U	3222-021	9.26	3225-021	7.96
V	3222-022	9.49	3225-022	7.73
W	3222-023	9.97	3225-023	8.07
X	3222-024	10.56	3225-024	8.57
Y	3222-025	10.92	3225-025	8.85
Z	3222-026	11.40	3225-026	9.28

Threaded Rod 36" Length



SIZE	PLAIN OIL FINISH		ZINC PLATED	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6-36	3215-806	\$1.80	3215-906	\$2.20
8-32	3215-808	1.80	3215-908	2.20
10-21	3215-810	1.80	3215-910	2.20
10-32	3215-811	1.98	3215-911	2.42
12-24	3215-812	1.97	3215-912	2.40
1/4-20	3215-816	1.97	3215-916	2.40
1/4-28	3215-817	2.17	3215-917	2.64
5/16-18	3215-820	2.52	3215-920	3.02
5/16-24	3215-821	2.78	3215-921	3.32
3/8-16	3215-824	3.00	3215-924	3.52
3/8-24	3215-825	3.30	3215-925	3.87
7/16-14	3215-828	3.52	3215-928	4.18
7/16-20	3215-829	3.87	3215-929	4.60
1/2-13	3215-832	4.18	3215-932	5.05
1/2-20	3215-833	4.60	3215-933	5.55
9/16-12	3215-836	5.80	3215-936	6.92
9/16-18	3215-837	6.38	3215-937	7.61
5/8-11	3215-840	5.80	3215-940	6.92
5/8-18	3215-841	6.38	3215-941	7.61
3/4-10	3215-848	9.67	3215-948	11.15
3/4-16	3215-849	10.64	3215-949	12.26
7/8-9	3215-856	11.96	3215-956	14.06
7/8-14	3215-857	13.16	3215-957	15.47
1-8	3215-864	14.93	3215-964	17.46
1-14	3215-866	16.43	3215-966	19.20
1-1/8-7	3215-872	24.91	3215-972	31.86
1-1/8-12	3215-873	27.40	3215-973	35.04
1-1/4-7	3215-880	29.64	3215-980	37.71
1-1/4-12	3215-881	32.60	3215-981	41.48
1-3/8-6	3215-888	39.50	3215-988	50.24
1-3/8-12	3215-889	43.45	3215-989	55.26
1-1/2-6	3215-896	48.48	3215-996	60.14
1-1/2-12	3215-897	53.33	3215-997	66.16

Shim Stock

Brass Shim Stock

The unique quality about Precision Brand's Branded Shim® is that everything the user needs to know is clearly marked right on the material:

- Material type, • Material thickness,
- Lot # for full traceability.

Whether in the field or on the shop floor, this clearly marked information is at your fingertips. It eliminates the need for a micrometer, and aids in keeping tool cribs organized, saving time and money.



Steel Shim Stock

- Made from full hard, cold rolled, low carbon C1008/C1010
- Rockwell hardness: <.069 RB 90 MIN., >.070 RB 84 MIN.
- Meets AISI C-1010 and ASTM A-109 specifications.
- Tensile Strength: N/A
- #2 Bright Finish

TYPICAL C .13 max, Mn .30-.60,
ANALYSIS: P .04 max, S .05 max



6" x 100" ROLLS			6" x 180" ROLLS		
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
.0010	3226-010	\$21.89	3226-401	\$40.56	
.0015	3226-015	22.02	3226-400	40.56	
.0020	3226-020	22.71	3226-402	40.56	
.0030	3226-030	23.43	3226-403	40.56	
.0040	3226-040	24.70	3226-404	42.97	
.0050	3226-050	25.57	3226-405	49.03	
.0060	3226-060	26.33	3226-406	53.28	
.0070	3226-070	27.59	3226-407	59.36	
.0080	3226-080	29.12	3226-408	59.36	
.0090	3226-090	31.28	3226-409	63.34	
.0100	3226-100	34.04	3226-410	63.34	
.0120	3226-120	36.87	3226-412	78.73	
.0150	3226-150	42.57	3226-415	87.51	
.0200	3226-200	48.11	3226-420	97.84	
.0250	3226-250	57.50	3226-425	118.60	
.0310	3226-310	68.04	3226-431	135.28	

Brass Shim Assortments

- 12 PAK -**
.001", .0015", .002", .003", .004", .005", .006", .007", .008", .010", .012", .015"
- 15 PAK -**
.001", .0015", .002", .003", .004", .005", .006", .007", .008", .010", .012", .015", .020", .025", .031"

