

TOOLHOLDING



BORING HEADS



DRILL CHUCKS & ARBORS



ARBOR SPACERS & SHIMS



TAPPING HEADS



TOOLHOLDER CARTS,
COLLET RACKS



GLOBALLY SOURCED
TOOLS PROVIDING A
BALANCE OF QUALITY & PRICE



COLLIS
TOOL CORPORATION
THE TOOL HOLDER PEOPLE

HOLDERS, ADAPTORS
& COLLETS



CENTERS, TOOL POSTS,
TOOLHOLDERS,
& KNURLING TOOLS



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Tapping Heads

SFT II SynchroFlex II Series,

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

FEATURES

- SynchroFlex's patented precisely machined flexure compensates axially and radially for the unavoidable minute discrepancies between the machine's RPM, feed and traverse and the exact thread pitch and hole location.
- Any deviation at all from the correct feed rate for the thread pitch or the precise hole location results in added wear on the tap.
- SynchroFlex allows the tap to reproduce itself exactly for maximum life and better thread quality.
- All SFT II come standard with high pressure coolant through the spindle.

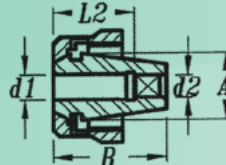


MODEL	CAPACITY (STEEL)	SHANK	COLLETS	WEIGHT (Kg.)	D	D1	d	L	ORDER NO.	PRICE EACH
SFT II 10	M2-M5 #2-#10 20mm 16mm	25mm 1"	ER11	0.4	23.5	23.5	19	52	3158-515	\$644.00
									3158-512	644.00
									3158-514	644.00
									3158-513	644.00
SFT II 50	M4.5-M12 #8-1/2" 20mm	25mm 1"	ER20	0.5	34.6	36.3	34	69	3158-522*	595.00
									3158-517*	595.00
									3158-519*	640.00
SFT II 75	M8-M20 1/4"-3/4"	25mm 1"	ER25	1.0	44.0	45.6	42	88	3158-536*	710.00
									3158-533*	710.00
SFT II 100	M16-M30 5/8"-1"	25mm 1"	ER40	2.0	62.0	63.6	63	117	3158-549*	1392.00
									3158-546*	1392.00

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

Square Drive ER Collets

(one collet required for each tap size)



SERIES	TAP SIZES	ORDER NO. RANGE	PRICE EACH
#11	#0-#10	3158-700 to 3158-702	\$158.00
#20	#8-3/8", 1/16" Pipe	3158-719 to 3158-727	129.00
#25	5/16"-3/4", 1/4" Pipe	3158-729 to 3158-744	139.00
#40	9/16"-1", 1/4", 3/8" 1/2" Pipes	3158-806 to 3158-817	171.00

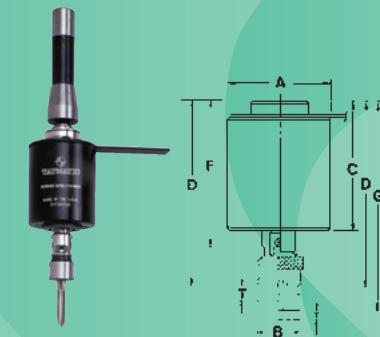
SPD Series, Short Positive Drive, Reversing Tapping Attachments

For N/C Machines With Bore Cycles, Automated Drill Units (and high production manual applications).

FEATURES

- Positive Drive and Reverse: The full power of the machine is transmitted to the tap in both drive and reverse to eliminate slippage.
- Short Stroke Self-Feed: This provides the minimum amount of axial float necessary to compensate or lead error on most automated equipment and still allows the tap to act as its own lead screw.
- Re-entry Cushion: Cushioned drive eliminates cross threading.
- 1 X 1 Reverse Ratio: Permits the bore cycle of most N/C machines to be used for tapping. This eliminates the undesirable necessity of reversing the motors, spindles and gear trains of expensive numerically controlled equipment.
- Top Stop Arm Location: The top stop arm location of the "SPD" reduces the required length of a torque bar to its absolute minimum and eliminates interference with other tools being used in a set-up.
- Collet Chuck Spindle Nose: Jacobs RUBBER-FLEX® collets and back jaws adapt to all tap sizes, both metric and inch, within the attachment's rated capacity.
- Standard Right Hand Tapping: Units modified for left-hand tapping are available on special order at no extra cost.
- Optional Quick Change Spindle Nose: Accepts Tapmatic Collet Chuck Adapters, Positive Drive and Torque Release Tap Adapters for complete versatility.
- Optional ERICKSON® Spindle Nose: Available for Models SPD5 and SPD7. Accepts J & K type collets.

SPD3 (#0-1/4")			SPD5 (#6-1/2")		SPD7 (#10-3/4-16")		SPD9A (1/2-1-1/8")	
MOUNT TYPE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
#3JT	-	-	-	-	3158-234	\$1374.00	-	-
#4JT	-	-	-	-	-	-	3158-244	\$2137.00
#6JT	3158-202	\$758.00	3158-218	\$994.00	-	-	-	-
#33JT	3158-204	758.00	3158-220	994.00	-	-	-	-
5/16-24	3158-208	773.00	-	-	-	-	-	-
3/8-24	3158-210	773.00	3158-224	1029.00	-	-	-	-
1/2-20	3158-212	773.00	3158-226	1029.00	3158-236	1374.00	-	-
5/8-16	3158-214	773.00	3158-228	1029.00	3158-238	1374.00	-	-
3/4-16	3158-216	773.00	3158-230	1029.00	3158-240	1374.00	3158-246	2137.00
7/8-20	-	-	3158-232	1029.00	3158-242	1374.00	-	-
1-1/2-18	-	-	-	-	-	-	3158-248	2137.00



Complete information and instructions are packaged with each unit.

*** Capacity must be reduced a minimum of 25% for roll form taps.

* Increase CID & F dimension by .200 for SPD3, .391 for SPD5 and .525 for SPD7.

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

Tapping Heads

TAPMATIC®

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

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PERFORMANCE ADVANTAGES

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

FEATURES

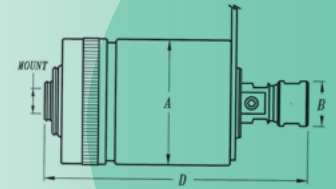
Self-Feed: Permits the tap to act as its own lead screw, allowing even inexperienced operators to produce gage perfect threads. Thread depth repeatability can be maintained accurately.

Pre-Selective Torque Drive: Completely adjustable for material and tap size, to prevent tap breakage.

1.75 x 1 Reverse Ratio: Permits the tap to retract from the tapped hole 75% faster than it entered which greatly increases production.

Re-Entry Cushion: A cushioned drive eliminates cross threading. It is possible to re-enter the same tapped hole as many times as necessary and still maintain a gage perfect thread.

Collet Chuck Spindle Nose: Jacobs RUBBER-FLEX collets and adjustable back jaws adapt to all tap sizes, both metric and inch, within an attachment's rated capacity.



	Rx 30 (#0-1/4)		Rx 50 (#6-1/2)		Rx 70 (#10-3/4)	
MOUNT TYPE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
#33 JT	3158-144	\$770.00	3158-158	\$1029.00	-	-
#6 JT	3158-142	770.00	3158-156	1029.00	-	-
#3 JT	-	-	-	-	3158-168	\$1374.00
5/16"-24	3158-148	770.00	-	-	-	-
3/8"-24	3158-150	770.00	-	-	-	-
1/2"-20	3158-152	770.00	3158-162	1029.00	-	-
5/8"-16	3158-154	770.00	3158-164	1029.00	3158-172	1399.00
3/4"-16	-	-	3158-166	1029.00	3158-174	1399.00
7/8"-20	-	-	-	-	3158-176	1399.00

MODEL	CAPACITY	COLLET SERIES	MAX SPEED	WEIGHT	A	B	D	SELF-FEED
Rx30	#0-1/4" M1.4-M6 Roll Form #10 Max	#21000	2000 RPM	1.5 lb. .7 Kg.	2.125 53mm	0.75 19mm	4.58 116mm	0.13 3mm
Rx50	#6-1/2" M3-M12 Roll Form #3/8 Max NP 1/16", 1/8"	#22000	1500 RPM	4.0 lb. 1.8 Kg.	3 76mm	1.07 27mm	6.2 157mm	0.16 .4mm
Rx70	#10-3/4"-16 M5-M18 Roll Form 9/16" Max	#24000	1200 RPM	6.7 lb. 3.0 Kg.	3.5 88mm	1.45 36mm	7.14 182mm	0.16 4mm

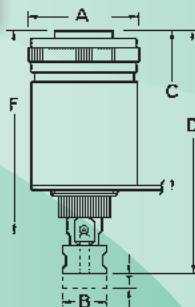
TC/DC For Manually Operated Drilling & Milling Machines

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*Tapping Attachment with Torque and Depth Control Designed for Shallow Hole Drilling on Manually Operated Milling & Drilling

FEATURES

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



Complete information and instructions are packaged with each unit.

	30 TC/DC (#0-1/4")		50 TC/DC (3/8-1/2")		70 TC/DC (#10-5/8")	
MOUNT TYPE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
#3JT	-	-	-	-	3158-334	\$1343.00
#4JT	-	-	-	-	-	-
#6JT	3158-302	\$703.00	3158-320	\$1010.00	-	-
#33JT	3158-304	703.00	3158-322	1010.00	-	-
5/16-24	3158-310	703.00	-	-	-	-
3/8-24	3158-312	703.00	3158-326	1010.00	-	-
1/2-20	3158-314	703.00	3158-328	1010.00	3158-336	1343.00
5/8-16	3158-316	703.00	3158-330	1010.00	3158-338	1343.00
3/4-16	3158-318	703.00	3158-332	1010.00	3158-340	1343.00
7/8-20	-	-	-	-	3158-342	1343.00

*** Capacity must be reduced a minimum of 25% for roll form taps.

***		CAPACITY		REC. MAX		COLLETS		E		JACOBS		THREADED		C		D		F	
MODEL	IN STEEL	WEIGHT	SPEED	STANDARD	OPTIONAL	A	B	SELF-FEED	TAPER	MTS.	MTS.	C	D	F					
30 TC/DC	M1.4-M6 #0-1/4"	.45 Kg. 1 lb.	2000 RPM	21600 (#0-#8)	21500 (.040-.098)	48mm 1.875	19mm .750	6mm .250	#6, #33	1/20, 1/16 1/16	81mm 3.220	109mm 4.300	92mm 3.650						
50 TC/DC	M3-M12 #6-1/2"	1.36 Kg. 3 lbs.	1500 RPM	22100 (#0-1/2")	22000 (.194-.318)	70mm 2.750	27mm 1.070	9mm .375	#6, #33	1/16, 1/8 1/8	109mm 4.300	148mm 5.830	122mm 4.812						
70 TC/DC	M5-M16 #10-1/2" NP 1/8"	2.04 Kg. 4 lbs. 8 ozs.	1200 RPM	24100 (#10-1/2")	24300 (.110-.280)	76mm 3.000	36mm 1.450	9mm .375	#3	1/20, 1/16 1/16, 1/20	119mm 4.685	168mm 6.650	137mm 5.400						

Rubber Flex Collets

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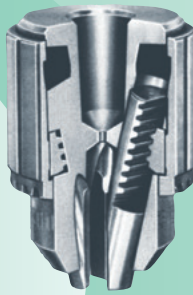
MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE	MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE	MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE
21400	.198-.255	3158-914	\$31.50	22000	.194-.318	3158-920	\$84.00	24000	5/16"-5/8" Standard	3158-940	\$97.00
21500	.040-.098	3158-915	84.00	22100	#0-1/4" Standard	3158-921	84.00	24100	#10-1/2" Standard	3158-941	97.00
21600	#0-#8 Standard	3158-916	84.00	22200	#1/4" -1/2" Standard	3158-922	84.00	24300	.110-.280	3158-943	97.00
21700	#10-1/4" Standard	3158-917	84.00	22300	.090-.180	3158-923	84.00	24500	.393-.590	3158-945	97.00
								26100	1/2"-3/4"	3158-961	146.00
								26200	7/8"-1-1/8"	3158-962	146.00

Jacobs® Super Chucks

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The ball bearing super chuck is especially designed for EXTRA HEAVY DUTY drilling applications on production machines, jig borers, milling machines, lathes and radials. The ideal choice for those jobs that require close tolerance drilling.



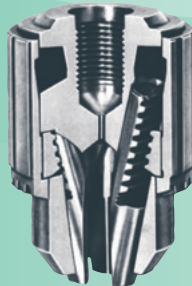
MODEL NO.	CAPACITY INCHES	CHUCK MOUNT	KEY NO.	ORDER NO.	PRICE EACH
8-1/2N	0-1/4	2JT	K30	3147-517	\$282.73
11N	0-3/8	2JT	K32	3147-522	315.07
14N	0-1/2	3JT	K3	3147-528	440.47
16N	1/8-5/8	3JT	K4	3147-532	505.59
18N	1/8-3/4	4JT	K4	3147-536	760.41
20N	3/8-1	5JT	K5	3147-540	1023.96

Jacobs® Plain Chucks

10



This fine chuck is offered for both medium duty portable, bench or floor type power tools in a wide range of capabilities for either threaded or taper mounted spindles.



MODEL NO.	CAPACITY INCHES	MOUNT	KEY NO.	ORDER NO.	PRICE EACH
TAPER MOUNT					
0	0-5/32	0JT	K0	3148-005	\$207.56
1A	0-1/4	1JT	K1	3148-015	153.36
2A	0-3/8	2JT	K2	3148-065	211.51
33	5/64-1/2	33JT	K32	3148-095	276.28
33KD	5/64-1/2	33JT	K32	3148-100	261.84
3A	1/8-5/8	3JT	K3	3148-160	343.90
34-02	0-1/2	2JT	K3	3148-143	215.98
34-06	0-1/2	6JT	K3	3148-145	286.81
34-33	0-1/2	33JT	K3	3148-146	244.14
34-33C	0-1/2	33JT	K3	3148-147	225.59
36	.18-80	3JT	K4	3148-170	434.00
36KD	.18-80	3JT	K4	3148-190	415.88
THREAD MOUNT					
1B3/8	0-1/4	3/8-24	K7	3148-010	\$155.69
7BA3/8	0-1/4	3/8-24	K7	3148-035	173.82
41BA3/8	0-3/8	3/8-24	K30	3148-193	87.02
41BA1/2	0-3/8	1/2-20	K30	3148-197	242.64
2BA3/8	0-3/8	3/8-24	K2	3148-075	206.87
32BA1/2	0-3/8	1/2-20	K32	3148-090	229.51
33BA3/8	5/64-1/2	3/8-24	K32	3148-105	222.48
33BA1/2	5/64-1/2	1/2-20	K32	3148-115	213.24
33BA5/8	5/64-1/2	5/8-16	K3	3148-120	222.20
3B5/8	5/64-1/2	5/8-16	K3	3148-165	348.50
3BA-1/2	1/8-5/8	5/8-16	K3	3148-158	287.27
36B	.18-80	5/8-16	K4	3148-175	519.24
36B	.18-80	3/4-16	K4	3148-176	484.95



Jacobs® Keyless Chucks

10

FEATURES:

- Each chuck precision tested and furnished with an individualized certification number identifying its specific performance characteristics.
- Self-tightening feature automatically increases gripping force proportional to prevent tool shank slippage.
- All components exposed to wear are completely hardened to maintain accuracy and extended chuck life.
- Jacobs taper mount permits use on a wide range of high accuracy drill presses, jig borers, milling machines and production drilling equipment.



Jacobs® Industrial Keyless Chucks are high precision devices specially designed for high accuracy applications on either conventional or CNC equipment. Tightened and released by hand, they permit more rapid tooling changes to increase machining productivity. A self-tightening feature produces significantly higher gripping force to resist tool shank slippage. Precision manufactured and tested to the most exacting quality standards, Jacobs® Industrial Keyless Chucks can be counted on for extremely high reliability and durability under the most demanding machining conditions.

CAPACITY RANGE							
MODEL JKP	MIN. INCHES	MM	MAX. INCHES	MM	MOUNT JACOBS	ORDER NO.	PRICE EACH
80-J2S	0	0	0.315	8	J2S	3148-600	\$400.20
100-J2	0	0	0.394	10	J2	3148-601	427.81
100-J33	0	0	0.394	10	J33	3148-602	427.81
130-J2	0.039	1	0.512	13	J2	3148-603	457.31
130-J33	0.039	1	0.512	13	J33	3148-604	503.54
130-J6	0.039	1	0.512	13	J6	3148-605	457.31
160-J6	0.118	3	0.630	16	J6	3148-606	528.74

HIGH TORQUE/HIGH PRECISION MODEL

- For use on CNC machining centers in drilling, boring, counterboring and milling operations requiring heavy penetration.
- Furnished with milled wrench flats and spanner wrench to allow the application of supplementary gripping torque. Light tightening increases gripping torque up to 3 times high than hand tightening.
- Resists tool loosening on high speed machines with right hand rotation and instant spindle top.



CAPACITY RANGE							
MODEL JKT	MIN. INCHES	MM	MAX. INCHES	MM	MOUNT JACOBS	ORDER NO.	PRICE EACH
130-J2	0.039	0	0.512	13	J2	3148-611	\$531.08
130-J33	0.039	0	0.512	13	J33	3148-612	531.08
130-J6	0.039	1	0.512	13	J6	3148-613	531.08
160-J6	0.118	3	0.630	16	J6	3148-614	698.85

Micro Drill Chuck Adapter

FEATURES:

- 1/2" precision ground straight shank .750 travel
- Infinitely variable spring pressure
- Automatic return at release
- Free turning knurled hand grip
- 0 Jacobs male taper

DESCRIPTION	ORDER NO.	PRICE EACH
Micro Drill Adapter Only	3142-470	\$ 39.90



High Torque/High Precision Keyless Chucks With Integrated Shank

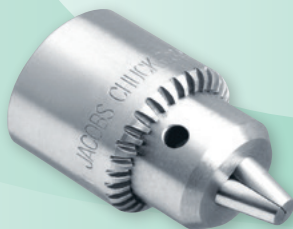


- High precision keyless drill chuck - arbor is integrated into the internal socket of the drill chuck.
- Self-tightening feature automatically increases gripping force proportional to increased torque to prevent tool shank slippage. For right hand rotation applications only.
- 100% individually controlled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

MODEL/ PART NO.	CAPACITY RANGE					DIMENSIONS								ORDER NO.	PRICE EACH
	MINIMUM		MAXIMUM			CLOSED LGTH.		OPEN LGTH.		SLEEVE DIA.					
	IN	MM	IN	MM	MOUNT	IN.	MM.	IN.	MM.	IN.	MM.				
JK 100-MT2	0.000	0	0.394	10.0	MT2	3.23	82	2.87	73	1.69	43	3148-561	\$522.72		
JK 130-MT2	0.039	1	0.512	13.0	MT2	3.62	92	3.15	80	1.89	48	3148-562	584.47		
JK 130-MT3	0.039	1	0.512	13.0	MT3	3.62	92	3.15	80	1.89	48	3148-563	533.98		
JK 130-MT4	0.039	1	0.512	13.0	MT4	3.54	90	3.23	82	1.89	48	3148-564	565.38		
JK 130-R8	0.039	1	0.512	13.0	R8	3.54	90	3.23	82	1.89	48	3148-565	584.75		
JK 160-MT3	0.118	3	0.630	16.0	MT3	3.78	96	3.35	85	2.13	54	3148-568	605.44		
JK 160-MT4	0.118	3	0.630	16.0	MT4	3.78	96	3.35	85	2.13	54	3148-569	633.87		
JK 160-R8	0.118	3	0.630	16.0	R8	3.78	96	3.35	85	2.13	54	3148-570	645.23		

Stainless Steel Chucks

- For special applications on either portable air-operated, or stationary machine tools.
- Resistant to chemical corrosion and reduces potential for hazardous sparking.



