



WARRANTY / RETURN POLICY

INDUSTRIAL LIMITED WARRANTY

EXPRESS WARRANTY:

Collis warrants its products for ninety (90) days from the date of purchase against defects due to faulty materials or workmanship and will repair or replace (at its option) without charge any items returned, provided the user notifies the supplying distributor of said defect within ninety (90) days of date of purchase. This warranty is void if the item has been damaged by accident or unreasonable use, neglect, improper service, or other causes not arising out of defects in material or workmanship. No other expressed warranty is given or authorized.

LIMITATION OF IMPLIED WARRANTY:

COLLIS DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR ANY PERIOD BEYOND THAT OF THE EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts.

EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES:

COLLIS SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion of limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

To obtain warranty service, return the item(s), transportation prepaid United Parcel or common carrier to Collis Tool Corporation., 1913 - 7th Avenue, Camanche, Iowa 52730. Return Goods for warranty must have a return authorization number, which can be obtained by calling our Sales Department at 1-800-334-6045.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

RETURN GOODS POLICY

1. All returns subject to 15% handling charge unless an order of equal value is placed in return.
2. **No returned goods will be accepted after 60 days of purchase.**
3. **All** return goods must have return good authorization number issued by Collis credit manager, and this number must appear on the outside of package. Packages without Collis' return goods number will be returned to sender.
4. Return goods address is as follows:
Collis Tool Corp., 1913 - 7th Avenue, Camanche, IA 52730.
5. Freight on all return goods must be prepaid.
6. All goods returned for credit will be subject to inspection.
7. **We will not honor deductions from invoices prior to the issue of a credit memo.**
8. **No annual stock returns will be allowed**, unless an order of one and one half times the value is placed and the distributor will pay freight and handling charges to and from place of origin.

Collis reserves the right to overship or undership any order for manufactured specials by 10 percent or one part on an order less than ten pieces. No returns will be allowed on manufactured specials.



Collis Tool Corporation • 1913 - 7th Avenue • P.O. Box 140 • Camanche, Iowa 52730 USA
Phone (563) 259-2454 or 1-800-334-6045 • Fax (563) 259-8346 or 1-800-572-0839



In 1901, a small pattern shop known as The Collis Pattern Works was founded at Dubuque, Iowa. This was our beginning. For more than 100 years, we have continuously serviced the machine tool industry with a full line of toolholders. We are the only manufacturer to certify AT3 or better holders.

Collis Tool Corporation is ISO bound. This registration supports our Mission Statement to be customer need-driven and devoted to improving productivity in the metal working industry.

We design and manufacture each of our toolholders to precision tolerances, maximizing repeatability and accuracy and durability. Collis Tool Corporation will continue to be the leader in our industry and have committed ourselves to higher levels of customer service performance and as always, to be the best. We are the only US Manufacturer that carries a full line of toolholders where you can one stop shop for all your needs.

A heartfelt thanks to you, our customers, for over 100 years of partnership.



100 YEARS OF PROGRESS

At the beginning of the 20th century a small pattern shop known as Collis Pattern Works was founded in Dubuque, Iowa. As the expansion began, adding more equipment and more employees, the company was on the move. It occupied three additional locations in Dubuque before Clinton, Iowa was chosen as the new site in 1912. In this location the plant grew up to become one of the area's leading industries. Since the founding, the high quality products manufactured are the result of experienced personnel and excellent facilities. The goal of this company, known today as Collis Tool Corporation, remains the same: to produce high quality products utilizing knowledgeable professionals in order to continue to offer the latest in technology in this new millennium.



1901 The original plant known then as The Collis Pattern Works. Only 650 square feet.



1903 A larger two story building in Dubuque. Total of 2,500 square feet.



1905 Still expanding to a plant more than twice its former size of 6,000 square feet.



1908 Then to a four story building with more space of 16,000 square feet.



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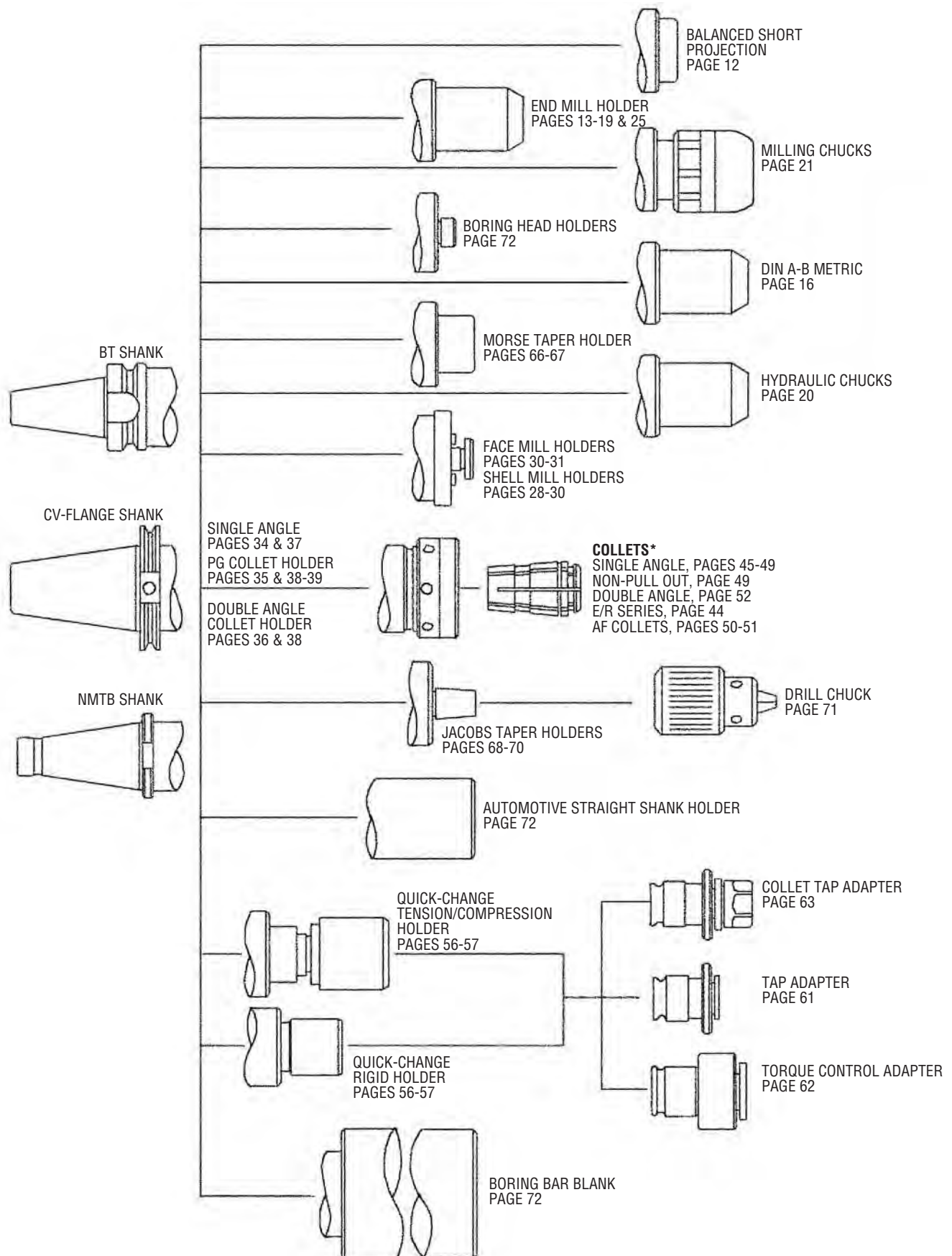
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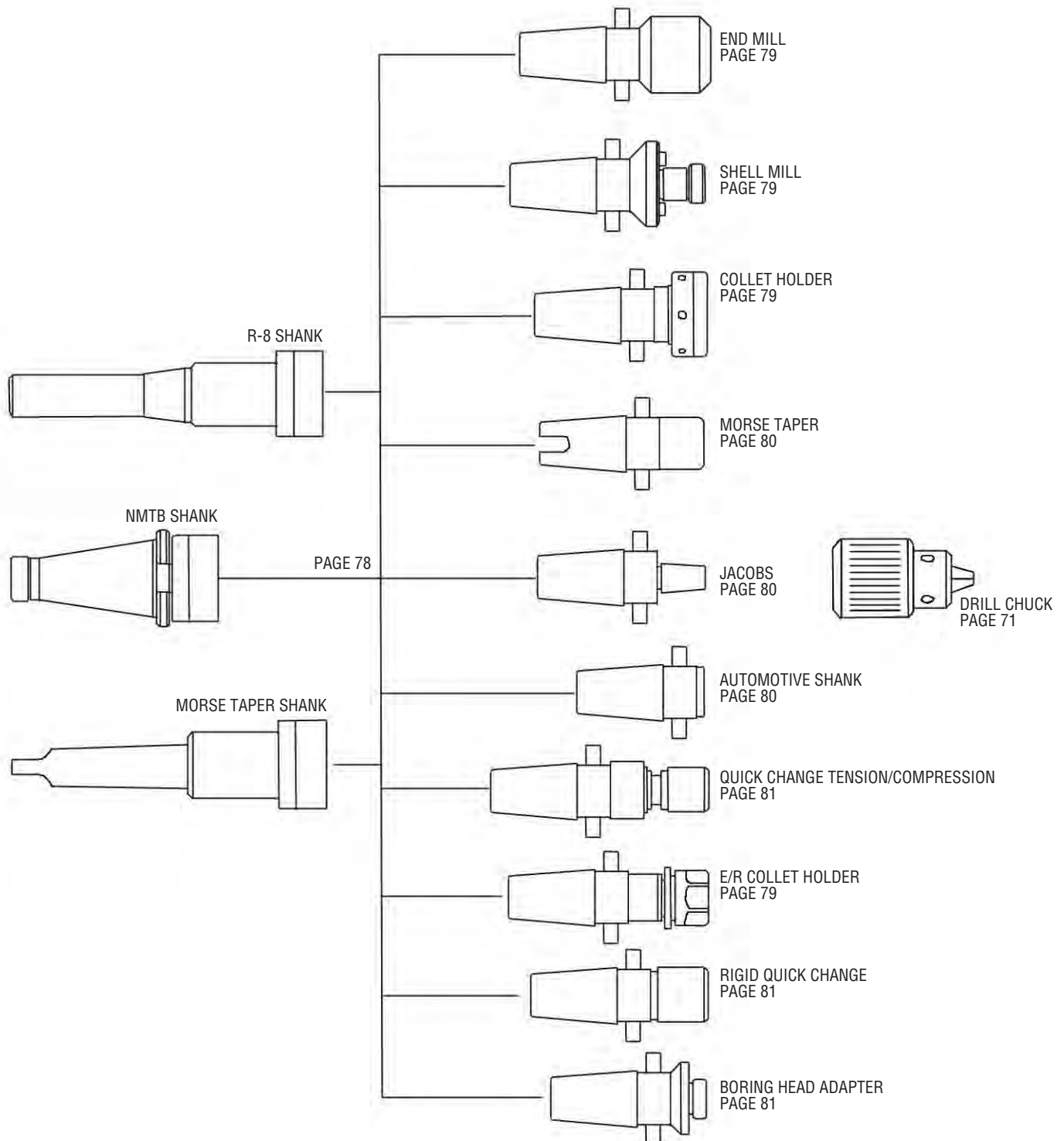


BT, CV-FLANGE & NMTB SHANKS



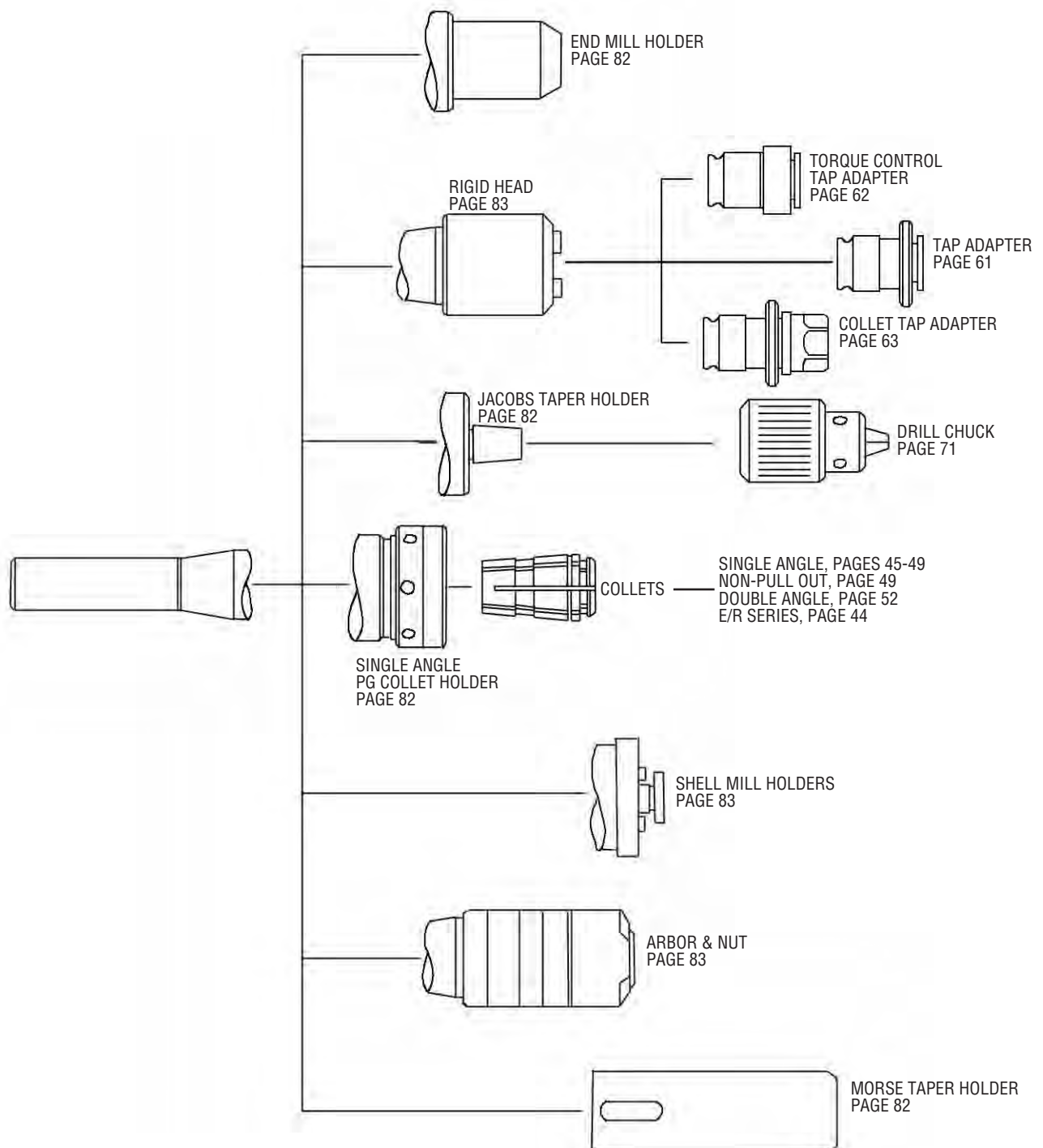


RAPID SWITCH ADAPTERS



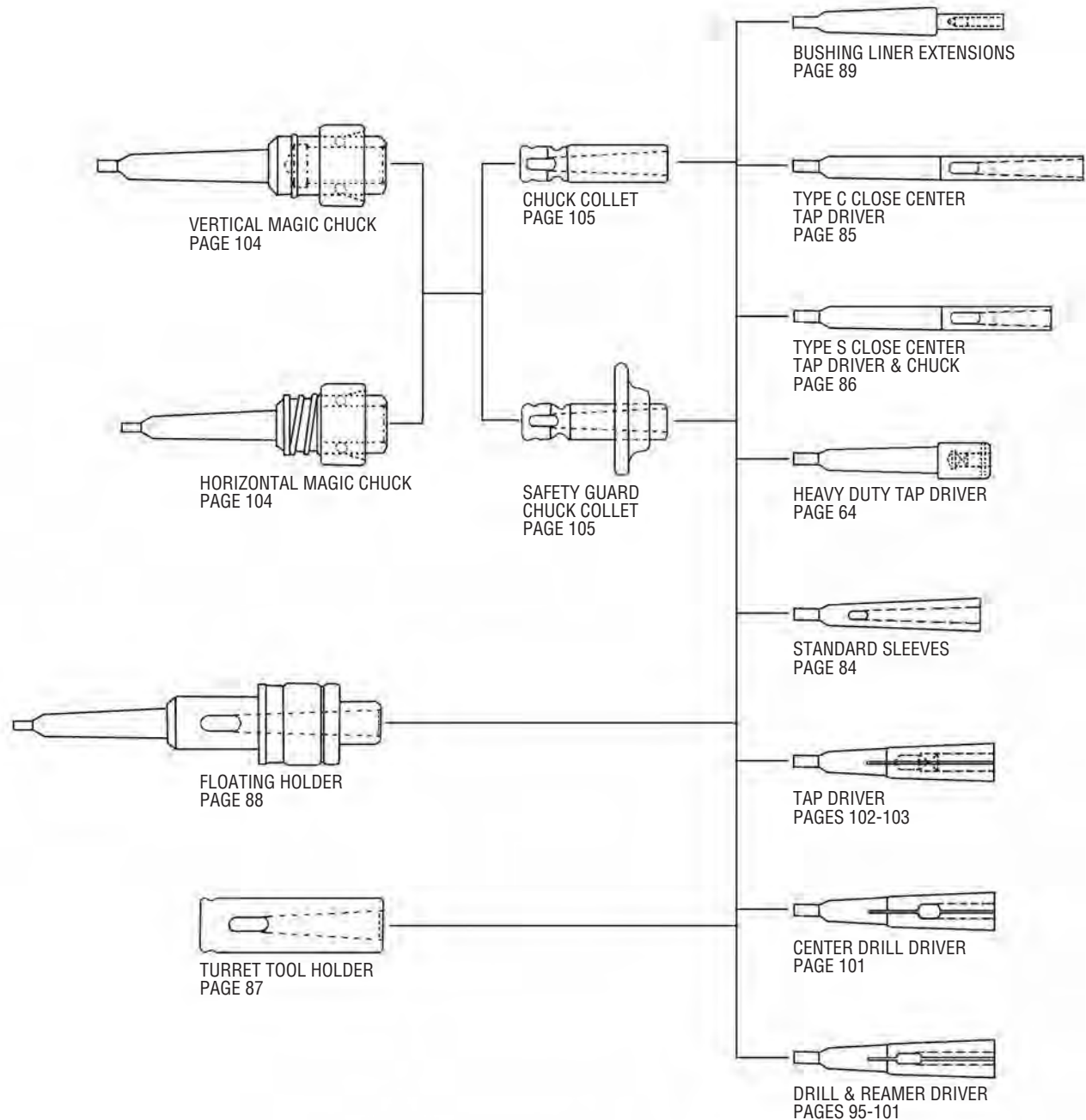


R8 TOOLING SYSTEMS





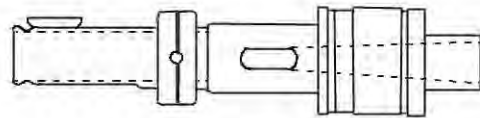
TURRET TOOL HEX & UPRIGHT OR RADIAL SPINDLE



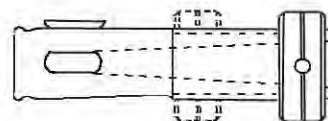


MULTI-SPINDLE ADAPTERS, DRIVERS, HOLDERS, SLEEVES & CHUCKS

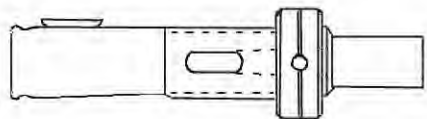
When drilling, reaming, tapping – use the split sleeve to convert morse taper hold to accept the inexpensive straight shank drills and reamers. The 4-way split of the tap driver insures against pullout.



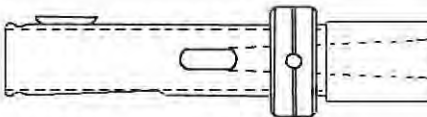
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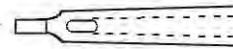
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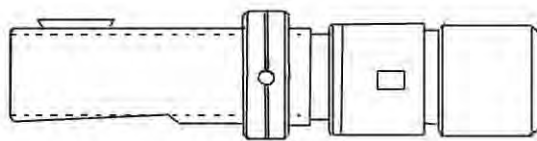
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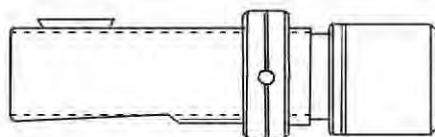
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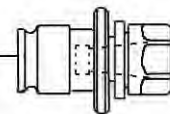
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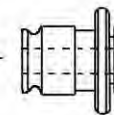
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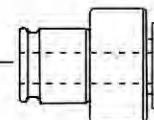
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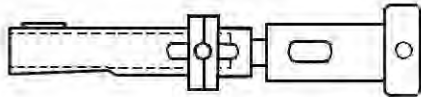


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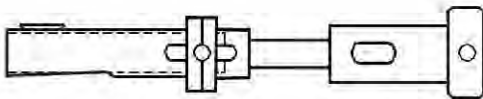


MULTI-SPINDLE ADAPTERS, HOLDERS & CHUCKS

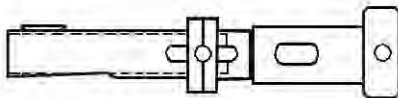
For quick change use Collis Sta-Tite Tap Holders and Tap chucks. These holders are designed for use in tapping operations where there are variations in the feed of spindle and lead of tap.



STA-TITE TENSION AND
COMPRESSION TAP HOLDER
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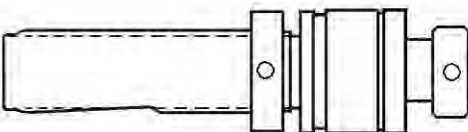


STA-TITE COMPRESSION
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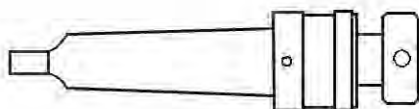


STA-TITE TENSION
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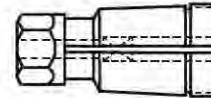
Use Collis Sat-Tite floating Holders and Sta-Tite Adjustable Adapters for multi-spindle machines and transfer lines to increase efficiency on drilling, tapping and reaming operations.



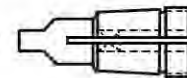
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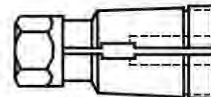
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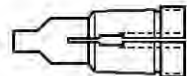
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ST-1 AND ST-2 TAP CHUCKS
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ST-3 DRILL AND
REAMER CHUCKS
PAGE 109



ST-1 AND ST-2 DRILL AND
REAMER CHUCKS
PAGE 109

CALL FOR CURRENT PRICING

(800) 562-0900

END MILL HOLDERS



COLLIS

TOOL CORPORATION
THE TOOLHOLDER PEOPLE

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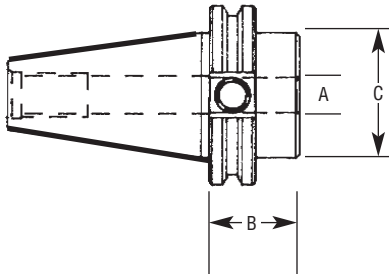
END MILL HOLDERS



Balanced Short Projection

Balanced and stock items. Collis stubby end mill holders provide maximum rigidity, a minimal projection for clearance and minimal deflection of the tool maximizing tool performance.

- Eliminate chatter
- Improve finish and roundness
- Extend tool life
- Reduce wear on spindle
- Allow higher speeds and feeds without vibration
- Designed, built and certified in the U.S.A. for use by the most advanced manufacturers around the world
- Concentricity $\leq .0002''$
- Holders balanced to G 2.5 specifications



Collis Number	Description	A Bore	B Proj.	C Dia.	G 2.5 Max. RPM
68203	CV40EMH .250-1.375	.250	1.375	1.75	20,000
68204	CV40EMH .375-1.375	.375	1.375	1.75	20,000
68205	CV40EMH .500-1.375	.500	1.375	1.75	20,000
68206	CV40EMH .625-1.375	.625	1.375	1.75	20,000
68207	CV40EMH .750-1.375	.750	1.375	1.75	20,000
68208	CV40EMH .875-1.375	.875	1.375	1.75	20,000
68209	CV40EMH 1.00-1.375	1.000	1.375	1.75	20,000
67670	CV50EMH .250-1.375	.250	1.375	2.75	15,000
67671	CV50EMH .375-1.375	.375	1.375	2.75	15,000
67672	CV50EMH .500-1.375	.500	1.375	2.75	15,000
67673	CV50EMH .625-1.375	.625	1.375	2.75	15,000
67674	CV50EMH .750-1.375	.750	1.375	2.75	15,000
67675	CV50EMH .875-1.375	.875	1.375	2.75	15,000
67676	CV50EMH 1.00-1.375	1.000	1.375	2.75	15,000
67677	CV50EMH 1.25-1.375	1.250	1.375	2.75	15,000

Short Projection

- AT3 taper accuracy and better
- Exceeds ANSI standards
- Hardened RC52-56
- Concentricity $\leq .0002''$

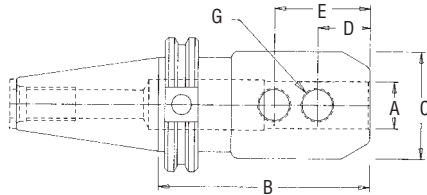
Collis Number	Description	A Bore	B Proj.	C Dia.
68333	CV40EMH .250-1.375	.250	1.375	1.75
68334	CV40EMH .375-1.375	.375	1.375	1.75
68335	CV40EMH .500-1.375	.500	1.375	1.75
68336	CV40EMH .625-1.375	.625	1.375	1.75
68337	CV40EMH .750-1.375	.750	1.375	1.75
68338	CV40EMH .875-1.375	.875	1.375	1.75
68339	CV40EMH 1.00-1.375	1.000	1.375	1.75
67400	CV50EMH .250-1.375	.250	1.375	2.75
67401	CV50EMH .375-1.375	.375	1.375	2.75
67402	CV50EMH .500-1.375	.500	1.375	2.75
67403	CV50EMH .625-1.375	.625	1.375	2.75
67404	CV50EMH .750-1.375	.750	1.375	2.75
67405	CV50EMH .875-1.375	.875	1.375	2.75
67406	CV50EMH 1.00-1.375	1.000	1.375	2.75
67407	CV50EMH 1.25-1.375	1.250	1.375	2.75

- Retention knob separate item – see page 121.

KEY	
CV	= Cat V-Flange
40	= Shank Size
EMH	= End Mill Holder
.250	= Bore Size/EM Shank Dia.
1.375	= Proj. Length (From Gage Line)



END MILL HOLDERS



CV-Flange Tooling

- Traverse ground tapers
- AT3 taper accuracy and better
- Exceeds ANSI standards
- Hardened RC52-56
- Thru coolant capability
- Set screw included
- Concentricity $\leq .0002"$



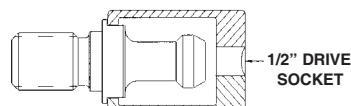
The only AT3 certified toolholder available.