DESCRIPTION	ORDER NO.	PRICE EACH
12 pc. 6" x 12"	3226-359	\$44.47
15 pc. 6" x 12"	3226-360	60.52
12 pc. 6" x 18"	3226-361	85.92
15 pc. 6" x 18"	3226-362	127.34



Blue Tempered Spring Steel Shim Stock

- High carbon 1095 hardened and tempered spring steel.
 - Meets AMS 5122, SAE 1095, AISI 1095 specifications.
 - Rockwell hardness C48-51. • Tensile Strength: 230,000 p.s.i.
- TYPICAL ANALYSIS:** C .90-1.04, Mn .30-.50, P .040 max, S .050 max, Si .10-.30

3" x 50" ROLLS			6" x 50" ROLLS			6" x 60" ROLLS		
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH	
.0020	3229-502	\$28.23	-	-		-	-	
.0030	3229-503	29.64	-	-		-	-	
.0040	-	-	3229-504*	\$32.01		-	-	
.0050	-	-	3229-505	28.23		3229-605†	\$ 20.38	
.0060	-	-	3229-506	28.12		-	-	
.0070	-	-	3229-507	28.68		-	-	
.0150	-	-	-	-		3229-615†	23.63	
.0250	-	-	-	-		3229-625†	31.27	
.0300	-	-	-	-		3229-630†	34.35	

* 5" x 50"

† Limited Quantities

Blue Tempered Assortment

Contains one 6" x 12" of each of the following:
.005", .010", .015", .020", .025", .032"

DESCRIPTION	ORDER NO.	PRICE EACH
6 pc. 6" x 12"	3229-553	\$54.26

Stainless Steel Shim Stock

- Full hard, cold rolled, type 302
- Rockwell hardness C45 (maximum).
- Meets SAE 30302, AISI-T302, ASTM A-666
- Ultimate tensile strength: 185,000 p.s.i. min.

TYPICAL ANALYSIS:

C .15 max, Mn 2.00 max,
P .045 max, S .030 max,
Si .75 max, Ni 8.00-10.00,
Cr 17.00-19.00, N .10 max

Stainless Steel Assortment

Contains one 6" x 18" of each of the following:
.001", .002", .003", .005", .008", .010", .015", .020"

DESCRIPTION	ORDER NO.	PRICE EACH
8 pc. 6" x 12"	3228-361	\$89.08

Steel Shim Flat Sheet Assortments

- 12 PAK -**
.001", .0015", .002", .003", .004", .005", .006", .007", .008", .010", .012", .015"
- 15 PAK -** one each 6" x 18"
.001", .0015", .002", .003", .004", .005", .006", .007", .008", .010", .012", .015", .020", .025", .031"

DESCRIPTION	ORDER NO.	PRICE EACH
12 pc. 6" x 12"	3227-364	\$38.74
15 pc. 6" x 12"	3227-365	46.70
12 pc. 6" x 18"	3227-361	57.52
15 pc. 6" x 18"	3227-362	69.34



6" x 50" ROLLS			6" x 60" ROLLS		
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
.0005	3228-005	\$79.08	3228-400	\$113.86	
.0010	3228-010	38.14	3228-401	54.91	
.0015	3228-015	34.94	3228-435	50.32	
.0020	3228-020	24.21	3228-402	34.88	
.0030	3228-030	23.21	3228-403	33.39	
.0040	3228-040	22.62	3228-404	32.55	
.0050	3228-050	26.04	3228-405	37.48	
.0060	3228-060	26.00	3228-406	37.41	
.0070	3228-070	26.80	3228-407	38.61	
.0080	3228-080	27.24	3228-408	39.20	
.0090	3228-090	30.66	3228-409	44.17	
.0100	3228-100	28.27	3228-410	40.69	
.0120	3228-120	29.54	3228-412	42.53	
.0150	3228-150	31.96	3228-415	46.01	
.0200	3228-200	37.94	3228-420	54.65	
.0250	3228-250	44.46	3228-425	64.01	
.0310	3228-310	50.66	3228-431	72.97	

Flat Packs

(2 pcs./ 6" x 25")

Brass

THICK.	ORDER NO.	PRICE EACH
.012	3229-012	\$27.70
.015	3229-015	31.87
.020	3229-020	36.15
.025	3229-025	43.10
.031	3229-031	51.02
.032	3229-032†	47.36

† Limited Quantities

Steel Flat Pak

THICK.	ORDER NO.	PRICE EACH
.012	3229-112	\$12.10
.015	3229-115	11.85
.020	3229-120	13.31
.025	3229-125	14.25
.031	3229-131	14.96
.032	3229-132†	10.75