Drain Chuck

- Specifically designed for use with flexible coil spring tools. Allows coil spring to pass through chuck. Chuck may be hand tightened to secure coil spring at desired length transmitting tool rotation to shaft.
- Ideal for soil pipe and sewer cleaning tools.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT STYLE	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
OM-6624	0(1)	0	0.156	4	0-JT(2)	KOM	3147-560	\$381.40
OBM-6625	0(1)	0	0.156	4	5/16-24	KOM	3147-565	374.75
1M-6626	0(1)	0	0.250	6	1-JT(2)	K1M	3147-580	347.87
1BM-6627	0(1)	0	0.250	6	5/16-24	K1M	3147-570	380.27
1MM-6628	0(1)	0	0.250	6	3/8-24	K1M	3147-575	371.12

MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
DC4595	0.25	6.4	0.500	13	13/16-20	-	3148-199	\$202.42

Adapt-A-Drive® Chucks

- Converts any cordless screwdriver to a multi-purpose mini-drill for bit sizes up to 1/4".
- Easy conversion- integral hex mount locks the Adapt-A-Drive® chuck into the screwdriver bit socket.
- Ideal for starting screw holes when using in hard-to-reach spaces.



Professional Duty Chucks

- Industrial quality for the tradesman.
- Through-hardened jaws provide hard, durable gripping surfaces.
- One-piece sleeve eliminates crack between driving teeth often found in other designs.
- Each chuck is inspected for 100% performance and precision.
- Fluted sleeve finish.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
30248	0.028	0.7	0.250	6.5	3/8-24	KG1	3148-200	\$40.90

MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
30246	0.063	1.6	0.375	10	3/8-24	KK	3148-182	\$74.38
31052	0.063	1.6	0.500	13	1/2-20	KK	3148-183	95.49

Chucks, Chuck Keys



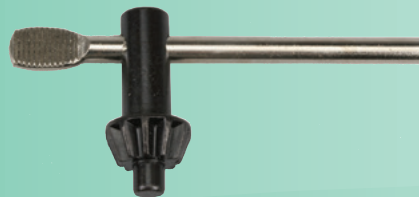
Multi-Craft® Chucks

The Multi-Craft® Drill Chuck is mounted as original equipment on more drills than any other chuck by both domestic and import drill manufacturers. It features through-hardened jaws and a design found only in competitors' industrial-grade chucks. Each chuck is backed by the Jacobs® Warranty. Ideal for corded or cordless reversible or nonreversible power drills.

MODEL/ PART NO.	CAPACITY RANGE		MOUNT THREAD	KEY NO.	PRICE EACH	
	MINIMUM IN	MAXIMUM MM				
3148-186	0.028	0.7	0.250 6.5	3/8-24	KG1	\$33.02
3148-196	0.062	1.5	0.375 10.0	3/8-24	KG1	39.35
3148-184	0.078	2.0	0.500 13.0	3/8-24	KK	47.22
3148-185	0.078	2.0	0.500 13.0	1/2-20	KK	47.22



Coming Soon!



Chuck Keys

FOR JACOBS			FOR ROHM		FOR LFA		Jacobs		Pittsburg®	
JACOBS	ROHM	LFA	CHUCK NOS.	CHUCK NOS.	CHUCK NOS.	PILOT SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
K0		0	0B			1/8	3148-324	\$ 12.01	3148-301	\$ 3.77
K1	S7	1	1A, 1B, 1BS, MC1	R0-0, R1-1	81-1A, 81-B1-	5/32	3148-317	8.48	3148-302	6.75
KG	S14	TB1	DC1G61, DC1G61AD, DC4G61, DC4G61AD, H1G61, H4561, MC2, MC11G41, MC1G60, MC1G61, MC1G75, U4G41, U4G60, U4G61		4200-B1, 412-B1 420-B1	1/4	3148-331	6.64	3148-314	2.01
KGA		T80				1/4	3148-326	5.35	3148-316	2.01
K2	S17	#2	2A, 2B, MC5	R2-38, R2-38TH	82-2A, 82-2B	1/4	3148-318	11.98	3148-303	6.75
K7	S18	T4	7, 7-1A, 7B	R6-12, R6-12TH, R6-38TH, R7-38TH		7/32	3148-321	10.16	3148-306	5.50
K32	S9	T5	11N, 32, 32B, 33, 33B, 33BA, 33F, 33KD, 3326, 3326A, MC-10, MC33	R2-2, R2-12, R2-33, R9-12, R9-12TH, R9-38, R9-38TH	82A-5A, 42BA-5A, 8282A-5B, 42-BA-5B, 82AS-5A	1/4	3148-319	12.27	3148-308	5.50
K3	S10	T6	3, 3A, 3AE, 3B, 3KD, 3PD, 6AE, 6A-2A, 6A-33, 6B, 14N, 34, 34B, 34KD, 34PD, 55B, 56B, 58B, 75A, 634, 634B	R3-2, R3-6, R3-6DP/TH, R3-12, R3-33, R3-58, R4-3, R4-58, R11-3	43-6A, 42-6B, 84-6A, 45-6A, 44-6B, 84-6B, 45-5B, 83S-6A, 84S-6A	5/16	3148-320	14.24	3148-304	8.50
K3C		T6C	633C, 633D			5/16	3148-327	4.49	3148-305	8.50
K30	S8	#13	30, 30-1A, 30B, 31B, 31BA, 8-1/2N, MC4	R7-1, R7-12, R7-38, R8-12, R8-38, R8-38TH	81B-13A, 81B-13B, 42-13B, 81BS-13A	15/64	3148-323	11.64	3148-307	12.75
KK	S19	TB13	DC8K33, DC8K61,		42-813,	9/32	3148-329	9.72	3148-315	2.47
K4	S13	#9	16N, 18BN, 36, 36B, 37KD, 37PD, 59B	R5-3, R-5, 3DP/TH, R5-4, R6-5	85-9A, 85B-9A, 85S-9A, 85BS-9A	3/8	3148-322	21.48	3148-309	11.50
K5		#26	20N			7/16	3148-328	46.32	3148-310	22.50

Hand-Tite® Keyless Drill Chucks

- Keyless Operation – Permits fast bit changes without lost key delays.
- Superior Gripping Force – Provides high mechanical advantage to convert hand tightening torque into superior bit gripping force.
- Versatility – Models available to fit all 10mm (3/8") and 13mm (1/2") variable speed corded and cordless portable drills.
- Precision Operation – Meet or exceed stringent DIN run-out and dimensional specifications.
- Ergonomic Design – Material and surface finish combinations result in increased comfort and performance.
- Rugged Construction – Constructed of high performance materials to maximize durability and performance.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	PRICE EACH
	MINIMUM		MAXIMUM			
	IN	MM	IN	MM		
10mm Capacity (3/8") Metal Sleeve, Exposed Jaws, Black Finish						
3148-198	0.040	1.0	0.375	10	3/8-24	\$55.30
13mm Capacity (1/2") Hard Nose, Black Finish						
3148-188	0.062	2.0	0.500	13	1/2-20	85.10
3148-187	0.062	2.0	0.500	13	3/8-24	85.10

Drill Chuck Arbors

Morse Taper To Jacobs Taper



		Pittsburg ALLSOUTH		USA MADE	
MORSE TAPER	JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0	0	3142-400	\$3.20	—	—
1	1	3142-411	9.68	3148-685	\$21.32
1	2	3142-412	9.68	3148-686	51.59
1	3	3142-413	10.56	—	—
1	6	3142-416	10.56	3148-687	26.74
1	33	3142-419	10.56	—	—
2	0	3142-420	9.68	—	—
2	1	3142-421	9.68	3148-689	49.12
2	2	3142-422	9.68	3148-690	39.79
2	3	3142-423	9.68	3148-691	39.00
2	4	3142-424	12.60	3148-692	50.27
2	5	3142-425	12.60	—	—
2	6	3142-426	12.60	3148-693	53.46
2	33	3142-429	9.68	3148-694	39.79
3	1	3142-431	12.93	3148-695	25.64
3	2	3142-432	12.93	3148-696	55.59
3	3	3142-433	12.93	3148-697	52.77
3	4	3142-434	14.23	3148-698	61.83
3	5	3142-435	14.23	3148-699	73.88
3	6	3142-436	14.23	3148-700	55.59
3	33	3142-439	12.93	3148-701	53.82
4	2	3142-442	20.31	3148-702	97.52
4	3	3142-443	20.31	3148-703	83.04
4	4	3142-444	20.31	3148-704	85.68
4	5	3142-445	20.31	3148-705	119.88
4	6	3142-446	20.31	3148-706	87.23
4	33	3142-449	20.31	3148-707	87.73
5	2	3142-452	36.98	—	—
5	3	3142-453	36.98	3148-708	178.06
5	4	3142-454	36.98	3148-709	176.10
5	5	3142-455	36.98	3148-710	173.85
5	6	3142-456	36.98	—	—
5	33	3142-459	36.98	—	—

Straight Shank To Jacobs Taper



		Pittsburg ALLSOUTH		USA MADE	
SA. SHANK	JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2	0	3142-300	\$9.35	3148-715	\$40.50
1/2	1	3142-301	9.35	3148-716	40.64
1/2	2	3142-302	9.35	3148-717	40.64
1/2	3	3142-303	9.35	3148-718	40.64
1/2	4	3142-304	12.60	—	—
1/2	6	3142-306	9.35	3148-719	52.66
1/2	33	3142-309	9.35	3148-720	40.64
5/8	1	3142-321	9.68	3148-721	23.06
5/8	2	3142-322	9.68	3148-722	50.00
5/8	3	3142-323	10.56	3148-723	69.09
5/8	4	3142-324	12.60	—	—
5/8	6	3142-326	12.60	3148-724	53.83
5/8	33	3142-329	10.56	3148-725	45.98
3/4	2	3142-342	14.46	3148-726	69.09
3/4	3	3142-343	14.46	3148-727	63.12
3/4	4	3142-344	16.18	—	—
3/4	6	3142-346	15.44	3148-728	74.14
3/4	33	3142-349	15.44	3148-729	75.06
1	2	3142-362	16.18	—	—
1	3	3142-363	16.18	3148-730	75.17
1	4	3142-364	16.18	—	—
1	6	3142-366	16.18	3148-731	86.01
1	33	3142-369	16.18	—	—
1-1/2	3	3142-383	25.84	—	—
1-1/2	4	3142-384	25.84	—	—
1-3/4	3	3142-393	9.20	—	—
1-3/4	4	3142-394	13.15	—	—

R8 To Jacobs Taper



		Pittsburg ALLSOUTH		USA MADE	
FROM R8 TAPER	TO JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
R8	1	3142-200	\$48.78	—	—
R8	2	3142-202	48.78	3148-745	\$214.46
R8	3	3142-204	48.78	3148-746	214.46
R8	4	3142-206	48.78	—	—
R8	6	3142-208	48.78	3148-747	214.46
R8	33	3142-210	48.78	3148-748	214.46

Threaded Arbors



		Pittsburg ALLSOUTH		USA MADE	
SIZE		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2 x 3/8-24		3142-160	\$48.16	—	—
1/2 x 1/2-20		3142-161	48.16	—	—
1MT x 3/8-24		3142-165	40.73	—	—
1MT x 1/2-20		3142-166	42.87	—	—
2MT x 3/8-24		3142-170	42.87	3148-735	\$144.29
2MT x 1/2-20		3142-172	42.87	3148-736	144.29
2MT x 5/8-16		3142-174	42.87	3148-737	144.76

Assorted Toolholders

Drill Sleeves



SIZE	M.T. HOLE	M.T. O.D.	SOFT WITH HARDENED TANG		HARDENED AND GROUND	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1 to 2	1	2	3147-012	\$ 20.25	3147-312	\$ 32.98
1 to 3	1	3	3147-013	31.75	3147-313	43.30
1 to 4	1	4	3147-014	49.13	3147-314	69.75
1 to 5	1	5	3147-015	61.88	3147-315	106.33
2 to 3	2	3	3147-023	22.93	3147-323	44.08
2 to 4	2	4	3147-024	42.50	3147-324	75.05
2 to 5	2	5	3147-025	85.75	3147-325	106.33
3 to 4	3	4	3147-034	35.78	3147-334	75.10
3 to 5	3	5	3147-035	61.88	3147-335	106.25
4 to 5	4	5	3147-045	81.58	3147-345	106.25
4 to 6	4	6	3147-046	155.45	3147-346	303.98
5 to 6	5	6	3147-056	168.53	3147-356	329.75

Screw Machine Sockets



SIZE	M.T. HOLE	O.D.	OVERALL LENGTH	ORDER EACH	PRICE EACH
1	1	1	3-1/2	3147-201	\$ 15.69
2	1	1-1/4	3-1/2	3147-202	19.24
3	1	1-1/2	3-1/2	3147-203	17.99
4	2	1	4	3147-204	17.99
5	2	1-1/4	4	3147-205	19.72
6	2	1-1/2	4	3147-206	20.94
7	2	1-3/4	4	3147-207	22.89
8	2	2	4	3147-208	24.04
9	3	1-1/4	4-3/4	3147-209	24.04
10	3	1-1/2	4-3/4	3147-210	25.94
11	3	1-3/4	4-3/4	3147-211	28.35
12	3	2	4-3/4	3147-212	30.90
13	4	1-1/2	6	3147-213	30.90
14	4	1-3/4	6	3147-214	33.65
15	4	2	6	3147-215	35.81
16	5	2-1/4	7-3/8	3147-216	62.57
17	5	2-1/2	7-3/8	3147-217	62.57

3 Piece Slotting Saw Arbor Set



- For saw blades .001" to 3/16" thickness.
- Heat treated shanks.
- For hole sizes 1/4", 3/8" & 12".
- 1/2" Shanks.

Order No. 3142-021 Price Each\$49.03

Extension Sockets



SIZE	SIZE HOLE	SHANK	ORDER NO.	PRICE EACH
1 to 1	1	1	3147-111	\$29.25
1 to 2	1	2	3147-112	29.25
1 to 3	1	3	3147-113	35.63
1 to 4	1	4	3147-114	42.65
2 to 1	2	1	3147-121	34.05
2 to 2	2	2	3147-122	34.13
2 to 3	2	3	3147-123	34.13
2 to 4	2	4	3147-124	48.98
2 to 5	2	5	3147-125	62.03
3 to 2	3	2	3147-132	42.42
3 to 3	3	3	3147-133	42.42
3 to 4	3	4	3147-134	42.42
3 to 5	3	5	3147-135	66.32
4 to 2	4	2	3147-142	64.95
4 to 3	4	3	3147-143	64.95
4 to 4	4	4	3147-144	64.95
4 to 5	4	5	3147-145	81.09
4 to 6	4	6	3147-146	184.94
5 to 3	5	3	3147-153	144.89
5 to 4	5	4	3147-154	144.89
5 to 5	5	5	3147-155	151.74
5 to 6	5	6	3147-156	184.94

Drill Drifts



SIZE	DESCRIPTION	ORDER NO.	PRICE EACH
1	Fitting #1 Sockets & Sleeves	3147-221	\$5.13
2	Fitting #2 Sockets & Sleeves	3147-222	6.20
3	Fitting #3 Sockets & Sleeves	3147-223	6.85
4	Fitting #4 & #5 Sockets & Sleeves	3147-224	10.60

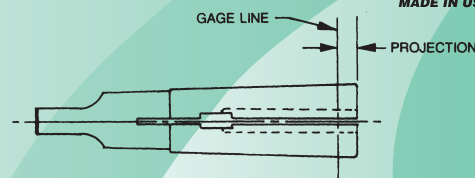
Vari-Saw Holder



- Spring loaded mechanism accepts saw blades with hole diameters from 1/2" to 1".
- Blades are firmly secured in position with hex head screw.
- Offers flexibility in sawing operation.

R8 Shank Order No. 3142-022 Price Each\$28.28
1/2" Shank Order No. 3142-020 Price Each\$25.36

Split Sleeve Drill & Reamer Drivers



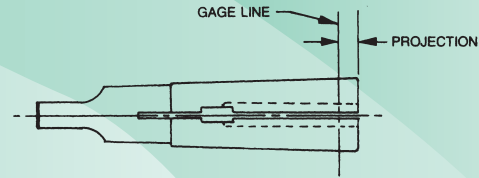
DRILL SIZE	#0 M.T.	PRICE EACH	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH
53	4870-115	\$49.00	-	-	-	-
1/16	-	-	4871-117	\$35.00	-	-
1.60MM	-	-	4871-117	35.00	-	-
52	-	-	4871-119	35.00	-	-
1.70MM	-	-	4871-121	35.00	-	-
51	-	-	4871-121	35.00	-	-
1.85MM	-	-	4871-123	35.00	-	-
49	-	-	4871-123	35.00	-	-
48	-	-	-	-	4872-209	\$37.00
1.95MM	-	-	-	-	4872-209	37.00
5/64	-	-	4871-125	35.00	-	-
47	-	-	4871-126	35.00	-	-
2.00MM	-	-	4871-126	35.00	-	-
2.05MM	-	-	4871-127	35.00	-	-
46	-	-	4871-127	35.00	-	-
44	4870-130	49.00	4871-130	35.00	-	-
2.20MM	4870-130	49.00	4871-130	35.00	-	-
2.25MM	4870-131	49.00	4871-131	35.00	-	-
43	4870-131	49.00	4871-131	35.00	-	-
42	-	-	4871-134	13.80	4872-219	37.00
3/32	-	-	4871-134	13.80	4872-219	37.00
40	-	-	4871-136	35.00	-	-
2.50MM	-	-	4871-136	35.00	-	-
38	-	-	4871-138	35.00	4872-223	37.00
2.60MM	-	-	4871-138	35.00	4872-223	37.00
2.70MM	-	-	-	-	4872-226	37.00
36	-	-	-	-	4872-226	37.00
7/64	-	-	4871-142	13.80	4872-227	37.00
2.85MM	-	-	4871-145	35.00	-	-
33	-	-	4871-145	35.00	-	-
32	4870-146	49.00	4871-146	35.00	-	-
2.95MM	4870-146	49.00	4871-146	35.00	-	-
3.00MM	4870-292	49.00	-	-	-	-
31	4870-147	49.00	4871-147	35.00	-	-
3.05MM	4870-147	49.00	4871-147	35.00	-	-
1/8	4870-149	49.00	4871-149	35.00	4872-234	37.00
3.20MM	4870-149	49.00	4871-149	35.00	4872-234	37.00
3.25MM	-	-	4871-150	35.00	4872-235	37.00
30	-	-	4871-150	35.00	4872-235	37.00
3.30MM	-	-	4871-151	35.00	-	-
3.40MM	-	-	4871-152	35.00	-	-
29	-	-	4871-153	35.00	4872-238	37.00
28	-	-	4871-156	35.00	4872-241	37.00
9/64	-	-	4871-156	35.00	4872-241	37.00
27	-	-	-	-	4872-242	37.00
3.70MM	-	-	4871-439	35.00	-	-
26	-	-	4871-158	35.00	4872-243	37.00
3.75MM	-	-	4871-158	35.00	4872-243	37.00
25	-	-	4871-159	35.00	-	-
3.80MM	-	-	4871-159	35.00	-	-
24	-	-	4871-160	35.00	4872-245	37.00
23	-	-	4871-161	35.00	-A	-
5/32	4870-162	\$49.00	4871-162	35.00	4872-247	37.00
22	-	-	4871-163	35.00	4872-248	37.00
4.00MM	-	-	4871-163	35.00	4872-248	37.00
21	-	-	4871-164	35.00	4872-249	37.00
20	-	-	4871-165	35.00	-	-
4.10MM	-	-	4871-165	35.00	-	-
4.20MM	4870-166	49.00	4871-166	35.00	-	-
19	4870-166	49.00	4871-166	35.00	-	-
4.30MM	-	-	4871-167	35.00	-	-
18	-	-	4871-167	35.00	-	-
11/64	4870-168	49.00	4871-168	35.00	4872-253	37.00
17	-	-	-	-	4872-254	37.00
4.40MM	-	-	-	-	4872-254	37.00