Collis Number	Description	A Bore	B Proj.	C Dia.	D	E	G
67580	CV30EMH.187-2.50	.187	2.50	0.69	0.56	—	10-32
67581	CV30EMH.250-2.50	.250	2.50	0.69	0.56	—	1/4-28
67582	CV30EMH.312-2.50	.312	2.50	1.00	0.75	—	1/4-28
67583	CV30EMH.375-2.50	.375	2.50	1.25	0.75	—	3/8-24
▲ 67584	CV30EMH.500-2.50	.500	2.50	1.25	0.88	—	7/16-20
▲ 67585	CV30EMH.625-3.00	.625	3.00	1.75	0.94	—	9/16-18
▲ 67586	CV30EMH.750-3.00	.750	3.00	1.75	1.00	—	5/8-18
▲ 67587	CV30EMH.875-4.00	.875	4.00	2.00	1.00	1.81	5/8-18
▲ 67588	CV30EMH1.00-4.00	1.00	4.00	2.00	1.12	—	5/8-18
68070	CV40EMH.125-2.38	.125	2.38	0.50	0.56	—	10-32
67687	CV40EMH.187-2.50	.187	2.50	0.69	0.56	—	10-32
68071	CV40EMH.187-3.00	.187	3.00	0.69	0.56	—	10-32
67688	CV40EMH.250-2.50	.250	2.50	0.69	0.56	—	1/4-28
68072	CV40EMH.250-3.00	.250	3.00	0.69	0.56	—	1/4-28
67689	CV40EMH.312-2.50	.312	2.50	1.00	0.75	—	3/8-24
67690	CV40EMH.375-2.50	.375	2.50	1.00	0.75	—	3/8-24
67780	CV40EMH.375-4.50	.375	4.50	1.00	0.75	—	3/8-24
◆ 68081	CV40EMH.500-1.75	.500	1.75	1.75	0.88	—	7/16-20
67691	CV40EMH.500-2.62	.500	2.62	1.25	0.88	—	7/16-20
67781	CV40EMH.500-4.62	.500	4.62	1.25	0.88	—	7/16-20
67791	CV40EMH.500-6.62	.500	6.62	1.25	0.88	—	7/16-20
▲◆ 68082	CV40EMH.625-1.75	.625	1.75	1.75	0.88	—	9/16-18
68075	CV40EMH.625-3.00	.625	3.00	1.50	0.88	—	9/16-18
67692	CV40EMH.625-3.75	.625	3.75	1.62	0.94	—	9/16-18
67782	CV40EMH.625-5.75	.625	5.75	1.62	0.94	—	9/16-18
▲◆ 68083	CV40EMH.750-1.75	.750	1.75	1.75	1.00	—	5/8-18
68076	CV40EMH.750-3.00	.750	3.00	1.75	1.00	—	5/8-18
67693	CV40EMH.750-3.75	.750	3.75	1.75	1.00	—	5/8-18
67783	CV40EMH.750-5.75	.750	5.75	1.75	1.00	—	5/8-18
68077	CV40EMH.875-3.50	.875	3.50	1.75	1.00	—	5/8-18
67694	CV40EMH.875-4.00	.875	4.00	2.00	1.00	1.81	5/8-18
67784	CV40EMH.875-5.75	.875	5.75	2.00	1.00	1.81	5/8-18
▲◆ 68084	CV40EMH1.00-1.75	1.00	1.75	1.75	1.12	—	3/4-16

- Retention knob separate item – see page 121.
- Back-up screw available – see Accessories page 118.
- ▲ Single End Cutters only.
- ◆ Does not meet ANSI specifications. Design is for use in Fadal Machine Centers.

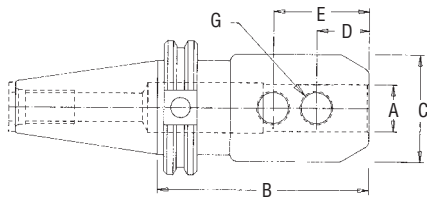
KEY	
CV	= Cat V-Flange
30	= Shank Size
EMH	= End Mill Holder
.187	= Bore Size/EM Shank Dia.
2.50	= Proj. Length (From Gage Line)

Retention knob socket – see page 122.





END MILL HOLDERS



CV-Flange Tooling

- Traverse ground tapers
- AT3 taper accuracy and better
- Exceeds ANSI standards
- Hardened RC52-56
- Thru coolant capability
- Set screw included
- Concentricity $\leq .0002"$

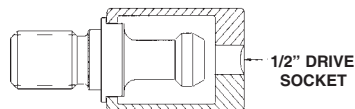


- Retention knob separate item – see page 121.
- ▲ Single End Cutters only.
- Back-up screw available – see Accessories page 118.
- ◆ Does not meet ANSI specifications. Design is for use in Fadal Machine Centers.

KEY	
CV	= Cat V-Flange
40	= Shank Size
EMH	= End Mill Holder
1.00	= Bore Size/EM Shank Dia.
3.00	= Proj. Length (From Gage Line)

Collis Number	Description	A Bore	B Proj.	C Dia.	D	E	G
68078	CV40EMH 1.00-3.00	1.00	3.00	1.95	0.88	1.88	3/4-16
67695	CV40EMH 1.00-4.00	1.00	4.00	2.25	1.12	2.12	3/4-16
▲ 67785	CV40EMH 1.00-6.00	1.00	6.00	2.25	1.12	2.12	3/4-16
◆ 68085	CV40EMH 1.25-2.00	1.25	2.00	2.25	1.12	–	5/8-18
▲ 67696	CV40EMH 1.25-4.25	1.25	4.25	2.50	1.12	2.12	3/4-16
▲ 67786	CV40EMH 1.25-6.25	1.25	6.25	2.50	1.12	2.12	3/4-16
▲ 67697	CV40EMH 1.50-4.62	1.50	4.62	2.75	1.12	2.12	3/4-16
▲ 67787	CV40EMH 1.50-6.00	1.50	6.00	2.75	1.12	2.12	3/4-16
67707	CV45EMH .187-2.50	.187	2.50	0.69	0.56	–	10-32
67708	CV45EMH .250-2.50	.250	2.50	0.69	0.56	–	1/4-28
67709	CV45EMH .312-2.50	.312	2.50	1.00	0.75	–	1/4-28
67710	CV45EMH .375-2.50	.375	2.50	1.00	0.75	–	3/8-24
67720	CV45EMH .375-4.50	.375	4.50	1.00	0.75	–	3/8-24
67730	CV45EMH .375-6.50	.375	6.50	1.00	0.75	–	3/8-24
67711	CV45EMH .500-2.62	.500	2.62	1.38	0.88	–	7/16-20
67721	CV45EMH .500-4.62	.500	4.62	1.38	0.88	–	7/16-20
67712	CV45EMH .625-3.75	.625	3.75	1.62	0.94	–	9/16-18
67722	CV45EMH .625-5.75	.625	5.75	1.62	0.94	–	9/16-18
67713	CV45EMH .750-3.75	.750	3.75	1.75	1.00	–	5/8-18
67714	CV45EMH .875-3.75	.875	3.75	2.00	1.00	1.81	5/8-18
67715	CV45EMH 1.00-4.00	1.00	4.00	2.25	1.12	2.12	3/4-16
▲ 67716	CV45EMH 1.25-4.00	1.25	4.00	2.62	1.12	2.12	3/4-16
▲ 67717	CV45EMH 1.50-4.00	1.50	4.00	2.62	1.12	2.12	3/4-16
▲ 67718	CV45EMH 2.00-5.25	2.00	5.25	3.75	1.38	2.88	1-14

Retention knob socket – see page 122.



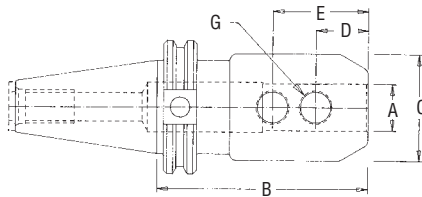


END MILL HOLDERS



CV-Flange Tooling

- Traverse ground tapers
- AT3 taper accuracy and better
- Exceeds ANSI standards
- Hardened RC52-56
- Thru coolant capability
- Set screw included
- Concentricity $\leq .0002"$

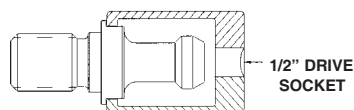


- Retention knob separate item – see page 121.
- ▲ Single End Cutters only.
- Back-up screw available – see Accessories page 118.

KEY	
CV	= Cat V-Flange
50	= Shank Size
EMH	= End Mill Holder
.187	= Bore Size/EM Shank Dia.
2.50	= Proj. Length (From Gage Line)

Collis Number	Description	A Bore	B Proj.	C Dia.	D	E	G
67837	CV50EMH .187-2.50	.187	2.50	0.69	0.56	–	10-32
67838	CV50EMH .250-2.50	.250	2.50	0.69	0.56	–	1/4-28
67839	CV50EMH .312-2.50	.312	2.50	1.00	0.75	–	1/4-28
67840	CV50EMH .375-2.50	.375	2.50	1.00	0.75	–	3/8-24
67850	CV50EMH .375-4.50	.375	4.50	1.00	0.75	–	3/8-24
67860	CV50EMH .375-6.50	.375	6.50	1.00	0.75	–	3/8-24
67841	CV50EMH .500-2.62	.500	2.62	1.38	0.88	–	7/16-20
67851	CV50EMH .500-4.62	.500	4.62	1.38	0.88	–	7/16-20
67861	CV50EMH .500-6.62	.500	6.62	1.38	0.88	–	7/16-20
67842	CV50EMH .625-3.75	.625	3.75	1.62	0.94	–	9/16-18
67852	CV50EMH .625-5.75	.625	5.75	1.62	0.94	–	9/16-18
67862	CV50EMH .625-7.75	.625	7.75	1.62	0.94	–	9/16-18
67843	CV50EMH .750-3.75	.750	3.75	1.75	1.00	–	5/8-18
67853	CV50EMH .750-5.75	.750	5.75	1.75	1.00	–	5/8-18
67863	CV50EMH .750-7.75	.750	7.75	1.75	1.00	–	5/8-18
67844	CV50EMH .875-3.75	.875	3.75	2.00	1.00	1.81	5/8-18
67854	CV50EMH .875-5.75	.875	5.75	2.00	1.00	1.81	5/8-18
67869	CV50EMH 1.00-2.62	1.00	2.62	2.75	1.12	–	3/4-16
67845	CV50EMH 1.00-4.00	1.00	4.00	2.25	1.12	2.12	3/4-16
■ 67855	CV50EMH 1.00-6.00	1.00	6.00	2.25	1.12	2.12	3/4-16
■ 67865	CV50EMH 1.00-8.00	1.00	8.00	2.25	1.12	2.12	3/4-16
▲ 67846	CV50EMH 1.25-4.00	1.25	4.00	2.50	1.12	2.12	3/4-16
▲ 67856	CV50EMH 1.25-6.00	1.25	6.00	2.50	1.12	2.12	3/4-16
▲ 67866	CV50EMH 1.25-8.00	1.25	8.00	2.50	1.12	2.12	3/4-16
▲ 67847	CV50EMH 1.50-4.00	1.50	4.00	2.75	1.12	2.12	3/4-16
▲ 67857	CV50EMH 1.50-6.00	1.50	6.00	2.75	1.12	2.12	3/4-16
▲ 67867	CV50EMH 1.50-8.00	1.50	8.00	2.75	1.12	2.12	3/4-16
▲ 67848	CV50EMH 2.00-5.62	2.00	5.62	3.75	1.38	2.88	1-14
▲ 67858	CV50EMH 2.00-7.62	2.00	7.62	3.75	1.38	2.88	1-14
67849	CV50EMH 2.50-6.00	2.50	6.00	4.25	1.56	3.25	1-14

Retention knob socket – see page 122.



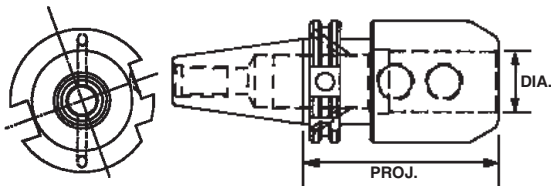


END MILL HOLDERS



CV-Flange Inch Bore DIN 69871 A/B

Collis Number	Description	Dia.	Proj.
75000	CV40EMH 1/8 - 2-3/8	1/8"	2-3/8"
75001	CV40EMH 3/16 - 2-1/2	3/16"	2-1/2"
75002	CV40EMH 1/4 - 2-1/2	1/4"	2-1/2"
75003	CV40EMH 5/16 - 2-1/2	5/16"	2-1/2"
75004	CV40EMH 3/8 - 2-1/2	3/8"	2-1/2"
75005	CV40EMH 1/2 - 2-1/2	1/2"	2-1/2"
75006	CV40EMH 5/8 - 3	5/8"	3"
75007	CV40EMH 3/4 - 3	3/4"	3"
75008	CV40EMH 7/8 - 3-1/2	7/8"	3-1/2"
75009	CV40EMH 1 - 4	1"	4"
75010	CV40EMH 1-1/4 - 4	1-1/4"	4"
75011	CV40EMH 1-1/2 - 4-1/2	1-1/2"	4-1/2"
75030	CV50EMH 1/4 - 2-1/2	1/4"	2-1/2"
75031	CV50EMH 3/8 - 2-1/2	3/8"	2-1/2"
75032	CV50EMH 1/2 - 2-5/8	1/2"	2-5/8"
75033	CV50EMH 5/8 - 3	5/8"	3"
75034	CV50EMH 3/4 - 3	3/4"	3"
75035	CV50EMH 7/8 - 3-3/4	7/8"	3-3/4"
75036	CV50EMH 1 - 4	1"	4"
75037	CV50EMH 1-1/4 - 4	1-1/4"	4"
75038	CV50EMH 1-1/2 - 4-1/2	1-1/2"	4-1/2"
75039	CV50EMH 2 - 5-3/8	2"	5-3/8"



CV-Flange Metric Bore DIN 69871 A/B

Collis Number	Description	Dia.	Proj.
75015	CV40EMH 6mm - 2-1/2	6mm	2-1/2"
75016	CV40EMH 8mm - 2-1/2	8mm	2-1/2"
75017	CV40EMH 10mm - 2-1/2	10mm	2-1/2"
75018	CV40EMH 12mm - 2-1/2	12mm	2-1/2"
75019	CV40EMH 14mm - 3	14mm	3"
75020	CV40EMH 16mm - 3	16mm	3"
75021	CV40EMH 18mm - 3	18mm	3"
75022	CV40EMH 20mm - 3	20mm	3"
75023	CV40EMH 25mm - 4	25mm	4"
75024	CV40EMH 32mm - 4	32mm	4"
75045	CV50EMH 6mm - 2-1/2	6mm	2-1/2"
75046	CV50EMH 8mm - 2-1/2	8mm	2-1/2"
75047	CV50EMH 10mm - 2-1/2	10mm	2-1/2"
75048	CV50EMH 12mm - 2-5/8	12mm	2-5/8"
75049	CV50EMH 14mm - 3	14mm	3"
75050	CV50EMH 16mm - 3	16mm	3"
75051	CV50EMH 18mm - 3	18mm	3"
75052	CV50EMH 20mm - 3	20mm	3"
75053	CV50EMH 25mm - 4	25mm	4"
75054	CV50EMH 32mm - 4	32mm	4"
75055	CV50EMH 40mm - 4-1/2	40mm	4-1/2"
75056	CV50EMH 42mm - 4-1/2	42mm	4-1/2"

• Retention knob separate item – see page 121.

KEY	
CV	= Cat V-Flange
40	= Shank Size
EMH	= End Mill Holder
1/8	= Bore Size/EM Shank Dia.
2-3/8	= Proj. Length (From Gage Line)



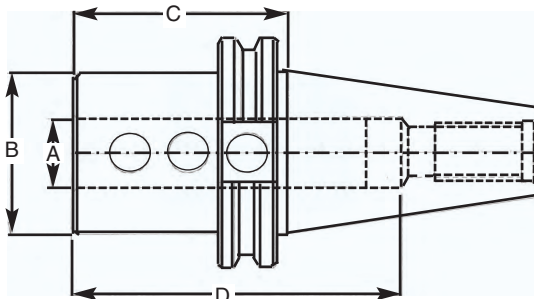
BORING BAR HOLDERS

NEW!



The only AT3 certified toolholder available.

Heavy metal boring bars provide higher rigidity and dampening of vibration. Collis boring bar holders are best suited for machining bores of 6:1 length over diameter ratio.



Heavy Metal Bar Holders

- Traverse ground tapers
- Exceeds ANSI standards
- Hardened RC52-56
- Thru coolant capability
- Set screw included
- Concentricity < .0002"
- AT3 taper accuracy and better

Collis Number	Shank Taper	A ID	B OD	C Proj	D Depth	Set Screws
68400	40CV	.750	1.75	2.32	3.54	64842
68401	40CV	1.00	1.97	2.32	3.54	64842
68402	40CV	1.25	2.75	4.50	3.12	64843
68403	40CV	1.50	2.75	5.00	3.12	64843
68404	40BT	.750	1.75	2.32	3.54	64842
68405	40BT	1.00	1.97	2.32	3.54	64842
68406	40BT	1.25	2.75	4.00	3.12	64843
68407	40BT	1.50	2.75	4.00	3.12	64843
68500	50CV	.750	1.75	2.32	3.54	64842
68501	50CV	1.00	1.97	2.32	3.54	64842
68502	50CV	1.25	2.75	4.50	3.12	64843
68503	50CV	1.50	2.75	4.50	3.12	64843
68504	50BT	.750	1.75	2.32	3.54	64842
68505	50BT	1.00	1.97	2.32	3.54	64842
68506	50BT	1.25	2.28	2.32	4.33	64842
68507	50BT	1.50	2.28	2.32	4.33	64842



The only AT3 certified toolholder available.

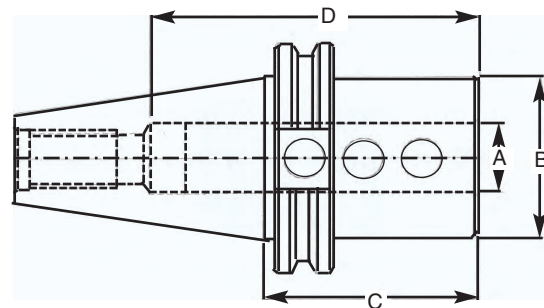
Carbide Bar Holders

Collis Number	Shank Taper	A ID	B OD	C Proj	D Depth	Set Screws
68420	40CV	1.25	1.75	2.32	3.54	64842
68421	40BT	1.25	1.97	2.32	3.54	64842
68422	40BT	1.50	2.75	4.50	3.12	64842
68520	50CV	1.25	2.75	5.00	3.12	64842
68521	50CV	1.50	1.75	2.32	3.54	64842

Optimum rigidity for carbide boring bars and machining long bores.



NEW!

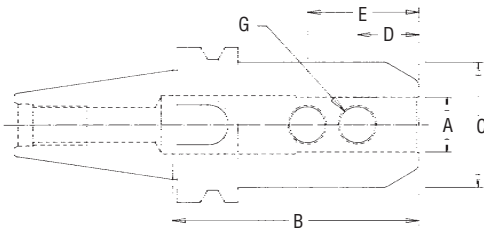




END MILL HOLDERS



BT Tooling



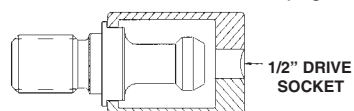
- Retention knob separate item – see page 121.

- ▲ Single End Cutters only.

KEY	
BT	= BT Shank
30	= Shank Size
EMH	= End Mill Holder
.125	= Bore Size
2.38	= Proj. Length (From Gage Line)

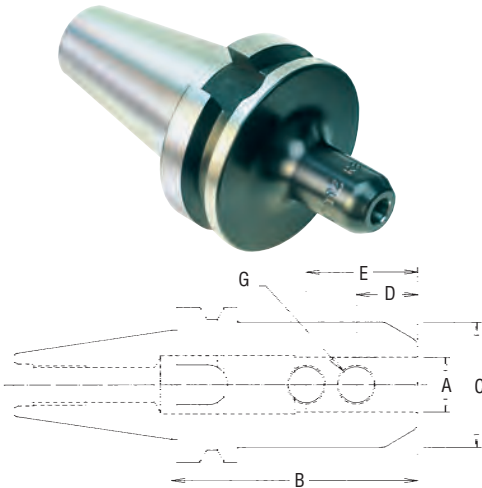
Collis Number	Description	A Bore	B Proj.	C Dia.	D	E	G
68300	BT30EMH .125-2.38	.125	2.38	.50	.21	–	10-32
68301	BT30EMH .187-2.38	.187	2.38	.69	.56	–	10-32
68302	BT30EMH .250-2.38	.250	2.38	.69	.56	–	1/4-28
68303	BT30EMH .312-2.38	.312	2.38	.78	.75	–	1/4-28
68304	BT30EMH .375-2.38	.375	2.38	1.00	.75	–	3/8-24
▲ 68305	BT30EMH .500-2.38	.500	2.38	1.25	.88	–	7/16-20
68306	BT30EMH .625-2.50	.625	2.50	1.62	.94	–	9/16-18
▲ 68307	BT30EMH .750-3.00	.750	3.00	1.75	1.00	–	5/8-18
▲ 68308	BT30EMH .875-3.56	.875	3.56	2.00	1.00	1.81	5/8-18
▲ 68309	BT30EMH 1.00-3.56	1.00	3.56	2.25	1.00	2.00	3/4-16
67099	BT35EMH .125-2.38	.125	2.38	.50	.21	–	10-32
67100	BT35EMH .187-2.50	.187	2.50	.78	.56	–	10-32
67101	BT35EMH .250-2.50	.250	2.50	.69	.56	–	1/4-28
67102	BT35EMH .312-2.50	.312	2.50	.78	.75	–	1/4-28
67103	BT35EMH .375-2.50	.375	2.50	1.00	.75	–	3/8-24
▲ 67104	BT35EMH .500-2.50	.500	2.50	1.25	.88	–	7/16-20
67105	BT35EMH .625-2.50	.625	2.50	1.62	.94	–	9/16-18
▲ 67106	BT35EMH .750-2.50	.750	2.50	1.75	1.00	–	5/8-18
67107	BT35EMH .875-3.50	.875	3.50	2.00	1.00	1.81	5/8-18
▲ 67108	BT35EMH 1.00-3.50	1.00	3.50	2.25	1.00	2.00	3/4-16
▲ 67109	BT35EMH 1.25-3.50	1.25	3.50	2.50	1.00	2.00	3/4-16
67098	BT40EMH .125-2.38	.125	2.38	.50	.21	–	10-32
67110	BT40EMH .187-2.50	.187	2.50	.69	.56	–	10-32
67111	BT40EMH .250-2.50	.250	2.50	.69	.56	–	1/4-28
67112	BT40EMH .312-2.50	.312	2.50	.78	.75	–	1/4-28
67113	BT40EMH .375-2.50	.375	2.50	1.12	.75	–	3/8-24
67123	BT40EMH .375-4.00	.375	4.00	1.12	.75	–	3/8-24
68161	BT40EMH .500-1.75	.500	1.75	1.75	.75	–	7/16-20
67114	BT40EMH .500-2.50	.500	2.50	1.50	.88	–	7/16-20
67124	BT40EMH .500-4.00	.500	4.00	1.50	.88	–	7/16-20
68162	BT40EMH .625-1.75	.625	1.75	1.75	.94	–	9/16-18
67115	BT40EMH .625-2.50	.625	2.50	1.62	.94	–	9/16-18
67125	BT40EMH .625-4.00	.625	4.00	1.62	.94	–	9/16-18
68163	BT40EMH .750-1.75	.750	1.75	1.75	1.00	–	5/8-18
67116	BT40EMH .750-2.50	.750	2.50	1.75	1.00	–	5/8-18
67126	BT40EMH .750-4.00	.750	4.00	1.75	1.00	–	5/8-18
67117	BT40EMH .875-3.50	.875	3.50	2.17	1.00	1.81	5/8-18
68165	BT40EMH 1.00-1.75	1.00	1.75	2.38	1.13	–	3/4-16
67118	BT40EMH 1.00-3.50	1.00	3.50	2.38	1.00	2.00	3/4-16
68167	BT40EMH 1.25-2.00	1.25	2.00	2.38	1.13	1.81	3/4-16
▲ 67119	BT40EMH 1.25-3.50	1.25	3.50	2.50	1.00	2.00	3/4-16

Retention knob socket – see page 122.





END MILL HOLDERS



KEY	
BT	= BT Taper
45	= Shank Size
EMH	= End Mill Holder
.187	= Bore Size
3.00	= Proj. Length (From Gage Line)

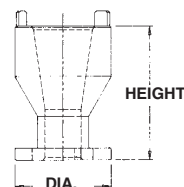
- ▲ Single End Cutters only.
- Retention knob separate item – see page 121.

BT Tooling

Collis Number	Description	A Bore	B Proj.	C Dia.	D	E	G
67130	BT45EMH .187-3.00	.187	3.00	.69	.56	–	10-32
67131	BT45EMH .250-3.00	.250	3.00	.69	.56	–	1/4-28
67132	BT45EMH .312-3.00	.312	3.00	.78	.75	–	1/4-28
67133	BT45EMH .375-3.00	.375	3.00	1.12	.75	–	3/8-24
67134	BT45EMH .500-3.00	.500	3.00	1.50	.88	–	7/16-20
67135	BT45EMH .625-3.00	.625	3.00	1.62	.94	–	9/16-18
67136	BT45EMH .750-3.00	.750	3.00	1.75	1.00	–	5/8-18
67137	BT45EMH .875-4.00	.875	4.00	2.00	1.00	1.81	5/8-18
67145	BT45EMH .875-6.00	.875	6.00	2.17	1.00	1.81	5/8-18
67138	BT45EMH 1.00-4.00	1.00	4.00	2.38	1.12	2.12	3/4-16
67139	BT45EMH 1.25-4.00	1.25	4.00	2.69	1.00	2.00	3/4-16
67150	BT50EMH .375-3.00	.375	3.00	1.12	.75	–	3/8-24
67151	BT50EMH .500-3.00	.500	3.00	1.50	.88	–	7/16-20
67152	BT50EMH .625-3.00	.625	3.00	1.62	.94	–	9/16-18
67153	BT50EMH .750-3.00	.750	3.00	1.75	1.00	–	5/8-18
67154	BT50EMH .875-4.00	.875	4.00	2.00	1.00	1.81	5/8-18
67155	BT50EMH 1.00-4.00	1.00	4.00	2.25	1.00	2.00	3/4-16
▲67156	BT50EMH 1.25-4.00	1.25	4.00	2.69	1.00	2.00	3/4-16
▲67157	BT50EMH 1.50-4.00	1.50	4.00	2.88	1.00	2.00	3/4-16
▲67158	BT50EMH 2.00-5.00	2.00	5.00	3.62	1.38	2.88	1-14

Tightening Fixtures

Collis Number	Taper	Height	Diameter
84961	30	2 3/4	2
84990	35	2 3/4	4
84991	40	4	3 1/8
84993	50	4	5 3/4





HYDRAULIC END MILL HOLDERS



Precision Grip Hydraulic Chucks

Provide guaranteed precision of .0002" at four inches out. A precision grip hydraulic chuck is the most accurate toolholder for finishing end mill applications. It maximizes the use of each cutting edge of an end mill tool. Hydraulic chucks provide for reaming, gun drilling and boring operations where finish and tool life specifications cannot be accomplished economically with other tools and processes.