Blue Tempered

THICK.	ORDER NO.	PRICE EACH
.008	3229-308	\$33.50
.010	3229-310	36.53
.012	3229-312	37.68
.015	3229-315	40.96
.020	3229-320	47.67
.025	3229-325	54.49
.032	3229-332	60.38

Stainless Steel

THICK.	ORDER NO.	PRICE EACH
.008	3229-208	\$32.70
.010	3229-210	33.97
.012	3229-212	35.45
.015	3229-215	38.31
.020	3229-220	45.56
.025	3229-225	53.38
.031	3229-231	60.83

Shim Stock

Slotted Shims

- Each shim marked with thickness in decimal and/or metric
- Eliminates misalignment of machinery
- .001"-.010" and .025-.25mm permanently etched; .015"-.125" and .040-2mm permanent stamp
- Shim thickness tolerances meet industry standards; conform to standard bolt/stud sizes

THICK.	PCS./ PKG.	"A" 2 x 2 x 5/8		"B" 3 x 3 x 3/4		"C" 4 x 4 x 1-1/4	
		ORDER NO.	PRICE/ PKG.	ORDER NO.	PRICE/ PKG.	ORDER NO.	PRICE/ PKG.
.001	20	3229-900	\$43.87	3229-920	\$52.62	3229-940	\$69.30
.002	20	3229-901	43.87	3229-921	52.62	3229-941	69.30
.003	20	3229-902	43.87	3229-922	52.62	3229-942	69.30
.004	20	3229-903	43.87	3229-923	52.62	3229-943	69.30
.005	20	3229-904	43.87	3229-924	52.62	3229-944	69.30
.010	20	3229-905	43.87	3229-925	52.62	3229-945	69.30
.015	10	3229-906	21.93	3229-926	26.32	3229-946	34.65
.020	10	3229-907	24.53	3229-927	26.32	3229-947	37.26
.025	10	3229-908	24.53	3229-928	26.32	3229-948	37.26
.050	5	3229-909	13.20	3229-929	16.45	3229-949	23.04
.075	5	3229-910	14.92	3229-930	21.93	3229-950	31.76
.100	5	3229-911	17.57	3229-931	24.70	3229-951	41.65
.125	5	3229-912	19.30	3229-932	27.42	3229-952	47.16



Std. Assortments

20 pcs.: one each of sizes from .001" to .125". 260 pc. assortment includes metal case

STYLE	ORDER NO.	PRICE EACH
A	3229-914	\$664.89
B	3229-934	835.45
C	3229-954	1209.55



Mini Assortments

10 pcs.: one each of sizes from .001" to .125"
130 pc. assortment includes metal case

STYLE	ORDER NO.	PRICE EACH
A	3229-915	\$380.62
B	3229-935	465.23
C	3229-955	662.81

Key Stock- 12" Length- Zinc-Plated & Stainless Steel-



Used to provide driving torque between shafts and pulleys, gears, sprockets, etc.

ZINC-PLATED			STAINLESS STEEL	
SQ. SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	3229-800	\$1.11	3229-454	\$3.76
5/32	3229-804	1.39	-	-
3/16*	3229-808	1.16	3229-456	3.78
7/32	3229-812	1.75	-	-
1/4*	3229-816	1.44	3229-458	5.41
9/32	3229-820	2.24	-	-
5/16*	3229-824	1.92	3229-460	11.07
3/8*	3229-828	2.36	3229-462	12.30
7/16*	3229-832	3.04	3229-464	17.16
1/2*	3229-836	3.85	3229-466	22.53
9/16	3229-840	7.28	-	-
5/8	3229-844	6.13	3229-470	36.18
11/16	3229-848	10.68	-	-
3/4	3229-852	8.01	3229-474	44.87
13/16	3229-856	15.62	-	-
7/8	3229-860	10.67	3229-478	64.31
1	3229-864	13.02	3229-482	82.02
1-1/8	3229-868	23.70	-	-
1-3/16	3229-872	38.00	-	-
1-1/4	3229-876	30.63	-	-
1-3/8	3229-880	34.43	-	-
1-1/2	3229-884	41.12	-	-
1-3/4	3229-888	56.63	-	-
2	3229-892	80.89	-	-
asst*	3229-895	68.57	3229-498	276.44

*Assortment contains one bundle of each size indicated

Metric

Gold Dichromate plating on most sizes for clear identification

(MM) SIZE	ORDER NO.	PRICE EACH	SQ. SIZE	ORDER NO.	PRICE EACH
3MM*	3229-753	\$4.00	14MM	3229-764	\$14.71
4MM	3229-754	2.27	16MM	3229-766	14.71
5MM	3229-755	2.41	18MM	3229-768	18.17
6MM	3229-756	2.68	20MM	3229-770	22.71
7MM	3229-757	6.68	22MM	3229-772	53.45
8MM	3229-758	3.87	25MM*	3229-775	30.07
10MM	3229-760	5.62			
12MM	3229-762	8.55			

*Available in plain finish only.