DRILL SIZE	#0 M.T.	PRICE EACH	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH
16	4870-170	\$49.00	4871-170	\$35.00	4872-255	\$37.00
4.50MM	4870-170	49.00	4871-170	35.00	4872-255	37.00
15	-	-	-	-	4872-256	37.00
14	4870-172	49.00	-	-	-	-
13	-	-	-	-	4872-258	37.00
4.70MM	-	-	-	-	4872-258	37.00
4.75MM	4870-174	49.00	4871-174	35.00	4872-259	37.00
3/16	4870-174	49.00	4871-174	35.00	4872-259	37.00
4.80MM	4870-175	49.00	4871-175	35.00	-	-
12	4870-175	49.00	4871-175	35.00	-	-
11	-	-	4871-176	35.00	-	-
4.90MM	-	-	4871-177	35.00	-	-
10	-	-	4871-177	35.00	-	-
9	-	-	4871-178	35.00	4872-263	37.00
5.00MM	-	-	4871-178	35.00	4872-263	37.00
8	-	-	4871-179	35.00	4872-264	37.00
5.10MM	-	-	4871-180	35.00	4872-265	37.00
7	-	-	4871-180	35.00	4872-265	37.00
13/64	-	-	4871-181	35.00	4872-266	37.00
6	-	-	4871-182	35.00	4872-267	37.00
5.20MM	-	-	4871-182	35.00	4872-267	37.00
5	-	-	4871-183	35.00	4872-268	37.00
5.30MM	4870-184	49.00	4871-184	35.00	4872-269	37.00
4	4870-184	49.00	4871-184	35.00	4872-269	37.00
5.40MM	-	-	4871-185	35.00	4872-270	37.00
3	-	-	4871-185	35.00	4872-270	37.00
5.50MM	-	-	4871-457	35.00	-	-
7/32	-	-	4871-186	35.00	4872-271	37.00
5.60MM	-	-	4871-187	35.00	4872-271	37.00
2	-	-	4871-187	35.00	4872-271	37.00
1	-	-	4871-189	35.00	4872-274	37.00
5.80MM	-	-	4871-189	35.00	4872-274	37.00
A	-	-	4871-191	35.00	4872-276	37.00
15/64	-	-	4871-191	35.00	4872-276	37.00
6.00MM	-	-	4871-462	35.00	4872-662	37.00
B	-	-	4871-192	35.00	4872-277	37.00
6.10MM	-	-	-	-	4872-278	37.00
C	-	-	4871-194	35.00	4872-279	37.00
D	-	-	4871-195	35.00	4872-280	37.00
6.25MM	-	-	4871-195	35.00	4872-280	37.00
1/4	4870-196	49.00	4871-196	35.00	4872-281	37.00
6.50MM	-	-	4871-467	35.00	-	-
F	-	-	4871-198	35.00	4872-283	37.00
6.60MM	-	-	4871-468	35.00	-	-
G	4871-199	35.00	4871-284	37.00	-	-
6.70MM	4871-469	35.00	4871-669	23.00	-	-
17/64	4871-200	35.00	4871-200	35.00	4872-285	37.00
6.75MM	4871-200	35.00	4871-200	35.00	4872-285	37.00
H	4871-200	35.00	4871-200	35.00	4872-285	37.00
6.80MM	4871-470	35.00	-	-	-	-
6.90MM	4871-202	35.00	4871-202	35.00	4872-287	37.00
I	4871-202	35.00	4871-202	35.00	4872-287	37.00
7.00MM	-	-	-	-	4872-672	37.00
J	4871-203	35.00	4871-203	35.00	4872-288	37.00
7.10MM	4871-473	35.00	-	-	4872-673	37.00
K	4871-205	35.00	4871-205	35.00	4872-290	37.00
9/32	4871-205	35.00	4871-205	35.00	4872-290	37.00
7.20MM	4871-474	35.00	-	-	-	-
L	4871-207	35.00	4871-205	35.00	4872-292	37.00
M	4871-209	35.00	4871-209	35.00	-	-
7.50MM	4871-209	35.00	4871-209	35.00	-	-
19/64	4871-210	35.00	4871-210	35.00	4872-295	37.00
N	-	-	-	-	4872-296	37.00
7.90MM	-	-	-	-	4872-681	37.00
5/16	4871-213	35.00	4871-213	35.00	4872-298	37.00

(Continued)

Split Sleeve Drill & Reamer Drivers

6



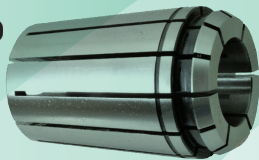
DRILL SIZE	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH	#3 M.T.	PRICE EACH
8.00MM	4871-482	\$35.00	4872-682	\$37.00	-	-
O	4871-214	35.00	4872-299	37.00	-	-
8.10MM	-	-	4872-683	37.00	-	-
8.20MM	4871-215	35.00	4872-300	37.00	-	-
P	4871-215	35.00	4872-300	37.00	-	-
8.30MM	-	-	4872-685	37.00	-	-
21/64	4871-216	35.00	4872-301	37.00	-	-
Q	4871-217	35.00	4872-302	37.00	-	-
8.50MM	4871-487	35.00	4872-687	37.00	-	-
8.60MM	4871-218	35.00	4872-303	37.00	-	-
R	4871-218	35.00	4872-303	37.00	-	-
8.70MM	4871-489	35.00	4872-689	37.00	-	-
11/32	4871-219	35.00	4872-304	37.00	-	-
8.80MM	4871-490	35.00	-	-	-	-
S	4871-220	35.00	4872-305	37.00	-	-
9.00MM	4871-221	35.00	4872-306	37.00	-	-
23/64	4871-223	35.00	4872-308	37.00	-	-
9.20MM	-	-	4872-694	37.00	-	-
U	4871-224	35.00	4872-309	37.00	-	-
9.50MM	-	-	4872-697	37.00	-	-
3/8	4871-225	35.00	4872-310	37.00	-	-
V	-	-	4872-311	37.00	4873-000	\$52.00
9.70MM	-	-	4872-699	37.00	-	-
9.8MM	-	-	4872-312	37.00	-	-
W	-	-	4872-312	37.00	-	-
9.90MM	-	-	4872-313	37.00	4873-002	25.50
25/64	-	-	4872-313	37.00	4873-002†	25.50
10.00MM	-	-	4872-702	37.00	4873-104	52.00
X	-	-	4872-314	37.00	-	-
10.10MM	-	-	4872-314	37.00	-	-
10.20MM	-	-	4872-704	37.00	-	-
Y	-	-	4872-315	37.00	-	-
10.30MM	-	-	4872-316	37.00	4873-005	52.00
13/32	-	-	4872-316	37.00	4873-005	52.00
Z	-	-	4872-317	37.00	-	-
10.50MM	-	-	4872-317	37.00	-	-
10.70MM	-	-	4872-318	37.00	4873-007	52.00
27/64	-	-	4872-318	37.00	4873-007	52.00
11.00MM	4872-712	37.00	-	-	-	-
11.10MM	4872-319	37.00	4873-008	52.00	-	-
7/16	4872-319	37.00	4873-008	52.00	-	-
11.20MM	4872-714	37.00	-	-	-	-
11.50MM	4872-320	37.00	4873-009	52.00	-	-
29/64	4872-320	37.00	4873-009	52.00	-	-
11.90MM	4872-321	37.00	4873-010	52.00	-	-
15/32	4872-321	37.00	4873-010	52.00	-	-

DRILL SIZE	#2 M.T.	PRICE EACH	#3 M.T.	PRICE EACH	#4 M.T.	PRICE EACH
12.00MM	4872-722	\$37.00	4873-124	\$52.00	-	-
12.20MM	4872-724	37.00	-	-	-	-
12.30MM	4872-322	37.00	4873-011	52.00	-	-
31/64	4872-322	37.00	4873-011	52.00	-	-
12.50MM	4872-727	37.00	-	-	-	-
12.70MM	4872-323	37.00	4873-012	52.00	-	-
1/2	4872-323	37.00	4873-012	52.00	-	-
13.00MM	4872-732	37.00	-	-	-	-
33/64	4872-324	37.00	4873-013	25.50	-	-
13.10MM	4872-324	37.00	4873-013	25.50	-	-
17/32	4872-325	37.00	4873-014	52.00	-	-
13.50MM	4872-325	37.00	4873-014	52.00	-	-
13.80MM	4872-740	37.00	-	-	-	-
35/64	4872-326	37.00	4873-015	52.00	-	-
13.90MM	4872-326	37.00	4873-015	52.00	-	-
14.00MM	4872-742	37.00	4873-144	52.00	-	-
14.20MM	4872-744	37.00	-	-	-	-
9/16	4872-327	37.00	4873-016	52.00	-	-
14.50MM	4872-747	37.00	-	-	-	-
37/64	-	-	4873-017	52.00	-	-
14.70MM	-	-	4873-017	52.00	-	-
15.00MM	-	-	4873-154	52.00	-	-
19/32	-	-	4873-018	52.00	-	-
15.10MM	-	-	4873-018	52.00	-	-
39/64	-	-	4873-019	52.00	4874-002	\$85.00
15.50MM	-	-	4873-019	52.00	4874-002	85.00
5/8	-	-	4873-020	52.00	4874-003	85.00
41/64	-	-	4873-021	52.00	-	-
21/32	-	-	4873-022	52.00	4874-005	85.00
17.00MM	-	-	4873-174	52.00	-	-
43/64	-	-	4873-023	52.00	-	-
11/16	-	-	4873-024	52.00	4874-007	85.00
45/64	-	-	4873-025	52.00	-	-
18.00MM	-	-	4873-184	52.00	-	-
18.25MM	-	-	4873-026	52.00	-	-
23/32	-	-	4873-026	52.00	-	-
18.50MM	-	-	4873-189	52.00	-	-
47/64	-	-	4873-027	52.00	-	-
3/4	-	-	4873-028	52.00	4874-011	85.00
25/32	-	-	-	-	4874-013	85.00
13/16	-	-	-	-	4874-015	85.00
7/8	-	-	-	-	4874-019	85.00
15/16	-	-	-	-	4874-023	85.00
1	-	-	-	-	4874-027	76.00

Toolholder Systems



Precision Grip Single Angle Collets



SERIES 100

[6]

SIZE	ORDER NO.	PRICE EACH
3/32	4874-200	\$58.00
1/8	4874-202	58.00
5/32	4874-204	58.00
3/16	4874-206	58.00
7/32	4874-208	58.00
1/4	4874-210	51.00
9/32	4874-212	51.00
5/16	4874-214	51.00
11/32	4874-216	51.00
3/8	4874-218	45.00
13/32	4874-220	45.00
7/16	4874-222	45.00
15/32	4874-224	45.00
1/2	4874-226	45.00
17/32	4874-228	45.00
9/16	4874-230	45.00
19/32	4874-232	45.00
5/8	4874-234	45.00
21/32	4874-236	45.00
11/16	4874-238	45.00
23/32	4874-240	45.00
3/4	4874-242	45.00
25/32	4874-244	45.00
13/16	4874-246	45.00
27/32	4874-248	45.00
7/8	4874-250	45.00
29/32	4874-252	45.00
15/16	4874-254	45.00
31/32	4874-256	45.00
1	4874-258	45.00

SERIES 150

[6]

SIZE	ORDER NO.	PRICE EACH
1/2	4874-300	\$64.00
17/32	4874-302	64.00
9/16	4874-304	64.00
19/32	4874-306	64.00
5/8	4874-308	64.00
21/32	4874-310	64.00
11/16	4874-312	64.00
23/32	4874-314	64.00
3/4	4874-316	64.00
25/32	4874-318	64.00
13/16	4874-320	64.00
27/32	4874-322	64.00
7/8	4874-324	64.00
29/32	4874-326	64.00
15/16	4874-328	64.00
31/32	4874-330	64.00
1	4874-332	64.00
1-1/32	4874-334	64.00
1-1/16	4874-336	64.00
1-3/32	4874-338	64.00
1-1/8	4874-340	64.00
1-5/32	4874-342	64.00
1-3/16	4874-344	64.00
1-1/4	4874-348	64.00
1-9/32	4874-350	64.00
1-5/16	4874-352	64.00
1-11/32	4874-354	64.00
1-3/8	4874-356	64.00
1-13/32	4874-358	64.00
1-7/16	4874-360	64.00
1-15/32	4874-362	64.00
1-1/2	4874-364	64.00

Split Sleeve Tap Drivers



[6]

OUTSIDE M.T.	TAP SIZE	ORDER NO.	PRICE EACH
1	0-6	4871-300	\$37.00
1	8	4871-301	37.00
1	10	4871-302	37.00
1	12	4871-303	37.00
1	1/4	4871-320	37.00
1	5/16	4871-321	37.00
1	3/8	4871-322	37.00
2	1/4	4872-420	39.00
2	5/16	4872-421	39.00
2	3/8	4872-422	39.00
2	7/16	4872-424	39.00
2	1/2	4872-425	39.00
2	9/16	4872-426	43.00
2	5/8	4872-427	43.00
2	11/16	4872-428	43.00
3	1/2	4873-420	52.00
3	9/16	4873-421	52.00
3	5/8	4873-422	52.00
3	11/16	4873-423	52.00
3	3/4	4873-424	52.00
3	7/8	4873-425	52.00
4	3/4	4874-420	78.00
4	7/8	4874-421	78.00
4	1	4874-422	78.00
4	1-1/8	4874-423	78.00
4	1-1/4	4874-424	78.00
5	1-1/8	4875-100	140.00
5	1-1/4	4875-101	140.00
5	1-3/8	4875-102	140.00
5	1-1/2	4875-103	140.00
5	1-3/4	4875-104	140.00

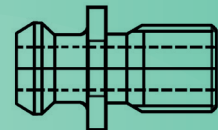
Split Sleeve Tap Drivers - Pipe Sizes

[6]

OUTSIDE M.T.	TAP SIZE	ORDER NO.	PRICE EACH
2	1/16 SS	4872-450	\$43.00
2	1/8 LS	4872-451	43.00
3	1/4	4873-450	52.00
4	3/8	4874-450	78.00
4	1/2	4874-451	78.00
4	3/4	4874-452	78.00
5	3/4	4875-110	140.00
5	1	4875-111	140.00
5	1-1/4	4875-112	140.00
5	1-1/2	4875-113	140.00

Heavy Duty: P.O.A.

Retention Knobs

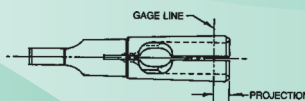


[6]

KNOB PT. NO.	V FLANGE TAPER	THREAD SIZE	PRICE EACH
4867-751	#40	5/8-11	\$64.00
4867-752	#45	3/4-10	49.00
4867-753	#50	1-8	49.00

Heavy Duty: P.O.A.

Collis Center Drill Drivers



[6]

NOMINAL CENTER DRILL SIZE	CTR. DRILL BODY DIAM.	#1 MORSE TAPER COLLIS NUMBER	PRICE EACH	#2 MORSE TAPER ORDER NUMBER	PRICE EACH	#3 MORSE TAPER ORDER NUMBER	PRICE EACH
1-11	1/8	4871-149	\$35.00	-	-	-	-
2-12	3/16	4871-502	45.00	4872-502	\$46.00	-	-
3-13	1/4	4871-503	45.00	4872-503	46.00	-	-
4-14	5/16	4871-504	45.00	4872-504	46.00	4873-503	\$52.00
5-15	7/16	-	-	4872-505	46.00	-	-
6-16	1/2	-	-	4872-506	46.00	-	-
7-17	5/8	-	-	-	-	4873-501	52.00
8-18	3/4	-	-	-	-	4873-502	52.00



TOOL SCOOT

Keep your tools organized!
Protect them from damage!

- Quality and mobility at an affordable price.
- Durable nylon inserts on both shelves help protect tool holders.
- Lower shelf angled for quick, easy tool access from either side.
- Solid, interlocking side panel construction for maximum strength and stability.
- Two end storage trays with universal mounting holes for tool lock.
- Heavy duty 5" x 1-1/4" casters load rated at 1000 lbs.
- All steel painted with our durable Ecolo-Clad in red & black.

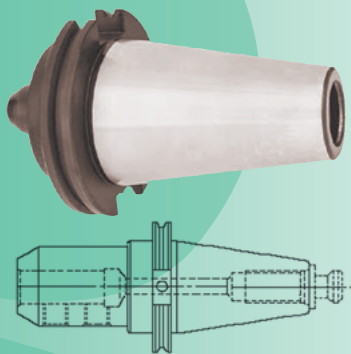
Tool Holders, Cutting Tools and Plastic Rack Not Included



MODEL NO.	TOOL STYLE	TOOL CAPACITY	WEIGHT	ORDER NO.	PRICE EACH
13940	BT, CAT "V" Flange, NMTB	48	75 lbs.	1919-285	\$469.95
13950	BT, CAT "V" Flange	36	75 lbs.	1919-295	469.95

Toolholder Systems

Caterpillar V-Flange End Mill Holder



2

BORE	GAGE LENGTH	ORDER NO.	PRICE EACH
NO. 40 TAPER			
3/8	2-1/2	4867-690	\$161.00
3/8	4-1/2	4867-780	199.00
1/2	2-5/8	4867-691	179.00
1/2	4-5/8	4867-781	199.00
5/8	3-3/4	4867-692	179.00
3/4	3-3/4	4867-693	189.00
3/4	5-3/4	4867-783	217.00
7/8	4	4867-694	189.00
1	4	4867-695	189.00
1	6	4867-785	217.00
1-1/4	4-1/4	4867-696	217.00
1-1/4	6-1/4	4867-786	232.00
1-1/2	4-5/8	4867-697	217.00
NO. 50 TAPER			
3/8	2-1/2	4867-840	230.00
3/8	4-1/2	4867-850	255.00
3/8	6-1/2	4867-860	255.00
1/2	2-5/8	4867-841	230.00
1/2	4-5/8	4867-851	255.00
1/2	6-5/8	4867-861	268.00
5/8	3-3/4	4867-842	230.00
5/8	5-3/4	4867-852	268.00
5/8	7-3/4	4867-862	320.00
3/4	3-3/4	4867-843	230.00
3/4	5-3/4	4867-853	268.00
3/4	7-3/4	4867-863	286.00
7/8	3-3/4	4867-844	230.00
7/8	5-3/4	4867-854	246.00
1	4	4867-845	246.00
1	6	4867-855	268.00
1	8	4867-865	286.00
1-1/4	4	4867-846	246.00
1-1/4	8	4867-866	286.00
1-1/2	4	4867-847	255.00
1-1/2	6	4867-857	339.00
1-1/2	8	4867-867	316.00
2	5-5/8	4867-848	375.00
2	7-5/8	4867-858	394.00

CAT 40 ER Collet Chucks Bison - Made In Poland



TAPER	RPM	ER COLLET	PROJ.	HEAD DIA.	CLAMPING RANGE	ORDER NO.	PRICE EA.
CAT 40	15,000	16	2.5	1.10	0.125 - 0.438	3176-312	\$187.00
CAT 40	15,000	16	4	1.10	0.125 - 0.438	3176-314	182.00
CAT 40	15,000	20	2.5	1.38	0.125 - 0.500	3176-322	187.00
CAT 40	15,000	20	4	1.38	0.125 - 0.500	3176-324	192.00
CAT 40	15,000	25	2.5	1.65	0.125 - 0.625	3176-327	195.00
CAT 40	15,000	25	4	1.65	0.125 - 0.625	3176-329	201.00
CAT 40	15,000	32	2.5	1.97	0.125 - 0.750	3176-332	205.00
CAT 40	15,000	32	4	1.97	0.125 - 0.750	3176-334	188.00
CAT 40	15,000	40	2.5	2.40	0.125 - 1.000	3176-342	230.00
CAT 40	15,000	40	4	2.40	0.125 - 1.000	3176-344	230.00