Hydraulic End Mill Holders

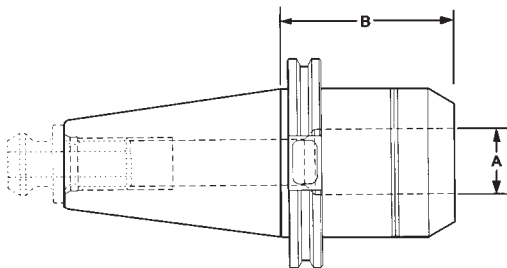
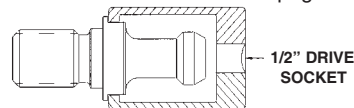
Collis Number	Description	A Bore	B Proj.	Max. RPM
68216	CV40HYD .375-2.53	.375	2.53	25,000
68217	CV40HYD .500-2.56	.500	2.56	25,000
68218	CV40HYD .625-2.56	.625	2.56	25,000
68219	CV40HYD .750-2.53	.750	2.53	25,000
68220	CV40HYD 1.00-4.15	1.00	4.15	20,000
67660	CV50HYD .375-3.55	.375	3.55	20,000
67661	CV50HYD .500-3.52	.500	3.52	20,000
67662	CV50HYD .625-3.52	.625	3.52	20,000
67663	CV50HYD .750-3.52	.750	3.52	20,000
67664	CV50HYD 1.00-4.15	1.00	4.15	20,000
67665	CV50HYD 1.25-4.52	1.25	4.52	15,000

Positive stop actuating set screw provides optimal gripping forces on the end mill cavity.

Holders are not through coolant capable

Retention knob separate item – see page 121.

Retention knob socket – see page 122.



KEY	
CV	= Cat V-Flange
40	= Shank Size
HYD	= Hydraulic End Mill Holder
.375	= Bore Size/EM Shank Dia.
2.56	= Proj. Length (From Gage Line)



END MILL HOLDERS



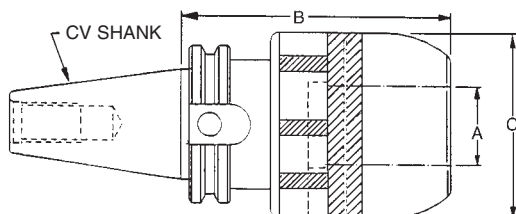
- Extreme rigidity.
- Axial accuracy: Concentricity $\leq .0002"$

Straight bushings will grip the end mill evenly across the end mill shank.

- This provides a gripping force twenty times greater than a standard tapered collet.
- Flats and end mill shank depressions will not distort the milling chuck bore.
- Tightening torque of 22 FT/LB's is minimal for a tremendous gripping force as compared to a tapered collet chuck.
- The collapse range is .0015" below nominal.
- Holders has coolant thru capabilities

Milling Chuck Holders

Collis Number	Description	A Bore	B Proj.	C Dia.	Wrench
74270	CV40MC .750 X 3.70	.75	3.70	2.37	64705
74271	CV40MC 1.250 X 4.52	1.25	4.52	2.94	64706
74273	CV50MC 1.250 X 4.45	1.25	4.45	2.94	64706

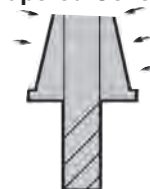


Collets

Collis Number	Description	A Bore	B O.A.L.
74285	.750 MC COLLET 1/4"	.250	2.24
74286	.750 MC COLLET 5/16"	.312	2.24
74287	.750 MC COLLET 3/8"	.375	2.24
74289	.750 MC COLLET 1/2"	.500	2.24
74284	.750 MC COLLET 9/16"	.562	2.24
74290	.750 MC COLLET 5/8"	.625	2.24
74291	1.25 MC COLLET 1/4"	.250	2.54
74292	1.25 MC COLLET 5/16"	.312	2.54
74293	1.25 MC COLLET 3/8"	.375	2.54
74295	1.25 MC COLLET 1/2"	.500	2.54
74296	1.25 MC COLLET 5/8"	.625	2.54
74297	1.25 MC COLLET 3/4"	.750	2.54
74298	1.25 MC COLLET 7/8"	.875	2.54
74299	1.25 MC COLLET 1"	1.00	2.54

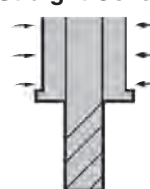
Milling Chuck Collets

Tapered Collets



Collet moves when tightened.

Straight Collets



Collet stays. Depth adjustment is not altered.

With Straight Collets, an end mill is held strongly and evenly by the entire length of its shank.

• Retention knob separate item – see page 121.



END MILL HOLDERS

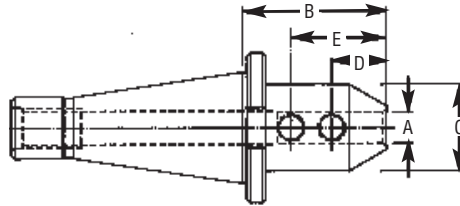


NMTB

- Precision Milling Machine Holders for Straight Shank End Mills. End Mills are securely held by one or two set screws.



The only AT3 certified toolholder available.



Collis Number	A Bore	Shank Taper	B Projection	C Nose Dia.	Set Screw Size	D	E	Draw Bar Size
68030	3/16	30	1-3/4	11/16	6-32	9/16	—	1/2-13
68034	1/4	30	2-1/2	11/16	1/4-28	9/16	—	
68035	5/16	30	2-1/2	1	1/4-28	3/4	—	
68031	3/8	30	1-3/4	1	3/8 -24	3/4	—	
▲ 68032	1/2	30	2-13/32	1-13/16	7/16-20	7/8	—	
▲ 68033	5/8	30	2-13/32	1-13/16	9/16-18	15/16	—	
▲ 68036	3/4	30	2-1/8	1-3/4	5/8-18	1	—	
▲ 68038	1	30	2-11/16	2-1/4	3/4-16	1-1/8	—	
▲ 68039	1-1/4	30	3-5/8	2-1/2	3/4-16	1-1/8	—	
68040	3/16	40	2-5/16	11/16	10-32	9/16	—	5/8-11
68048	1/4	40	2-1/2	11/16	1/4-28	9/16	—	
68049	5/16	40	2-1/2	1	1/4-28	3/4	—	
68041	3/8	40	2-5/16	1	3/8-24	3/4	—	
68042	1/2	40	2-5/16	1-3/8	7/16-20	7/8	—	
68043	5/8	40	2-5/16	1-5/8	9/16-18	15/16	—	
68044	3/4	40	2-5/16	1-7/8	5/8-18	1	—	
68045	7/8	40	2-11/16	2	5/8-18	1	—	
▲ 68046	1	40	2-11/16	2	3/4-16	1	—	
▲ 68047	1-1/4	40	2-29/32	2-3/8	3/4-16	1-1/8	2-1/8	
68061	1/4	50	2-1/2	11/16	1/4-28	9/16	—	1-8
68062	5/16	50	2-1/2	1	1/4-28	3/4	—	
68051	3/8	50	2-3/4	1	3/8-24	3/4	—	
68052	1/2	50	2-3/4	1-3/8	7/16-20	7/8	—	
68053	5/8	50	2-3/4	1-5/8	9/16-18	15/16	—	
68054	3/4	50	2-3/4	1-3/4	5/8-18	1	—	
■ 68055	7/8	50	2-3/4	2	5/8-18	1	1-13/16	
■ 68056	1	50	2-3/4	2-3/8	3/4-16	1-1/8	2-1/8	
▲ 68057	1-1/4	50	2-3/4	2-5/8	3/4-16	1-1/8	2-1/8	
▲ 68064	1-1/2	50	3-1/8	2-7/8	3/4-16	1-1/2	2-1/2	
▲ 68058	2	50	4-1/2	3-3/4	1-14	1-3/8	2-7/8	
▲ 68059	2-1/2	50	4-1/2	4-1/2	1-14	1-9/16	3-1/4	

▲ Single end cutters only.

■ These holders have not been qualified to be used as adapters to fit Erickson Quick-Change Holders.

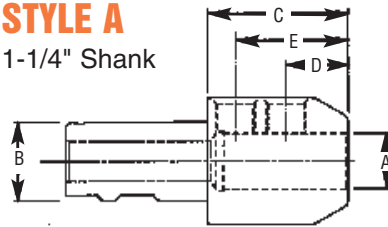


END MILL HOLDERS



STYLE A

1-1/4" Shank

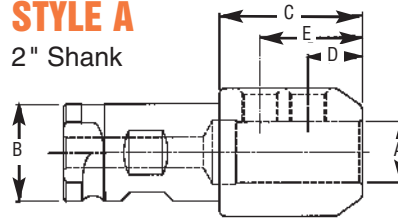


STYLE B



STYLE A

2" Shank



- The Master Holders listed below, right, are for use with the Rapid-Change Adapters listed below, left. This eliminates the need to remove Master Holder from spindle when using different size end mills.

Rapid-Change Adapters

Collis Number	A Hole Size	B Shank Dia.	Style	C Proj.	Set Screw Size	D	E
68112	3/8	1-1/4	A	1-1/16	3/8-24	3/4	
68113	1/2	1-1/4	A	1-1/4	7/16-20	7/8	
68114	5/8	1-1/4	A	1-3/8	9/16-18	15/16	
68115	3/4	1-1/4	A	1-1/2	5/8-18	1	
▲ 68116	7/8	1-1/4	A	2-1/4	5/8-18	1	1-13/16
68117	1	1-1/4	B	1/8			
68118	3/8	2	A	2-3/4	3/8-24	3/4	
68119	1/2	2	A	2-3/4	7/16-20	7/8	
68120	5/8	2	A	2-3/4	9/16-18	15/16	
68121	3/4	2	A	2-3/4	5/8-18	1	
▲ 68122	7/8	2	A	2-3/4	5/8-18	1	1-13/16
▲ 68123	1	2	A	2-3/4	3/4-16	1-1/8	2-1/8
▲ 68124	1-1/4	2	A	2-31/32	3/4-16	1-1/8	2-1/8

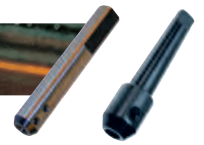
Rapid-Change Master Holders

Collis Number	Hole Size	Shank Taper	Draw Bar Size
▲ 68047	1-1/4	40	5/8-11
▲ 68057	1-1/4	50	1-8
▲ 75865	1-1/4	5 M.T.	TANG.
▲ 75868	1-1/4	6 M.T.	TANG.
▲ 75913	1-1/4	R-8	7/16-20
▲ 68058	2	50	1-8
▲ 75866	2	5 M.T.	TANG.
▲ 75869	2	6 M.T.	TANG.
▲ 68059	2-1/2	50	1-8

▲ Single End Cutters only.

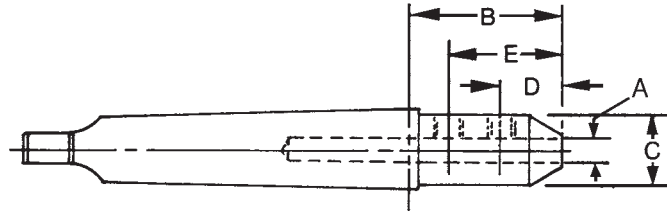


END MILL HOLDERS



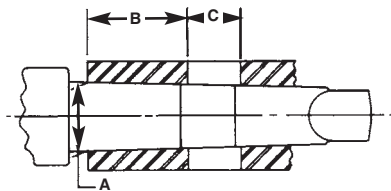
Morse Taper Shanks

- Morse Taper End Mill Holders provide quick change capabilities with the use of end mill adapter shown on page 23.



Tang-Style A								
Collis Number	Shank End	A Hole Size	Morse Taper Shank	B Projection	C Nose Dia.	Set Screw Size	D	E
75858	TANG	3/4	4	2-3/4	1-3/4	5/8-18	1	-
75860	TANG	1/2	5	2-7/16	1-3/8	7/16-20	7/8	-
75862	TANG	3/4	5	2-3/4	1-3/4	5/8-18	1	-
75864	TANG	1	5	2-15/16	2-3/8	3/4-16	1-1/8	2-1/8
▲ 75865	TANG	1-1/4	5	3-5/32	2-5/8	3/4-16	1-1/8	2-1/8
▲ 75866	TANG	2	5	4-13/16	3-3/4	1-14	1-3/8	2-7/8
▲ 75867	TANG	1	6	2-15/16	2-3/8	3/4-16	1-1/8	2-1/8
▲ 75868	TANG	1-1/4	6	3-7/8	2-5/8	3/4-16	1-1/8	2-1/8
▲ 75869	TANG	2	6	4-13/16	3-3/4	1-14	1-3/8	2-7/8

▲ Single end cutters only.



Keeper Slots

- Some machines require a keeper slot to secure the end mill holder in the machine spindle. Collis provides this service upon request.

PLEASE TELL US:

- Width of keeper slots
- A, B & C dimensions of spindle

Extensions

- Straight shank tooling for extended length machining is less costly than purchasing custom holders. The outside diameter allows close cutting operations where space is limited.



Collis Number	Shank Diameter	Bore	O.A.L.	Set Screw
68190	.750	.125	6.00	6-32X1/4
68191	.750	.187	6.00	8-32X1/4
68192	.750	.250	6.00	1/4-28X1/4
68193	.750	.312	6.00	5/16-24X5/16
68195	1.00	.375	6.00	3/8-24X5/16
68196	1.00	.500	6.00	7/16-20X3/8 (2)

Extensions hold double end mill

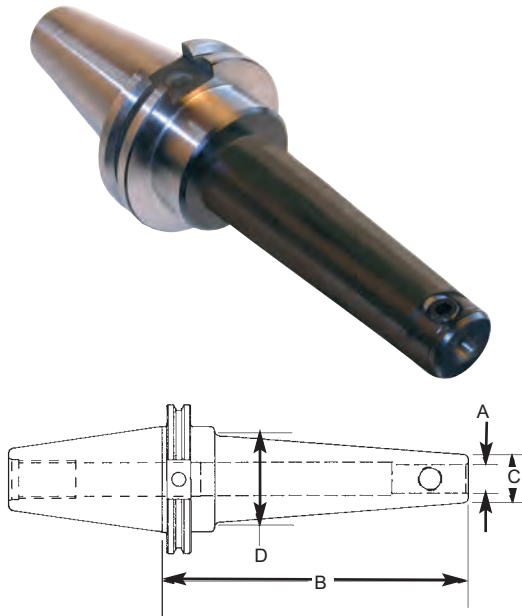


END MILL HOLDERS



CV-Flange Extended Length

- Collis 40 and 50 CV-Flange Tooling is designed to give maximum rigidity and maximum reach. They are also available in custom projections.
- Precision ground AT3

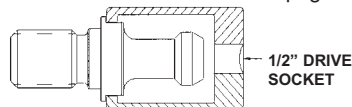


- Retention knob separate item – see page 121.

KEY	
CV	= Cat V-Flange
40	= Shank Size
EMH	= End Mill Holder
.375	= Bore Size/EM Shank Dia.
9.00	= Proj. Length (From Gage Line)

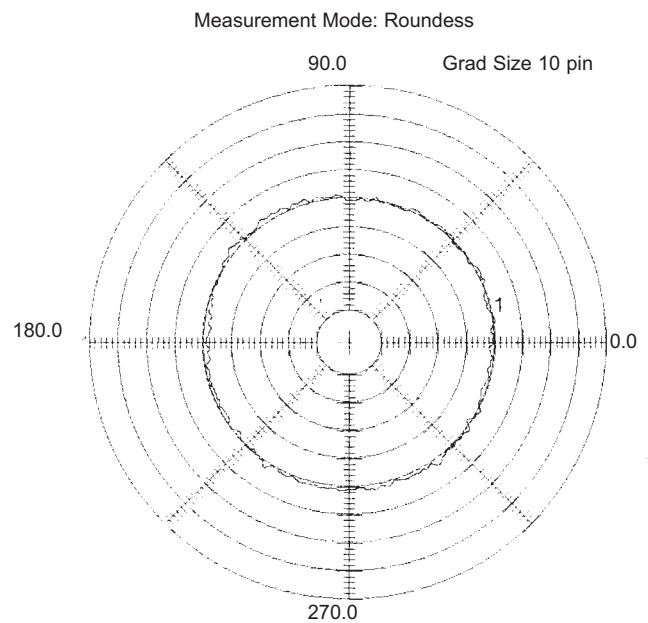
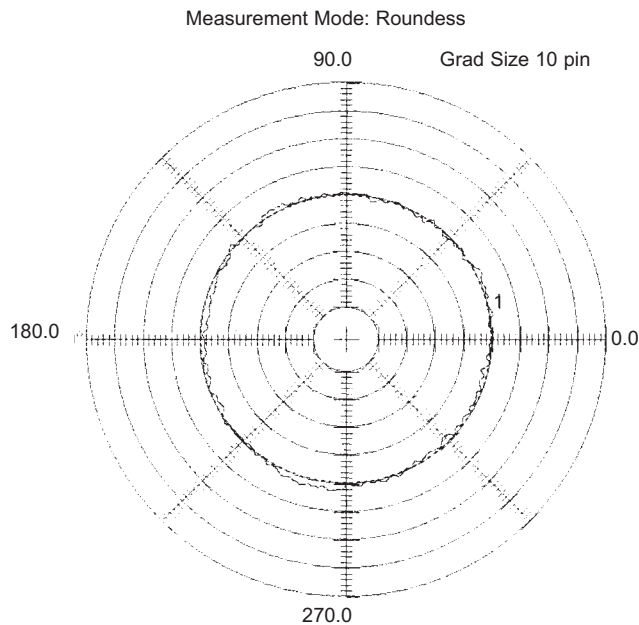
Collis Number	Description	A Bore	B Proj.	C Dia.	D
85100	CV40EMH .375-9.00	.375	9.00	.75	1.27
85101	CV40EMH .500-9.00	.500	9.00	.88	1.40
85102	CV40EMH .750-9.00	.750	9.00	1.19	1.71
85103	CV40EMH .875-9.00	.875	9.00	1.31	1.75
85104	CV40EMH 1.00-9.00	1.00	9.00	1.62	1.75
85105	CV50EMH .375-9.00	.375	9.00	.75	1.27
85106	CV50EMH .375-12.00	.375	12.00	.75	1.48
85107	CV50EMH .500-9.00	.500	9.00	.88	1.40
85108	CV50EMH .500-12.00	.500	12.00	.88	1.61
85109	CV50EMH .625-9.00	.625	9.00	1.06	1.58
85110	CV50EMH .625-12.00	.625	12.00	1.06	1.79
85111	CV50EMH .750-9.00	.750	9.00	1.19	1.71
85112	CV50EMH .750-12.00	.750	12.00	1.19	1.92
85113	CV50EMH .875-12.00	.875	12.00	1.31	2.04
85114	CV50EMH .875-15.00	.875	15.00	1.31	2.25
85115	CV50EMH 1.00-12.00	1.00	12.00	1.62	2.34
85116	CV50EMH 1.00-15.00	1.00	15.00	1.62	2.55
85117	CV50EMH 1.25-12.00	1.25	12.00	1.88	2.60
85118	CV50EMH 1.25-15.00	1.25	15.00	1.88	2.75
85119	CV50EMH 1.50-12.00	1.50	12.00	2.25	2.96
85120	CV50EMH 1.50-15.00	1.50	15.00	2.25	3.17

Retention knob socket – see page 122.



**AT3 CERTIFIED**

Collis is the Only AT3 Certified Tool Holder Supplier in the U.S.A.



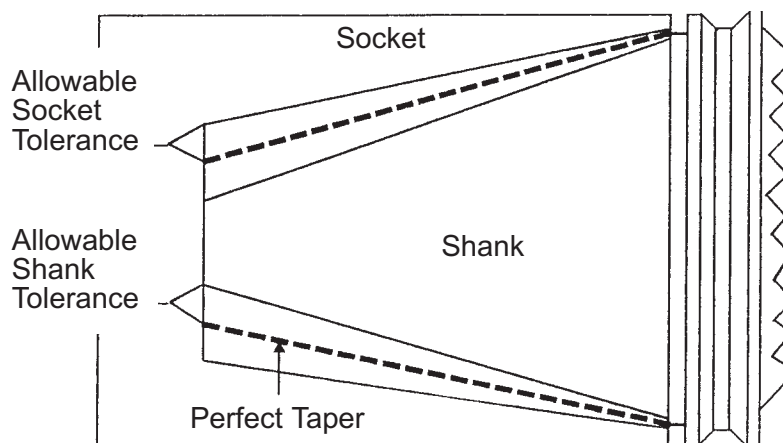
Tapers

- Collis tapered tool holder shanks are manufactured in accordance with ASME B5.50 - 1994 (per ISO-1947).
- Angle deviations are allowed only on the direction that increases the rate of taper.
- The above charts illustrate the results of measurements taken on Collis manufactured tapered toolholder shanks. These represent typical manufacturing process output results.
- Based upon the observed manufacturing process variation and the location of the process averages, the following process performance can be summarized:

Taper	% of Toolholders Meeting (Cumulative %)	Actual Deviation from 3.5" per Foot
#40	AT-3 = 99.9% or better	$\leq .000085"$
#50	AT-3 = 99.9% or better	$\leq .000109"$

Typical Taper Fitment

ANSI B5.10 is a constant .001 inches/foot **OR** .000083 inches/inch.



CALL FOR CURRENT PRICING

(800) 562-0900

SHELL MILL HOLDERS



COLLIS

TOOL CORPORATION
THE TOOLHOLDER PEOPLE

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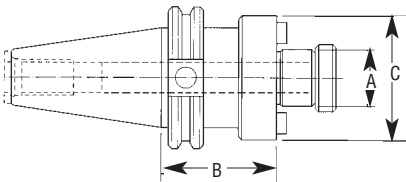
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SHELL MILL HOLDERS



CV-Flange Tooling



KEY	
CV	= Cat V-Flange
30	= Shank Size
SMH	= Shell Mill Holder
.500	= Pilot Diameter
2.12	= Proj. Length (From Gage Line)

Collis Number	Description	A Pilot Dia.	B Proj.	C Dia.	Arbor Screw Incl.	Drive Key Incl.
75240	CV30SMH .500-2.12	.500	2.12	1.75	64830	64750
75241	CV30SMH .750-2.00	.750	2.00	1.75	64831	64751
75242	CV30SMH 1.00-2.25	1.00	2.25	2.19	64832	64752
75380	CV40SMH .500-1.38	.500	1.38	1.75	64830	64750
75381	CV40SMH .750-1.38	.750	1.38	1.75	64831	64751
75371	CV40SMH .750-3.50	.750	3.50	1.75	64831	64751
76019*	CV40SMH 1.00-1.00	1.00	1.00	2.19	64832	64752
75382	CV40SMH 1.00-2.06	1.00	2.06	2.19	64832	64752
76016	CV40SMH 1.00-2.50	1.00	2.50	2.19	64832	64752
75372	CV40SMH 1.00-4.00	1.00	4.00	2.19	64832	64752
76020*	CV40SMH 1.25-1.62	1.25	1.62	2.75	64833	64753
75383	CV40SMH 1.25-2.12	1.25	2.12	2.75	64833	64753
75373	CV40SMH 1.25-4.00	1.25	4.00	2.75	64833	64753
76021*	CV40SMH 1.50-1.62	1.50	1.62	3.62	64834	64754
75384	CV40SMH 1.50-2.40	1.50	2.40	3.62	64834	64754
75374	CV40SMH 1.50-4.00	1.50	4.00	3.62	64834	64754
75450	CV45SMH .500-1.50	.500	1.50	1.56	64830	64750
75460	CV45SMH .500-3.50	.500	3.50	1.56	64830	64750
75451	CV45SMH .750-1.50	.750	1.50	1.94	64831	64751
75461	CV45SMH .750-3.50	.750	3.50	1.94	64831	64751
75452	CV45SMH 1.00-2.00	1.00	2.00	2.44	64832	64752
75462	CV45SMH 1.00-4.00	1.00	4.00	2.44	64832	64752

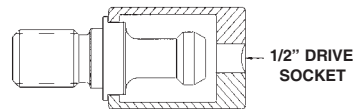
For additional arbor screws and drive keys see Accessories page 120.

*Nose Configuration does not conform to ANSI specifications.

*Tool holder designed for Fadal Machining Centers.

Retention knob separate item – see page 121.

Retention knob socket – see page 122.

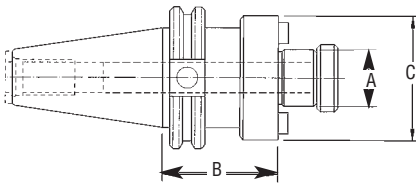




SHELL MILL HOLDERS



The only AT3 certified toolholder available.



KEY

CV	=	Cat V-Flange
45	=	Shank Size
SMH	=	Shell Mill Holder
1.25	=	Pilot Diameter
2.12	=	Proj. Length (From Gage Line)

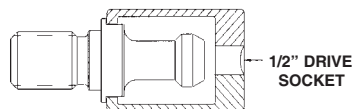
CV-Flange Tooling

Collis Number	Description	A Pilot Dia.	B Proj.	C Dia.	Arbor Screw Incl.	Drive Key Incl.
75453	CV45SMH 1.25-2.12	1.25	2.12	2.75	64833	64753
75463	CV45SMH 1.25-4.00	1.25	4.00	2.75	64833	64753
75454	CV45SMH 1.50-2.40	1.50	2.40	3.94	64834	64754
75464	CV45SMH 1.50-4.00	1.50	4.00	3.94	64834	64754
75455	CV45SMH 2.00-2.12	2.00	2.12	4.44	64835	64755
75465	CV45SMH 2.00-4.00	2.00	4.00	4.44	64835	64755
75520	CV50SMH .500-1.50	.500	1.50	1.56	64830	64750
75530	CV50SMH .500-3.50	.500	3.50	1.56	64830	64750
75521	CV50SMH .750-1.50	.750	1.50	1.94	64831	64751
75531	CV50SMH .750-3.50	.750	3.50	1.94	64831	64751
75541	CV50SMH .750-5.50	.750	5.50	1.94	64831	64751
75522	CV50SMH 1.00-2.00	1.00	2.00	2.75	64832	64752
75532	CV50SMH 1.00-4.00	1.00	4.00	2.75	64832	64752
75542	CV50SMH 1.00-6.00	1.00	6.00	2.75	64832	64752
75523	CV50SMH 1.25-1.50	1.25	1.50	2.75	64833	64753
75533	CV50SMH 1.25-3.50	1.25	3.50	2.75	64833	64753
75543	CV50SMH 1.25-5.50	1.25	5.50	2.75	64833	64753
75524	CV50SMH 1.50-2.40	1.50	2.40	3.94	64834	64754
75534	CV50SMH 1.50-4.00	1.50	4.00	3.94	64834	64754
75544	CV50SMH 1.50-6.00	1.50	6.00	3.94	64834	64754
75525	CV50SMH 2.00-2.40	2.00	2.40	4.44	64835	64755
75535	CV50SMH 2.00-4.00	2.00	4.00	4.44	64835	64755
75545	CV50SMH 2.00-6.00	2.00	6.00	4.44	64835	64755
75526	CV50SMH 2.50-2.40	2.50	2.40	4.88	64836	64756
75536	CV50SMH 2.50-4.00	2.50	4.00	4.88	64836	64756

For additional arbor screws and drive keys see Accessories page 120.