Tool Wrap

- Type 321 soft annealed stainless steel
- Helps protect from scale and oxide buildup
- Eliminates decarburization buildup
- Resistant to chromium carbide precipitation
- Protects the surface of air hardening tool steels
- Can use in furnaces up to 1850°F
- Approx. 24" wide, .002" thick, in 50 and 100 ft. lengths



QTY.	ORDER NO.	PRICE EACH
100 sq. ft.	3229-990	\$488.18
50 sq. ft.	3229-989	256.96

Feeler Gage

- Made from 1/2" wide spring steel stock, close grain, C1095 high carbon steel
- Thicknesses clearly etched every 6" in decimal and metric.
- Hardened and tempered to RC 48-62
- Used in manufacturing and maintenance operations requiring the setting of close spacing, or checking very tight tolerances



Strips 1/2" x 12"
12 Pcs. Per Package

1/2" x 12" STRIPS			1/2" x 25' COILS		1/2" x 12" STRIPS			1/2" x 25' COILS	
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.001	3225-801	\$4.90	3225-851	\$108.71	.017	3225-817	\$1.88	3225-867	\$31.62
.0015	3225-845	2.62	3225-895	53.24	.018	3225-818	1.88	3225-868	31.62
.002	3225-802	2.62	3225-852	53.24	.019	3225-819	1.88	3225-869	31.62
.003	3225-803	2.62	3225-853	53.24	.020	3225-820	1.88	3225-870	31.62
.004	3225-804	2.13	3225-854	38.31	.021	3225-821	1.88	3225-871	31.62
.005	3225-805	2.13	3225-855	38.31	.022	3225-822	1.88	3225-872	31.62
.006	3225-806	2.13	3225-856	38.31	.023	3225-823	1.88	3225-873	31.62
.007	3225-807	1.88	3225-857	31.62	.024	3225-824	1.88	3225-874	31.62
.008	3225-808	1.88	3225-858	31.62	.025	3225-825	1.88	3225-875	31.62
.009	3225-809	1.88	3225-859	31.62	.028	3225-828	1.88	3225-878	31.62
.010	3225-810	1.88	3225-860	31.62	.030	3225-830	1.88	3225-880	31.62
.011	3225-811	1.88	3225-861	31.62	.031	3225-831	1.96	3225-881	35.87
.012	3225-812	1.88	3225-862	31.62	.032	3225-832	1.96	3225-882	35.87
.013	3225-813	1.88	3225-863	31.62	.034	3225-834	1.96	3225-884	35.87
.014	3225-814	1.88	3225-864	31.62	.040	3225-840	1.96	-	-
.015	3225-815	1.88	3225-865	31.62	.050	3225-842	11.57	-	-
.016	3225-816	1.88	3225-866	31.62					

FEELER GAGE ASSORTMENTS				1/2" X 12" STRIPS		1/2" X 5" STRIPS		
SIZES INCLUDED				NO. OF PCS.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.001, .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .012, .014, .015, .016, .018, .020, .022, .025, .030				20	3225-849	\$68.74	3225-850 (NEW Poc-Kit® Asst.)	\$29.73

Metric Feeler Gage Kit

- Made of C1095 close grain, high carbon spring steel
- Rockwell Hardness: C Scale 46-62
- Each blade is clearly etched with thickness
- Ends are rounded and edges are smooth for safety



Assortment contains: twenty 12.7mm (1/2") wide x 127mm (5") long blades

Sizes: .05mm, .10mm, .15mm, .20mm, .25mm, .30mm, .35mm, .40mm, .45mm, .50mm, .55mm, .60mm, .65mm, .70mm, .75mm, .80mm, .85mm, .90mm, .95mm, 1.00mm

Order No.: 3225-899 Price Each: \$47.70

Woodruff Key Sets

Order No.: 3229-980 Price Each: \$43.90

Our Woodruff Keys are made of 1035 Carbon Steel.
Kits contain the following:

QTY.	SIZE
15	1/8" x 1/2"
10	3/32" x 5/8"
30	1/8" x 5/8"
50	5/32" x 5/8"

QTY.	SIZE
10	1/16" x 3/8"
5	3/16" x 5/8"
20	3/32" x 3/8"
20	1/8" x 3/4"

QTY.	SIZE
10	1/8" x 3/8"
10	5/32" x 3/4"
10	1/16" x 1/2"
15	3/32" x 1/2"