CAT 40 Keyless Drill Chucks

Bison - Made in Poland



CAT 40 & CAT 50 End Mill Holders

Coolant Through Capable
Bison - Made in Poland



TAPER	JACOBS	RPM	ORDER NO.	PRICE EACH
CAT 40	1-13 1/32-1/2	25,000	3176-488	\$302.00
CAT 40	3-16 1/8-5/8	25,000	3176-490	324.00

CAT 40 Drill Chuck Adapters

Bison - Made in Poland



TAPER	JACOBS	RPM	ORDER NO.	PRICE EACH
CAT 40	J2	8000	3176-462	\$93.00
CAT 40	J3	8000	3176-463	94.00
CAT 40	J4	8000	3176-464	95.00
CAT 40	J5	8000	3176-465	103.00
CAT 40	J6	8000	3176-466	94.00
CAT 40	J33	8000	3176-469	94.00

TAPER	RPM	HOLE	PROJ.	HEAD DIA.	ORDER NO.	PRICE EA.
CAT 40	25,000	1/8	2-1/2	0.750	3175-022	\$139.00
CAT 40	25,000	3/16	2-1/2	0.750	3175-032	134.00
CAT 40	25,000	1/4	2-1/2	0.827	3175-042	114.00
CAT 40	15,000	1/4	4	0.827	3175-644	124.00
CAT 40	25,000	3/8	2-1/2	1.000	3175-062	123.00
CAT 40	25,000	1/2	2-5/8	1.250	3175-082	111.00
CAT 40	15,000	1/2	5	1.250	3175-685	109.00
CAT 40	25,000	5/8	3-3/4	1.500	3175-103	129.00
CAT 40	25,000	3/4	3-3/4	1.750	3175-122	118.00
CAT 40	25,000	1	4	2.250	3175-164	160.00
CAT 40	25,000	1-1/4	4-1/4	2.500	3175-204	132.00
CAT 50	15,000	3/8	2-1/2	1.000	3175-962	145.00
CAT 50	15,000	1	4	2.250	3176-064	185.00
CAT 50	15,000	2	5-5/8	3.750	3176-185	219.00

Pittsburg[®] ALLEGHANY CAT 40 V-Flange End Mill Holders



• Suitable for CNC RPM 12,000

2

Pittsburg[®] ALLEGHANY CAT40 ER Collet Chucks



• Suitable for CNC RPM 12,000

2

TAPER	COLLET	PROJ. (IN.)	ORDER NO.	PRICE EACH
CAT40	ER16	2.48	3142-700	\$56.00
CAT40	ER16	3.94	3142-710	56.00
CAT40	ER32	2.76	3142-780	61.00
CAT40	ER32	3.94	3142-785	67.00

TAPER	HOLE DIA.	PROJ. (IN.)	HEAD DIA. (IN.)	ORDER NO.	PRICE EACH
CAT40	3/16	2-1/2	.75	3140-806	\$53.80
CAT40	1/4	2-1/2	.798	3140-808	53.80
CAT40	5/16	2-1/2	.887	3140-810	53.80
CAT40	3/8	2-1/2	1.26	3140-812	53.80
CAT40	1/2	2-5/8	1.75	3140-816	53.80
CAT40	5/8	3-3/4	1.75	3140-820	53.80
CAT40	3/4	3-3/4	1.75	3140-824	53.80
CAT40	1	4	2.48	3140-832	54.40
CAT40	1-1/4	4-1/8	2.75	3140-840	58.80

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End Mill Holders

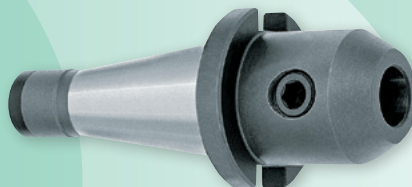
Morse Taper Shank Tang and Draw Bar Styles



TAPER (THREADS FOR DRAW BAR)	ARBOR HOLE	TANG ORDER NO.	PRICE EACH	DRAW BAR ORDER NO.	PRICE EACH
2MTS (3/8-16)	3/16	3140-021	\$ 73.85	3140-141	\$ 73.85
	3/8	3140-022	19.70	3140-142	73.85
	1/2	3140-023*	73.85	-	-
	5/8	3140-024*	83.50	3140-144*	83.50
3MTS (3/8-16)	3/16	3140-044	74.70	3140-164	74.70
	1/4	3140-045	22.50	-	-
	3/8	3140-046	74.70	-	-
	1/2	3140-047	74.70	-	-
	5/8	3140-048*	76.55	3140-168*	76.55
	3/4	3140-049*	76.55	-	-
4MTS (1/2-13)	3/8	3140-070	82.80	3140-190	82.80
	1/2	3140-071	82.80	3140-191	82.80
	5/8	3140-072	92.10	3140-192	92.10
	3/4	3140-073	92.10	3140-193	92.10
	7/8	3140-074*	110.20	3140-194*	110.20
	1	3140-075*	114.75	3140-195*	114.75
	1-1/4	-	-	3140-196*	22.50
5 MTS (5/8-11)	3/8	3140-096	114.75	3140-216	114.75
	1/2	3140-097	114.75	3140-217	114.75
	5/8	3140-098	123.85	3140-218	123.85
	3/4	3140-099	131.00	3140-219	131.00
	7/8	3140-100	148.00	3140-220	148.00
	1	3140-101	140.00	3140-221	140.00
	1-1/4	3140-102*	155.00	-	-
	1-1/2	3140-103*	169.00	-	-
	2	3140-104*	190.00	3140-224*	190.00

* FOR SINGLE-END END MILLS ONLY. DRAW BAR - LIMITED QUANTITIES

30-40-50 National Standard Taper Draw Bar Styles

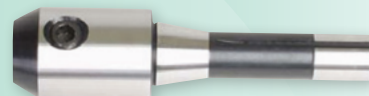


TAPER (THREADS FOR DRAW BAR)	ARBOR HOLE OR BORE	ORDER NO.	PRICE EACH
30 NST (1/2-13)	3/16	3140-541	\$38.30
	3/8	3140-542	38.30
	1/2	3140-543	38.30
	5/8	3140-544	38.30
	3/4	3140-545	38.30
	7/8	3140-546 *	47.80
	1	3140-547 *	47.80
40 NST (5/8-11)	3/16	3140-568	43.90
	3/8	3140-569	43.90
	1/2	3140-570	43.90
	5/8	3140-571	43.90
	3/4	3140-572	43.90
	7/8	3140-573	47.80
	1	3140-574 *	47.80
	1-1/4	3140-575 *	56.30
50 NST (1-8)	1-1/2	3140-576 *	59.10
	3/16	3140-596 †	64.70
	3/8	3140-597	64.70
	1/2	3140-598	64.70
	5/8	3140-599	64.70
	3/4	3140-600	64.70
	7/8	3140-601	70.30
	1	3140-602	90.00
	1-1/4	3140-603 *	104.10
	1-1/2	3140-604 *	105.80
	2	3140-605 *	112.50

† LIMITED QUANTITIES

* FOR SINGLE-END END MILLS ONLY

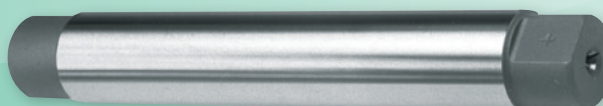
R8 Shank



ARBOR HOLE OR BORE	ORDER NO.	PRICE EACH
3/16	3140-712	\$66.43
3/8	3140-724	66.43
1/2	3140-732	67.34
5/8	3140-740	70.98
3/4	3140-748*	76.44
7/8	3140-756*	83.72
1	3140-764*	83.72
1-1/4	3140-780*	110.57
1-1/2	3140-796*	126.49

* FOR SINGLE-END END MILLS ONLY

Lathe Mandrels



DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/8	2-1/2	3146-008	\$7.09
5/32	3	3146-010	7.74
13/64	3-3/4	3146-013	4.55
7/32	3-3/4	3146-014	8.45
15/64	3-3/4	3146-015	4.55
11/32	4-1/4	3146-022	9.04
23/64	4-1/4	3146-023	5.00
13/32	4-1/2	3146-026	9.75
15/32	5	3146-030	11.05
31/64	5	3146-031	12.16
1/2	5	3146-032	11.05
33/64	5-1/4	3146-033	12.16
35/64	5-1/4	3146-035	13.73
9/16	5-1/4	3146-036	12.48
37/64	5-1/2	3146-037	13.73
19/32	5-1/2	3146-038	12.48
41/64	5-3/4	3146-041	7.00
21/32	5-3/4	3146-042	12.94
11/16	5-3/4	3146-044	12.94

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
45/64	6	3146-045	\$14.24
23/32	6	3146-046	12.94
47/64	6	3146-047	14.24
49/64	6-1/4	3146-049	14.23
25/32	6-1/4	3146-050	16.25
13/16	6-1/4	3146-052	16.25
53/64	6-1/2	3146-053	17.88
27/32	6-1/2	3146-054	16.25
29/32	6-3/4	3146-058	17.88
15/16	6-3/4	3146-060	17.88
31/32	7	3146-062	17.88
1-1/32	7-1/4	3146-066	22.43
1-1/16	7-1/4	3146-068	22.43
1-3/16	7-3/4	3146-076	25.94
1-7/32	8	3146-078	28.53
1-1/4	8	3146-080	25.94
1-15/16	8-1/4	3146-084	31.85
1-3/8	8-1/2	3146-088	31.85
1-7/16	8-3/4	3146-092	37.05
1-15/32	9	3146-094	40.76
1-9/16	9-1/4	3146-100	41.93

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1-5/8	9-1/2	3146-104	\$41.93
1-11/16	9-3/4	3146-108	47.45
1-3/4	10	3146-112	47.45
1-13/16	10-1/4	3146-116	54.28
1-27/32	10-1/2	3146-118	30.60
1-7/8	10-1/2	3146-120	54.28
1-15/16	10-1/2	3146-124	59.15
2	11	3146-128	59.15
2-3/32	11-1/2	3146-134	37.60
2-1/8	11-1/2	3146-136	64.68
2-5/32	12	3146-138	41.30
2-1/4	12	3146-144	72.48
2-3/8	12	3146-152	77.68
2-7/16	12	3146-156	49.85
2-15/32	12-1/2	3146-158	49.85
2-1/2	12-1/2	3146-160	87.10
2-9/16	12-1/2	3146-164	64.30
2-5/8	12-1/2	3146-168	101.40
2-3/4	13	3146-176	110.50
2-7/8	13	3146-184	115.70

Stub Arbors



ARBOR DIAM.	SHANK DIAM.	LG'TH OF SHOULDER TO NUT	RH ORDER NO.	PRICE EACH
1/2	1	3/4	3141-101†	\$ 40.50
5/8	1	3/4	3141-103†	53.20
3/4	1	1	3141-105†	109.88
7/8	1	3/4	3141-107†	63.00

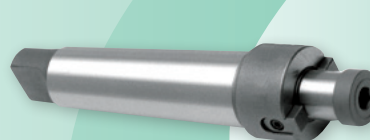
† Limited Quantities

Type "C" Shell End Mill Arbor



TAPER (THREADS FOR DRAW BAR)	SHELL END MILL ARBOR HOLE	DIAM. RANGE FOR SHELL END MILL	ORDER NO.	PRICE EACH
30 (1/2-13)	1/2	1-1/4" to 1-1/2"	3141-381	\$ 94.64
	3/4	1-3/4" to 2"	3141-382	94.64
	1	2-1/4" to 2-3/4"	3141-383	94.64
	1-1/4	3" to 3-1/2"	3141-384	94.64
40 (5/8-11)	1/2	1-1/4" to 1-1/2"	3141-405	128.70
	3/4	1-3/4" to 2"	3141-406	128.70
	1	2-1/4" to 2-3/4"	3141-407	128.70
	1-1/4	3" to 3-1/2"	3141-408	128.70
	1-1/2	4" to 5"	3141-409	128.70
50 (1"-8)	2	5-1/2" to 6"	3141-410	128.70
	1/2	1-1/4" to 1-1/2"	3141-430	193.70
	3/4	1-3/4" to 2"	3141-431	193.70
	1	2-1/4" to 2-3/4"	3141-432	193.70
	1-1/4	3" to 3-1/2"	3141-433	193.70
	1-1/2	4" to 5"	3141-434	193.70
	2	5-1/2" to 6"	3141-435	193.70

Morse Taper Shell End Mill Arbors



Tang Style

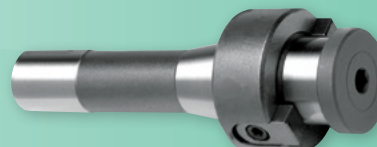


Draw Bar Style

TAPER (THREADS FOR DRAW BAR)	SHELL END MILL ARBOR HOLE	DIAM. RANGE FOR SHELL END MILL	TANG STYLE ORDER NO.	DRAW BAR STYLE ORDER NO.	PRICE EACH
3 MTS (3/8-16)	1/2	1-1/4" to 1-1/2"	3141-010	3141-060†	\$ 30.40
	3/4	1-3/4" to 2"	3141-011	3141-061†	30.40
	1	2-1/4" to 2-3/4"	3141-012	3141-062†	37.50
	1-1/4	3" to 3-1/2"	3141-013	3141-063†	37.50
4 MTS (1/2-13)	1/2	1-1/4" to 1-1/2"	3141-021	3141-071	76.32
	3/4	1-3/4" to 2"	-	3141-072	89.04
	1	2-1/4" to 2-3/4"	-	3141-073	94.43
	1-1/4	3" to 3-1/2"	3141-024	3141-074	104.16
	1-1/2	4" to 5"	3141-025	3141-075	110.25
5 MTS (5/8-11)	2	5-1/2" to 6"	3141-026	-	63.60
	1-1/4	3" to 3-1/2"	-	3141-096	124.99
6 MTS	1-1/2	4" to 5"	-	3141-097	137.34
	1	2-1/4" to 2-3/4"	3141-052	-	184.10
	1-1/4	3" to 3-1/2"	3141-053	-	198.80
	1-1/2	4" to 5"	3141-054	-	233.17

† Limited Quantities

R8 Shank Shell End Mill Arbor



SHELL END MILL ARBOR HOLE	DIAM. RANGE FOR SHELL END MILL	ORDER NO.	PRICE EACH
1/2	1-1/4" to 1-1/2"	3141-532	\$36.00
3/4	1-3/4" to 2"	3141-548	99.65
1	2-1/4" to 2-3/4"	3141-564	106.93
1-1/4	3" to 3-1/2"	3141-580	106.93
1-1/2	4" to 5"	3141-596	143.33

Arbor Screws



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

Milling Machine Arbors



Style A



TAPER (THREADS FOR DRAW BAR)	ARBOR NO.	ARBOR DIAM.	LG'TH OF SHOULDER TO NUT	DIAM. OF RUNNING BUSHINGS	BUSHINGS FURNISHED	ORDER NO.	PRICE EACH
30 NST (1/2-13)	30-7/8-A10-2	7/8	10	1-5/8	1	3144-005	\$245.70
	31-A10-2	1	10	1-5/8	1	3144-010	266.50
	31-1/4-A10-2	1-1/4	10	1-7/8	1	3144-015	297.70
	31-1/4-A10-3	1-1/4	10	1-7/8	1	3144-020	297.70
40 NST (5/8-11)	40-7/8-A10	7/8	10	NONE	NONE	3144-025	266.50
	40-7/8-A16-3	7/8	16	1-7/8	1	3144-030	388.70
	41-A8	1	8	NONE	NONE	3144-035	271.70
	41-A10	1	10	NONE	NONE	3144-040	284.70
	41-A12	1	12	NONE	NONE	3144-045	336.70
	41-A16-3	1	16	1-7/8	1	3144-050	409.50
	41-1/4-A8	1-1/4	8	NONE	NONE	3144-055	297.70
	41-1/4-A10	1-1/4	10	NONE	NONE	3144-060	331.50
	41-1/4-A12	1-1/4	12	NONE	NONE	3144-065	357.50
	41-1/4-A16-3	1-1/4	16	1-7/8	1	3144-070	414.70
50 NST (1-8)	50-7/8-A10	7/8	10	NONE	NONE	3144-075	334.10
	50-7/8-A18-4	7/8	18	2-1/8	1	3144-080	492.70
	51-A8	1	8	NONE	NONE	3144-085	278.20
	51-A12	1	12	NONE	NONE	3144-090	371.80
	51-18-4	1	18	2-1/8	1	3144-095	491.40
	51-1/4-A8	1-1/4	8	NONE	NONE	3144-100	302.90
	51-1/4-A12	1-1/4	12	NONE	NONE	3144-105	426.40
	51-1/4-A18-4	1-1/4	18	2-1/8	1	3144-110	518.70

Style B



TAPER (THREADS FOR DRAW BAR)	ARBOR NO.	ARBOR DIAM.	LG'TH OF SHOULDER TO NUT	DIAM. OF RUNNING BUSHINGS	BUSHINGS FURNISHED	ORDER NO.	PRICE EACH
30 NST (1/2-13)	31 B2	1	2	NONE	NONE	3144-205	\$ 188.50
40 NST (5/8-11)	40-7/8-B14-3	7/8	14	1-7/8	1	3144-210	292.50
	40-7/8-B16-3	7/8	16	1-7/8	1	3144-215	357.50
	41 B-3	1	3	NONE	NONE	3144-220†	178.10
	41 B14-3	1	14	1-7/8	1	3144-225	409.50
	41 B20-3	1	20	1-7/8	1	3144-230	474.50
	41-1/4-B-3	1-1/4	3	NONE	NONE	3144-235†	188.50
	41-1/4-B14-3	1-1/4	14	1-7/8	1	3144-240	414.70
	41-1/4-B20-3	1-1/4	20	1-7/8	1	3144-245	505.70
50 NST (1-8)	41-1/2-B20-4	1-1/2	20	2-1/8	1	3144-250	585.00
	51B-3-1/2	1	3-1/2	NONE	NONE	3144-255†	218.40
	51B15-4	1	15	2-1/8	1	3144-260	396.50
	51B18-4	1	18	2-1/8	2	3144-265	444.60
	51B24-4	1	24	2-1/8	2	3144-270	518.70
	51-1/4-B15-4	1-1/4	15	2-1/8	1	3144-280	451.10
	51-1/4-B18-4	1-1/4	18	2-1/8	2	3144-285	474.50
	51-1/4-B24-4	1-1/4	24	2-1/8	2	3144-290	551.20
	51-1/4-B30-4	1-1/4	30	2-1/8	2	3144-295	692.90
	51-1/2-B3-1/2	1-1/2	3-1/2	NONE	NONE	3144-300†	250.90
	51-1/2-B18-4	1-1/2	18	2-1/8	2	3144-305	787.80
	51-1/2-B24-5	1-1/2	24	2-3/4	2	3144-310	611.00
	51-1/2-B30-5	1-1/2	30	2-3/4	2	3144-315	744.90
	52-B24-5	2	24	2-3/4	2	3144-325	744.90
	52-B30-5	2	30	2-3/4	2	3144-330	843.70
	52-B36-5	2	36	2-3/4	2	3144-335	936.00
	52-1/2-B36-6	2-1/2	36	3-3/8	2	3144-340	1430.00

† Limited Quantities

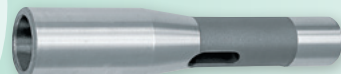
Slitting Saw & Milling Machine Arbor



ARBOR SHANK	ARBOR DIAM.	LENGTH OF SHOULDER TO NUT	ORDER NO.	PRICE EACH
R8	1	2	3142-010	\$154.70
R8	1-1/4	2	3142-012	168.36

Milling Machine Adaptors

R8 to Morse Taper



FROM R8 (MALE)	TO MORSE (FEMALE)	ORDER NO.	PRICE EACH
R8	2	3142-150	\$11.20
R8	3	3142-152	12.60

NST to R8



FROM NST (MALE)	TO R8 (FEMALE)	ORDER NO.	PRICE EACH
40	R8	3142-130	\$194.74
50	R8	3142-132	232.96

NST Adaptors



OUTSIDE TAPER (MALE)	INSIDE TAPER (FEMALE)	ORDER NO.	PRICE EACH
40	30	3142-100	\$156.09
50	30	3142-102	168.64
50	40	3142-104	168.64

Draw Bar Type



FROM NST (MALE) TAPER	TO MORSE (FEMALE) TAPER	DRAW BAR THREADS	ORDER NO.	PRICE EACH
40	2	5/8-11	3142-060	\$102.70
40	3	5/8-11	3142-062	102.70
40	4	5/8-11	3142-064	102.70
40	5	5/8-11	3142-066	128.06
50	2	1-8	3142-068	143.00
50	3	1-8	3142-070	143.00
50	4	1-8	3142-072	143.00
50	5	1-8	3142-074	187.20

NST to MT Open End Type



FROM NST (MALE) TAPER	TO MORSE (FEMALE) TAPER	ORDER NO.	PRICE EACH
40	2	3142-030†	\$102.70
40	3	3142-032†	102.70
40	4	3142-034†	102.70
50	3	3142-036†	143.00
50	4	3142-038†	143.00
50	5	3142-040†	187.20

† Limited Quantities

Arbors, Arbor Bushings & Nuts

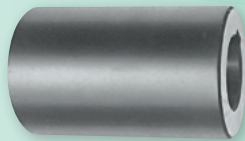
Arbor Solid Spacers - With Keyways

Spacers are hardened and have parallel and perpendicular surfaces precisely ground – accuracy .0002" – to ensure precise operation of cutters on milling machine arbors. Import.