Retention knob separate item – see page 121.

Retention knob socket – see page 122.





SHELL MILL HOLDERS

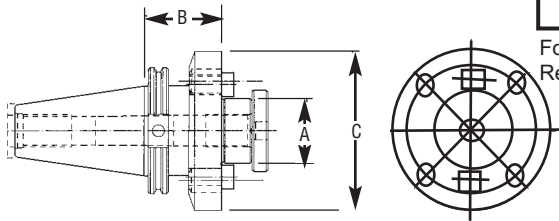


Face Mill Holder

- These holders have (4) mounting holes with 5/8-11 threads on a 4" bolt circle.

Collis Number	Description	A Pilot Dia.	B Proj.	C Dia.	Arbor Screw Incl.	Drive Key Incl.
75528	CV50FMH 2 - 2.40	2	2.40	4-7/8	64835	64755
75538	CV50FMH 2 - 4.00	2	4.00	4-7/8	64835	64755
75527	CV50FMH 2-1/2 - 2.40	2 1/2	2.40	4-7/8	64836	64756
75537	CV50FMH 2-1/2 - 4.00	2 1/2	4.00	4-7/8	64836	64756

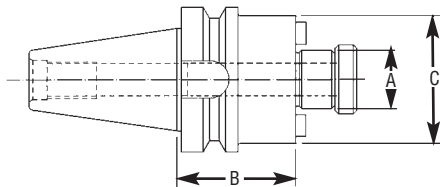
For additional arbor screws and drive keys see Accessories page 120.
Retention Knob separate item – see page 121.



BT Tooling

Collis Number	Description	A Pilot Dia.	B Proj.	C Dia.	Arbor Screw Incl.	Drive Key Incl.
76800	BT30SMH .500-1.18	.500	1.18	1.81	64830	64750
76801	BT30SMH .750-1.75	.750	1.75	1.94	64831	64751
76802	BT30SMH 1.00-1.75	1.00	1.75	2.19	64832	64752
76803	BT30SMH 1.25-1.97	1.25	1.97	2.75	64833	64753
76850	BT35SMH .500-1.18	.500	1.18	1.75	64830	64750
76851	BT35SMH .750-1.18	.750	1.18	1.94	64831	64751
76852	BT35SMH 1.00-1.75	1.00	1.75	2.19	64832	64752
76900	BT40SMH .750-1.75	.750	1.75	1.73	64831	64751
76901	BT40SMH 1.00-1.75	1.00	1.75	2.19	64832	64752
76902	BT40SMH 1.25-2.00	1.25	2.00	2.75	64833	64753
76903	BT40SMH 1.50-2.12	1.50	2.12	3.62	64834	64754
76910	BT45SMH .750-1.75	.750	1.75	1.94	64831	64751
76915	BT45SMH .750-4.00	.750	4.00	1.94	64831	64751
76911	BT45SMH 1.00-1.75	1.00	1.75	2.44	64832	64752
76916	BT45SMH 1.00-4.00	1.00	4.00	2.44	64832	64752
76912	BT45SMH 1.25-1.75	1.25	1.75	2.75	64833	64753
76913	BT45SMH 1.50-1.75	1.50	1.75	3.62	64834	64754
76914	BT45SMH 2.00-2.63	2.00	2.63	4.44	64835	64755
76920	BT50SMH 1.00-1.75	1.00	1.75	2.19	64832	64752
76921	BT50SMH 1.25-1.75	1.25	1.75	2.75	64833	64753
76926	BT50SMH 1.25-4.00	1.25	4.00	2.75	64833	64753
76922	BT50SMH 1.50-1.75	1.50	1.75	3.62	64834	64754
76923	BT50SMH 2.00-3.00	2.00	3.00	4.88	64835	64755

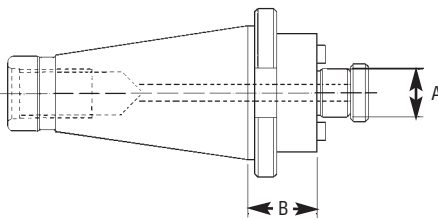
For additional arbor screws and drive keys see Accessories page 120.
Retention Knob separate item – see page 121.



KEY	
BT	= BT Shank
30	= Shank Size
SMH	= Shell Mill Holder
.500	= Pilot Dia.
1.18	= Proj. Length (From Gage Line)



SHELL MILL HOLDERS



KEY	
NMTB	= NMTB Shank
40	= Shank Size
SMH	= Shell Mill Holder
3/4	= Pilot Dia.
1-31/64	= Proj. Length (From Gage Line)

NMTB

Collis Number	Description	Shell Mill Dia.	A Pilot Dia.	B Proj.	Draw Bar Size
75951	NMTB40SMH 3/4 - 1-31/64	1-3/4 - 2	3/4	1-31/64	5/8-11
75952	NMTB40SMH 1 - 1-47/64	2-1/4 - 2-3/4	1	1-47/64	
75953	NMTB40SMH 1-1/4 - 1-51/64	3 - 3-1/2	1-1/4	1-51/64	
75954	NMTB40SMH 1-1/2 - 1-47/64	4 - 5	1-1/2	1-47/64	
75957	NMTB50SMH 3/4 - 1-11/32	1-3/4 - 2	3/4	1-11/32	1-8
75958	NMTB50SMH 1 - 1-7/16	2-1/4 - 2-3/4	1	1-7/16	
75959	NMTB50SMH 1-1/4 - 25/32	3 - 3-1/2	1-1/4	25/32	
75960	NMTB50SMH 1-1/2 - 1-5/32	4 - 5	1-1/2	1-5/32	
75961	NMTB50SMH 2 - 1-5/32	5-1/2 - 6	2	1-5/32	

- These holders have been qualified to be used as adapters to fit Erickson Quick-Change holders.

Includes arbor screw and drive keys.

For additional arbor screws and drive keys see Accessories page 120.

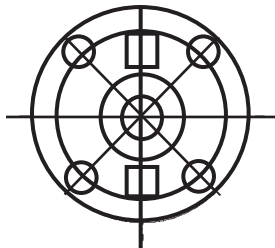
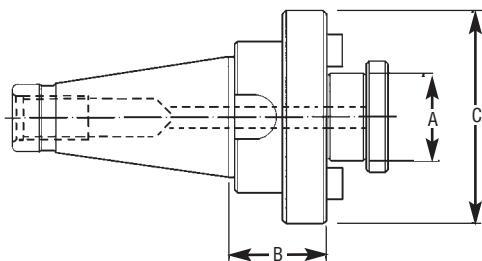


NMTB Face Mill Holders

- These holders have (4) mounting holes with 5/8-11 threads on a 4" bolt circle.
- Arbor screw-drive key included.

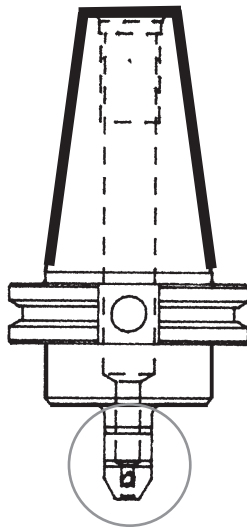
Collis Number	Description	A Pilot Dia.	B Proj.	C Flange Dia.	Arbor Screw Incl.	Drive Key Incl.
75962	NMTB50FMH 2 - 2.25	2	2.25	4-7/8	64835	64755
75963	NMTB50FMH 2.5 - 2.25	2-1/2	2.25	4-7/8	64836	64756

For additional arbor screws and drive keys see Accessories page 120.





SPECIAL FEATURES

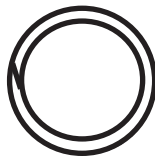
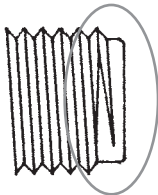


Collis exclusive slip grip nose grooves give you that added protection from the end mill cutting edges when handling oily tools.

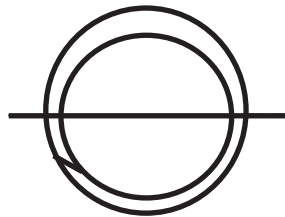


EASY ENTRY

Collis exclusive easy entry end aligns straight shank of precision tolerance to the machine spindle. Tools will not jam when inserting.



Collis no burr threads provide added protection from threads being damaged and aid easy assembly of the mating part.



CALL FOR CURRENT PRICING

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COLLET CHUCKS



COLLIS

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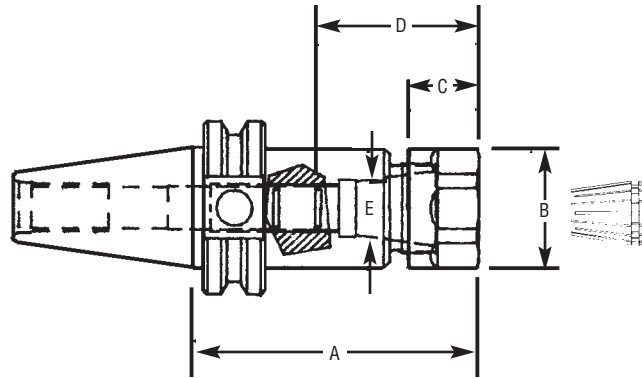


COLLET CHUCKS



CV-Flange Tooling E/R

- Collis E/R Series Collet Chucks allow users precise, accurate gripping within $\leq .0002"$.
- Collis E/R Series Collet Chucks result in improved tool life, improved part tolerances, less scrap, higher productivity, and less down time.
- Collis E/R Series Collet Chucks have threaded thru holes for a back-up screw. Coolant thru.
- Collis number includes nut.



Collis Number	Description	A Proj.	Min.	D Max.	B Dia.	C Width	Nut	Backup Screw	Max. E Dia.	Wrench
75600	CV30CC E/R #20	3.00	1.54	2.31	1.34	.75	84967	64768	.55	64748
76052	CV40CC E/R #16	2.50	1.37	1.43	1.08	.67	84969	64766	.43	64747
75480	CV40CC E/R #16	3.00	1.37	1.94	1.08	.67	84969	64766	.43	64747
75479	CV40CC E/R #16	5.00	1.37	2.68	1.08	.67	84969	64766	.43	64747
75482	CV40CC E/R #20	3.00	1.54	2.57	1.34	.75	84967	64768	.55	64748
75492	CV40CC E/R #20	4.00	1.54	2.68	1.34	.75	84967	64768	.55	64748
75484	CV40CC E/R #25	4.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
75486	CV40CC E/R #32	3.00	1.91	3.49	1.97	.87	85005	64769	.86	64744
75487	CV40CC E/R #32	6.00	1.91	3.49	1.97	.87	85005	64769	.86	64744
75488	CV40CC E/R #40	3.00	2.18	3.38	2.48	.98	85006	64769	.86	64745
75489	CV40CC E/R #40	6.00	2.18	4.60	2.48	.98	85006	64760	1.15	64745
75810	CV50CC E/R #16	3.00	1.31	1.94	1.08	.67	84969	64766	.43	64747
75809	CV50CC E/R #16	5.00	1.31	2.68	1.08	.67	84969	64766	.43	64747
75812	CV50CC E/R #20	3.00	1.54	2.38	1.34	.75	84967	64768	.55	64748
75821	CV50CC E/R #20	4.00	1.54	2.38	1.34	.75	84967	64768	.55	64748
75813	CV50CC E/R #20	6.00	1.54	2.32	1.34	.75	84967	64768	.55	64748
75829	CV50CC E/R #25	4.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
75815	CV50CC E/R #25	6.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
75830	CV50CC E/R #25	8.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
75822	CV50CC E/R #32	4.00	1.91	4.24	1.97	.87	85005	64769	.86	64744
75817	CV50CC E/R #32	6.00	1.91	4.00	1.97	.87	85005	64769	.86	64744
75818	CV50CC E/R #40	3.00	2.18	3.85	2.48	.98	85006	64760	1.15	64745
75819	CV50CC E/R #40	6.00	2.18	4.60	2.48	.98	85006	64760	1.15	64745

KEY

CV	=	Cat V-Flange
30	=	Shank Size
CC	=	Collet Chuck
#20	=	Collet Size

See pages 44 for ER Collets.

Wrench sold separately – see Accessories page 116.

Accessories – see page 117.

Back-up screw available – see Accessories page 118.

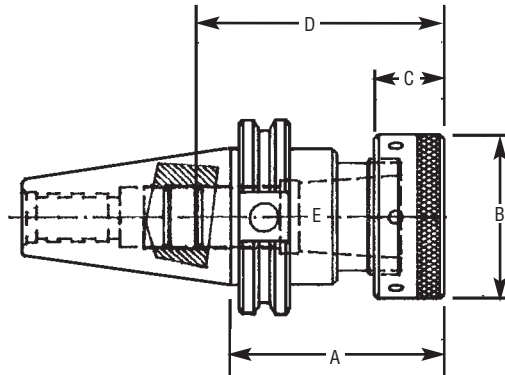
Retention knob separate item – see page 121.



COLLET CHUCKS



CV-Flange Tooling Single Angle



Collis Number	Description	A Proj.	Min. D	Max.	B Dia.	C Width	Nut	Backup Screw	Max. E Dia.	Wrench
75654	CV40SA CC #075	2.75	2.937	3.31	2.12	0.90	76484	64764	.75	64887
75650	CV40SA CC #100	3.00	2.937	3.44	2.44	1.06	76485	64760	1.00	64888
75651	CV40SA CC #100	4.00	2.937	4.44	2.44	1.06	76485	64760	1.00	64888
75652	CV40SA CC #100	6.00	2.937	6.44	2.44	1.06	76485	64760	1.00	64888
75653	CV40SA CC #150	4.88	3.250	4.31	3.25	1.33	76486	64772	1.22	64889
75770	CV45SA CC #100	3.00	2.937	4.25	2.44	1.06	76485	64760	1.00	64889
75771	CV45SA CC #100	4.00	2.937	5.25	2.44	1.06	76485	64760	1.00	64888
75772	CV45SA CC #100	6.00	2.937	7.25	2.44	1.06	76485	64760	1.00	64888
75773	CV45SA CC #150	3.00	3.250	4.50	3.25	1.33	76486	64773	1.22	64889
75890	CV50SA CC #100	3.00	2.937	4.75	2.44	1.06	76485	64760	1.00	64888
75891	CV50SA CC #100	3.50	2.937	5.25	2.44	1.06	76485	64760	1.00	64888
75892	CV50SA CC #100	5.50	2.937	7.25	2.44	1.06	76485	64760	1.00	64888
75896	CV50SA CC #100	7.50	2.937	9.00	2.44	1.06	76485	64760	1.00	64888
75894	CV50SA CC #150	3.50	3.250	5.00	3.25	1.33	76486	64774	1.50	64889
75895	CV50SA CC #150	5.50	3.250	7.00	3.25	1.33	76486	64774	1.50	64889

Collis Number includes Nut and Backup Screw.

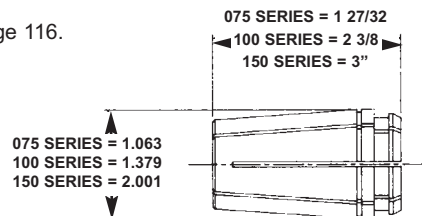
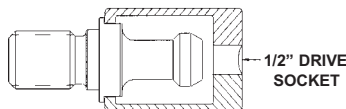
Note: The above holders accommodate Collis PG, Erickson TG Single Angle Collets and comparable Collets by other manufacturers.

See pages 45-49 for PG Collets.

Wrench sold separately – see Accessories page 116.

Retention knob separate item – see page 121.

Retention knob socket – see page 122.

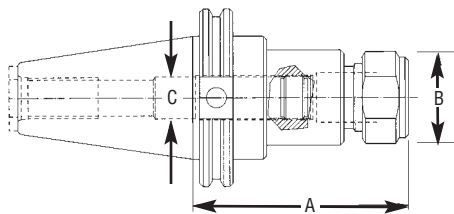


KEY

CV	=	Cat V-Flange
40	=	Shank Size
SA	=	Single Angle
CC	=	Collet Chuck
#075	=	Collet Size



COLLET CHUCKS



KEY	
CV	= Cat V-Flange
40	= Shank Size
DA	= Double Angle
CC	= Collet Chuck
#100	= Collet Size

CV-Flange Tooling Double Angle

- Collis features precision ground, compression nut for quick change and accurate part holding.
- Both chucks and collets are precision designed. They interchange with most other manufacturers' toolholders for maximum flexibility.
- Includes nut and backup screw.

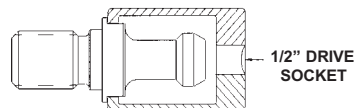
Collis Number	Description	A Proj.	Back up Screw	Nut	B Nut Dia.	C Max. Dia.	Wrench
76132	CV40DA CC #100	3.50	64768	76442	1.39	.55	64708
76012	CV40DA CC #180	2.95	64764	76443	1.69	.75	64709
76133	CV40DA CC #180	4.00	64764	76443	1.69	.75	64709
76013	CV40DA CC #180	6.00	64764	76443	1.69	.75	64709
76032	CV40DA CC #200	2.73	64920	76441	1.13	.37	64747
76033	CV40DA CC #200	4.50	64920	76441	1.13	.37	64747

Retention Knob separate item – see page 121.

Wrench sold separately – see Accessories page 116.

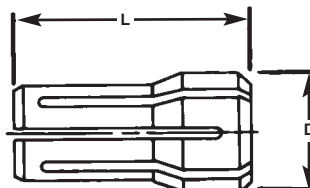
See page 52 for DA Collets.

Retention knob socket – see page 122.



#300	1.000
#200	1.187
#100	1.437
#180	1.625

#300	.375
#200	.539
#100	.769
#180	1.035





COLLET CHUCKS

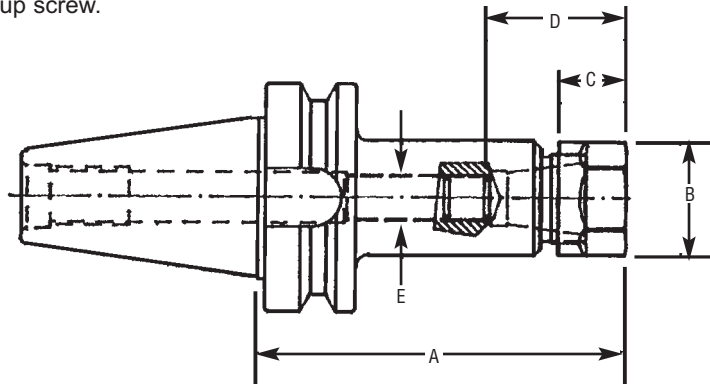


BT Tooling E/R Series

- Collis E/R Series Collet Chucks allow users precise, accurate gripping within $\leq .0002"$.
- Collis E/R Series Collet Chucks result in improved tool life, improved part tolerances, less scrap, higher productivity, and less down time.
- Collis E/R Series Collet Chucks have threaded thru holes for a back-up screw. Coolant thru.
- Collis number includes nut and backup screw.



The only AT3 certified toolholder available.



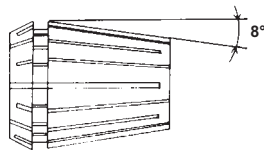
Collis Number	Description	A Proj.	Min.	D Max.	B Dia.	C Width	Nut #only	Back-up Screw	Max. E Dia.	Wrench
76816	BT30CC E/R #16	3.00	1.31	1.93	1.08	.67	84969	64766	.43	64747
76846	BT35CC E/R #16	3.00	1.31	1.93	1.08	.67	84969	64766	.43	64747
76965	BT40CC E/R #16	3.00	1.31	2.68	1.08	.67	84969	64766	.43	64747
76967	BT40CC E/R #20	4.00	1.54	2.31	1.34	.75	84967	64768	.55	64748
76975	BT40CC E/R #25	4.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
76973	BT40CC E/R #32	4.00	1.91	3.36	1.97	.87	85005	64769	.86	64744
76974	BT40CC E/R #40	3.00	2.18	3.38	2.48	.98	85006	64769	1.15	64745
76991	BT45CC E/R #16	4.00	1.31	2.36	1.08	.67	84969	64766	.43	64747
76993	BT45CC E/R #20	4.00	1.54	2.31	1.34	.75	84967	64768	.55	64748
76995	BT45CC E/R #25	4.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
76997	BT45CC E/R #32	4.00	1.91	3.32	1.97	.87	85005	64769	.86	64744
76999	BT45CC E/R #40	4.00	2.18	3.10	2.48	.98	85006	64760	1.15	64745
76982	BT50CC E/R #16	5.00	1.31	2.68	1.08	.67	84969	64766	.43	64747
76980	BT50CC E/R #20	4.00	1.54	2.31	1.34	.75	84967	64768	.55	64748
76985	BT50CC E/R #25	4.00	1.67	3.00	1.65	.79	85007	64770	.68	64746
76987	BT50CC E/R #32	4.00	1.91	4.24	1.97	.87	85005	64769	.86	64744
76989	BT50CC E/R #40	4.00	2.18	3.10	2.48	.98	85006	64760	1.15	64745

Retention Knob separate item – see page 121.

Wrench sold separately – see Accessories page 116.

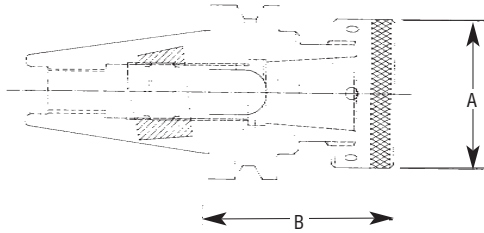
See page 44 for ER Collets.

KEY	
BT	= BT Shank
30	= Shank Size
CC	= Collet Chuck
#16	= Collet Size





COLLET CHUCKS



KEY

BT	=	BT Taper
30	=	Shank Size
SA	=	Single Angle
CC	=	Collet Chuck

BT Tooling Single Angle

- Collis Collet Chuck Systems interchange with most other manufacturer's systems for maximum flexibility.

Collis Number	Description	Collet Series	B Proj.	Backup Screw	Nut	A Dia.	Wrench
76808	BT 30 SA CC	#075	2.95	none	76484	2.12	64887
76809	BT 30 SA CC	#100	3.93	64764	76485	2.44	64888
76844	BT 35 SA CC	#075	2.76	none	76484	2.12	64887
76845	BT 35 SA CC	#100	3.50	64764	76485	2.44	64888
76940	BT 40 SA CC	#100	3.50	64760	76485	2.44	64888
76942	BT 45 SA CC	#100	3.50	64760	76485	2.44	64888
76944	BT 45 SA CC	#150	4.00	64761	76486	3.25	64889
76946	BT 50 SA CC	#100	3.50	64760	76485	2.44	64888
76948	BT 50 SA CC	#150	3.50	64762	76486	3.25	64889

Includes nut and backup screw.

See pages 45-48 for Single Angle Collets and page 49 for Collet Sets.

Retention Knob separate item – see page 121.

Wrench sold separately – see Accessories page 116.



BT Tooling Double Angle

- Both chucks and collets are precision designed for easy operations and precision production. They interchange with other manufacturers' toolholders for maximum flexibility.

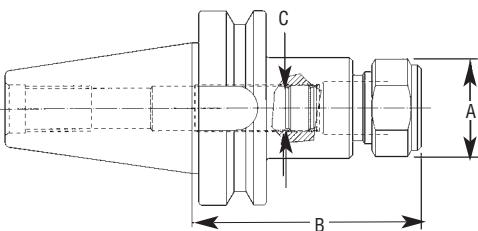
Collis Number	Description	Collet Series	B Proj.	Backup Screw	Nut	A Dia.	C Max. Dia.	Wrench
76804	BT 30 DA CC	#300	3.00	64921	76440	.85	1/4	64705
76805	BT 30 DA CC	#200	3.00	64921	76441	1.13	5/16	64742
76806	BT 30 DA CC	#100	3.00	64768	76442	1.39	1/2	64708
76807	BT 30 DA CC	#180	3.00	64764	76443	1.69	3/4	64709
76840	BT 35 DA CC	#300	3.00	64921	76440	.85	1/4	64705
76841	BT 35 DA CC	#200	3.00	64921	76441	1.13	5/16	64747
76842	BT 35 DA CC	#100	3.00	64768	76442	1.39	1/2	64708
76843	BT 35 DA CC	#180	3.00	64764	76443	1.69	3/4	64709
76962	BT 40 DA CC	#200	3.00	64920	76441	1.13	3/8	64747
76960	BT 40 DA CC	#100	3.50	64768	76442	1.39	1/2	64708
76961	BT 40 DA CC	#180	2.95	64764	76443	1.69	3/4	64709

Includes nut and backup screw.

See page 52 for Double Angle Collets and page 53 for Collet Sets.

Retention Knob separate item – see page 121.

Wrench sold separately – see Accessories page 116.



KEY

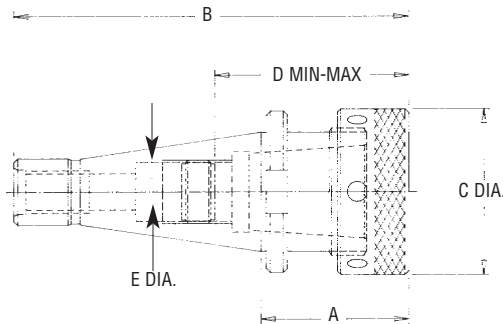
BT	=	BT Taper
30	=	Shank Size
DA	=	Double Angle
CC	=	Collet Chuck



COLLET CHUCKS



NMTB Single Angle PG Collet Holders with Spanner Nut



Collis Number	Shank Size	P.G. Collet Size	A Proj.	B OAL	C Dia.	D		E Max. Dia. Thru Shank	Nut Part No.	Backup Screw Part No.	Wrench
▲ 78319	#30	#075	2-9/32	4-31/32	2-1/8		2-3/4	27/64	76484	none	64887
▲ 78320	#40	#075	1-7/8	5-9/16	2-1/8	2-1/16	3-1/4	3/4	76484	64764	64887
▲ 78321	#40	#100	2-3/16	5-7/8	2-7/16	2-5/8	3-5/8	55/64	76485	64765	64888
78322	#50	#100	2-13/32	7-13/32	2-7/16	2-5/8	4-7/8	1	76485	64760	64888
78323	#50	#150	2-27/32	7-27/32	3-1/4	3-1/4	4-5/8	1-1/2	76486	64762	64889

▲ These Holders have been qualified to fit Erickson Quick-Change Holders.

Includes nut and backup screw.

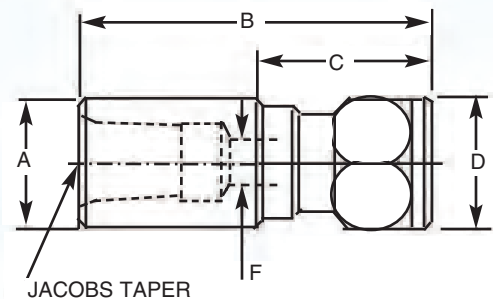
See pages 45-49 for Collets.

Wrench sold separately – see accessory page 116.