WIDTH OF SPACER	7/8" HOLE-1-3/8" O.D.		1" HOLE-1-1/2" O.D.		1-1/4" HOLE-1-3/4" O.D.		1-1/2" HOLE-2-1/8" O.D.		2" HOLE-2-3/4" O.D.	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	3144-370	\$ 5.14	3144-387	\$ 5.72	3144-404	\$ 6.72	3144-421	\$ 8.52	3144-438	\$ 10.40
3/32	3144-371	5.14	3144-388	5.72	3144-405	6.72	3144-422	8.52	3144-439	10.40
1/8	3144-372	5.14	3144-389	5.72	3144-406	6.72	3144-423	8.52	3144-440	10.40
3/16	3144-373	5.14	3144-390	5.72	3144-407	6.72	3144-424	8.52	3144-441	10.40
1/4	3144-374	5.46	3144-391	6.33	3144-408	7.15	3144-425	9.50	3144-442	11.38
5/16	3144-375	5.92	3144-392	7.10	3144-409	7.87	3144-426	10.54	3144-443	13.00
3/8	3144-376	5.92	3144-393	7.10	3144-410	7.87	3144-427	8.22	3144-444	13.91
7/16	3144-377	7.22	3144-394	8.26	3144-411	8.91	3144-428	12.01	3144-445	15.93
1/2	3144-378	7.61	3144-395	8.26	3144-412	9.93	3144-429	12.88	3144-446	16.90
5/8	3144-379	8.26	3144-396	9.10	3144-413	10.82	3144-430	14.50	3144-447	19.76
3/4	3144-380	9.10	3144-397	10.60	3144-414	12.01	3144-431	15.60	3144-448	21.84
7/8	3144-381	10.14	3144-398	12.39	3144-415	12.88	3144-432	16.45	3144-449	23.92
1	3144-382	10.14	3144-399	12.39	3144-416	13.92	3144-433	18.59	3144-450	23.40
1-1/4	3144-383	11.96	3144-400	14.91	3144-417	15.60	3144-434	20.80	3144-451	25.94
1-1/2	3144-384	12.87	3144-401	17.37	3144-418	17.75	3144-435	22.95	3144-452	31.85
2	3144-385	16.77	3144-402	23.14	3144-419	20.80	3144-436	27.11	3144-453	35.36
3	3144-386	23.73	3144-403	26.53	3144-420	28.17	3144-437	34.19	3144-454	46.74
Width of Key	1/8		1/4		5/16		3/8		1/2	

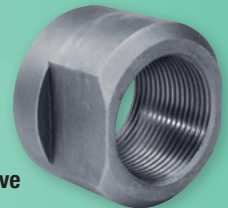
Arbor Running Bushing With Keyways



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

BUSHING NO.	O.D.	HOLE DIA.	LG'TH	ORDER NO.	PRICE EACH
2 - 7/8	1-5/8	7/8	2-5/8	3144-500	\$28.93
2 - 1	1-5/8	1	2-5/8	3144-501	28.93
2 - 1-1/4	1-7/8	1-1/4	2-5/8	3144-502	28.93
3 - 7/8	1-7/8	7/8	3-1/8	3144-503	37.70
3 - 1	1-7/8	1	3-1/8	3144-504	37.70
3 - 1-1/4	1-7/8	1-1/4	3-1/8	3144-505	37.70
4 - 7/8	2-1/8	7/8	3-3/4	3144-506	56.55
4 - 1	2-1/8	1	3-3/4	3144-507	56.55
4 - 1-1/4	2-1/8	1-1/4	3-3/4	3144-508	56.55
4 - 1-1/2	2-1/8	1-1/2	3-3/4	3144-509	56.55
5 - 7/8	2-3/4	7/8	4-1/4	3144-510	71.50
5 - 1	2-3/4	1	4-1/4	3144-511	71.50
5 - 1-1/4	2-3/4	1-1/4	4-1/4	3144-512	71.50
5 - 1-1/2	2-3/4	1-1/2	4-1/4	3144-513	71.50
5 - 2	2-3/4	2	4-1/4	3144-514	71.50

Nuts For Milling Machine Arbors



Arbor nuts are hardened and have a ground thread and shoulder

SIZE	FOR ARBOR DIA.	RH ORDER NO.	PRICE EACH
7/8 - 14	7/8	3144-530	\$35.36
1 - 14	1	3144-532	42.32
1-1/4 - 12	1-1/4	3144-534	48.35
1-1/2 - 12	1-1/2	3144-536	86.68
2 - 12	2	3144-538	110.32
2-1/2 - 12	2-1/2	3144-540	176.80

Arbor Spacers and Shims 2

• Shims DO NOT have a keyway, spacers DO have a keyway

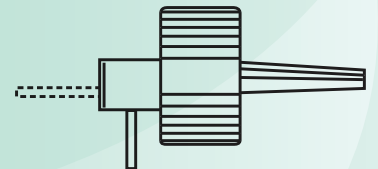
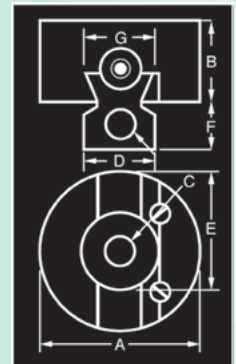
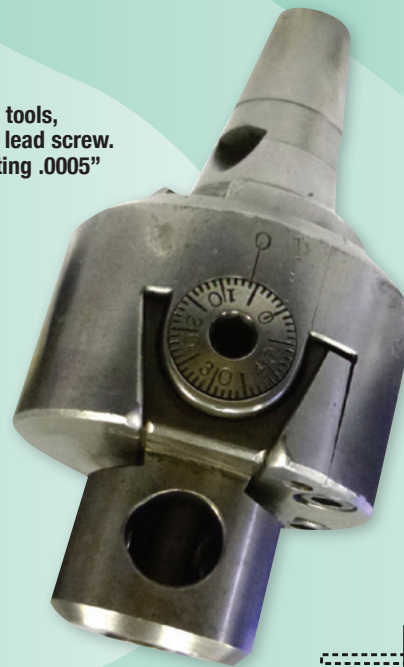
- Assortments contain one each of the 19 different thicknesses
- SIZES: .001, .0015, .002, .003, .004, .005, .006, .007, .008, .010, .012, .015, .020, .025, .031, .047, .062, .093, .125
- Used for fast, accurate spacing of milling cutters, gang cutters, saws, slitting blades, and grinding tools
- Special sizes, materials, and bulk quantities available on request
- Made of high quality Steel Shim • Finish can be #2 bright or matte • Keyways conform to American standards
- Packaged in airtight poly bags • 10 pieces per bag (except assortments)

SPACERS (WITH KEYWAY) ASSORTMENT	(3/8 ID x 5/8 OD)		(1/2 ID x 3/4 OD)		(5/8 ID x 1 OD)		(3/4 ID x 1-1/8 OD)		(1 ID x 1-1/2 OD)	
	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH
19 pcs.	3234-120	\$ 22.05	3234-140	\$ 28.79	3234-160	\$ 34.53	3234-180	\$ 31.18	3234-220	\$ 33.10
SHIMS (WITHOUT KEYWAY) ASSORTMENT	(3/8 ID x 5/8 OD)		(1/2 ID x 3/4 OD)		(5/8 ID x 1 OD)		(3/4 ID x 1-1/8 OD)		(1 ID x 1-1/2 OD)	
	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH
19 pcs.	3235-120	\$ 13.67	3235-140	\$ 13.67	3235-160	\$ 16.76	3235-180	\$ 19.53	3235-220	\$ 23.66

40 Series

Flynn's 40 Series designs offer a wide range of sizes and provisions for holding tools, perpendicular or parallel. All boring heads are standard with 20 TPI micrometer lead screw. .001" per graduation of screw dial. A 40 TPI is available at an extra cost permitting .0005" per graduation of the screw dial.

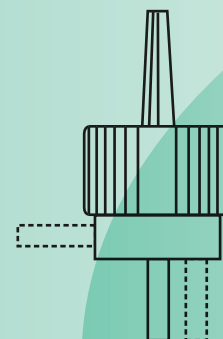
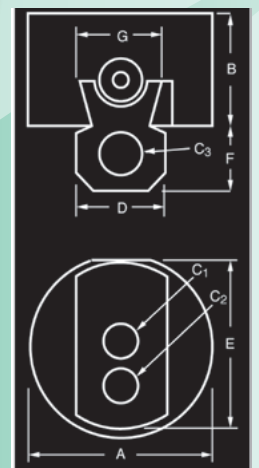
Dimensions and Specifications	No. 43	No. 43B	No. 45	No. 47	No. 48
A-Body Diameter	2-3/4"	2-3/4"	4"	4-1/2"	5"
B-Body Length	2"	2"	2-1/8"	2-5/8"	2-5/8"
C-Bar-Tool Capacity	1/2"	5/8"	3/4"	1"	1-1/4"
D-Tool Block	1-1/2"	1-1/2"	2"	2-1/2"	2-3/4"
E-Extension Length	1-7/8"	1-7/8"	2-3/4"	3"	3-3/8"
F-Extension Width	1-1/8"	1-1/8"	1-1/2"	1-3/4"	2"
G-Extends Past Body	1-1/4"	1-1/4"	1-7/8"	2-1/4"	2-1/2"
Bar Offset	5/8"	5/8"	1"	1"	1-1/4"
Bar or Tool Grip	1-1/2"	1-1/2"	2"	2-1/2"	2-3/4"
Dovetail Depth	7/8"	7/8"	1"	1-1/4"	1-1/4"
Net Weight	3 lbs.	3 lbs.	8 lbs.	12 lbs	15 lbs
Shank Series	175	175	175	250	250
Order No.	3157-015	3157-020	3157-025	3157-030	3157-035
Price Each Without Shank	\$475.00	\$475.00	\$500.00	\$700.00	\$900.00



60 Series

The 60 Series features a long and stockier tool block for better securing the tool, particularly horizontal position (Number 63,65 and 67). The horizontal hole is broached for holding either round or square tools. The two vertical mount holes are made possible by the logger tool block, one is centered in the block and the second is offset, greatly increasing the amount of overall offset that can be obtained. A vernier on the body facilitates adjustment of the micrometer offset screw, making possible extremely close visual offset adjustment. 20TPI micrometer lead screw is standard. 40TPI micrometer lead screw is available at extra cost.

Dimensions and Specifications	No. 63	No. 65	No. 67	No. 67B	No. 68
A-Body Diameter	2-3/4"	4"	5"	5"	8"
B-Body Length	2"	2-1/2"	3-1/8"	3-1/8"	3-1/8"
C1-Bar-Tool Capacity	1/2"	3/4"	1"	1-1/4"	2"
C1-Bar-Tool Capacity	5/8"	3/4"	1"	1-1/4"	2"
C3-Bar-Tool Capacity	1/2sq"	3/4sq"	1sq"	1-1/4"	2"
D-Tool Block	1-1/2"	2"	2-1/2"	2-1/2"	3"
E-Tool Block	2-5/8"	3-3/4"	4-13/16"	4-13/16"	7-1/2"
F-Tool Block	1-1/8"	1-1/2"	1-3/4"	2-1/8"	2-3/4"
G-Tool Block	1-1/4"	1-7/8"	2-1/4"	2-1/2"	3"
Bar Offset	5/8"	7/8"	1-5/16"	1-3/8"	1-3/4"
Bar Offset	from Center	Eachway	Eachway	Eachway	from Center
Bar Offset	1/2 back from Center				2-5/8 Back from Center
Bar Grip C-1,C-2	1-1/2"	2"	2-1/2"	2-1/2"	3-5/16"
Bar Grip C-3	2-5/8"	3-3/4"	4-13/16"	4-13/16"	-
Dovetail Depth	7/8"	1"	1-1/4"	1-1/4"	1-1/4"
Net Weight	3-3/4 lbs.	9-1/2 lbs.	19 lbs.	20 lbs.	52 lbs.
Shank Series	175	250	250	250	250
Order No.	3157-045	3157-050	3157-055	3157-060	3157-065
Price Each Without Shank	\$525.00	\$750.00	\$1200.00	\$1250.00	\$3350.00

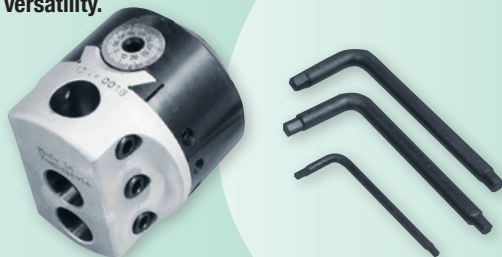


Boring Heads



Boring Heads

- Wide bearing surface assures maximum rigidity even when the bar is in an offset position.
- Features direct reading dial.
- Threaded back will accept a variety of shanks.
- Two vertical and one horizontal holes.
- Provides great versatility.



ACTUAL SIZE	OVERALL LGTH.	BORING BAR HOLE SIZE	CENTER DIST. BETWEEN HOLES	CROSS HOLE DIA.	OFFSET	THREAD BACK	ORDER NO.	PRICE EACH
2"	2-13/32"	1/2"	5/8"	1/2"	5/8"	7/8-20	3157-405	\$101.35
3"	3-5/32"	3/4"	15/16"	3/4"	1"	1-1/2 -18	3157-410	141.25
4"	3-3/4"	1"	1-1/4"	1"	1-5/8"	-	3157-415	217.00

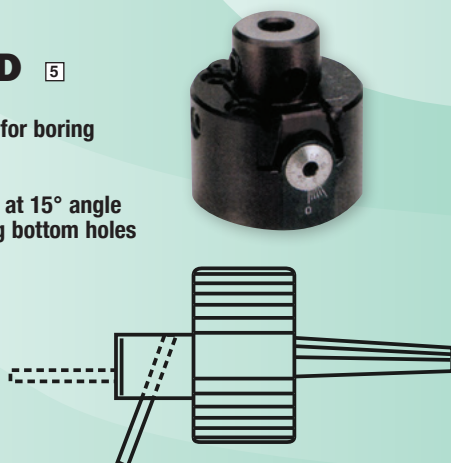
Boring Head Shanks

FOR 2" HEAD	ORDER NO.	PRICE EACH	FOR 3" & 4" HEAD	ORDER NO.	PRICE EACH
2MTS Draw Bar	3157-490	\$23.50	3MTS Tang	3157-430	\$29.50
2MT Tang	3157-495	23.50	4MTS Tang	3157-435	29.50
3MT Tang	3157-500	23.50	5MTS Tang	3157-440	29.50
4MT Tang	3157-505	23.50	1" Straight	3157-445	24.95
1/2" Straight	3157-510	11.95	1-1/4" Straight	3157-450	24.95
1" Straight	3157-515	11.95	1-1/2" Straight	3157-455	24.95
R8 Bridgeport	3157-520	25.00	R8 Bridgeport	3157-460	29.50

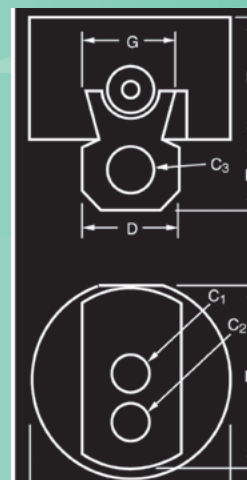
Flynn Number 25-ED

With two-way tool holder for boring small and large holes.

Square cross hole (1/2) is at 15° angle to slide to facilitate boring bottom holes and for fly cutting.



Dimensions and Specifications	No.25-ED
A-Body Diameter	2-3/4"
B-Body Length	2"
C-Bar-Tool Capacity	1/2"
D-Tool Block	1-1/2"
E-Extension Length	1-7/8"
F-Extension Width	1-1/8"
G-Extends Past Body	1-1/4"
Bar Offset	5/8"
Bar or Tool Grip	1-1/2"
Dovetail Depth	7/8"
Net Weight	3 lbs.
Shank Series	175
Order No.	3157-010
Price Each Without Shank	\$475.00



Arbors for Flynn Boring Heads



Shank Series 175 1-7/16-12			Shank Series 250 2-12		
Order No.	Price Each		Order No.	Price Each	
Morse Taper					
2MT	3157-170	\$250.00	-	-	
3MT	3157-175	250.00	-	-	
4MT	3157-180	250.00	3157-275	\$250.00	
5MT	3157-185	250.00	3157-280	250.00	
6MT	-	-	3157-285	600.00	
7MT	-	-	3157-290	700.00	
Bridgeport Taper					
R-8	3157-235	160.00	-	-	

Shank Series 175 1-7/16-12		
Order No.	Price Each	
Straight Shank		
3/4 x 4	3157-245	\$250.00
1 x 4	3157-250	250.00
1-1/4 x 4	3157-255	250.00
1-1/2 x 4	3157-260	250.00
2 x 6	3157-265	250.00

Shank Series 175 1-7/16-12			Shank Series 250 2-12		
Order No.	Price Each		Order No.	Price Each	
Standard Taper					
40 5/8-11	3157-220	\$450.00	3157-315	\$450.00	
50 1-8	3157-225	500.00	3157-320	500.00	
Moore	3157-230	100.00	-	-	

Flynn Boring Head Sets

Set includes R8 Shank, 5 Tools & Case

BORING HEAD NUMBER	HEAD DIA.	BORING BAR HOLE SIZE	SHANK SIZE	ORDER NO.	PRICE EACH
25ED-Set	2-3/4	1/2	R-8	3157-080	\$475.00
43-Set	2-3/4	1/2	R-8	3157-085	475.00
63-Set	2-3/4	1/2-5/8	R-8	3157-090	575.00
43B-Set	2-3/4	5/8	R-8	3157-095	475.00
63B-Set	2-3/4	3/4	R-8	3157-100	575.00



Fly Cutters & Toolholders

Fly Cutter Sets



3

SHANK SIZE	HEAD DIA.	TOOL BIT SIZE	ORDER NO.	PRICE EACH
1/2	3/4	3/16	3143-301	\$20.70
	1-1/8	1/4		
	1-1/2	5/16		
3/4	1-1/2	5/16	3143-302	35.20
	2	5/16		
	2-1/2	5/16		

R8 Shank Fly Tool Cutter



- Counterbalanced to get smoother finishes
- Made of Hardened Steel
- Quality Import

3

TOOL BIT SIZE	HEAD DIA.	ORDER NO.	PRICE EACH
3/8	2-1/2"	3143-300	\$32.90

5 Piece Fly Cutter Set



3

- (4) tools with 3/16", 1/4", 5/16" & 3/8" tool bit capacity have 1/2" shanks
- (1) tool with 1/2" tool bit capacity has 5/8" shank
- Attractive wooden stand included.