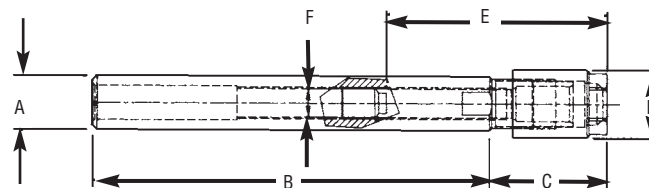
Jacobs Taper Holders / Double Angle Collets

Collis Number	Jacobs Taper	Collet Series	A Dia.	B Oal	C Head Length	D Nose Hex	F Max. Dia Thru Shank	Wrench
76552	2	200	15/16	2.50	1 5/16	1.00	3/8	64747
76553	33	200	15/16	2.69	1 5/16	1.00	3/8	64747
76554	2	100	15/16	2.88	1 5/16	1.25	15/32	64708

Wrench sold separately – see accessory page 116.



Double Angle Straight Shank Collet Holders



Collis Number	Collet Series	A Shank Dia.	B Shank Length	C Head Length	D Nose Dia.	E		F Max. Dia. Thru Shk.	Nut	Wrench
						Min.	Max.			
76541	300	1/2	5-1/2	1-5/16	9/16	1-1/2	4-1/16	1/4	76430	64705
76543	200	3/4	5-1/2	1-5/8	13/16	1-9/16	4-3/4	3/8	76431	64706
76545	100	1	5-1/2	1-13/16	1-1/16	1-13/16	6-5/8	9/16	76432	64707
76547	180	1-1/4	5-17/32	1-3/4	1.43	2.10	6.60	3/4	76433	64708

Includes nut and backup screw.

See page 52 for DA Collets.

Wrench sold separately – see Accessories page 116.



COLLET CHUCKS



E/R Series Straight Shank Collet Holders

Collis Number	Collet Size	Shank Dia.	Overall Length	Head Proj.	Wrench
76848	E/R 11	.625	7.25	1.19	64740
*76849	E/R 16	.750	6.73	1.46	64741
*76830	E/R 20	1.00	6.74	1.46	64742
76831	E/R 25	1.00	3.80	1.83	64743
76832	E/R 32	1.00	4.23	2.26	64744
76833	E/R 40	1.00	4.34	2.38	64745

*Holders have threaded thru holes for a back-up screw.

Includes nut.

Wrench sold separately – see accessory page 116.

See page 44 for E/R Collets.



TG Collet Chuck Extensions

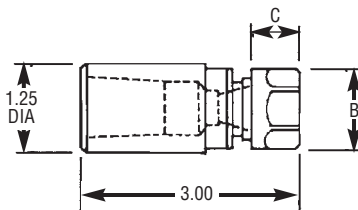
- TG Collet Chuck Extensions feature the standard Weldon End Mill Shanks for quick and easy adaptation to your Collis Short & Stubby End Mill Holders. These collet adapters are supplied with a left hand thread stop screw and a collet chuck nut.

Collis Number	Collet Size	Shank Dia.	Proj.	Nut Dia.	Wrench
78355	#75 SA CC	1.00	2.50	1.87	64887
78356	#100 SA CC	1.25	2.88	2.5	64888
78357	#100 SA CC	1.50	2.88	2.5	64888

Includes nut.

Wrench sold separately – see accessory page 116.

See pages 45-48 for Single Angle Collets.



Jacobs Taper Holders / E/R Single Angle Collets

Collis Number	Shank	Collet Size	B Dia.	C Width	Nut	Wrench
76820	JACOBS-2	#16	1.10	.67	84969	64747
76823	JACOBS-2	#25	1.65	.79	85007	64746
76821	JACOBS-3	#16	1.10	.67	84969	64747
76824	JACOBS-3	#25	1.65	.79	85007	64746
76822	JACOBS-33	#16	1.10	.67	84969	64747
76825	JACOBS-33	#25	1.65	.79	85007	64746

Includes nut.

Wrench sold separately – see accessory page 116.

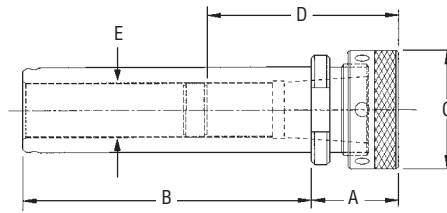
See page 44 for E/R Collets.



COLLET CHUCKS/DRILL EXTENSIONS



Single Angle Straight Shank Collet Holders

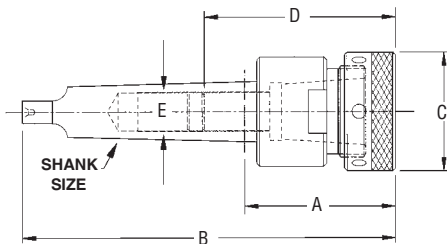


Collis Number	Shank Size	P.G. Collet Size	A Length	B Length	C Dia.	D		E Max. Dia. Thru Shk.	Nut Part Number	Backup Screw Number	Wrench
						Min.	Max.				
78372	1	# 75	2-1/2	5	2-1/8	2-1/2	4-1/2	5/8	76484	64770	64887
78373	1-1/4	#100	2-7/8	6	2-7/16	2-1/2	4-1/2	3/4	76485	64764	64888
78361	1-1/2	#100	2-7/8	6	2-7/16	2-5/8	7-15/16	1	76485	64760	64888
78362	1-3/4	#100	1-13/16	6	2-7/16	2-5/8	6-7/8	1	76485	64760	64888
78363	2	#100	1-13/16	6	2-7/16	2-5/8	6-7/8	1	76485	64760	64888
78364	1-3/4	#150	3-11/16	8	3-1/4	3-1/4	11	1-5/32	76486	64763	64889
78365	2	#150	3-11/16	8	3-1/4	3-1/4	11	1-5/32	76486	64763	64889
78366	2-1/2	#150	2-1/4	8	3-1/4	3-1/4	9-7/16	1-1/2	76486	64762	64889
78367	3	#150	2-1/4	8	3-1/4	3-1/4	9-7/16	1-1/2	76486	64762	64889

Includes nut and backup screw. • Wrench sold separately – see accessory page 116.

Collets – see pages 45-48 and page 49 for collet sets.

Morse Taper Shank Collet Holders



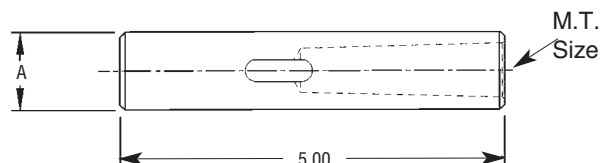
Collis Number	Shank Size	P.G. Collet Size	A Proj.	B O.A.L.	C Dia.	D		E Max. Dia. Thru Shk.	Nut Part Number	Backup Screw Number	Wrench
						Min.	Max.				
78301	#3	#100	3-1/8	6-13/16	2-7/16	2-5/8	2-5/8	–	76485	None	64888
78302	#4	#100	3-1/8	7-3/4	2-7/16	2-5/8	5-13/16	3/4	76485	64764	64888
78303	#4	#150	3-7/8	8-1/2	3-1/4	3-1/4	3-1/4	–	76486	None	64889
78304	#5	#150	3-7/8	9-3/4	3-1/4	3-1/4	7-3/16	1-5/32	76486	64763	64889

Includes nut and backup screw. • Wrench sold separately – see accessory page 116.

Collets – see pages 45-48 and page 49 for collet sets.

Drill Extension

Collis Number	Morse Taper	A Dia. Shank
60271	#1	5/8
60272	#2	1





COLLETS/COLLET CHUCKS

ER COLLET CHUCKS

ER Chucks are used for precision work.

ER Collets achieve greater grip strength and higher precision than do double angle collets.

To use, first insert the collet into the chuck nut by squeezing the collet and pressing its face into the chuck nut collar ring until the collet collar is fully seated. Then load the collet into the chuck, insert a cutting tool and tighten with the appropriate nut wrench.

For collet removal, simply squeeze the collet while pulling it from the chuck nut at an angle.

Chucks are equipped with a left-handed-threaded stop screw and a chuck nut.

- Tolerance: Guaranteed to be 0.0002" at the collets' nose.
- Accuracy: ER collets are the most accurate collets available.

75 & 100 TG COLLETS – PRECISE!

TG collets collapse approximately 1/64"

TG collets are precisely machined to exacting standards. They are a good choice for high speed/high precision milling and drilling operations.

- Tolerance: Guaranteed to be within 0.0003" at the collets' nose.
- Accuracy: 3/8" and larger collets are guaranteed accurate to within 0.0005" at 4" out from the nose. Collets smaller than 3/8" are guaranteed accurate to within 0.0005" at a distance equal to 4 times the collet I.D. (For example, a 1/4" collet is guaranteed to be within 0.0005" at 1" out from its nose.)

150 TG COLLETS – PRECISE!

TG collets collapse approximately 1/64"

150 TG collets are precisely machined to exacting standards. They are a good choice for high speed/high precision milling and drilling operations.

- Tolerance: Guaranteed to be within 0.0003" at the collet nose.
- Accuracy: Guaranteed accurate to within 0.0005" at 4" out from the nose.

AF COLLETS

AF collets collapse approximately 1/64"

AF collets are precisely machined to exacting standards. They are a good choice for high speed/high precision milling and drilling operations.

- Tolerance: Guaranteed to be within 0.0003" at the collets' nose.
- Accuracy: 3/8" and larger collets are guaranteed accurate to within 0.0005" at 4" out from their noses. Collets smaller than 3/8" are guaranteed accurate to within 0.0005" at a distance equal to 4 times the collet I.D.

DA COLLETS

DA collets collapse approximately 1/64"

DA collets are precisely machined to exacting standards. They are a good choice for drilling and reaming operations.

- Tolerance: Guaranteed to be within 0.0003" at the collets' nose.
- DA collets are the best choice for confined areas where a small diameter collet is required.

R8 & 5C COLLETS

R8 & 5C collets are manufactured to exacting standards. They are a good choice for milling, drilling and reaming, secondary grinding operations and tool sharpening.

- Tolerance: Guaranteed to be within 0.0002" at the collets' nose.
- R8 & 5C collets are widely used in machining and work in holding devices and fixtures.

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(800) 562-0900

COLLETS



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COLLETS

E/R Series

Clamping Range		Collis Part Number					
Inches	Metric/MM	E/R 11	E/R 16	E/R 20	E/R 25	E/R 32	E/R 40
.019 - .039	.5 - 1.0	71900	71914				
.039 - .059	1.0 - 1.5	71901	71915	71925	71938		
.059 - .079	1.5 - 2.0	71902					
.079 - .098	2.0 - 2.5	71903	71916	71926	71939	71954	
.098 - .118	2.5 - 3.0	71904					
.118 - .138	3.0 - 3.5	71905	71917	71927	71940	71955	71973
.138 - .157	3.5 - 4.0	71906					
.157 - .177	4.0 - 4.5	71907	71918	71928	71941	71956	71974
.177 - .197	4.5 - 5.0	71908					
.197 - .217	5.0 - 5.5	71909	71919	71929	71942	71957	71975
.217 - .236	5.5 - 6.0	71910					
.236 - .256	6.0 - 6.5	71911	71920	71930	71943	71958	71976
.256 - .276	6.5 - 7.0	71912					
.276 - .315	7.0 - 8.0		71921	71931	71944	71959	71977
.315 - .354	8.0 - 9.0		71922	71932	71945	71960	71978
.354 - .394	9.0 - 10.0		71923	71933	71946	71961	71979
.394 - .433	10.0 - 11.0			71934	71947	71962	71980
.433 - .472	11.0 - 12.0			71935	71948	71963	71981
.472 - .512	12.0 - 13.0			71936	71949	71964	71982
.512 - .551	13.0 - 14.0				71950	71965	71983
.551 - .591	14.0 - 15.0				71951	71966	71984
.591 - .630	15.0 - 16.0				71952	71967	71985
.630 - .669	16.0 - 17.0					71968	71986
.669 - .709	17.0 - 18.0					71969	71987
.709 - .748	18.0 - 19.0					71970	71988
.748 - .787	19.0 - 20.0					71971	71989
.787 - .827	20.0 - 21.0						71990
.827 - .866	21.0 - 22.0						71991
.866 - .906	22.0 - 23.0						71992
.906 - .945	23.0 - 24.0						71993
.945 - .984	24.0 - 25.0						71994
.984 - 1.024	25.0 - 26.0						71995
Full Set of Collets		71913	71924	71937	71953	71972	71996

E/R Sealed Collets

NEW!

Inch	Collis Part Number				
	E/R 16	E/R 20	E/R 25	E/R 32	E/R 40
1/8	72914	72923	72936	72954	72975
5/32	72915	72924	72937	72955	72976
3/16	72916	72925	72938	72956	72977
7/32	72917	72926	72939	72957	72978
1/4	72918	72927	72940	72958	72979
9/32	72919	72928	72941	72959	72980
5/16	72920	72929	72942	72960	72981
11/32	72921	72930	72943	72961	72982
3/8	72922	72931	72944	72962	72983
13/32		72932	72945	72963	72984
7/16		72933	72946	72964	72985
15/32		72934	72947	72965	72986
1/2		72935	72948	72966	72987
17/32			72949	72967	72988
9/16			72950	72968	72989
19/32			72951	72969	72990
5/8			72952	72970	72991
21/32				72971	72992
11/16				72972	72993
23/32				72973	72994
3/4				72974	72995
25/32					72996
13/16					72997
27/32					72998
7/8					72999
29/32					72900
15/16					72901
31/32					72902
1.0					72903

E/R 11

O.D. = .453" (11.5mm)



E/R 16

O.D. = .669" (17mm)



E/R 20

O.D. = .827" (21mm)



E/R 25

O.D. = 1.024" (26mm)



E/R 32

O.D. = 1.299" (33mm)



E/R 40

O.D. = 1.614" (41mm)

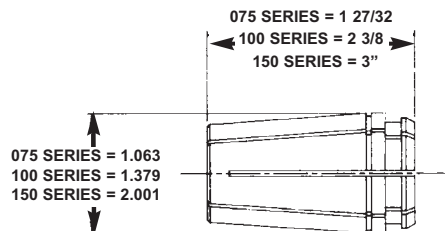




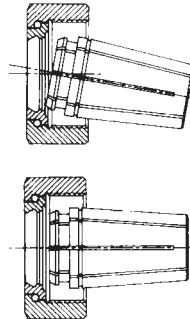
COLLETS



Precision Grip (PG) – Single Angle 075, 100 and 150 Series



Method of Use for Collet Systems



Inserting:

1. Insert collet into nut at angle as shown to engage extraction tongue in groove of collet.
2. Screw nut onto collet holder with collet securely in nut.
3. Insert tool to be gripped and lock nut.

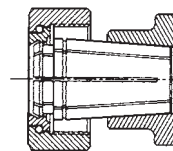
IMPORTANT: Never screw nut onto collet holder unless collet is properly seated in nut.

Releasing:

Hold nut in vertical position and remove collet at an angle. Collet is automatically withdrawn from chuck when nut is unscrewed.

Collet Squeezers

For ease of collet extraction from nut, use Collis Collet Squeezers.



Collis Number	Collet Size
84994	#100TG
84995	#150TG

Collet Size	Collet Drill Range			Collet Part Numbers		
	Dia.	mm	Decimal Equiv.	Series 075	Series 100	Series 150
3/32	5/64		.0781	74102	74200	
	47		.0785			
		2.00	.0787			
		2.05	.0807			
	46		.0810			
	45		.0820			
		2.10	.0827			
		2.15	.0846			
	44		.0860			
		2.20	.0866			
		2.25	.0886			
	43		.0890			
		2.30	.0906			
		2.35	.0925			
7/64	42		.0935	74103	74201	
	3/32		.0938			
	3/32		.0938			
		2.40	.0945			
	41		.0960			
		2.45	.0965			
	40		.0980			
		2.50	.0984			
	39		.0995			
	38		.1015			
		2.60	.1024			
	37		.1040			
		2.70	.1063			
	36		.1065			
1/8		2.75	.1083	74104	74202	
	7/64		.1094			
	7/64		.1094			
	35		.1100			
		2.80	.1102			
	34		.1110			
	33		.1130			
		2.90	.1142			
	32		.1160			
		3.00	.1181			
	.31		.1200			
		3.18	.1220			
	1/8		.1250			

Collet Size	Collet Drill Range			Collet Part Numbers		
	Dia.	mm	Decimal Equiv.	Series 075	Series 100	Series 150
9/64	1/8		.1250	74105	74203	
		3.20	.1260			
		3.25	.1280			
	30		.1285			
		3.30	.1299			
		3.40	.1339			
	29		.1360			
		3.50	.1378			
	28		.1405			
	9/64		.1406			
5/32	9/64		.1406	74106	74204	
		3.60	.1417			
	27		.1440			
		3.70	.1457			
	26		.1470			
		3.75	.1476			
	25		.1495			
		3.80	.1496			
	24		.1520			
		3.90	.1535			
	23		.1540			
	5/32		.1562			
11/64	5/32		.1562	74107	74205	
	22		.1570			
		4.00	.1575			
	21		.1590			
	20		.1610			
		4.10	.1614			
		4.20	.1654			
	19		.1660			
		4.25	.1673			
		4.30	.1693			
	18		.1695			
	11/64		.1719			



COLLETS



Precision Grip (PG) – Single Angle 075, 100 and 150 Series

Collet Size	Collet Drill Range			Collet Part Numbers		
	Dia.	mm	Decimal Equiv.	Series 075	Series 100	Series 150
3/16	11/64		.1719	74108	74206	
	17		.1730			
		4.40	.1732			
	16		.1770			
		4.50	.1772			
	15		.1800			
		4.60	.1811			
	14		.1820			
	13		.1850			
		4.75	.1870			
13/64	3/16		.1875	74109	74207	
	12	4.80	.1890			
	11		.1910			
		4.90	.1929			
	10		.1935			
	9		.1960			
		5.00	.1968			
	8		.1990			
		5.10	.2008			
	7		.2010			
7/32	13/64		.2031	74110	74208	
	6		.2040			
		5.20	.2047			
	5		.2055			
		5.25	.2067			
		5.30	.2087			
	4		.2090			
		5.40	.2126			
	3		.2130			
		5.50	.2165			
15/64	7/32		.2188	74111	74209	
	7/32		.2188			
		5.60	.2205			
	2		.2210			
		5.70	.2244			
		5.75	.2264			
	1		.2280			
		5.80	.2283			
		5.90	.2323			
	A		.2340			
1/4	15/64		.2344	74112	74210	
	15/64		.2344			
		6.00	.2362			
	B		.2380			
		6.10	.2402			
	C		.2420			
		6.20	.2441			
	D		.2460			
		6.25	.2461			
		6.30	.2480			
1/4 & E			.2500			
			.2500			

Collet Size	Collet Drill Range			Collet Part Numbers		
	Dia.	mm	Decimal Equiv.	Series 075	Series 100	Series 150
17/64	1/4 & E		.2500	74113	74211	
		6.40	.2520			
		6.50	.2559			
	F		.2570			
		6.60	.2598			
	G		.2610			
		6.70	.2638			
	17/64		.2656			
	17/64		.2656			
		6.75	.2657			
9/32	H		.2660	74114	74212	
		6.80	.2677			
		6.90	.2717			
	I		.2720			
		7.00	.2756			
	J		.2770			
		7.10	.2795			
	K		.2810			
	9/32		.2812			
	9/32		.2812			
19/64		7.20	.2835	74115	74213	
		7.25	.2854			
		7.30	.2874			
	L		.2900			
		7.40	.2913			
	M		.2950			
		7.50	.2953			
	19/64		.2969			
	19/64		.2969			
		7.60	.2992			
5/16	N		.3020	74116	74214	
		7.70	.3031			
		7.75	.3051			
		7.80	.3071			
		7.90	.3110			
	5/16		.3125			
	5/16		.3125			
		8.00	.3150			
	O		.3160			
		8.10	.3189			
21/64		8.20	.3228	74117	74215	
	P		.3230			
		8.25	.3248			
		8.30	.3268			
	21/64		.3281			
	21/64		.3281			
		8.40	.3307			
	Q		.3320			
		8.50	.3346			
		8.60	.3386			
11/32	R		.3390	74118	74216	
		8.70	.3425			
			.3438			
	11/32		.3438			
			.3438			



COLLETS



Precision Grip (PG) – Single Angle 075, 100 and 150 Series

Collet Size	Collet Drill Range	Decimal Equiv.	Collet Series 075	Part Numbers Series 100	Series 150
23/64	11/32	.3438	74119	74217	
	8.75	.3445			
	8.80	.3465			
	S	.3480			
	8.90	.3504			
	9.00	.3543			
	9.00	.3543			
	T	.3580			
	9.10	.3583			
	23/64	.3594			
3/8	23/64	.3594	74120	74218	
	9.20	.3622			
	9.25	.3642			
	9.30	.3661			
	U	.3680			
	9.40	.3701			
	9.50	.3740			
	3/8	.3750			
	3/8	.3750			
	V	.3770			
25/64	9.60	.3780	74121	74219	
	9.70	.3819			
	9.75	.3839			
	9.80	.3858			
	W	.3860			
	9.90	.3898			
	25/64	.3906			
	25/64	.3906			
	10.00	.3937			
	X	.3970			
13/32	10.20	.4016	74122	74220	
	Y	.4040			
	13/32	.4062			
	13/32	.4062			
	Z	.4130			
27/64	10.50	.4134	74123	74221	
	27/64	.4219			
	27/64	.4219			
	10.80	.4252			
	11.00	.4331			
7/16	7/16	.4375	74124	74222	
	7/16	.4375			
	11.50	.4528			
	29/64	.4531			
	29/64	.4531			
15/32	11.80	.4646	74126	74224	
	15/32	.4688			
	15/32	.4688			
	12.00	.4724			
	12.20	.4803			
31/64	31/64	.4844	74127	74225	
	31/64	.4844			
	12.50	.4921			
	1/2	.5000			
	1/2	.5000			
33/64	12.80	.5039	74129	74227	74301
	13.00	.5118			
	33/64	.5156			

Collet Size	Collet Drill Range	Decimal Equiv.	Collet Series 075	Part Numbers Series 100	Series 150
17/32	33/64	.5156	74130	74228	74302
	13.20	.5197			
	17/32	.5312			
35/64	17/32	.5312	74131	74229	74303
	13.50	.5315			
	13.80	.5433			
	35/64	.5469			
	35/64	.5469			
9/16	14.00	.5512	74132	74230	74304
	14.25	.5610			
	9/16	.5625			
	9/16	.5625			
	14.50	.5709			
37/64	37/64	.5781	74133	74231	74305
	37/64	.5781			
	14.75	.5807			
	15.00	.5906			
	19/32	.5938			
19/32	19/32	.5938	74134	74232	74306
	15.25	.6004			
	39/64	.6094			
	39/64	.6094			
	39/64	.6094			
5/8	15.50	.6102	74136	74234	74308
	15.75	.6201			
	5/8	.6250			
	5/8	.6250			
	16.00	.6299			
41/64	16.25	.6398	74137	74235	74309
	41/64	.6406			
	41/64	.6406			
	16.50	.6496			
	21/32	.6562			
21/32	21/32	.6562	74138	74236	74310
	21/32	.6562			
	16.75	.6594			
	17.00	.6693			
	43/64	.6719			
43/64	43/64	.6719	74139	74237	74311
	43/64	.6719			
	17.25	.6791			
	11/16	.6875			
	11/16	.6875			
11/16	11/16	.6875	74140	74238	74312
	17.50	.6890			
	45/64	.7031			
	45/64	.7031			
	18.00	.7087			
45/64	23/32	.7188	74142	74240	74314
	23/32	.7188			
	23/32	.7188			
	18.50	.7283			
	47/64	.7344			
47/64	47/64	.7344	74143	74241	74315
	47/64	.7344			
	19.00	.7480			
	3/4	.7500			
	3/4	.7500			
3/4	3/4	.7500	74144	74242	74316
	49/64	.7656			
	49/64	.7656			
	19.50	.7677			
	25/32	.7812			
49/64	25/32	.7812		74244	74318
	25/32	.7812			
	25/32	.7812			



COLLETS



Precision Grip (PG) – Single Angle 075, 100 and 150 Series

Collet Size	Collet Drill Range			Collet Part Numbers		
	Dia.	mm	Decimal Equiv.	Series 075	Series 100	Series 150
51/64	25/32		.7812			
		20.00	.7874			
	51/64		.7969		74245	74319
13/16	51/64		.7969			
		20.50	.8071		74246	74320
	13/16		.8125			
53/64	13/16		.8125			
		21.00	.8268		74247	74321
	53/64		.8281			
27/32	53/64		.8281		74248	74322
	27/32		.8438			
	27/32		.8438			
55/64		21.50	.8465		74249	74323
	55/64		.8594			
	55/64		.8594			
7/8		22.00	.8661		74250	74324
	7/8		.8750			
	7/8		.8750			
57/64		22.50	.8858		74251	74325
	57/64		.8906			
	57/64		.8906			
29/32		23.00	.9055		74252	74326
	29/32		.9063			
	29/32		.9063			
59/64	29/32		.9063		74253	74327
	59/64		.9219			
	59/64		.9219			
15/16		23.50	.9252		74254	74328
	15/16		.9375			
	15/16		.9375			
61/64		24.00	.9449		74255	74329
	61/64		.9532			
	61/64		.9532			
31/32		24.50	.9646		74256	74330
	31/32		.9688			
	31/32		.9688			
63/64		25.00	.9843		74257	74331
	63/64		.9844			
	63/64		.9844			
1	1		1.000		74258	74332
	1		1.000			
	1-1/64		1.0156			74333
1-1/32	1-1/64		1.0156			
		26.00	1.0236			74334
	1-1/32		1.0312			
1-3/64	1-1/32		1.0312			
	1-3/64		1.0469			74335
	1-3/64		1.0469			
1-1/16	1-1/16		1.0625			74336
		27.00	1.0630			
		27.00	1.0630			74337
1-5/64	1-5/64		1.0781			
	1-5/64		1.0781			74338
	1-3/32		1.0938			
1-7/64	1-3/32		1.0938			
		28.00	1.1024			74339
	1-7/64		1.1094			
1-1/8	1-7/64		1.1094			
	1-1/8		1.1250			74340

Collet Size	Collet Drill Range			Collet Part Numbers		
	Dia.	mm	Decimal Equiv.	Series 075	Series 100	Series 150
1-9/64	1-1/8		1.1250			
	1-9/64		1.1406			74341
	1-9/64		1.1406			
1-5/32		29.00	1.1417			74342
	1-5/32		1.1562			
	1-5/32		1.1562			74343
1-11/64	1-11/64		1.1719			
	1-11/64		1.1719			
	1-11/64		1.1719			
1-3/16		30.00	1.1811			74344
	1-3/16		1.1875			
	1-3/16		1.1875			
1-13/64	1-3/16		1.1875			74345
	1-13/64		1.2031			
	1-13/64		1.2031			74346
1-7/32	1-7/32		1.2188			
	1-7/32		1.2188			
	1-7/32		1.2188			
1-15/64		31.00	1.2205			74347
	1-15/64		1.2344			
	1-15/64		1.2344			74348
1-1/4	1-1/4		1.2500			
	1-1/4		1.2500			
	1-1/4		1.2500			
1-17/64		32.00	1.2598			74349
	1-17/64		1.2656			
	1-17/64		1.2656			74350
1-9/32	1-9/32		1.2812			
	1-9/32		1.2812			
	1-9/32		1.2812			74351
1-19/64	1-19/64		1.2969			
	1-19/64		1.2969			
	1-19/64		1.2969			
1-5/16		33.00	1.2992			74352
	1-5/16		1.3125			
	1-5/16		1.3125			74353
1-21/64	1-5/16		1.3125			
	1-21/64		1.3281			
	1-21/64		1.3281			
1-11/32		34.00	1.3386			74354
	1-11/32		1.3438			
	1-11/32		1.3438			74355
1-23/64	1-11/32		1.3438			
	1-23/64		1.3594			
	1-23/64		1.3594			74356
1-3/8	1-3/8		1.3750			
	1-3/8		1.3750			
	1-3/8		1.3750			
1-25/64		35.00	1.3780			74357
	1-25/64		1.3906			
	1-25/64		1.3906			74358
1-13/32	1-25/64		1.3906			
	1-13/32		1.4062			
	1-13/32		1.4062			
1-27/64		36.00	1.4173			74359
	1-27/64		1.4219			
	1-27/64		1.4219			
1-7/16	1-27/64		1.4219			
	1-7/16		1.4375			74360
	1-7/16		1.4375			
1-29/64	1-7/16		1.4375			74361
	1-29/64		1.4531			
	1-29/64		1.4531			
1-15/32		37.00	1.4567			74362
	1-15/32		1.4688			
	1-15/32		1.4688			74363
1-31/64	1-15/32		1.4688			
	1-31/64		1.4844			
	1-31/64		1.4844			
1-1/2		38.00	1.4961			74364
	1-1/2		1.5000			
	1-1/2		1.5000			



COLLETS



PG Single Angle Collet Sets

Collis Number	PG Series	Collet Set Size	Number of Collets
74145	075	3/32 thru 3/4 by 1/32	22
74146	075	3/32 thru 3/4 by 1/64	43
74147	075	1/4 thru 3/4 by 1/64	33
74148	075	1/4 thru 3/4 by 1/32	17
74259	100	3/32 thru 1 by 1/64	59
74267	100	3/8 thru 1 by 1/64	41
74268	100	3/32 thru 1 by 1/32	30
74269	100	3/8 thru 1 by 1/32	21

TG Sealed Collets

Collet Size	Collis Number	Collet Size	Collis Number	Collet Size	Collis Number
5/32	79204	29/64	79223	3/4	79242
11/64	79205	15/32	79224	49/64	79243
3/16	79206	31/64	79225	25/32	79244
13/64	79207	1/2	79226	51/64	79245
7/32	79208	33/64	79227	13/16	79246
15/64	79209	17/32	79228	53/64	79247
1/4	79210	35/64	79229	27/32	79248
17/64	79211	9/16	79230	55/64	79249
9/32	79212	37/64	79231	7/8	79250
19/64	79213	19/32	79232	57/64	79251
5/16	79214	39/64	79233	29/32	79252
21/64	79215	5/8	79234	59/64	79253
11/32	79216	41/64	79235	15/16	79254
23/64	79217	21/32	79236	61/64	79255
3/8	79218	43/64	79237	31/32	79256
25/64	79219	11/16	79238	63/64	79257
13/32	79220	45/64	79239	1	79258
27/64	79221	23/32	79240		
7/16	79222	47/64	79241		

NEW!

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E/R Tap Collets

Hand Tap Size	Collis Part Number				
	E/R 16	E/R 20	E/R 25	E/R 32	E/R 40
0-6	73914	73920	73929	73942	73959
#8	73915	73921	73930	73943	73960
#10	73916	73922	73931	73944	73961
#12	73917	73923	73932	73945	73962
1/4	73918	73924	73933	73946	73963
5/16	73919	73925	73934	73947	73964
3/8		73926	73935	73948	73965
7/16		73927	73936	73949	73966
1/2		73928	73937	73950	73967
9/16			73938	73951	73968
5/8			73939	73952	73969
11/16				73953	73970
3/4				73954	73971
13/16				73955	73972
7/8					73973
15/16					73974
1					73975
Pipe Tap Size					
1/8SS			73940	73956	73976
1/8LS			73941	73957	73977
1/4LS				73958	73978
3/8LS					73979
1/2LS					73980



COLLETS

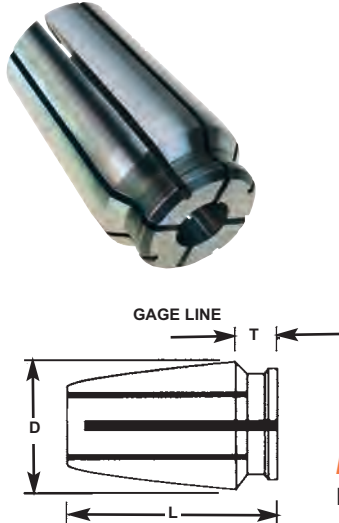


• Interchangeable with Universal Acura-Flex*

*Acura-Flex is a registered trademark of Universal Engineering

AF 25 Collets – 1/16 to 1/4" Range

D = .438 in. L = 1.000 in. T = .220 in.



Collis Number	Collet Locking Range	
	Inches	MM
81001	1/16 - 5/64	1.5-2.0
81002	5/64 - 3/32	2.0-2.5
81003	3/32 - 7/64	
81004		2.5-3.0
81005	7/64 - 1/8	
81006	1/8 - 9/64	3.0-3.5
81007	9/64 - 5/32	3.5-4.0
81008	5/32 - 11/64	4.0-4.5
81009	11/64 - 3/16	
81010		4.5-5.0
81011	3/16 - 13/64	
81012	13/64 - 7/32	5.0-5.5
81013	7/32 - 15/64	5.5-6.0
81014	15/64 - 1/4	6.0-6.5

AF 50 Collets – 7/64 to 1/2" Range

D = .720 in. L = 1.160 in. T = .250 in.

Collis Number	Collet Locking Range	
	Inches	MM
81055	7/64 - 1/8	
81056	1/8 - 9/64	3.0-3.5
81057	9/64 - 5/32	3.5-4.0
81058	5/32 - 11/64	4.0-4.5
81059	11/64 - 3/16	
81060		4.5-5.0
81061	3/16 - 13/64	
81062	13/64 - 7/32	5.0-5.5
81063	7/32 - 15/64	5.5-6.0
81064	15/64 - 1/4	6.0-6.5
81065	1/4 - 17/64	
81066		6.5-7.0
81067	17/64 - 9/32	
81068	9/32 - 19/64	7.0-7.5
81069	19/64 - 5/16	7.5-8.0
81070	5/16 - 21/64	8.0-8.5
81071	21/64 - 11/32	
81072		8.5-9.0
81073	11/32 - 23/64	
81074	23/64 - 3/8	9.0-9.5
81075	3/8 - 25/64	9.5-10.0
81076	25/64 - 13/32	10.0-10.5
81077	13/32 - 27/64	
81078	27/64 - 7/16	10.5-11.0
81079	7/16 - 29/64	11.0-11.5
81080	29/64 - 15/32	11.5-12.0
81081	15/32 - 31/64	12.0-12.5
81082	31/64 - 1/2	

AF 38 Collets – 1/16 to 3/8" Range

D = .563 in. L = 1.030 in. T = .250 in.

Collis Number	Collet Locking Range	
	Inches	MM
81021	1/16 - 5/64	1.5-2.0
81022	5/64 - 3/32	2.0-2.5
81023	3/32 - 7/64	
81024		2.5-3.0
81025	7/64 - 1/8	
81026	1/8 - 9/64	3.0-3.5
81027	9/64 - 5/32	3.5-4.0
81028	5/32 - 11/64	4.0-4.5
81029	11/64 - 3/16	
81030		4.5-5.0
81031	3/16 - 13/64	
81032	13/64 - 7/32	5.0-5.5
81033	7/32 - 15/64	5.5-6.0
81034	15/64 - 1/4	6.0-6.5
81035	1/4 - 17/64	
81036		6.5-7.0
81037	17/64 - 9/32	
81038	9/32 - 19/64	7.0-7.5
81039	19/64 - 5/16	7.5-8.0
81040	5/16 - 21/64	8.0-8.5
81041	21/64 - 11/32	
81042		8.5-9.0
81043	11/32 - 23/64	
81044	23/64 - 3/8	9.0-9.5

NOTE! Acura-Flex collets must be assembled to the nut before inserting collet into chuck.

To assemble collet to nut, stand collet on end, on any firm surface, nose up. Place nut over collet. Push down on nut with palm of hand. The collet nose will collapse slightly allowing it to enter the nut.

To remove collet from nut, hold the nut firmly in one hand, and grasp the collet with the other. Apply a bending pressure until nut separates from collet. On smaller size collets (1/4, 3/8 and 1/2) where the collet nose projects beyond the nut, nuts may be removed by setting collet/nut assembly nose down on a firm surface and pressing down on nut until collet disengages.

On collets of extremely thick cross-section (large collets with small holes) it may be necessary to place the back side of the nut on a bushing or tubular object, and tap the collet nose with a soft brass bar until collet disengages.



COLLETS

**AF 75 Collets – 7/64 to 3/4" Range**

D = 1.131 in. L = 2.020 in. T = .620 in.

Collis Number	Collet Locking Range	
	Inches	MM
81094	3/32 - 7/64	
81095	7/64 - 1/8	
81096	1/8 - 9/64	3.0-3.5
81097	9/64 - 5/32	3.5-4.0
81098	5/32 - 11/64	4.0-4.5
81099	11/64 - 3/16	
81100		4.5-5.0
81101	3/16 - 13/64	
81102	13/64 - 7/32	5.0-5.5
81103	7/32 - 15/64	5.5-6.0
81104	15/64 - 1/4	6.0-6.5
81105	1/4 - 17/64	
81106		6.5-7.0
81107	17/64 - 9/32	
81108	9/32 - 19/64	7.0-7.5
81109	19/64 - 5/16	7.5-8.0
81110	5/16 - 21/64	8.0-8.5
81111	21/64 - 11/32	
81112		8.5-9.0
81113	11/32 - 23/64	
81114	23/64 - 3/8	9.0-9.5
81115	3/8 - 25/64	9.5-10.0
81116	25/64 - 13/32	10.0-10.5
81117	13/32 - 27/64	
81118	27/64 - 7/16	10.5-11.0
81119	7/16 - 29/64	11.0-11.5
81120	29/64 - 15/32	11.5-12.0
81121	15/32 - 31/64	12.0-12.5
81122	31/64 - 1/2	
81123	1/2 - 33/64	12.5-13.0
81124	33/64 - 17/32	13.0-13.5
81125	17/32 - 35/64	13.5-14.0
81126	35/64 - 9/16	14.0-14.5
81127	9/16 - 37/64	
81128	37/64 - 19/32	14.5-15.0
81129	19/32 - 39/64	15.0-15.5
81130	39/64 - 5/8	15.5-16.0
81131	5/8 - 41/64	16.0-16.5
81132	41/64 - 21/32	
81133	21/32 - 43/64	16.5-17.0
81134	43/64 - 11/16	17.0-17.5
81135	11/16 - 45/64	17.5-18.0
81136	45/64 - 23/32	18.0-18.5
81137	23/32 - 47/64	
81138	47/64 - 3/4	18.5-19.0

AF 100 Collets – 7/32 to 1" Range

D = 1.446 in. L = 2.500 in. T = .750 in.

Collis Number	Collet Locking Range	
	Inches	MM
81161	13/64 - 7/32	
81162	7/32 - 15/64	
81163	15/64 - 1/4	
81164	1/4 - 17/64	
81165		6.5-7.0
81166	17/64 - 9/32	
81167	9/32 - 19/64	7.0-7.5
81168	19/64 - 5/16	7.5-8.0
81169	5/16 - 21/64	8.0-8.5
81170	21/64 - 11/32	
81171		8.5-9.0
81172	11/32 - 23/64	
81173	23/64 - 3/8	9.0-9.5
81174	3/8 - 25/64	9.5-10.0
81175	25/64 - 13/32	10.0-10.5
81176	13/32 - 27/64	
81177	27/64 - 7/16	10.5-11.0
81178	7/16 - 29/64	11.0-11.5
81179	29/64 - 15/32	11.5-12.0
81180	15/32 - 31/64	12.0-12.5
81181	31/64 - 1/2	
81182	1/2 - 33/64	12.5-13.0
81183	33/64 - 17/32	13.0-13.5
81184	17/32 - 35/64	13.5-14.0
81185	35/64 - 9/16	14.0-14.5
81186	9/16 - 37/64	
81187	37/64 - 19/32	14.5-15.0
81188	19/32 - 39/64	15.0-15.5
81189	39/64 - 5/8	15.5-16.0
81190	5/8 - 41/64	16.0-16.5
81191	41/64 - 21/32	
81192	21/32 - 43/64	16.5-17.0
81193	43/64 - 11/16	17.0-17.5
81194	11/16 - 45/64	17.5-18.0
81195	45/64 - 23/32	18.0-18.5
81196	23/32 - 47/64	
81197	47/64 - 3/4	18.5-19.0
81198	3/4 - 49/64	19.0-19.5
81199	49/64 - 25/32	19.5-20.0
81200	25/32 - 51/64	20.0-20.5
81201	51/64 - 13/16	
81202	13/16 - 53/64	20.5-21.0
81203	53/64 - 27/32	21.0-21.5
81204	27/32 - 55/64	21.5-22.0
81205	55/64 - 7/8	
81206	7/8 - 57/64	22.0-22.5
81207	57/64 - 29/32	22.5-23.0
81208	29/32 - 59/64	23.0-23.5
81209	59/64 - 15/16	23.5-24.0
81210	15/16 - 61/64	
81211	61/64 - 31/32	24.0-24.5
81212	31/32 - 63/64	24.5-25.0
81213	63/64 - 1	

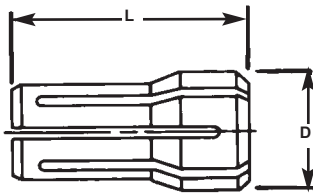


COLLETS



Double-Angle Series 300-200-100-180

- Collis double-angle collets feature 1/32-inch collapse. Concentricity is held to .0003" at nose.



Collet Length (L)

#300	1.000
#200	1.187
#100	1.437
#180	1.625

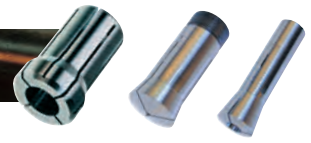
Collet Diameter (D)

#300	.375
#200	.539
#100	.769
#180	1.035

300 Collis Number	200 Collis Number	100 Collis Number	180 Collis Number	ID Hole Size	Decimal
73601				1/32	0.0313
73602	73632	73688	73701	3/64	0.0469
73603	73633	73689	73702	1/16	0.0625
73604	73634	73654	73703	5/64	0.0781
73605	73635	73655	73704	3/32	0.0938
73606	73636	73656	73705	7/64	0.1094
73607	73637	73657	73706	1/8	0.1250
73608	73638	73658	73707	9/64	0.1406
73609	73639	73659	73708	5/32	0.1563
73610	73640	73660	73709	11/64	0.1719
73611	73641	73661	73710	3/16	0.1875
73612	73642	73662	73711	13/64	0.2031
73613	73643	73663	73712	7/32	0.2188
73614	73644	73664	73713	15/64	0.2344
73615	73645	73665	73714	1/4	0.2500
	73646	73666	73715	17/64	0.2656
	73647	73667	73716	9/32	0.2813
	73648	73668	73717	19/64	0.2969
	73649	73669	73718	5/16	0.3125
	73650	73670	73719	21/64	0.3281
	73651	73671	73720	11/32	0.3437
	73652	73672	73721	23/64	0.3593
	73653	73673	73722	3/8	0.3750
		73674	73723	25/64	0.3906
		73675	73724	13/32	0.4063
		73676	73725	27/64	0.4219
		73677	73726	7/16	0.4375
		73678	73727	29/64	0.4531
		73679	73728	15/32	0.4688
		73680	73729	31/64	0.4844
		73681	73730	1/2	0.5000
		73682	73731	33/64	0.5156
		73683	73732	17/32	0.5313
		73684	73733	35/64	0.5469
		73685	73734	9/16	0.5625
			73735	37/64	0.5781
			73736	19/32	0.5938
			73737	39/64	0.6094
			73738	5/8	0.6250
			73739	41/64	0.6406
			73740	21/32	0.6563
			73741	43/64	0.6719
			73742	11/16	0.6875
			73743	45/64	0.7031
			73744	23/32	0.7188
			73745	47/64	0.7344
			73746	3/4	0.7500



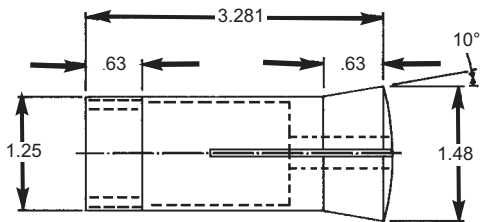
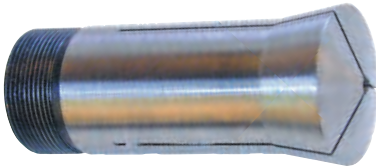
COLLET SETS



Double Angle Collet Sets



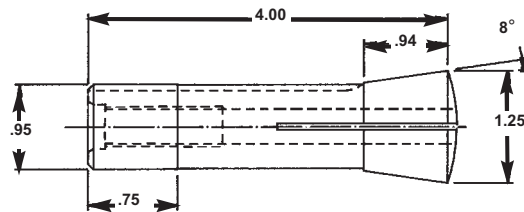
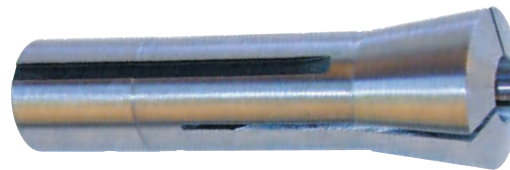
Collis Number	DA Series	Collet Set Size	Number of Collets
73616	300	1/8 thru 1/4 by 1/64	9
73617	300	3/64, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4	8
73629	200	1/8 thru 3/8 by 1/64	17
73631	200	1/8 thru 3/8 by 1/32	9
73692	100	1/4 thru 9/16 by 1/64	21
73693	100	1/4 thru 9/16 by 1/32	11
73749	180	1/4 thru 3/4 by 1/32	17
73750	180	1/4 thru 3/4 by 1/64	33



5C Collets

Main body diameter: 1.250"
 Overall length: 3.281"
 External thread: 1.238" x 20RH
 Internal thread: 1.041" x 24RH

Collis Number	Bore Dia.
74150	1/8
74151	3/16
74152	1/4
74153	5/16
74154	3/8
74155	7/16
74156	1/2
74157	9/16
74158	5/8
74159	11/16
74160	3/4
74161	13/16
74162	7/8
74163	15/16
74164	1



R8 Collets

Main body diameter: 0.950"
 Overall length: 4.000"
 Internal thread: 7/16" x 20RH UNF

Collis Number	Bore Dia.
74170	1/8
74171	5/32
74172	3/16
74173	7/32
74174	1/4
74175	9/32
74176	5/16
74177	11/32
74178	3/8
74179	13/32

Collis Number	Bore Dia.
74180	7/16
74181	15/32
74182	1/2
74183	9/16
74184	19/32
74185	5/8
74186	21/32
74187	11/16
74188	23/32
74189	3/4



TECHNICAL INFORMATION

Torque Requirements for Tapping

All Values are in inch/lbs.

Tap Size	Brass	Aluminum and Leaded Brass	200 BHN Steel	300 BHN Steel	400 GHN Steel	Approximate Breaking Torque
#6	4	2	7	9	10	18
#8	4.5	2.25	8	10	11	30
#10	8.5	4.25	15	19	21	42
1/4	16	8	28	36	40	106
5/16	24	12	42	54	60	180
3/8	37	18.5	65	83	93	240
7/16	54	27	94.5	122	135	500
1/2	68	34	119	153	170	700
9/16	88	44	154	198	220	850
5/8	119	59.5	208	268	298	1000
3/4	170	85	298	383	425	1500
7/8	238	119	416	536	595	2100
1"	337	168.5	590	758	842	2700
1 1/4	544	277	970	1246	1385	3000+
1 1/2	850	425	1488	1912	2125	
1 3/4	1411	706	2471	3177	3530	
2	1904	952	3332	4284	4760	
2 1/4	2159	1080	3780	4860	5400	
2 1/2	2975	1488	5208	6996	7440	
2" - 8	533	267	933	1199	1333	
2 1/2" - 8	663	332	1160	1492	1658	
3" - 8	1139	570	1995	2565	2850	
4" - 8	1411	706	2471	3177	3530	
5" - 8	1768	884	3094	3978	4420	
6" - 8	2125	1063	3720	4784	5315	

- Approximate values based on sharp, 4 Flute coarse pitch hand taps at 65% thread height. Dull taps require approximately 50% more torque.
- All values in table above are inch/lbs.
- For 55% and 75% thread heights, multiply above values by .75 and 1.25 respectively.
- Torque values for helical flute taps are approximately 70% of those shown.
- Torque values for chip driver taps are approximately 60% of those shown.
- Torque values for fine pitch threads are approximately 50% of those shown.

Material	Tapping Speed (SFM)
Aluminum	90-110
Brass	80-100
Bronze	40-60
Copper	70-90
Copper-Beryllium	40-50
Inconel, Hastalloy, Waspalloy	5-15
Iron-Cast	65-75
Iron-Malleable	30-60
Magnesium	90-110
Plastics	60-90
Steel-Cast	30-40
Steel-Free Machining	50-80
Steel-Chromium	25-40
Steel-Alloy	20-35
Steel-Stainless	15-30
Titanium	10-25
Zinc-Die Cast	80-120

$$\text{RPM} = \frac{3.82 \times \text{SFM}}{\text{Tap Diameter}}$$

$$\text{Feed (IPR)} = \frac{1}{\text{Pitch}}$$

$$\text{Feed (IPM)} = \text{Feed (IPR)} \times \text{Speed (RPM)}$$

CALL FOR CURRENT PRICING

(800) 562-0900

TAPPING



COLLIS

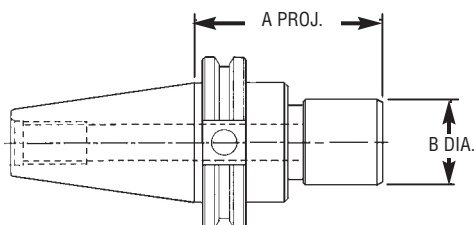
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TAPPING



Rigid Tap Holders

- Tap and tap size may be changed in seconds.
- Precision ground components provide smooth action.
- Extended lengths available upon request.
- Rigid Tap Holders are for newer machine tools which have synchronous system capabilities.
- Thru coolant capability.
- TM Smith Ball Drive
- Bilz Style Non-Ball Drive

Collis Number		Description	Adapter Size	A Proj.	B Dia.
Ball Drive	Non-Ball Drive				
77864	77800	CV40RTH 1.25 - 2.75	1	2.75	1.25
77868	77801	CV40RTH 1.96 - 3.56	2	3.56	1.96
77866	77840	CV50RTH 1.25 - 2.75	1	2.75	1.25
77870	77841	CV50RTH 1.96 - 3.55	2	3.56	1.96
	77842	CV50RTH 2.83 - 4.88	3	4.88	2.83

Tap Adapters – see pages 61-63.

Retention knob separate item – see page 121.

NEW!

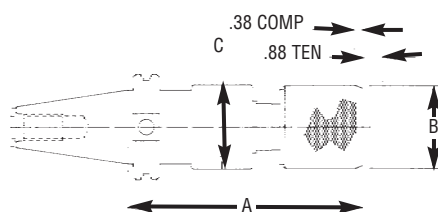
KEY

CV	=	Cat V-Flange
40	=	Shank Size
RTH	=	Rigid Tap Holder
1.25	=	Bore Size/Shank Dia.
2.75	=	Proj. Length (From Gage Line)



Tension/Compression Tap Holders

- Quick-change – push back on the holder sleeve, and the adapter with tool is removable. Press on the end of the adapter nose and the tool is removable – all in a few seconds.
- Smooth stroke – even under full torque load, the tension-compression stroke is full and free.
- Interchangeability – our adapters and holders are interchangeable with TM-Smith quick change holders and adapters.



Collis Number				Adapter Size	Tap Adapter Range	A Proj.	B Dia.	C Dia.
Ball Drive		Non-Ball Drive						
CV 40	CV 50	CV 40	CV 50					
77835		77810		#1	0 to 9/16 HT	4.88	1.25	2.00
	77837		77812		1/8 PT	4.00		2.75
77856		77813		#2	0 to 7/8 HT	5.76	1.96	2.00
	77858		77815		1/8-1/2 PT	4.89		2.75
	77861		77817	#3	13/16-1 3/8HT	6.19	2.83	2.75

Tap Adapters – see pages 61-63.

Retention knob separate item – see page 121.



TAPPING



Rigid Tap Holder BT Shank

- Tap and tap size may be changed in seconds.
- Precision ground components provide smooth action.
- Extended lengths available upon request.
- Made in U.S.A.
- Rigid Tap Holders are for newer machine tools which have synchronous system capabilities.
- Thru coolant capability.



Collis Number		Description	Adapter Size	A Proj.	B Dia.
Ball Drive	Non-Ball Drive				
77865	77802	BT40RTH 1.25 - 2.75	1	2.75	1.25
77869	77803	BT40RTH 1.96 - 3.56	2	3.56	1.96
77867	77843	BT50RTH 1.25 - 2.88	1	2.88	1.25
77871	77844	BT50RTH 1.96 - 3.69	2	3.69	1.96
	77845	BT50RTH 2.83 - 5.00	3	5.00	2.83

Tap Adapters – see pages 61-63.

Retention knob separate item – see page 121.



The only AT3 certified toolholder available.

KEY	
BT	= BT Shank
40	= Shank Size
RTH	= Rigid Tap Holder
1.25	= Bore Size/Shank Dia.
2.75	= Proj. Length (From Gage Line)

Tension and Compression Tap Holders

- Quick-change – push back on the holder sleeve, and the adapter with tool is removable. Press on the end of the adapter nose and the tool is removable – all in a few seconds.
- Smooth stroke – even under full torque load, the tension-compression stroke is full and free.
- Interchangeability – our adapters and holders are interchangeable with Universal-Bilz quick change holders and adapters.

Collis Number							Adapter Size	Tap Size Range	A Proj.	B Dia.
Ball Drive		Non-Ball Drive								
BT40	BT50	BT30	BT35	Drive BT40	BT45	BT50				
		76811					#1	0-9/16 HT to 1/8 PT	4.52	1.25
			76861						4.21	
77836				76950					4.88	
					76951				4.80	
						76952			4.75	
		76813					#2	0-7/8 HT to 1/8-1/2 PT	5.32	1.96
			76862						5.01	
77857				76953					5.76	
					76954				5.69	
	77859					76955			5.64	
	77862						#3	13/16-1 3/8 HT	6.94	2.83

Tap Adapters – see pages 61-63.

Retention knob separate item – see page 121.

NMTB Shank

NMTB 50	Adapter Size	Tap Adapter Range	A Proj.	B Dia.
77860	#2	0 to 7/8 HT 13/16-1 3/8 HT	4.89	1.25
77863	#3	3/4 - 1 PT	5.19	1.96





TAPPING



Quick Change Straight Shank Tap Holders

SYNCHRONOUS: Modern machine tools have the capability of synchronizing the spindle rotation and spindle feed. This has made it possible to eliminate the spring compression and tension stroke utilized in traditional tapping heads. The advantage that this brings to threading is the speed by which the cycle can operate. The cost of building tapping heads has also been reduced by the elimination of the axial float mechanism.