Order No. 3143-303 Price Each...\$49.25

Carbide Tool Holders For Carbide Tipped Square Tool Bits



3

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT	RIGHT HAND	LEFT HAND	
1/4	3143-015	3143-001	3143-008	\$44.99
5/16	3143-016	3143-002	3143-009	51.14
3/8	3143-017	3143-003	3143-010	59.31
7/16	3143-018	3143-004	3143-011	69.30
1/2	3143-019	3143-005	3143-012	85.89
5/8	3143-020	3143-006	3143-013	151.33
3/4	3143-021	3143-007	3143-014	213.07

Turning Tool Holders

2

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT SHANK	RIGHT HAND	LEFT HAND	
3/16	3143-102	3143-120	3143-111	\$29.10
1/4	3143-103	3143-121	3143-112	31.06
5/16	3143-104	3143-122	3143-113	34.61
3/8	3143-105	3143-123	3143-114	38.93
7/16	3143-106	3143-124	3143-115	46.40
1/2	3143-107	3143-125	3143-116	59.77
5/8	3143-108	3143-126	3143-117	102.25
3/4	3143-109	3143-127	3143-118	133.71



Right Hand



Left Hand



Straight Shank

Cut Off Tool Holders

2

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT SHANK	RIGHT HAND	LEFT HAND	
3/32 x 1/2	3143-217	3143-201	3143-209	\$9.50
3/32 x 5/8	3143-218	3143-202	3143-210	10.70
1/8 x 3/4	3143-219	3143-203	3143-211	12.85
1/8 x 7/8	3143-220	3143-204	3143-212	17.95
3/16 x 1	3143-221	3143-205	3143-213	25.65
3/16 x 1-1/8	3143-222	3143-206	3143-214	34.90
1/4 x 1-1/4	3143-223	3143-207	3143-215	41.85
1/4 x 1-3/8	3143-224	-	-	52.45



Straight Shank



Left Hand



Right Hand

Machine Accessories

Drawbars for Mills

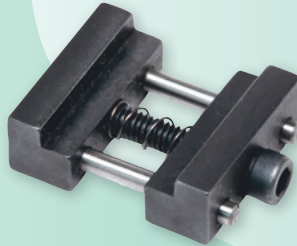
- Made of cold rolled steel.
- Black oxide plated.
- Made in U.S.A.



FITS MILLING MACHINE	ORDER NUMBER	PRICE EACH
1J Step Pulley	3143-420	\$32.60
2J Step Pulley	3143-421	36.40
Lagun Vari Speed	3143-424	58.60
Wells Index Vari Speed	3143-425	49.90

Easy Vise Stop

- Made from hardened steel with Black Oxide coating.
- Stop is 1" wide by 1-7/16" long.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-407	\$10.50

Vise Speed Handle For 6" Kurt Style Milling Machine Vises

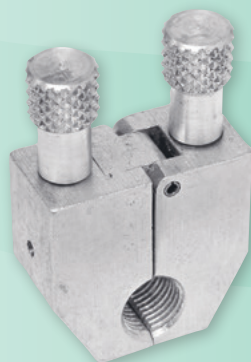
- Made in U.S.A.



DESCRIPTION	ORDER NUMBER	PRICE EACH
Fits 6" Vise (3/4" Hex)	3143-412	\$27.80

Quill Stop For All Milling Machines

- Quickly Sets Quill Depth.
- 1/2 - 20 threads for Mills.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-417	\$12.30

Universal 5C Collet Stop



ORDER NO.	PRICE EACH
3143-401	\$28.87

Spider Handle for Mills

- Sturdy construction features a solid aluminum center with protective plating, and 3 heavy duty solid steel spokes and knobs.
- Black Oxide Plated.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-415	\$27.80

Quill Feed Handle - For all Bridgeport type Milling Machines

- All steel construction with heavy duty spring action.
- All parts Black Oxide Plated.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-416	\$25.40

Adjustable Mill Stop

- 1/2" hole for T Slot mounting
- Rod 3/8" Diameter x 9-1/2".
- Base 2" x 4-1/2".
- Steel, Black Oxide Plated".



ORDER NO.	PRICE EACH
3143-408	\$25.10

5C Precision Chucks 1

Includes 2 sets of hardened steel jaws (internal & external) for increased clamping range.

- Made in U.S.A.



CHUCK DIAM.	T. I. R. REPEATABILITY	DESCRIPTION	ORDER NO.	PRICE EACH
3"	.003	3 Jaw - Self Centering	3143-440	\$250.00
3"	.005	4 Jaw - Independent	3143-442	200.00
4"	.003	3 Jaw -Self Centering	3143-444	250.00

Expanding Arbors A handy accessory for Lathe Collets



DESCRIPTION	ORDER NUMBER	PRICE EACH
8 pc. Set - 1/4" to 1-1/4" in Wooden Stand	3143-438	\$69.40
3 pc. Set - 1-1/2" to 2" in Wooden Stand	3143-433	73.90

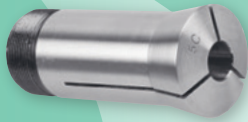
5C Adjustable Collet Stop

- Steel with Black Oxide plating.
- Quality Import



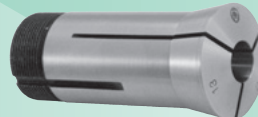
ORDER NO.	PRICE EACH
3143-402	\$9.63

Collets



5C Round Collets

SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3155-104	\$11.66	39/64	3155-139	\$11.66
5/64	3155-105	11.66	5/8	3155-140	11.66
3/32	3155-106	11.66	41/64	3155-141	11.66
7/64	3155-107	11.66	21/32	3155-142	11.66
1/8	3155-108	11.66	43/64	3155-143	11.66
9/64	3155-109	11.66	11/16	3155-144	11.66
5/32	3155-110	11.66	45/64	3155-145	11.66
11/64	3155-111	11.66	23/32	3155-146	11.66
3/16	3155-112	11.66	47/64	3155-147	11.66
13/64	3155-113	11.66	3/4	3155-148	11.66
7/32	3155-114	11.66	49/64	3155-149	11.66
15/64	3155-115	11.66	25/32	3155-150	11.66
1/4	3155-116	11.66	51/64	3155-151	11.66
17/64	3155-117	11.66	13/16	3155-152	11.66
9/32	3155-118	11.66	53/64	3155-153	11.66
19/64	3155-119	11.66	27/32	3155-154	11.66
5/16	3155-120	11.66	55/64	3155-155	11.66
21/64	3155-121	11.66	7/8	3155-156	11.66
11/32	3155-122	11.66	57/64	3155-157	11.66
23/64	3155-123	11.66	29/32	3155-158	11.66
3/8	3155-124	11.66	59/64	3155-159	11.66
25/64	3155-125	11.66	15/16	3155-160	11.66
13/32	3155-126	11.66	61/64	3155-161	11.66
27/64	3155-127	11.66	31/32	3155-162	11.66
7/16	3155-128	11.66	63/64	3155-163	11.66
29/64	3155-129	11.66	1	3155-164	11.66
15/32	3155-130	11.66	1-1/64	3155-165	11.66
31/64	3155-131	11.66	1-1/32	3155-166	11.66
1/2	3155-132	11.66	1-3/64	3155-167	11.66
33/64	3155-133	11.66	1-1/16	3155-168	11.66
17/32	3155-134	11.66	1-5/64	3155-169	11.66
35/64	3155-135	11.66	1-3/32	3155-170	11.66
9/16	3155-136	11.66	1-7/64	3155-171	11.66
37/64	3155-137	11.66	1-1/8	3155-172	11.66
19/32	3155-138	11.66	-	-	-



5C Round Collets

- Max runout of 0.02mm (0.0007")
- Max clamping range of Nominal Diameter – 0.2mm

SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3156-404	\$33.00	39/64	3156-439	\$33.00
5/64	3156-405	33.00	5/8	3156-440	33.00
3/32	3156-406	33.00	41/64	3156-441	33.00
7/64	3156-407	33.00	21/32	3156-442	33.00
1/8	3156-408	33.00	43/64	3156-443	33.00
9/64	3156-409	33.00	11/16	3156-444	33.00
5/32	3156-410	29.00	45/64	3156-445	33.00
11/64	3156-411	33.00	23/32	3156-446	33.00
3/16	3156-412	33.00	47/64	3156-447	33.00
13/64	3156-413	33.00	3/4	3156-448	33.00
7/32	3156-414	33.00	49/64	3156-449	33.00
15/64	3156-415	33.00	25/32	3156-450	29.00
1/4	3156-416	33.00	51/64	3156-451	33.00
17/64	3156-417	33.00	13/16	3156-452	33.00
9/32	3156-418	33.00	53/64	3156-453	33.00
19/64	3156-419	33.00	27/32	3156-454	33.00
5/16	3156-420	29.00	55/64	3156-455	33.00
21/64	3156-421	33.00	7/8	3156-456	33.00
11/32	3156-422	33.00	57/64	3156-457	33.00
23/64	3156-423	33.00	29/32	3156-458	33.00
3/8	3156-424	33.00	59/64	3156-459	33.00
25/64	3156-425	33.00	15/16	3156-460	29.00
13/32	3156-426	33.00	61/64	3156-461	33.00
27/64	3156-427	33.00	31/32	3156-462	33.00
7/16	3156-428	33.00	63/64	3156-463	33.00
29/64	3156-429	33.00	1	3156-464	33.00
15/32	3156-430	29.00	1-1/64	3156-465	33.00
31/64	3156-431	33.00	1-1/32	3156-466	33.00
1/2	3156-432	33.00	1-3/64	3156-467	33.00
33/64	3156-433	33.00	1-1/16	3156-468	33.00
17/32	3156-434	33.00	-	-	-
35/64	3156-435	33.00	-	-	-
9/16	3156-436	33.00	-	-	-
37/64	3156-437	33.00	1-1/8	3156-472	33.00
19/32	3156-438	33.00	-	-	-



5C Sets Without stands



SIZE	ORDER NO.	PRICE EACH
5C 1/16 - 1-1/8 by 16ths	3156-005	\$211.84
5C 1/16 - 1-1/8 by 32nds	3156-010	233.60
5C 1/16 - 1-1/8 by 64ths	3156-015	460.60



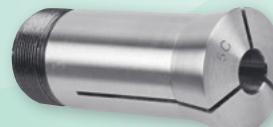
5C Set Without stand



SIZE	ORDER NO.	PRICE EACH
5C 1/16 - 1-1/8 by 16ths	3156-482	\$561.00



Metric 5C Collets



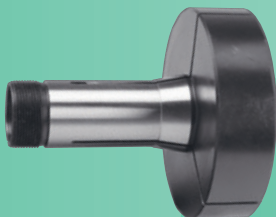
SIZE	ORDER NO.	PRICE EA.
3.0mm	3156-506	\$13.46
4.0mm	3156-508	13.46
5.0mm	3156-510	13.46
6.0mm	3156-512	13.46
7.0mm	3156-514	13.46
8.0mm	3156-516	13.46
9.0mm	3156-518	13.46
10.0mm	3156-520	13.46
11.0mm	3156-522	13.46
12.0mm	3156-524	13.46
13.0mm	3156-526	13.46
14.0mm	3156-528	13.46
15.0mm	3156-530	13.46
16.0mm	3156-532	13.46
17.0mm	3156-534	13.46
18.0mm	3156-536	13.46
19.0mm	3156-538	13.46
20.0mm	3156-540	13.46
21.0mm	3156-542	13.46
22.0mm	3156-544	13.46
23.0mm	3156-546	13.46
24.0mm	3156-548	13.46
25.0mm	3156-550	13.46

Metric 5C Set Without stand

SIZE	ORDER NO.	PRICE EACH
5C 3-25mm x 1mm	3156-582	\$ 167.90

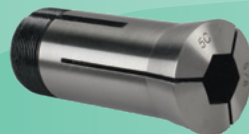


5C Step Collets



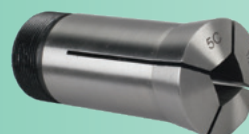
SIZE	ITEM NO.	PRICE EACH
5C Step Collet 2" Head	3156-302	\$57.89
5C Step Collet 3" Head	3156-303	70.32
5C Step Collet 4" Head	3156-304	106.49
5C Step Collet 5" Head	3156-305	122.44
5C Step Collet 6" Head	3156-306	171.97

5C Hex Collets



SIZE	ITEM NO.	PRICE EACH
1/8	3155-208	\$38.80
3/16	3155-212	38.80
1/4	3155-216	38.80
5/16	3155-220	38.80
3/8	3155-224	38.80
7/16	3155-228	38.80
1/2	3155-232	38.80
9/16	3155-236	38.80
5/8	3155-240	38.80
11/16	3155-244	38.80
3/4	3155-248	38.80
13/16	3155-252	38.80
7/8	3155-256	38.80
15/16	3155-260†	38.80

5C Square Collets



SIZE	ITEM NO.	PRICE EACH
1/8	3155-308	\$38.80
3/16	3155-312	38.80
1/4	3155-316	38.80
5/16	3155-320	38.80
3/8	3155-324	38.80
7/16	3155-328	38.80
1/2	3155-332	38.80
9/16	3155-336	38.80
5/8	3155-340	38.80
11/16	3155-344	38.80
3/4	3155-348	38.80
13/16	3155-352†	21.10

† Limited Quantities

† Limited Quantities

Collets

2



R8 Round Collets



SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3155-404	\$10.92	1/2	3155-432	\$10.92
3/32	3155-406	10.92	17/32	3155-434	10.92
1/8	3155-408	10.92	9/16	3155-436	10.92
5/32	3155-410	10.92	19/32	3155-438	10.92
3/16	3155-412	10.92	5/8	3155-440	10.92
7/32	3155-414	10.92	21/32	3155-442	10.92
1/4	3155-416	10.92	11/16	3155-444	10.92
9/32	3155-418	10.92	23/32	3155-446	10.92
5/16	3155-420	10.92	3/4	3155-448	10.92
11/32	3155-422	10.92	25/32	3155-450	10.92
3/8	3155-424	10.92	13/16	3155-452	10.92
13/32	3155-426	10.92	27/32	3155-454	10.92
7/16	3155-428	10.92	7/8	3155-456	10.92
15/32	3155-430	10.92	1	3155-458	11.75



R8 Round Collets



- Max runout of 0.02mm (0.0007")
- Max clamping range of Nominal Diameter – 0.2mm

SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
3/32	3156-606	\$36.00	1/2	3156-632	\$36.00
1/8	3156-608	36.00	17/32	3156-634	36.00
5/32	3156-610	36.00	9/16	3156-636	36.00
3/16	3156-612	36.00	19/32	3156-638	36.00
7/32	3156-614	36.00	5/8	3156-640	36.00
1/4	3156-616	36.00	21/32	3156-642	36.00
9/32	3156-618	36.00	11/16	3156-644	36.00
5/16	3156-620	36.00	23/32	3156-646	36.00
11/32	3156-622	36.00	3/4	3156-648	36.00
3/8	3156-624	36.00	25/32	3156-650	36.00
13/32	3156-626	36.00	7/8	3156-656	36.00
7/16	3156-628	36.00	1	3156-664	36.00
15/32	3156-630	36.00	-	-	-



Metric R8 Collets



SIZE	ORDER NO.	PRICE EACH
3mm	3156-706	\$ 27.12
4mm	3156-708	27.12
5mm	3156-710	27.12
6mm	3156-712	27.12
7mm	3156-714	27.12
8mm	3156-716	27.12
9mm	3156-718	27.12
10mm	3156-720	27.12
11mm	3156-722	27.12
12mm	3156-724	27.12
13mm	3156-726	27.12
14mm	3156-728	27.12
15mm	3156-730	27.12
16mm	3156-732	27.12
17mm	3156-734	27.12
18mm	3156-736	27.12
19mm	3156-738	27.12
20mm	3156-740	27.12



R8 Sets Without stands

SIZE	ORDER NO.	PRICE EACH
R8 1/8 - 7/8 by 8ths	3156-120	\$ 65.00
R8 1/8 - 7/8 by 16ths	3156-125	130.00
R8 1/8 - 7/8 by 32nds	3156-130	225.00

R8 Set Without stand



SIZE	ORDER NO.	PRICE EACH
R8 3/32 - 7/8 by 32nds*	3156-676	\$828.00

*Excludes 13/16 and 27/32



Metric R8 Set Without stand

SIZE	ORDER NO.	PRICE EACH
R8 3mm - 20mm x 1mm	3156-762	\$115.20



5C Universal Collet Stop

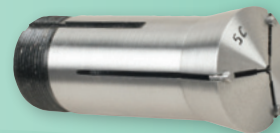


- Converts Standard 1" capacity Lathe Collets into Solid Stop or Spring Ejector Stop Collets without alteration of the Standard Collet.
- Fits directly into Collet. • Shiny Black Finish.

Order No. 3143-401 Price Each: \$28.87



5C Emergency Collet



Order No. 3156-201
Price Each: \$10.60



5C Brass Emergency Collet



Order No. 3156-202
Price Each: \$69.87



Collet Racks

- Angled for visibility and easier selection of stored collets
- Tough, solvent free, epoxy finish: Ecolo-Clad for long-lasting protection
- Mounted on bench top • Heavy gauge steel



Order No. 1919-545 Price Each: \$52.00

Holds up to 30 pieces 5C Collets.
Dimensions: Top 9"W x 12" D. Wt. 3 lbs.

Order No. 1919-550 Price Each: \$52.00

Holds up to 16 pieces R8 Collets.
Dimensions: Top 5 1/4"W x 9" D. Wt. 2 lbs.



5C Adjustable Collet Stop



- Fully threaded.
- For Chucking Parts to a depth of 3" from face of collet.
- Shiny Black Finish.

Order No. 3143-402 Price Each: \$9.63



3C Collets

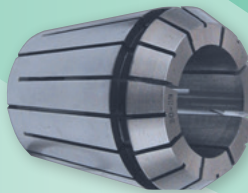


SIZE	ORDER NO.	PRICE EA.
1/16	3154-904	\$54.00
9/64	3154-909	54.00
-	-	-
17/64	3154-917	54.00
9/32	3154-918	54.00
19/64	3154-919	54.00

SIZE	ORDER NO.	PRICE EA.
21/64	3154-921	\$54.00
-	-	-
23/64	3154-923	54.00
-	-	-
31/64	3154-931	54.00

ER Collets & Chucks

- Unique 8 degree taper design provides highest gripping power
- 16 Jaws give powerful gripping and parallel clamping
- True double angle for extreme concentricity



SIZES	NOMINAL SIZE (IN.)	COLLET RANGE (IN.) MIN-MAX	COLLET RANGE (MM.) MIN - MAX	ER11		ER16		ER 20		ER25		ER32		ER40	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/32"	1/32	0.020 - 0.040	0.5 - 1.0	3156-801	\$18.00	3156-811	\$20.00	-	-	-	-	-	-	-	-
1/16"	3/64, 1/16, 5/64	0.040 - 0.080	1.0 - 2.0	3156-802	18.00	3156-812	20.00	3156-832	\$20.00	3156-852	\$20.00	-	-	-	-
3/32"	3/32, 7/64	0.080 - 0.120	2.0 - 3.0	3156-803	18.00	3156-813	20.00	3156-833	20.00	3156-853	20.00	3156-883	\$22.00	-	-
1/8"	1/8, 9/64, 5/32	0.120 - 0.160	3.0 - 4.0	3156-804	18.00	3156-814	20.00	3156-834	20.00	3156-854	20.00	3156-884	22.00	\$24.00	
3/16	11/64, 3/16	0.160 - 0.200	4.0 - 5.0	3156-806	18.00	3156-816	20.00	3156-836	20.00	3156-856	20.00	3156-886	22.00	3156-916	24.00
7/32	13/64, 7/32, 15/64	0.200 - 0.236	5.0 - 6.0	3156-807	18.00	3156-817	20.00	3156-837	20.00	3156-857	20.00	3156-887	22.00	3156-917	24.00
1/4	1/4, 17/64	0.236 - 0.275	6.0 - 7.0	3156-808	18.00	3156-818	20.00	3156-838	20.00	3156-858	20.00	3156-888	22.00	3156-918	24.00
5/16	9/32, 19/64, 5/16	0.275 - 0.315	7.0 - 8.0	-	-	3156-820	20.00	3156-840	20.00	3156-860	20.00	3156-890	22.00	3156-920	24.00
11/32	21/64, 11/32	0.315 - 0.354	8.0 - 9.0	-	-	3156-821	20.00	3156-841	20.00	3156-861	20.00	3156-891	22.00	3156-921	24.00
3/8	23/64, 3/8, 25/64	0.354 - 0.393	9.0 - 10.0	-	-	3156-822	20.00	3156-842	20.00	3156-862	20.00	3156-892	22.00	3156-922	24.00
13/32	13/32, 27/64	0.393 - 0.433	10.0 - 11.0	-	-	-	-	3156-843	20.00	3156-863	20.00	3156-893	22.00	3156-923	24.00
7/16	7/16, 29/64, 15/32	0.433 - 0.472	11.0 - 12.0	-	-	-	-	3156-844	20.00	3156-864	20.00	3156-894	22.00	3156-924	24.00
1/2	31/64, 1/2	0.472 - 0.511	12.0 - 13.0	-	-	-	-	3156-846	20.00	3156-866	20.00	3156-896	22.00	3156-926	24.00
17/32	33/64, 17/32, 35/64	0.511 - 0.551	13.0 - 14.0	-	-	-	-	-	-	3156-867	20.00	3156-897	22.00	3156-927	24.00
9/16	9/16, 37/64	0.551 - 0.590	14.0 - 15.0	-	-	-	-	-	-	3156-868	20.00	3156-898	22.00	3156-928	24.00
5/8	19/32, 39/64, 5/8	0.590 - 0.629	15.0 - 16.0	-	-	-	-	-	-	3156-870	10.85	3156-900	22.00	3156-930	24.00
21/32	41/64, 21/32	0.629 - 0.669	16.0 - 17.0	-	-	-	-	-	-	-	-	3156-901	22.00	3156-931	24.00
11/16	43/64, 11/16, 45/64	0.669 - 0.708	17.0 - 18.0	-	-	-	-	-	-	-	-	3156-902	22.00	3156-932	24.00
3/4	23/32, 47/64, 3/4	0.708 - 0.748	18.0 - 19.0	-	-	-	-	-	-	-	-	3156-904	22.00	3156-934	24.00
25/32	49/64, 25/32	0.748 - 0.787	19.0 - 20.0	-	-	-	-	-	-	-	-	3156-905	11.10	3156-935	24.00
13/16	51/64, 13/16	0.787 - 0.826	20.0 - 21.0	-	-	-	-	-	-	-	-	-	-	3156-936	24.00
27/32	53/64, 27/32	0.826 - 0.866	21.0 - 22.0	-	-	-	-	-	-	-	-	-	-	3156-937	24.00
7/8	7/8, 57/64, 55/64	0.866 - 0.905	22.0 - 23.0	-	-	-	-	-	-	-	-	-	-	3156-938	24.00
15/16	29/32, 59/64, 15/16	0.905 - 0.944	23.0 - 24.0	-	-	-	-	-	-	-	-	-	-	3156-940	24.00
31/32	61/64, 31/32	0.944 - 0.984	24.0 - 25.0	-	-	-	-	-	-	-	-	-	-	3156-941	24.00
1	63/64, 1, 1-1/64	0.984 - 1.020	25.0 - 26.0	-	-	-	-	-	-	-	-	-	-	3156-942	24.00

Sets

- Wooden stand included



	NO. OF SERIES	COLLETS	SIZES	COLLET RANGE MIN-MAX (IN.)	COLLET RANGE MIN-MAX (MM.)	ORDER NO.	PRICE EACH
ER11	7	1/32 to 1/4	0.020 - 0.275	0.5 to 7	3156-963	\$127.25	
ER16	10	1/32 to 3/8	0.020 - 0.393	0.5 to 10	3156-966	91.95	
ER20	12	1/16 to 1/2	0.039 - 0.511	1.0 to 13	3156-969	111.15	
ER25	15	1/16 to 5/8	0.039 - 0.629	1.0 to 16.0	3156-972	146.45	
ER32	18	3/32 to 3/4	0.078 - 0.787	2.0 to 20.0	3156-975	180.40	
ER40	23	1/8 to 1	0.118 - 1.023	3.0 to 26.0	3156-978	255.75	

Morse Taper Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
MT2	ER-20	.04-.511	3/8-16	3142-650	\$78.00
MT2	ER-25	.04-.629	3/8-16	3142-655	67.00
MT3	ER-32	.08-.787	1/2-13	3142-660	77.00
MT3	ER-40	.12 - 1.02	1/2-13	3142-665	85.00
MT4	ER-40	.12 - 1.02	5/8-11	3142-670	87.00

Straight Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
5/8 x 2-1/2	ER-11	.02-.275	3/8-16	3142-540	\$64.00
3/4 x 2-1/2	ER-11	.02-.275	3/8-16	3142-545	64.00
3/4 x 4	ER-11	.02-.275	3/8-16	3142-550	64.00
3/4 x 2-1/2	ER-16	.02-.393	3/8-16	3142-555	70.00
3/4 x 4	ER-16	.02-.393	3/8-16	3142-560	72.00
3/4 x 6	ER-16	.02-.393	3/8-16	3142-565	75.00
3/4 x 2-1/2	ER-20	.04-.511	3/8-16	3142-570	66.00
3/4 x 4	ER-20	.04-.511	3/8-16	3142-575	72.00
3/4 x 6	ER-20	.04-.511	3/8-16	3142-580	75.00
3/4 x 2	ER-25	.04-.629	3/8-16	3142-585	72.00
3/4 x 4	ER-25	.04-.629	3/8-16	3142-590	87.00
1 x 2	ER-32	.08-.787	1/2-13	3142-595	66.00
1-1/4 x 6	ER-32	.08-.787	5/8-11	3142-600	89.00
1 x 2-3/8	ER-40	.12 - 1.02	1/2-13	3142-605	95.00
1-1/4 - 2-3/8	ER-40	.12 - 1.02	5/8-11	3142-610	95.00

NST Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
30	ER-32	.08-.787	1/2-13	3142-510	\$70.00
30	ER-40	.12 - 1.02	1/2-13	3142-520	86.00
40	ER-40	.12 - 1.02	5/8-11	3142-522	88.00

R8 Shank



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

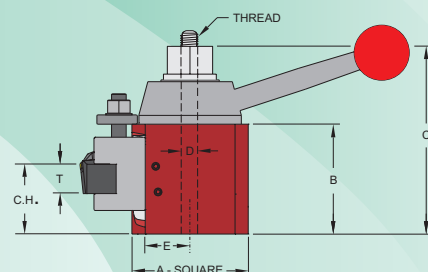
Tool Posts

2



SUPER Quick Change Tool Post with Triple Action Wedge Style Locking System

- Rigidity • Repeatability • Quality • Zero Backlash
- Triple Action Wedge Style Locking System
- Precise Repeatability within .0001
- 15° Locking Handle Position Adjustment
- Industry-Standard Interchangeable Holders
- Thousands of pounds of locking force with a finger tip



SUPER Quick Change Tool Post

Description	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Order Number	8001-000	8001-002	8001-004	8001-006	8001-008	8001-010
Price Each	\$ 671.81	\$ 840.49	\$ 1149.67	\$ 1445.38	\$ 2069.87	\$ 3194.70
Lathe Swing Over Bed	≤12	13-15	14-17	16-20	17-32	≥25
A	2.625	3.000	3.500	4.000	5.000	6.000
B	2.500	2.750	3.250	3.750	4.625	5.000
C	4.240	4.710	5.650	6.335	7.435	8.060
D	0.500	0.625	0.750	0.875	1.000	1.125
E	0.880	1.115	1.199	1.530	1.900	2.207
T-Tool Capacity*	1/2-3/4	5/8-1.0	3/4-1.0	1.0-1 1/4	1 1/4-1 1/2	1 1/2
Optimum C.H.**	1.250	1.312	1.625	1.937	2.562	3.000
C.H. MIN.	0.875	1.062	1.250	1.562	2.000	2.500
C.H. MAX.	1.875	1.937	2.250	2.562	3.575	3.500
Thread	1/2-20	5/8-18	3/4-16	7/8-14	1.0-14	1 1/8-12

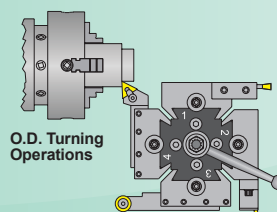
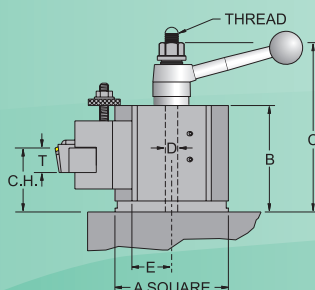
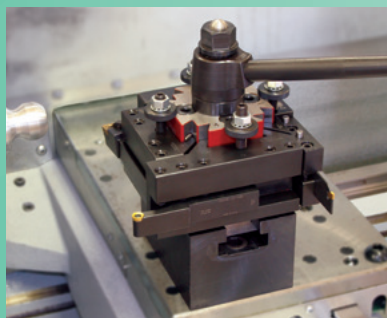
** Optimum center height is calculated with the smaller tool size of the tool capacity. If the higher size tool is to be used, add 1/8" to the optimum center height.

Quadra Indexing Quick Change Tool Post

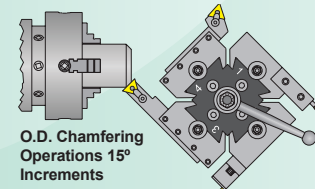
The Multi-Patented Tool Post with The Most Advanced Indexing and Locking Technology

24 Super Precise Positioning Ball Bearings & 2 Pre-Loaded Indexing Pins

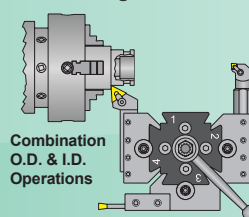
- Strong • Rigid • Precise!



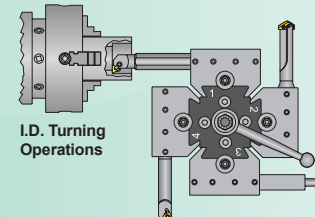
O.D. Turning Operations



O.D. Chamfering Operations 15° Increments



Combination O.D. & I.D. Operations



I.D. Turning Operations

Description	QITP25N		QITP30N		QITP35N		QITP40N		QITP50N		QITP60N	
Order Number	8000-000		8000-002		8000-004		8000-006		8000-008		8000-010	
Price Each	\$ 1827.73		\$ 2054.49		\$ 2473.60		\$ 3223.20		\$ 4294.48		\$ 6115.33	
Size	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Lathe Swing Over Bed	≤12"	≤300,0	13-15"	320,0	14-17"	400,0	16-20"	450,0	17-32"	500,0	≥25-XHD	XHD
A	2.500	63.5	3.000	76.2	3.500	88.9	4.000	101.60	5.000	127.0	6.000	152.4
B	2.570	65.3	3.205	81.4	3.460	87.9	4.070	103.4	5.230	132.8	5.615	142.6
C	5.210	132.3	5.720	145.3	6.415	162.9	7.525	191.1	9.135	232.0	9.855	250.3
D	0.500	12.7	0.500	12.7	0.625	16.0	0.750	19.0	1.000	25.40	1.125	28.6
E	0.880	22.4	1.115	28.3	1.245	31.6	1.530	38.9	1.897	48.2	2.207	56.1
T-Tool Capacity	1/2-3/4	12-20	5/8-1.0	16-25	3/4-1.0	20-25	1.0-1 1/4	25-32	1 1/4 - 1 1/2	32-40	1 1/2	40.0
Optimum C.H.*	1.422	36.1	1.747	44.4	1.835	46.6	2.202	55.9	2.995	76.1	3.440	87.4
C.H. MIN.	0.995	25.3	1.213	30.8	1.445	36.7	1.757	44.6	2.245	57.0	2.750	69.9
C.H. MAX.	1.849	50.0	2.282	58.0	2.225	56.5	2.646	67.2	3.744	95.1	4.129	104.9
Thread	1/2-20	M12x1,75	1/2-20	M12x1,75	5/8-18	M16x2,0	3/4-16	M18x2,5	1.0-14	M24x3,0	1 1/8-12	M27x3,0

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

Tool Post & Toolholder Standard Sets

2



Super Quick Change Standard Sets

(1) Tool Post
(4) Holders

Tooling Not Included

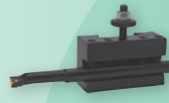
NEW



D1



D2



D4-CNC



D7-71C



Description	SDN25AXA-SS	SDN30BXA-SS	SDN35CXA-SS	SDN40CA-SS	SDN50DA-SS	SDN60EA-SS
Lathe Swing	Up to 12"	13" to 15"	14" to 17"	16" to 20"	17" to 32"	≥ 25"
Order Number	8001-020	8001-021	8001-022	8001-023	8001-024	8001-025
Price Each	\$ 1526.78	\$ 1829.00	\$ 2278.01	\$ 2056.54	\$ 4040.55	\$ 5994.23
5 Piece Standard Set Includes						
(1) Tool Post	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
(4) Holders	(1) D25AXA-1 (1) D25AXA-2 (1) D25AXA-4-CNC (1) D25AXA-7-71C	(1) D30BXA-1 (1) D30BXA-2 (1) D30BXA-4-CNC (1) D30BXA-7-71C	(1) D35CXA-1 (1) D35CXA-2 (1) D35CXA-4-CNC (1) D35CXA-7-71C	(1) D40CA-1 (1) D40CA-2 (1) D40CA-4-CNC (1) D40CA-7-71C	(1) D50DA-1 (1) D50DA-2 (1) D50DA-4-CNC (1) D50DA-7-71C	(1) D60EA-1 (1) D60EA-2 (1) D60EA-4-CNC (1) D60EA-7-71C

Quadra Indexing Standard Sets

(1) Tool Post
(4) Holders

Tooling Not Included

NEW



QITP-1



QITP-2



QITP-4-CNC



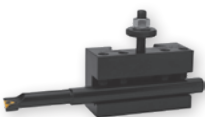
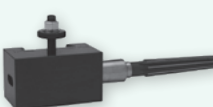
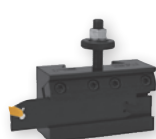
QITP-7-71C



Description	QITP25N-SS	QITP30N-SS	QITP35N-SS	QITP40N-SS	QITP50N-SS	QITP60N-SS
Lathe Swing	Up to 12"	13" to 15"	14" to 17"	16" to 20"	17" to 32"	≥ 25"
Order Number	8000-020	8000-021	8000-022	8000-023	8000-024	8000-025
Price Each	\$ 2960.73	\$ 3343.52	\$ 4020.46	\$ 4988.72	\$ 6778.51	\$ 9654.98
5 Piece Standard Set Includes						
(1) Tool Post	QITP25N	QITP30N	QITP35N	QITP40N	QITP50N	QITP60N
(4) Holders	(1) QITP25N-1 (1) QITP25N-2 (1) QITP25N-4-CNC (1) QITP25N-7-71C	(1) QITP30N-1 (1) QITP30N-2 (1) QITP30N-4-CNC (1) QITP30N-7-71C	(1) QITP35N-1 (1) QITP35N-2 (1) QITP35N-4-CNC (1) QITP35N-7-71C	(1) QITP40N-1 (1) QITP40N-2 (1) QITP40N-4-CNC (1) QITP40N-7-71C	(1) QITP50N-1 (1) QITP50N-2 (1) QITP50N-4-CNC (1) QITP50N-7-71C	(1) QITP60N-1 (1) QITP60N-2 (1) QITP60N-4-CNC (1) QITP60N-7-71C

SUPER Quick Change Toolholders



Use With SDN Tool Post	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Turning & Facing 	D25AXA-1 Tool Capacity 1/2"	D30BXA-1 Tool Capacity 5/8"	D35CXA-1 Tool Capacity 3/4"	D40CA-1 Tool Capacity 1"	D50DA-1 Tool Capacity 1 1/4"	D60EA-1 Tool Capacity 1 1/2"
	8001-100	8001-250	8001-400	8001-550	8001-700	8001-850
Price Each	\$ 125.24	\$ 142.19	\$ 177.16	\$ 220.01	\$ 353.63	\$ 548.56
Turning, Facing and Boring 	D25AXA-2 Tool Capacity 1/2"	D30BXA-2 Tool Capacity 5/8"	D35CXA-2 Tool Capacity 3/4"	D40CA-2 Tool Capacity 1"	D50DA-2 Tool Capacity 1 1/4"	D60EA-2 Tool Capacity 1 1/2"
	8001-104	8001-254	8001-404	8001-554	8001-704	8001-854
Price Each	\$ 131.18	\$ 156.81	\$ 185.75	\$ 234.28	\$ 378.66	\$ 568.16
Heavy Duty Boring 	D25AXA-4-750-DUAL Tool Capacity 3/4"	D30BXA-4-1000-DUAL Tool Capacity 1"	D35CXA-1000-DUAL Tool Capacity 1"	D40CA-4-1250-DUAL Tool Capacity 1 1/4"	D50DA-4-1550-DUAL Tool Capacity 1 1/2"	D60EA-4-2000-DUAL Tool Capacity 2"
	8001-111	8001-261	8001-411	8001-559	8001-709	8001-859
Price Each	\$ 264.84	\$ 309.11	\$ 355.30	\$ 426.34	\$ 669.93	\$ 1039.39
Extra Heavy Duty Boring 	D25AXA-41-1000-DUAL Tool Capacity 1"	D30BXA-41-1250-DUAL Tool Capacity 1 1/4"	D35CXA-41-1250-DUAL Tool Capacity 1 1/4"	D40CA-41-1500-DUAL Tool Capacity 1 1/2"	D50DA-41-2000-DUAL Tool Capacity 2"	D60EA-41-2500-DUAL Tool Capacity 2 1/2"
	8001-113	8001-263	8001-413	8001-563	8001-713	8001-863
Price Each	\$ 277.77	\$ 322.98	\$ 387.57	\$ 436.02	\$ 730.85	\$ 1129.96
Morse Taper 	—	—	D35CXA-5-4 Tool Capacity Morse Taper 4	D40CA-5-4 Tool Capacity Morse Taper 4	D50DA-5-5 Tool Capacity Morse Taper 5	D60EA-5-5 Tool Capacity Morse Taper 5
	—	—	8001-424	8001-572	8001-722	8001-872
Price Each	—	—	\$ 342.86	\$ 357.75	\$ 538.77	\$ 755.83
Extra HD Cut-Off Blade Toolholder 	D25AXA-7-71C Blade Size 19-2	D30BXA-7-71C Blade Size 19-2	D35CXA-7-71C Blade Size 26-2 to 26-6	D40CA-7-71C Blade Size 26-2 to 26-6	D50DA-7-71C Blade Size 32-3 to 32-9	D60EA-7-71C Blade Size 32-3 to 32-9
	8001-126	8001-276	8001-428	8001-576	8001-726	8001-876
Price Each	\$ 333.70	\$ 380.42	\$ 410.14	\$ 471.46	\$ 568.44	\$ 643.40
ID & OD Threading 	D25AXA-881-OE On Edge for OD Laydown for ID	D30BXA-881-OE On Edge for OD Laydown for ID	D35CXA-881-OE On Edge for OD Laydown for ID	D40CA-881-OE On Edge for OD Laydown for ID		
	8001-132	8001-282	8001-434	8001-582		
Price Each	\$ 360.46	\$ 397.44	\$ 426.34	\$ 476.74		
Dovetail Drill Chuck Holder 	D25AXA-35 Tool Capacity 0-12"	D30BXA-35 Tool Capacity 0-12"	D35CXA-35 Tool Capacity 0-12"	D40CA-35 Tool Capacity 0-12"		
	8001-140	8001-290	8001-442	8001-590		
Price Each	\$ 491.91	\$ 507.54	\$ 598.62	\$ 637.68		
5C Collet Holder 	D25AXA-36 5C Collet	D30BXA-36 5C Collet	D35CXA-36 5C Collet	D40CA-36 5C Collet		
	8001-142	8001-292	8001-444	8001-592		
Price Each	\$ 340.77	\$ 355.40	\$ 401.38	\$ 453.66		