Collis Number	Size	Shank	Proj. Length	Collar Dia.
78358	#1	1.0	1.46	1.42
78359	#2	1.0	2.13	2.09
78360	#3	1.5	3.44	3.08

Tap Adapters – see pages 61-63.

Quick Change Tension Compression Tap Holder

TENSION/COMPRESSION: Tension and compression holders have been the main stay of machine tool tapping for many years. Collis offers a wide range and style of these heads. We offer the widely used BILZ style tap adapter system.



Collis Number	Size	Shank	Tap Size	Proj. Length	Collar Dia.	Length Compensation	
						Comp. (in)	Tens. (in)
78375	1	1.0	0 - 9/16	1.6	1.42	0.300	0.300
78376	2	1.0	0 - 7/8	2.5	2.09	0.490	0.490
78377	3	1.5	13/16 - 1-3/8	3.78	3.08	0.790	0.790

Tap Adapters – see pages 61-63.



TAPPING

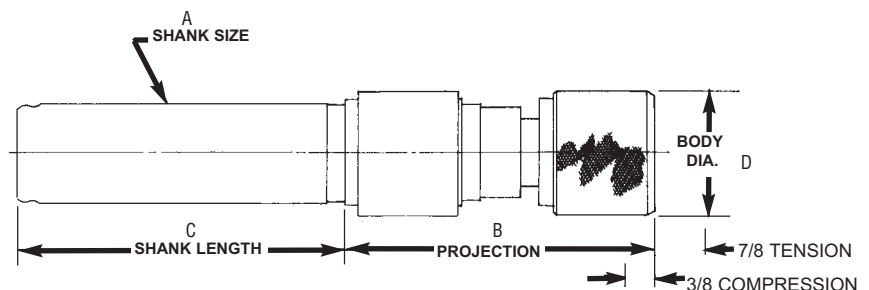


Quick Change Straight Shank Tension/Compression Holders



Collis Number		Adapter Size	Tap Size Range	A	B	C	D
Ball Drive	Non Ball Drive			Shank Size	Proj.	Shank Length	Body Dia.
77824	77821	#1	0-9/16 HT 1/8 SS PT	1"	3.63	3-5/8	1.37
77825	77822	#2	0-7/8 HT 1/8-1/2 SS PT	1"	4.88	3-5/5	1.96
77826				1 1/4"			
77827	77823	#3	13/16-1 3/8 HT 3/4-1 PT	1 1/4"	6.06	4	2.83
77828				1 1/2"			

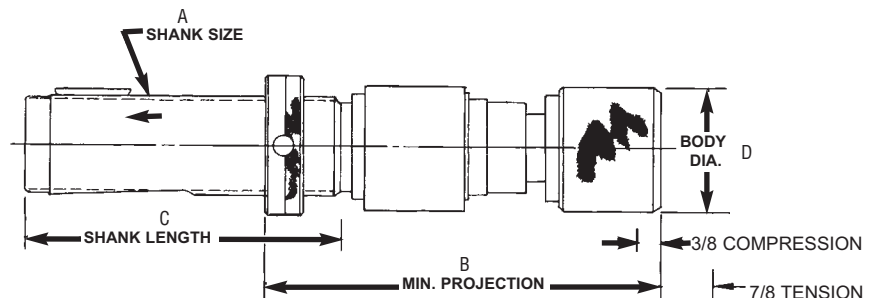
Tap Adapters – see pages 61-63.



Quick Change Automotive Shank Tension/Compression Holders

Collis Number	Adapter Size	Tap Size Range	A	B	C	D
			Shank Size	Min. Proj.	Shank Length	Body Dia.
77830	#1	0-9/16 H.T.	1-1/16-12	4.13	3.62	1.37
77831		1/8 S.S.P.T	1-3/8-12	4.00	4.62	
77832	#2	0-7/8 H.T.	1-1/16-12	5.38	3.62	1.96
77833		1/8-1/2 P.T.	1-3/8-12	5.38	4.62	
77834	#3	13/16-1 3/8 H.T. 3/4 & 1 P.T.	1-3/8-12	6.34	4.62	2.83

Tap Adapters – see pages 61-63.



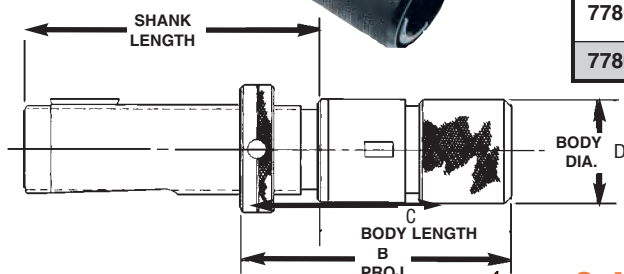


TAPPING



Quick Change Automotive Shank Floating Holder

Manufactured for rugged use, Collis Quick-Change Floating Holders when combined with Collis Quick-Change Tap Adapters greatly reduce tool change-over time. Within seconds your tool can be changed! By sliding the sleeve backward on the Floating Holder, the adapter and tap can be removed and a new one inserted. Release the sleeve and the adapter is locked into place and you're ready to go! Specifically designed to insure against tool pull out and against damage to the mechanism as a result of dirt and chips, Collis



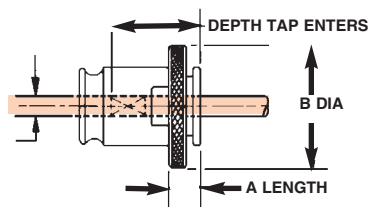
Collis Number	Adapter Size	Tap Size Range	Shank Size	A Shank Length	B Proj.	C Body Length	D Body Dia.
77804	#1	0-9/16 HAND	3/4-12	3.00	2.81	2.40	1.25
77799		1/8 PIPE	7/8-12	3.62			
77805			1-1/16-12				
77806	#2	0-7/8 HAND	1-1/16-12	3.62	3.84	3.44	1.96
77807		1/8-1/2 PT PIPE	1-3/8-12	4.62			
77808	#3	13/16-1 3/8 HAND & 3/4-1 PIPE	1-3/8-12	4.62	5.36	4.98	2.83
77809			1-7/8-12	5.62	5.50		

Tap Adapters – see pages 61-63.

Radial float is $\pm 1/32"$.



NEW!



Quick Change Coolant-Through Tap Adapters

Collis Number	Adapter Size	Tap Size Range	Tap Size	Tap Shank Dia.	Tap Shank Square	Depth Tap Enters
78900	#0	0-1/4 HAND	0-6	.141	.110	.85
78901			8	.168	.131	.92
78902			10	.194	.152	.92
78903		TAP	12	.220	.165	.95
78904			1/4	.255	.191	.95

1. Push back the sleeve to release the tap.
2. Insert the tap into the adapter and twist until the square on the tap is aligned with the square on the the adapter. Push back until the adapter is fully seated against the shoulder of the square.

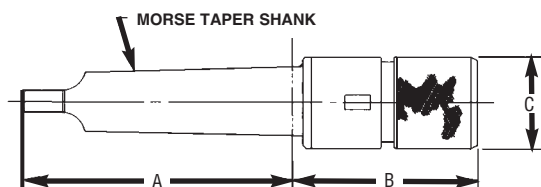
Quick Change Morse Taper Floating Holder

Collis Number	Adapter Size	Tap Size Range	Morse Taper	A Length	B Proj.	C Dia.
77790	#1	0-9/16 H.T. 1/8 S.S.P.T	#2	2-15/16	2.66	1.25
77791	#2	0-7/8 H.T. 1/8-1/2 P.T.	#3	3-11/16	3.69	1.96
77792	#3	13/16-1 3/8 H.T. 3/4 & 1 P.T.	#4	4-5/8	5.27	2.83

Tap Adapters – see pages 61-63.

Radial float is $\pm 1/32"$.

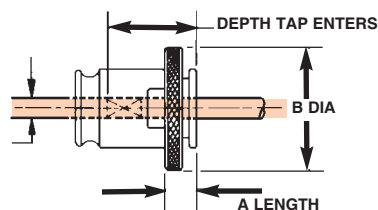
Radial float is still a very important component of your threading operation. The absence of radial float will restrict the tap's ability to follow the drilled hole. The lack of radial float will force the tap to flex to meet the hole, or to cut like a mill, causing premature tap wear.





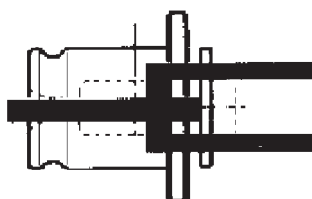
TAPPING

Quick Change Tap Adapters Coolant Channel / Coolant Through



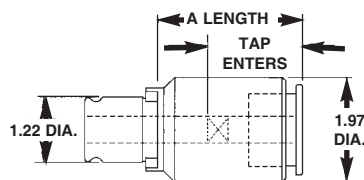
Coolant-Through

1. Push back the sleeve to release the tap.
2. Insert the tap into the adapter and twist until the square on the tap is aligned with the square in the adapter. Push back until the adapter is fully seated against the shoulder of the square.



Coolant Channel

1. For use on machines with coolant through spindle
2. Rigid system for synchronous feed tapping
3. Improves chip removal and prolongs tool life



Coolant		Adapter Size	Tap Size Range	Tap Size	Tap Shank Dia.	Tap Shank Square	A Length	B Dia.	Depth Tap Enters
Channel	Though								
78811	78911	#1 (.747)	0-9/16 HAND TAP	0-6	.141	.110	.28	1.18	.85
78812	78912			8	.168	.131			.92
78813	78913			10	.194	.152			.92
78814	78914			12	.220	.165			.95
78815	78915			14 & 1/4	.255	.191			.95
78816	78916			5/16	.318	.238			.98
78817	78917			3/8 L.S.	.381	.286			1.05
78818	78918			7/16	.323	.242			1.06
78819	78919			1/2	.367	.275			1.11
	78920			9/16	.429	.322			1.17
78821	78921	1/8 S. S. & L.S. PIPE TAP	1/8 L.S.	1/8 L.S.	.437	.328			1.05
78820	78922			1/8 S.S.	.313	.234			1.05

78910
#1 Q.C. Set
12 piece set

	78925	#2 (1.220)	0-7/8 HAND TAP	0-6	.141	.110	.32	1.88	.85
	78926			8	.168	.131			.92
	78927			10	.194	.152			.92
	78928			12	.220	.165			.95
	78929			14 & 1/4	.255	.191			.95
78831	78931			5/16	.318	.238			1.49
78832	78932			3/8 L.S.	.381	.286			1.56
78833	78933			7/16	.323	.242			1.59
78834	78934			1/2	.367	.275			1.62
78835	78935			9/16	.429	.322			1.68
78836	78936			5/8	.480	.360			1.74
78837	78937			11/16	.542	.406			1.81
78838	78938			3/4	.590	.442			1.87
78839	78939			13/16	.652	.489			1.87
78840	78940			7/8	.697	.523			1.93
78841	78945	1/8 S.S. & L.S. 1/4-1/2 PIPE TAP	1/8 L.S.	1/8 S.S.	.313	.234	.35		1.49
78842	78944			1/8 L.S.	.437	.328			1.05
	78941			1/4	.562	.421			1.18
	78942			3/8	.700	.531			1.24
	78943			1/2	.687	.515			1.37

78930
#2 Q.C. Set
20 piece set

78851	78951	#3 (1.888)	13/16-1 3/8 HAND TAP	13/16	.652	.489	.55	2.75	2.42
78852	78952			7/8	.697	.523			2.48
78853	78953			15/16	.760	.570			2.48
78854	78954			1	.800	.600			2.54
78855	78955			1-1/8	.896	.672			2.61
78856	78956			1-1/4	1.021	.766			2.73
78857	78957			1-3/8	1.108	.831			2.79
	78958		3/4 & 1" PIPE TAP	3/4	.906	.679	.43		1.55
	78959			1	1.125	.843			1.68

78950
#3 Q.C. Set
9 piece set

Standard ISO Taps may be used with these Tap Adapters.
Torque Control refer to Page 62.

Extended Range

Collis Number	Adapter Size	Tap Size Range	Tap Size	Tap Shank Dia.	Tap Shank Square	A Length	Dia.	Depth Tap Enters
78960	#2 (1.220)	15/16-1 1/2 HAND TAP	15/16	.760	.570	2.56	1.97	2.16
78961			1	.800	.600	2.57		2.25
78962			1-1/8	.896	.672	2.62		2.35
78963			1-1/4	1.021	.766	3.00		2.47
78964			1-3/8	1.108	.831	3.13		2.47
78965			1-1/2	1.233	.925	3.22		2.56
78966		3/4 & 1 PIPE TAP	3/4	.906	.679	2.41		1.85
78967			1	1.125	.843	2.40		1.96

NEW!



TAPPING



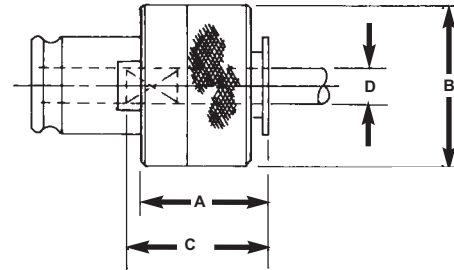
NEW!

Quick Change / Tap Adapters

Collis Number	Adapter Size	Collet Size	Projection Inches/Metric	Wrench No.
79361	#1	E/R 16	1.00 (25.4mm)	64747
79362	#2	E/R 25	1.34 (34.0mm)	64746

See page 44 for ER Collets.

Wrench sold separately – see Accessories page 116.



Torque Control QC Tap Adapters

Torque control tapping is still the best solution for protecting your taps and work piece from tap breakage. Bottom tapping or close blind hold tapping, where chip evacuation is a concern, are prime operations for torque control tapping.

Collis Number	Adapter Size	Tap Size Range	D Tap Size	Tap Shank Dia.	Tap Shank Square	A Projection	C Tap Enters	Permissible Torque Ft. Lbs.	B Body Dia.
79311	#1 (.747)	#0 to 9/16" HAND	0-6	.141	.110	.98	.85	1.1	1.26
79312			8	.168	.131		.92	1.7	
79313			10	.194	.152		.92	2.2	
79314			12	.220	.165		.95	2.5	
79315			1/4	.255	.191		.95	4.3	
79316			5/16	.318	.238		.98	7.2	
79317			3/8	.381	.286		1.05	10.8	
79318			7/16	.323	.242		1.08	17.0	
79319			1/2	.367	.275		1.11	25.0	
79320			9/16	.429	.322		1.06	29.0	
79321		1/8" PIPE	1/8 LS	.437	.328		1.05	29.0	
79322			1/8 SS	.312	.234		1.05	7.0	
79331	#2 (1.220)	5/16" to 7/8" HAND	5/16	.318	.238	1.34	1.49	7.2	1.97
79332			3/8	.381	.286		1.56	10.8	
79333			7/16	.323	.242		1.59	17.0	
79334			1/2	.367	.275		1.62	25.0	
79335			9/16	.429	.322		1.68	29.0	
79336			5/8	.480	.360		1.74	36.0	
79337			11/16	.542	.406		1.81	40.0	
79338			3/4	.590	.442		1.87	53.0	
79339			13/16	.652	.489		1.87	57.0	
79340			7/8	.697	.523		1.93	69.0	
79341		1/4" to 1/2" PIPE	1/4 P	.562	.421		1.18	11.0	
79342			3/8 P	.700	.531		1.24	14.0	
79343			1/2 P	.687	.515		1.37	32.0	
79351			13/16	.652	.489		2.42	57.0	
79352	#3 (1.888)	13/16" to 1-3/8" HAND	7/8	.697	.523	1.77	2.48	69.0	2.83
79353			15/16	.760	.570		2.48	76.0	
79354			1	.800	.600		2.54	94.0	
79355			1-1/8	.896	.672		2.61	126.0	
79356			1-1/4	1.021	.766		2.73	144.0	
79357			1-3/8	1.108	.831		2.79	188.0	
79360		1/2" to 1" PIPE	1/2 P	.687	.515		1.55	32.0	
79358			3/4 P	.906	.679		1.55	42.0	
79359			1 P	1.125	.843		1.68	81.0	
79359									



TAPPING

Ball Drive Quick Change Tap Adapters



* For use on machines with or without coolant through the spindle.
 * Rigid system for synchronous feeding tapping
 * Improves chip removal and prolongs tool life.

Collis Number	Adapter Size	Tap Size Range	Tap Size	Tap Shank Dia.	Tap Square	A Length	B Dia.	Tap Enters
77911	#1	0-9/16 Hand Tap	0-6	.141	.110	.37	1.18	.31
77912			8	.168	.131			.31
77913			10	.194	.152			.39
77914			12	.220	.165			.31
77915			1/4	.255	.191	.38		.39
77916			5/16	.318	.238			.39
77917			3/8	.381	.286			.39
77918			7/16	.323	.242			.39
77919			1/2	.367	.275			.39
77920			9/16	.429	.322			.31
77921			1/8 NPT	.437	.328			.38
77931	#2	0-7/8 Hand Tap	5/16	.318	.238	.42	1.88	.35
77932			3/8	.381	.286			.35
77933			7/16	.323	.242			.35
77934			1/2	.367	.275			.35
77935			9/16	.429	.322			.35
77936			5/8	.480	.360	.46		.75
77937			11/16	.542	.406			.75
77938			3/4	.590	.442			.75
77939			13/16	.652	.489			.75
77940			7/8	.697	.523			.75
77941			1/4 NPT	.562	.421	.39		.40
77942			3/8 NPT	.700	.531			.40
77943			1/2 NPT	.687	.515			.40
77944			1/8 NPT	.437	.328			.38
77951			#3	13/16-1 3/8 Hand Tap	3/4	.590		.442
77952	7/8	.697			.523	.71	.75	
77953	15/16	.760			.570		1.07	
77954	1	.800			.600		1.07	
77955	1-1/8	.896			.672		1.07	
77956	1-1/4	1.021			.766	.46	1.07	
77957	1-3/8	1.108			.831		1.07	
77958	3/4 NPT	.906			.679		.36	
77959	1 NPT	1.125			.843		.36	

Tap Extensions

Tap extensions with tap shanks provide the advantage of driving standard taps through standard A.S.A. bushing liners. Precision fit of tap in holder. Shank dimensions are the same as tap in holder. Extensions are stocked in 3" and 6" overall lengths. Shank of holder is heat treated to maintain accuracy of tap holder.



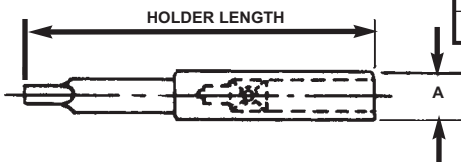
Collis Number		Nominal Tap Size	Tap Shank		Shank Length L1		Depth Tap Enters		A Diameter
3" Holder Length	6" Holder Length		Diameter	Square	3" OAL	6" OAL	3" OAL	6" OAL	
70200	70219	0-6	.141	.110	1		.72		.300
70201	70220	8	.168	.131	1 1/4		.83		
70202	70221	10	.194	.152			.89		
70205	70224	14 & 1/4	.255	.191	1 1/2		.98		.484
70206	70225	5/16	.318	.238			1.01		
70207	70226	3/8	.381	.286			1.06		
70208	70227	7/16	.323	.242			1.08		
70209	70228	1/2	.367	.275			1.11		
70210	70229	9/16	.429	.322	1 3/8	1 1/2	1.28		.734
*70211	70230	5/8	.480	.360	1 1/4		1.38	1.46	
*70212	70231	3/4	.590	.442	1 5/16		1.31	1.81	
70213	70232	1/16-1/8 SS P.T.	.312	.234	1 1/2		1.01		.484
70214	70233	1/8 LS P.T.	.437	.328			1.01		.734
70215	70234	1/4 P.T.	.562	.421	1 3/8		1.07		

Standard ISO Taps may be used with these Tap Drivers.

* 70211 Tap Enters Body 1.375

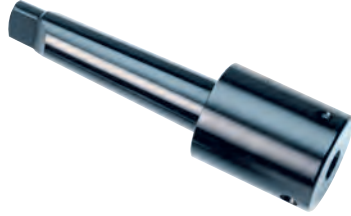
* 70212 Tap Enters Body 1.312

STANDARD TAP EXTENSION can be supplied with a thru-coolant hole. Special lengths are available upon request.



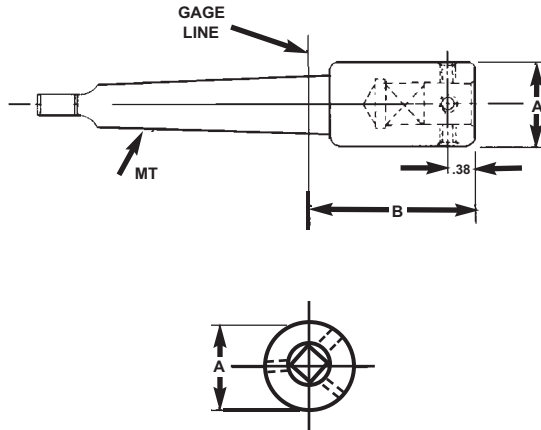


TAPPING



Heavy Duty Tap Drivers

These holders provide a positive and accurate means of driving larger sized taps without slippage or tap damage. Square shank of tap engages in square drive socket. Three equally spaced set screws position tap in holder.



Collis Number	Tap Size	Morse Taper Shank	A Body Dia.	B Body Proj.	Tap Dimensions Shank Dia.	Shank Sq.	Depth Tap Enters
HAND TAPS							
70308	5/8	3	1-3/4	2-5/16	.480	.360	1.44
70301	3/4	3	1-3/4	2-5/16	.590	.442	1.38
70401	3/4	4	1-3/4	2-3/8	.590	.442	1.38
70302	7/8	3	1-3/4	2-5/16	.697	.523	1.50
70402	7/8	4	1-3/4	2-3/8	.697	.523	1.50
70303	1	3	1-3/4	2-5/16	.800	.600	1.63
70403	1	4	1-3/4	2-3/8	.800	.600	1.63
70304	1-1/8	3	1-3/4	2-5/16	.896	.672	1.75
70404	1-1/8	4	1-3/4	2-3/8	.896	.672	1.75
70305	1-1/4	3	1-7/8	2-15/16	1.021	.766	2.19
70405	1-1/4	4	1-7/8	3	1.021	.766	2.19
70306	1-3/8	3	1-7/8	2-15/16	1.108	.831	2.25
70406	1-3/8	4	1-7/8	3	1.108	.831	2.25
70307	1-1/2	3	2	2-15/16	1.233	.925	2.31
70407	1-1/2	4	2	3	1.233	.925	2.31
70501	1-1/2	5	2-5/8	3-1/4	1.233	.925	2.31
70408	1-5/8	4	2-1/4	3-1/4	1.305	.979	2.38
70502	1-5/8	5	2-5/8	3-1/4	1.305	.979	2.38
70409	1-3/4	4	2-1/2	3-1/4	1.430	1.072	2.38
70503	1-3/4	5	2-5/8	3-1/4	1.430	1.072	2.38
70410	1-7/8	4	2-1/2	3-1/4	1.519	1.139	2.50
70504	1-7/8	5	2-5/8	3-1/4	1.519	1.139	2.50
70411	2	4	2-1/2	3-3/8	1.644	1.233	2.50
70505	2	5	2-3/4	3-3/4	1.644	1.233	2.63
70506	2-1/8	5	2-3/4	3-3/4	1.769	1.327	3.00
70507	2-1/4	5	3	4-5/16	1.894	1.420	3.13
70508	2-3/8	5	3	4-5/16	2.019	1.514	3.38
70509	2-1/2	5	3-3/8	4-5/8	2.100	1.575	3.50
70510	2-5/8	5	3-3/8	4-5/8	2.225	1.669	3.50
70511	2-3/4	5	3-9/16	4-5/8	2.350	1.762	3.63
70512	2-7/8	5	3-9/16	4-13/16	2.475	1.856	3.63
70513	3	5	3-9/16	4-13/16	2.543	1.907	3.75
PIPE TAPS							
70335	1/4	3	1-3/4	2-5/16	.562	.421	1.00
70333	3/8	3	1-3/4	2-5/16	.700	.531	1.13
70334	1/2	3	1-3/4	2-5/16	.687	.515	1.31
70331	3/4	3	1-3/4	2-5/16	.906	.679	1.38
70441	3/4	4	1-3/4	2-3/8	.906	.679	1.63
70332	1	3	1-3/4	2-5/16	1.125	.843	1.63
70442	1	4	1-7/8	2-3/8	1.125	.843	1.75
70443	1-1/4	4	2-1/4	2-15/16	1.312	.984	2.00
70551	1-1/4	5	2-5/8	2-15/16	1.312	.984	2.00
70444	1-1/2	4	2-1/2	2-15/16	1.500	1.125	2.25
70552	1-1/2	5	2-5/8	2-15/16	1.500	1.125	2.25
70445	1-3/4	4	2-1/2	3-1/4	1.625	1.218	2.38
70553	1-3/4	5	2-5/8	3-1/4	1.625	1.218	2.38
70446	2	4	3	3-5/8	1.875	1.406	2.50
70554	2	5	3	3-5/8	1.875	1.406	2.50
70555	2-1/4	5	3-3/16	3-5/8	2.000	1.500	2.63
70556	2-1/2	5	3-1/2	3-5/8	2.250	1.687	2.75
70557	2-3/4	5	3-9/16	4-1/16	2.375	1.781	2.88
70558	3	5	3-5/8	4-1/16	2.625	1.968	3.00

CALL FOR CURRENT PRICING

(800) 562-0900

MORSE & JACOBS TAPER HOLDERS



COLLIS

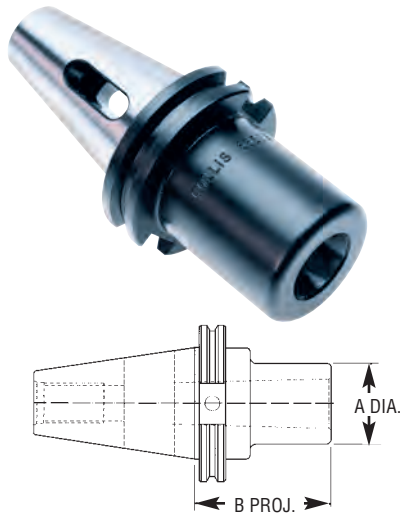
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MORSE TAPER HOLDERS

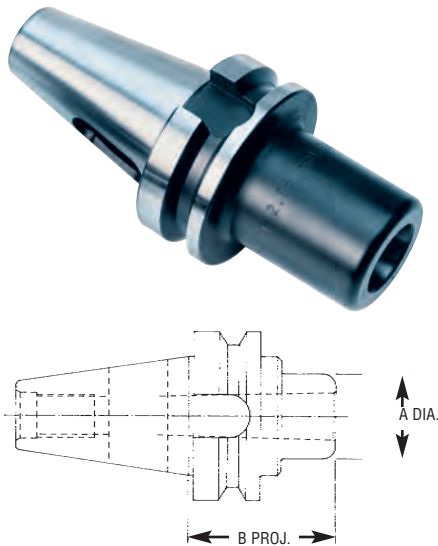


CV-Flange Tooling

Collis Number	Shank Taper	Morse Taper	A Dia.	B Proj.
68211	40	#1	1.00	1.75
68212	40	#2	1.25	2.18
68213	40	#3	1.75	2.75
68214	40	#4	2.00	3.56
68222	45	#2	2.25	1.50
68223	45	#3	2.25	2.313
68224	45	#4	2.25	3.18
68225	45	#5	2.62	4.62
68231	50	#1	1.00	1.50
68232	50	#2	1.25	2.00
68233	50	#3	1.62	2.50
68234	50	#4	2.00	3.37
68235	50	#5	2.75	3.75

Accessories – see page 116.