Tooling not included

Quadra Indexing Quick Change Toolholders



Use With Quadra Tool Post	QITP25N	QITP30N	QITP35N	QITP40N	QITP50N	QITP60N
Turning & Facing 	QITP25N-1	QITP30N-1	QITP35N-1	QITP40N-1	QITP50N-1	QITP60N-1
Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 1"	Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 1 1/2"
Order Number	8000-100	8000-250	8000-400	8000-550	8000-700	8000-850
Price Each	\$ 178.90	\$ 224.43	\$ 277.42	\$ 308.61	\$ 509.39	\$ 715.24
Turning, Facing and Boring 	QITP25N-2	QITP30N-2	QITP35N-2	QITP40N-2	QITP50N-2	QITP60N-2
Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 1"	Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 1 1/2"
Order Number	8000-104	8000-254	8000-404	8000-554	8000-704	8000-854
Price Each	\$ 190.81	\$ 236.89	\$ 308.61	\$ 342.87	\$ 548.56	\$ 767.35
Heavy Duty Boring 	QITP25N-4-750-DUAL	QITP30N-4-1000-DUAL	QITP35N-4-1000-DUAL	QITP40N-4-1250-DUAL	QITP50N-4-1500-DUAL	QITP60N-4-2000-DUAL
Tool Capacity 3/4"	Tool Capacity 1"	Tool Capacity 1"	Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 2"	Tool Capacity 2"
Order Number	8000-111	8000-261	8000-411	8000-561	8000-711	8000-861
Price Each	\$ 348.19	\$ 390.84	\$ 468.97	\$ 568.44	\$ 844.89	\$ 1235.66
Extra Heavy Duty Boring 	—	—	QITP35N-41-1250-DUAL	QITP40N-41-CNC	QITP50N-41-CNC	QITP60N-41-CNC
			Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 2"	Tool Capacity 2 1/2"
Order Number	—	—	8000-413	8000-563	8000-713	8000-863
Price Each	—	—	\$ 532.93	\$ POA	\$ 911.87	\$ 1336.47
Morse Taper 	—	—	QITP35N-5-4	QITP40N-5-4	QITP50N-5-5	QITP60N-5-5
			Tool Capacity Morse Taper 4	Tool Capacity Morse Taper 4	Tool Capacity Morse Taper 5	Tool Capacity Morse Taper 5
Order Number	—	—	8000-424	8000-572	8000-722	8000-872
Price Each	—	—	\$ 368.95	\$ 452.18	\$ 642.87	\$ 896.67
Extra HD Cut-Off Blade Toolholder 	QITP25N-7-71C	QITP30N-7-71C	QITP35N-7-71C	QITP40N-7-71C	QITP50N-7-71C	QITP60N-7-71C
Blade Size 19-2	Blade Size 19-2	Blade Size 26-2 to 26-6	Blade Size 26-2 to 26-6	Blade Size 32-3 to 32-9	Blade Size 32-3 to 32-9	Blade Size 32-3 to 32-9
Order Number	8000-126	8000-276	8000-428	8000-576	8000-726	8000-876
Price Each	\$ 398.32	\$ 436.89	\$ 491.87	\$ 545.63	\$ 581.20	\$ 814.90
ID & OD Threading Toolholder Laydown Threading Bar Sold Separately 	QITP25N-881-OE	QITP30N-881-OE	QITP35N-881-OE	QITP40N-881-OE		
On Edge for OD Laydown for ID	On Edge for OD Laydown for ID	On Edge for OD Laydown for ID	On Edge for OD Laydown for ID	On Edge for OD Laydown for ID		
Order Number	8000-132	8000-282	8000-434	8000-582		
Price Each	\$ 422.50	\$ 453.48	\$ 499.98	\$ 573.60		
5C Collet Holder 	QITP25N-36	QITP30N-36	QITP35N-36	QITP40N-36		
5C Collet	5C Collet	5C Collet	5C Collet	5C Collet		
Order Number	8000-142	8000-292	8000-444	8000-592		
Price Each	\$ 385.73	\$ 411.44	\$ 474.27	\$ 565.71		

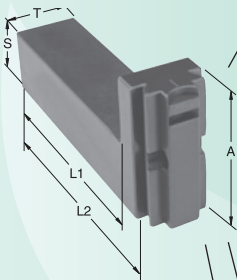
Tools not included

CNC Modular Knurling Tools

CNC Modular Knurling Tool Shank

The CNC Modular Knurling Tool includes **three standard shank sizes** and **seven standard knurling heads** to create any knurling tool combination.

- Specifically designed for the CNC Lathe.
- Precision square shank with preset center height.
- Right or Left hand applications.
- One shank fits all heads.
- One head fits all shanks.



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

End feed range:
.004 to .012

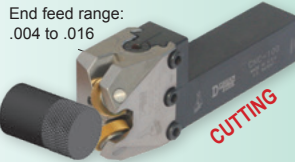


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style
CNC-75-1-SW2	8020-410	\$ 1333.13	3/4	5 3/4	SW2S
CNC-100-1-SW2	8020-420	1456.55	1	5 3/4	SW2S
CNC-125-1-SW2	8020-430	1548.58	1 1/4	6 1/4	SW2S

Supplied with set of straight knurl wheels, 30 TPI

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

End feed range:
.004 to .016

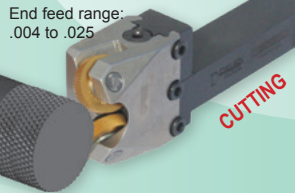


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-2-R	8020-510	\$ 1566.53	3/4	5 3/4	RS	KPS-25- 87-C 8028-925	\$ 66.30
CNC-100-2-R	8020-520	1660.79	1	5 3/4	RS		
CNC-125-2-R	8020-530	1772.99	1 1/4	6 1/4	RS		

Supplied with set of straight knurl wheels, 25 TPI

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

End feed range:
.004 to .025



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-3-M	8020-610	\$ 1602.13	3/4	5 7/8	MS	KPS-31-100-C 8028-945	\$ 69.23
CNC-100-3-M	8020-620	1680.04	1	5 7/8	MS		
CNC-125-3-M	8020-630	1777.44	1 1/4	6 3/8	MS		

Supplied with set of straight knurl wheels, 25 TPI

4 - Double Wheel Forming Knurling Tool

In/End Feed Range:
.004 to .012

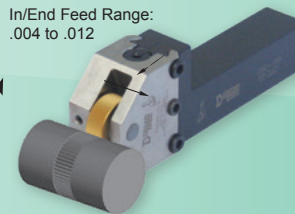


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-4-M	8020-646	\$ 1548.58	3/4	6	M	KPS-31-125-C 8028-950	\$ 73.16
CNC-100-4-M	8020-648	1548.58	1	6	M		
CNC-125-4-M	8020-650	1548.58	1 1/4	6 1/2	M		

Supplied with set of diagonal knurl wheels, 25 TPI

5 - Single Wheel Forming Knurling Tool- Straight Bump Best for Narrow Knurling

In/End Feed Range:
.004 to .012



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-5-O	8020-710	\$ 1315.16	3/4	5 3/4	O	KPS-31-125-C 8028-950	\$ 73.16
CNC-100-5-O	8020-720	1369.02	1	5 3/4	O		
CNC-125-5-O	8020-730	1440.83	1 1/4	6 1/4	O		

Supplied with set of straight knurl wheels, 25 TPI

6 - Shoulder Forming Knurling Tool-Diameter range: 5/16" & up

In/End Feed Range:
.004 to .012



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-6-SW4	8020-780	\$ 1393.16	3/4	5 3/4	SW4	SW4.0P-2S 8029-085	\$ 113.39
CNC-100-6-SW4	8020-790	1460.90	1	5 3/4	SW4		
CNC-125-6-SW4	8020-800	1603.93	1 1/4	6 1/4	SW4		

Supplied with set of straight knurl wheels, 25 TPI

7 - Straddle Forming Knurling Tool -Diameter range: up to 1"

In/End Feed Range:
.004 to .012



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-7-R	8020-910	\$1560.42	3/4	6	R	KPS-25-62-C 8028-915	\$ 56.95
CNC-100-7-R	8020-920	1641.94	1	6	R		
CNC-125-7-R	8020-930	1746.73	1 1/4	6 1/2	R		

Supplied with set of diagonal knurl wheels, 30 TPI

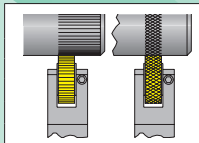
CNC Modular Knurling Tool Shank						
Desc.	S	T	L1	L2	A	
CNC-75	21010	.75	1.0	3.5	3.875	2.0
CNC-100	21020	1.0	1.0	3.5	3.875	2.0
CNC-125	21030	1.25	1.0	4.0	4.375	2.25

Supplied with Lock Screw and Adjustment Screw.

CNC Knurling Tools



SWFKT

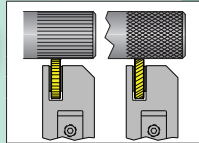


SWFKT - Single Wheel Fixed Knurling Tool

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
SWFKT-50-D	8021-730	\$ 161.58	D*	KPS-18-50	8028-805	1/2	\$ 23.81
SWFKT-75-M	8021-740	206.48	M**	KPS-31-75	8028-840	3/4	26.48
SWFKT-100-O	8021-750	228.92	O**	KPS-31-100	8028-845	1	26.48

* Supplied with 1 Straight Knurl Wheel 30 TPI. ** Supplied with 1 Straight Knurl Wheel 25 TPI.

SCKN



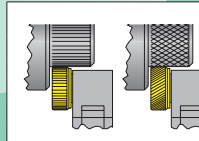
SCKN - Self-Centering Knurling Tool for C.N.C. Lathe

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
SCKN-50-D	8022-111	\$ 437.65	D*	KPS-18-50	8028-805	1/2	\$ 23.81
SCKN-75-M	8022-121	527.41	M**	KPS-31-75	8028-840	3/4	26.48
SCKN-100-M	8022-131	594.74	M**	KPS-31-75	8028-840	1	26.48

* Supplied with 1 set of 30 TPI Diagonal Knurl Wheels for Diamond Pattern.

** Supplied with 1 set of 25 TPI Diagonal Knurl Wheels for Diamond Pattern.

SSCK



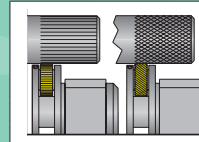
SSCK - Shoulder Self-Centering Knurling Tool for C.N.C. Lathe

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
SSCK-50-DW-2	8022-220	639.62	SW2*	SW2.0P-2S	8029-055	1/2	\$ 96.71
SSCK-75-DW-SW4	8022-240	774.29	SW4**	SW4.0P-2S	8029-085	3/4	113.39
SSCK-100-DW-SW4	8022-250	774.29	SW4**	SW4.0P-2S	8029-085	1	113.39

* Supplied with 1 set of 30 TPI Diagonal Knurl Wheels for Diamond Pattern.

** Supplied with 1 set of 25 TPI Diagonal Knurl Wheels for Diamond Pattern.

3SHKT



3SHKT - Three Swivel Head Knurling Tool

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
3SHKT-50-D	8021-510	\$ 605.56	D*	KPS-18-50	8028-805	1/2	\$ 23.81
3SHKT-75-M	8021-530	687.05	M**	KPS-31-100	8028-845	3/4	26.48
3SHKT-100-M	8021-540	768.59	M**	KPS-31-100	8028-845	1	26.48

* Supplied (2) 20 TPI, (2) 30 TPI & (2) 40 TPI Diagonal Knurl Wheels for Diamond Pattern.

** Supplied (2) 16 TPI, (2) 25 TPI & (2) 35 TPI Diagonal Knurl Wheels for Diamond Pattern.

Knurl Wheel Series	Specifications				Circular Knurl Pitch					
	Description	Pattern	Grade	Edge Prep	14	16	20	25	30	Price Each
SW2 	SW2S-XX-C	Straight	Cobalt	Full Faced	-		8027-404	8027-406	8027-408	\$ 80.65
	SW2R-XX-CB	Right Hand		Beveled			8027-479	8027-481	8027-483	80.65
	SW2L-XX-CB	Left Hand		Beveled			8027-529	8027-531	8027-533	80.65
SW4 	SW4S-XX-CB	Straight	Cobalt	Beveled	8028-029	-	8028-033	8028-035	8028-037	102.59
	SW4R-XX-CB	Right Hand		Beveled	8028-083	8028-085	8028-087	8028-089	8028-091	102.59
	SW4L-XX-CB	Left Hand		Beveled	8028-137	8028-139	8028-141	8028-143	8028-145	102.59
D 	DS-XX-CB	Straight	Cobalt	Beveled	-		8025-031	-	8025-035	48.20
	DDR-XX-CB	Right Hand		Beveled			-		8025-089	48.20
	DDL-XX-CB	Left Hand		Beveled			-		8025-143	48.20
M 	MS-XX-C	Straight	Cobalt	Full Faced	-		8025-310	8025-312	8025-314	79.96
	MDR-XX-CB	Right Hand		Beveled			8025-409	8025-411	8025-413	79.96
	MDL-XX-CB	Left Hand		Beveled			8025-475	8025-477	8025-479	79.96
R 	RS-XX-C	Straight	Cobalt	Full Faced	-		8026-510	8026-512	8026-514	56.59
O 	OS-XX-HSB	Straight	High Speed	Beveled	8025-641	-	8025-645	8025-647	-	57.50
	ODR-XX-HSB	Right Hand		Beveled	-	-	8025-777	8025-779		71.84
	ODL-XX-HSB	Left Hand		Beveled	-	-	8025-909	8025-911		71.84
	OF-XX-HS	Female Diamond		Full Faced	-		8026-074	8026-076		82.45

Live Centers

Economy Live Centers – High Speed Steel



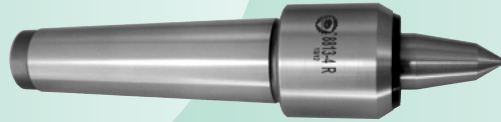
MT NO.	ACCURACY	ORDER NO.	PRICE EACH
1	0004"	3145-021	\$ 24.45
2	0004"	3145-022	27.20
3	0004"	3145-023	34.05
4	0004"	3145-024	48.30
5	0004"	3145-025	71.85
6	0004"	3145-026	137.90



Bison Revolving Live Centers – Made in Poland



Extended Point Live Center - 60° Point, Small Body Dia.



Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	D (in.)	G (in.)	K (in.)	J (in.)	Order No.	Price Each
2MT	374	7,000	0.0003	2.87	1.26	0.59	0.7	1.14	0.39	3145-112	\$202.00
3MT	748	7,000	0.0003	2.91	1.34	0.59	0.94	1.18	0.43	3145-113	231.00
4MT	1540	6,300	0.0003	3.48	1.65	0.79	1.23	1.50	0.51	3145-114	324.00
5MT	3080	4,300	0.0004	4.69	2.28	1.18	1.75	1.93	0.55	3145-115	457.00
6MT	6600	3,000	0.0008	6.46	3.15	1.65	2.49	2.76	0.71	3145-116	780.00

Super Precision Live Center - 60° Point

Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	C (in.)	D (in.)	L (in.)	Order No.	Price Each
1MT	220	5,000	0.0002	0.59	1.95	0.67	1.5	4.06	3145-221	\$181.00
2MT	396	5,000	0.0001	0.71	2.2	0.85	1.57	4.74	3145-222	147.00
3MT	990	4,000	0.0001	0.98	2.95	1.08	2.20	6.14	3145-223	234.00
4MT	2200	3,000	0.0001	1.26	3.35	1.32	2.52	7.36	3145-224	246.00
5MT	4180	2,500	0.0002	1.57	4.25	1.73	3.35	9.33	3145-225	447.00
6MT	8140	2,000	0.0002	2.46	5.96	2.52	4.12	13.13	3145-226	805.00



NC Quad Bearing Precision Live Center - High Speed NC Extended Revolving Centers with 60° Point

Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	L (in.)	Order No.	Price Each
4MT	2200	7,000	0.0002	1.10	4.67	1.93	2.76	0.55	8.70	3145-234	\$392.00
5MT	4400	6,000	0.0002	1.57	5.93	2.66	3.74	0.63	11.02	3145-235	647.00



Adjustable Live Center - Radial Compensation Revolving Centers with 60° Point

Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	C (in.)	D (in.)	L (in.)	Order No.	Price Each
2MT	220	8,000	0.0002	0.94	2.87	1.04	1.73	5.41	3145-242	\$278.00
3MT	440	6,000	0.0001	1.10	3.35	1.28	1.89	6.54	3145-243	303.00
4MT	880	4,500	0.0001	1.50	3.72	1.741	2.36	7.74	3145-244	392.00
5MT	1,430	4,000	0.0001	1.97	4.59	2.19	2.95	9.69	3145-245	480.00
6MT	3,080	3,000	0.0001	2.38	5.31	2.46	3.54	12.48	3145-246	772.00



Dead Centers

Economy Dead Centers – High Speed Steel, Carbide Tipped



MT NO.	OVERALL LENGTH	HIGH SPEED		CARBIDE TIPPED	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0	-	3145-010	\$9.02	3145-000	\$13.65
1	3-3/16	3145-011	9.02	3145-001	13.65
2	3-15/16	3145-012	11.83	3145-002	17.29
3	4-15/16	3145-013	15.93	3145-003	28.57
4	6-5/16	3145-014	25.12	3145-004	41.59
5	7-7/8	3145-015	52.78	3145-005	69.16
6	11	3145-016	98.28	3145-006	126.49

Bison Dead Centers – Made in Poland



Carbide Tipped Dead Center - Full Point



MT Taper	L (in.)	D (in.)	E (in.)	Order No.	Price Each.
1	3.15	0.48	0.28	3145-321	\$45.00
2	3.94	0.71	0.28	3145-322	43.00
3	4.92	0.95	0.43	3145-323	68.00
4	6.30	1.24	0.55	3145-324	97.00
5	7.87	1.76	0.71	3145-325	130.00
6	10.63	2.51	0.71	3145-326	199.00

Half Dead Center - Ball Bearing Steel



MT Taper	L (in.)	D (in.)	S (in.)	Order No.	Price Each
1	3.15	0.48	0.30	3145-301	\$28.00
2	3.94	0.71	0.43	3145-302	31.00
3	4.92	0.95	0.59	3145-303	39.00
4	6.30	1.24	0.82	3145-304	61.00
5	7.87	1.76	1.15	3145-305	106.00
6	10.63	2.51	1.68	3145-306	226.00

Dead Center - Full Point - Ball Bearing Steel



MT Taper	L (in.)	D (in.)	Order No.	Price Each
1	3.15	0.48	3145-331	\$21.00
2	3.94	0.71	3145-332	25.00
3	4.92	0.95	3145-333	33.00
4	6.30	1.24	3145-334	52.00
5	7.87	1.76	3145-335	94.00
6	10.63	2.51	3145-336	227.00

Carbide Tipped Half Dead Center



MT Taper	L (in.)	D (in.)	E (in.)	S (in.)	Order No.	Price Each
1	3.15	0.48	0.28	0.41	3145-311	\$51.00
2	3.94	0.71	0.28	0.51	3145-312	55.00
3	4.92	0.95	0.43	0.72	3145-313	84.00
4	6.30	1.24	0.55	0.93	3145-314	98.00
5	7.87	1.76	0.71	1.26	3145-315	152.00
6	10.63	2.51	0.71	1.64	3145-316	249.00