Retention knob separate item – see page 121.



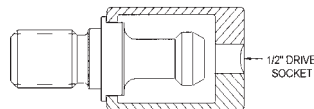
BT Tooling

Collis Number	Shank Taper	Morse Taper	A Dia.	B Proj.
68310	30	#1	1.25	1.75
68311	30	#2	1.25	2.36
67200	40	#2	1.27	1.77
67201	40	#3	1.58	2.95
67202	40	#4	1.97	3.74
67208	50	#3	1.58	2.95
67209	50	#4	1.97	3.74
67210	50	#5	2.25	4.13

Accessories – see page 116.

Retention knob separate item – see page 121.

Retention knob socket – see page 122.



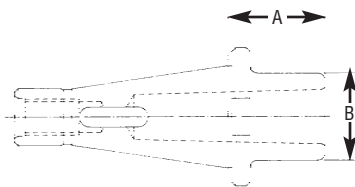


MORSE TAPER PROJECTIONS



For Taper Shank Cutting Tools

NMTB Short Projection

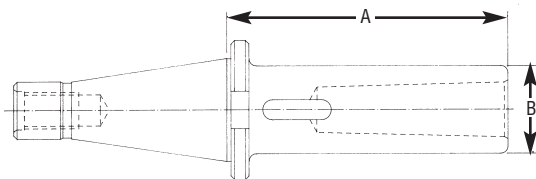


Collis Number	Shank Taper	Inside Taper	A Projection	B Nose Dia.	Draw Bar Size
68140	40	2 MORSE	1.69	1.25	5/8-11
68141	40	3 MORSE	1.69	1.50	
68142	40	4 MORSE	2.56	2.00	
68151	50	3 MORSE	1.75	1.50	1- 8
68152	50	4 MORSE	2.63	2.00	
68153	50	5 MORSE	3.75	2.50	

■ Qualified for use in Erickson Quick Change Holders.
Accessories – see page 116.



NMTB Extended Projection



Collis Number	Shank Taper	Inside Taper	A Projection	B Nose Dia.	Draw Bar Size
68155	50	3 MORSE	5.06	1.50	1-8
68156	50	4 MORSE	5.93	2.00	
68157	50	5 MORSE	7.25	2.50	
68158	50	6 MORSE	9.56	3.46	

■ Qualified for use in Erickson Quick Change Holders.
Accessories – see page 116.



DRILL CHUCKS



CV Taper



Collis Number	Shank Taper	Capacity	Proj.	Dia.	Draw Bar Thread
67520	40	0-.5	4.33	2.0	5/8"-11
67521	40	.1-.63	5.04	2.24	5/8"-11
67522	50	0-.5	4.33	2.0	1-8
67523	50	.1-.63	5.04	2.24	1-8

Retention knob separate item – see page 121.

BT Taper

Collis Number	Taper	Capacity	Proj.	Dia.	Draw Bar Thread
67524	40	0-.5	4.33	2.0	M-16x2
67525	40	.1-.63	5.04	2.24	M-16x2
67526	50	0-.5	4.33	2.0	M-24x3
67527	50	.1-.63	5.04	2.24	M-24x3

Retention knob separate item – see page 121.

NMTB Taper

Collis Number	Shank Taper	Capacity	Proj.	Dia.	Draw Bar Thread
67528	NMTB40	0-.5	3.725	2.0	5/8"-11

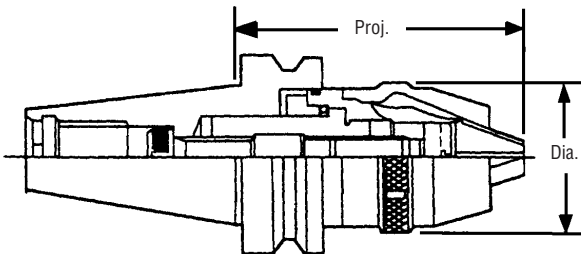
Morse Taper

Collis Number	Shank Taper	Capacity	Proj.	Dia.	Draw Bar Thread
67529	MT4	0-.5	3.94	2.0	–
67530	MT4	.1-.63	4.72	2.24	–

R8 Drill Chuck

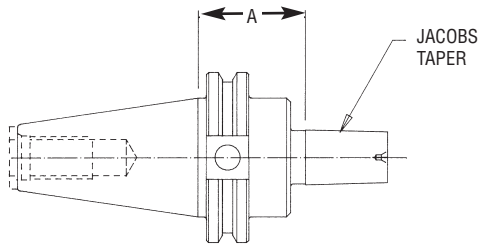
Collis Number	Shank Taper	Capacity	Proj.	Dia.	Draw Bar Thread
67531	R8	0-.5	3.94	2.0	–
67532	R8	.1-.63	4.72	2.24	–

(Wrenches Included)





JACOBS TAPER HOLDERS

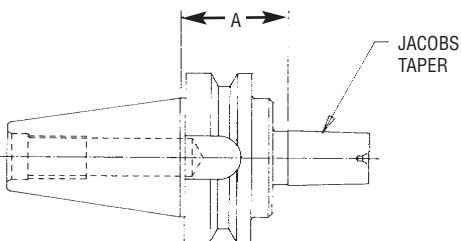


CV-Flange Tooling

Collis Number	Shank	Jacobs Taper	A Proj.
67681	CV 40	#1	1.496
67682	CV 40	#2	1.562
67683	CV 40	#3	1.594
67684	CV 40	#4	1.594
67685	CV 40	#6	1.594
67686	CV 40	#33	1.594
67872	CV 50	#2	1.562
67873	CV 50	#3	1.594
67874	CV 50	#4	1.594
67875	CV 50	#6	1.594
67876	CV 50	#33	1.594

Accessories – see page 71.

Retention knob separate item – see page 121.



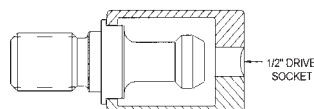
BT Tooling

Collis Number	Shank	Jacobs Taper	A Proj.
68314	BT 30	#1	1.19
68315	BT 30	#2	
68317	BT 30	#6	
68318	BT 30	#33	
67175	BT 35	#2	
67178	BT 35	#6	
67179	BT 35	#33	1.77
67190	BT 40	#2	
67191	BT 40	#3	
67192	BT 40	#6	
67193	BT 40	#33	
67195	BT 45	#6	
67196	BT 45	#33	
67197	BT 50	#3	
67198	BT 50	#6	
67199	BT 50	#33	

Accessories – see page 71.

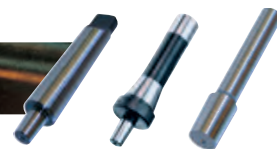
Retention knob separate item – see page 121.

Retention knob socket – see page 122.

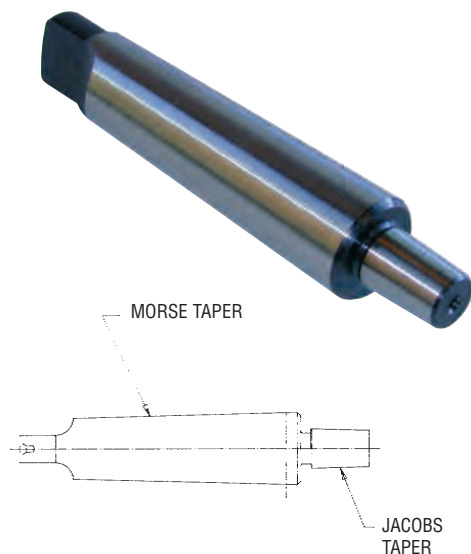




JACOBS TAPER HOLDERS



Morse/Jacobs Taper



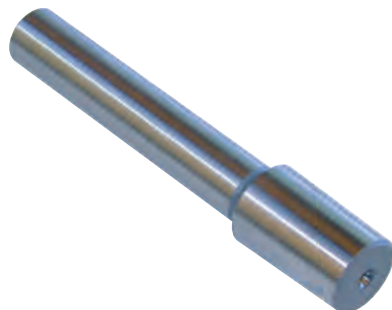
Collis Number	Morse Taper	Jacobs Taper
67535	1	2
67536	2	2
67537	2	3
67538	2	6
67539	2	33
67540	3	2
67541	3	3
67542	3	4
67543	3	6
67544	3	33
67545	4	3
67546	4	4
67547	4	6
67548	4	33
67549	5	3
67550	5	6

R8/Jacobs Taper



Collis Number	Description
75930	R8 JT #1
75931	R8 JT #2
75932	R8 JT #3
75935	R8 JT #4
75934	R8 JT #6
75933	R8 JT #33

Straight Shank/Jacobs Taper



Collis Number	Shank Dia.	Jacobs Taper
67554	1/2	1
67555	1/2	2
67556	1/2	6
67557	1/2	33
67558	5/8	3
67559	3/4	3
67560	3/4	6

Accessories – see page 71.



DRILL CHUCKS



Key Type Drill Chuck



Collis Number	Chuck Capacity	Mount
67561	1/64 - 1/4	JT 1
67562	1/64 - 1/4	3/8 - 24
67563	1/32 - 3/8	3/8 - 24
67564	1/32 - 3/8	JT 2
67565	1/32 - 1/2	JT 33
67566	1/32 - 1/2	JT 6
67567	1/32 - 1/2	1/2 - 20
67568	1/32 - 5/8	JT 3
67569	1/8 - 3/4	JT 4

- Drill Chuck Key included.

Drill Chuck Key



Collis Number	Chuck Capacity
67500	1/64 - 1/4
67501	1/32 - 3/8
67502	1/32 - 1/2
67503	1/32 - 5/8

Collis Jacobs Taper Holders for Jacobs Drill Chucks and Accessories



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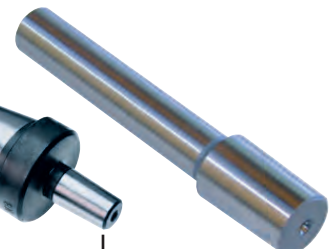
PAGE 69



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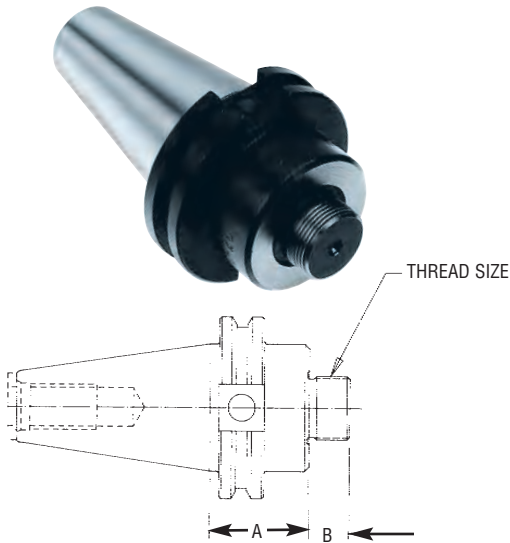
BORING HEAD HOLDERS



CV-Flange Boring Head Holder

Collis Number	Shank Size	Thread Size	A Proj.	B Thd. Length
67980	CV40	7/8-20	1.50	0.44
67982	CV40	1 1/4-20	2.25	0.56
68092	CV40	1 1/2-18	1.87	0.50
67981	CV40	1 1/2-18	2.50	0.50
67988	CV50	7/8-20	1.50	0.44
67989	CV50	1 1/2-18	1.50	0.50

Retention knob separate item – see page 121.



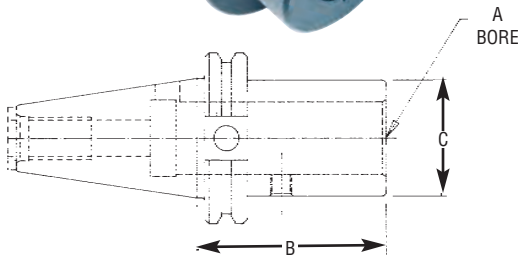
CV-Flange Automotive Straight Shank Holder

Collis Number	Shank	A Bore	B Proj.	C Dia.
68243	CV40	1.0625	2.81	1.70
68248	CV50	1.0625	4.00	1.75
68250	CV50	1.3750	2.00	2.75

See pages 92-94 adjustable adapters.

Using automotive adjustable adapter tooling provides for positive stop adjustment for drills, reamers and taps. Easy to preset or to change tools.

Retention knob separate item – see page 121.

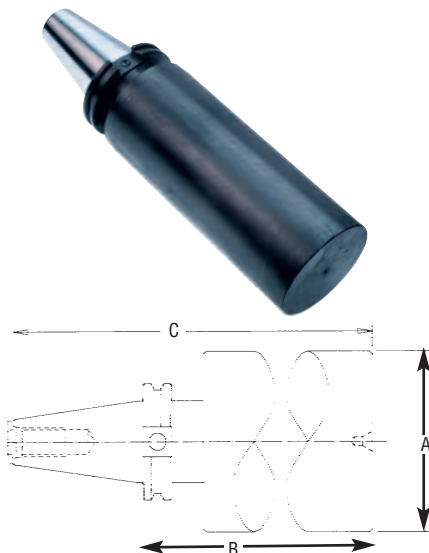


CV-Flange Boring Bar Blank

Collis Number	Shank	A Dia.	B Proj.	C O.A.L.
67680	CV 40	3.88	11.00	13.68
67880	CV 50	3.88	11.00	15.00

Blank bar body is soft to allow for machining. The shank is 8620 and case hardened to Rockwell 52-56 .060 deep. After machining the bar end it can be selectively heat treated for your application.

Retention knob separate item – see page 121.



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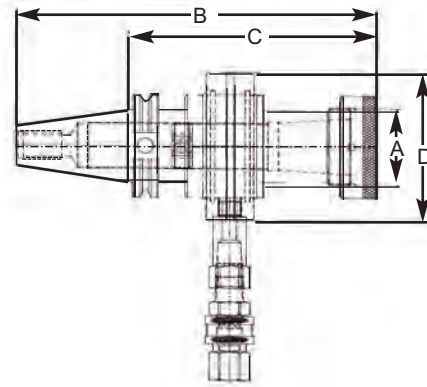


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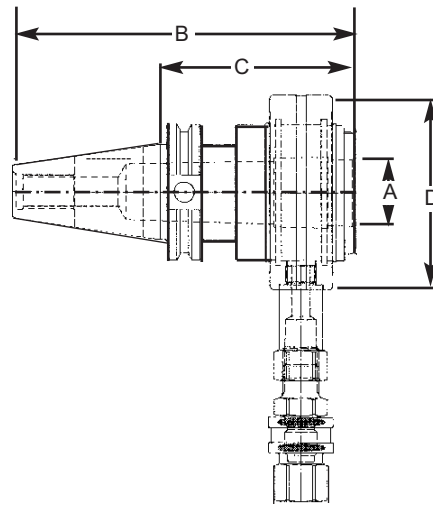
CV SHANK X SINGLE ANGLE

Collis Number	Shank Taper	A	B OAL	C Proj.	D Dia.
73800	40 CV	100 SA	8.69	6.00	3.59
73801	40 CV	150 SA	8.36	5.68	3.96
73802	50 CV	100 SA	9.50	5.50	3.59
73803	50 CV	100 SA	11.50	7.50	3.59
73804	50 CV	150 SA	9.50	5.50	3.59



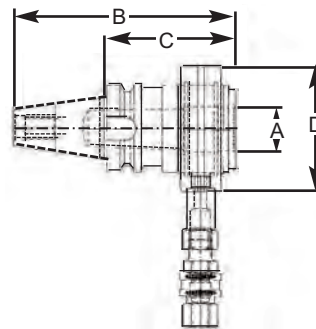
CV SHANK X MORSE TAPER

Collis Number	Shank Taper	A	B OAL	C Proj.	D Dia.
73808	40 CV	3 MT	5.54	2.85	2.83
73809	40 CV	4 MT	6.25	3.56	3.59
73810	50 CV	3 MT	6.95	2.95	2.83
73811	50 CV	4 MT	7.38	3.38	3.59
73812	50 CV	5 MT	7.75	3.75	3.96



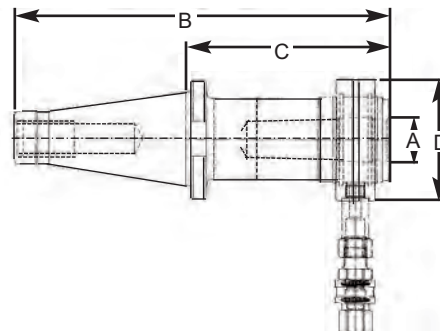
BT SHANK X MORSE TAPER

Collis Number	Shank Taper	A	B OAL	C Proj.	D Dia.
73813	40 BT	3 MT	5.53	2.95	2.83
73814	40 BT	4 MT	6.32	3.74	3.59
73815	50 BT	4 MT	7.75	3.74	3.59
73816	50 BT	5 MT	8.14	4.13	3.59



NMTB SHANK X MORSE TAPER

Collis Number	Shank Taper	A	B OAL	C Proj.	D Dia.
73820	50	3 MT	10.06	5.06	2.83
73821	50	4 MT	10.94	5.94	3.59
73822	50	5 MT	12.25	7.25	3.96



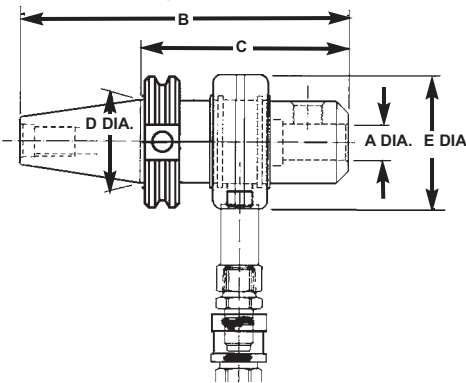


COOLANT INDUCED TOOL HOLDERS



Use Collis Coolant Induced Holders for mounting Weldon Shank Tools and Rotabroach® drills on machine tools & machining centers where there is no provision for feeding coolant through the machine spindle.

- Add performance and life to cutting tools. Reduced wear means higher consistency and tighter tolerances.
- Manufactured with the same precision and quality as all other Collis tools.
- All holders complete with coolant connection.
- 750 SFM/200 PSI on "O" rings.
- Coolant Induced Collars and replacement accessories on page 76.

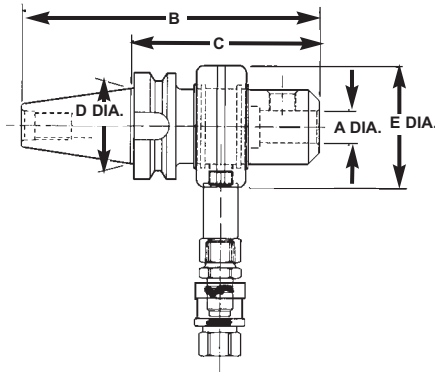


V-Flange Shank

Collis Number	V-F Shk. Number	A Hole Size	B OAL.	C Proj.	E Dia.
73887	40	3/4	7.13	4.44	2.83
73834	40	1	8.68	6.00	3.59
73888	40	1 1/4	8.38	5.69	3.59
73891	50	3/4	8.56	4.56	2.83
73835	50	1	10.00	6.00	3.59
73892	50	1 1/4	9.69	5.69	3.59
73893	50	1 1/2	9.75	5.75	3.96

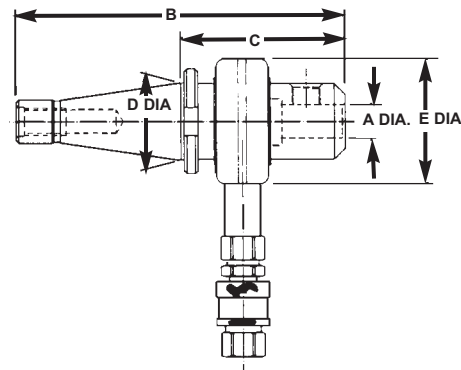
Retention knob separate item – see page 121.

BT Shank



Collis Number	Shank	A Hole Size	B OAL	C Proj.	D Gage Ln. Dia.	E Dia.
73842	30	3/4	6.47	4.56	1.25	2.83
73843	40	3/4	7.01	4.44	1.75	2.83
73844	40	1 1/4	8.26	5.69	1.75	3.59
73845	45	3/4	7.82	4.56	2.25	2.83
73846	45	1 1/4	8.95	5.69	2.25	3.59
73847	50	3/4	8.57	4.56	2.75	2.83
73848	50	1 1/4	9.70	5.69	2.75	3.59
73849	50	1 1/2	9.76	5.75	2.75	3.96

Retention knob separate item – see page 121.



NMTB Shank

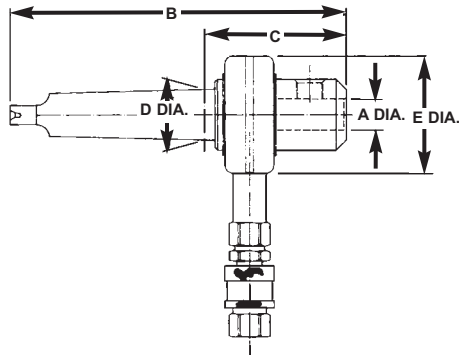
Collis Number	NMTB Shank Number	A Hole Size	B OAL	C Proj.	D Gage Ln. Dia.	E Dia.
73881	40	3/4	7.38	3.69	1.75	2.83
73836	40	1	9.19	5.50	1.75	3.59
73882	40	1 1/4	8.63	4.94	1.75	3.59
73883	50	3/4	8.94	3.94	2.75	2.83
73837	50	1	11.00	6.00	2.75	3.59
73884	50	1 1/4	10.00	5.00	2.75	3.59
73885	50	1 1/2	10.63	5.63	2.75	3.96



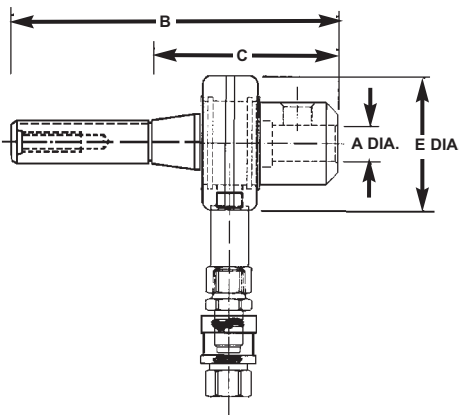
COOLANT INDUCED TOOL HOLDERS



Morse Taper

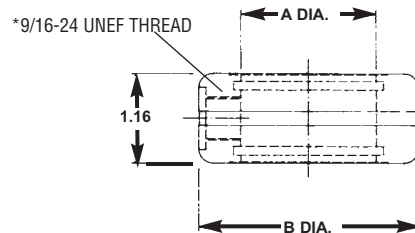


Collis Number	Morse Taper	A Hole Size	B OAL	C Proj.	D Gage Ln. Dia.	E Dia.
73850	2	1/2	6.00	3.06	.700	2.39
73851	2	3/4	6.25	3.31	.700	2.83
73852	3	1/2	6.75	3.06	.938	2.39
73853	3	3/4	7.00	3.31	.938	2.83
73838	3	1	8.69	5.00	.938	3.59
73854	3	1 1/4	8.13	4.44	.938	3.59
73855	4	1/2	7.75	3.13	1.231	2.39
73856	4	3/4	8.00	3.38	1.231	2.83
73839	4	1	9.56	5.00	1.231	3.59
73857	4	1 1/4	9.13	4.50	1.231	3.59
73840	5	1	10.81	5.00	1.748	3.59
73858	5	1 1/4	10.38	4.50	1.748	3.59
73859	5	1 1/2	10.50	4.63	1.748	3.96



R8 Shank

Collis Number	A Hole Size	B OAL	C Proj.	E Dia.
73862	1/2	7.00	3.00	2.39
73863	3/4	7.19	3.19	2.38
73841	1	9.00	5.00	3.59
73864	1 1/4	8.38	4.38	3.59



Coolant Induced Collars

Collis Number	Hole Dia.	A Dia.	B Dia.	Max. RPM	"O" Ring	Retaining Ring
63495	1/2	1.31	2.39	2200	63416	62321
63496	3/4	1.74	2.83	1600	63417	62322
63497	1 & 1-1/4	2.50	3.59	1200	63418	62323
63498	1-1/2	2.87	3.96	1000	63419	62324



Accessories

Extension for Coolant Inducer63295
 Nipple for Coolant Inducer.....63296
 Coupler for Coolant Inducer63297

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GENERAL TOOLS



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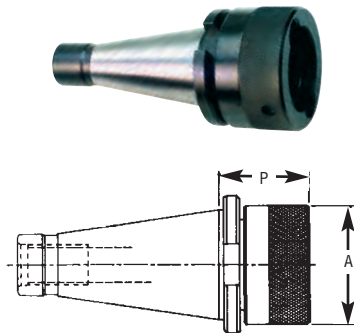
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**GENERAL TOOLS**

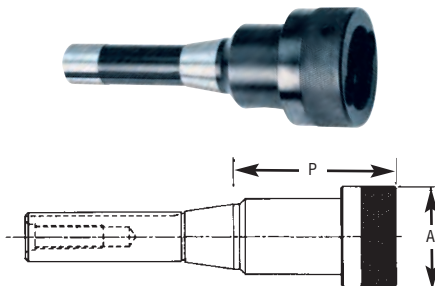
Rapid Switch Master Holders

- Tool changes can be made in just seconds increasing productivity.
- Collis Rapid Switch Tool Holders are completely interchangeable with Universal Kwik-Switch®.
- Broad interchangeability reduces collet and holder inventory.
- Easy operating lock and eject system with minimum overhang.
- Precisely machined positive drive secondary holders reduce cycle times.
- Made in the U.S.A.



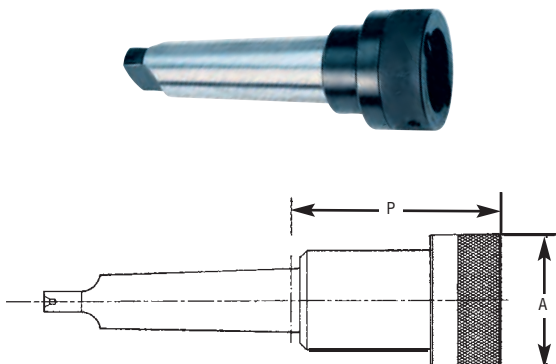
NMTB Shank Holders

Collis Number	NMTB Shank	RS Number	P	A	Wrench
70067	30	200	3.28	2.56	64888
70091	40	200	2.00	2.56	64888
70092	50	200	2.06	2.56	64888
70093	40	300	2.91	3.00	64889
70094	50	300	2.25	3.00	64889



R8 Shank Holders

Collis Number	RS Number	P	A	Wrench
70086	200	3.12	2.56	64888
70087	300	4.00	3.00	64889



Morse Taper Shank Holders

Collis Number	Shank	RS Number	P	A	Wrench
70082	4	200	3.38	2.56	64888
70084	4	300	3.78	3.00	64889
70097	5	200	2.56	2.56	64888
70085	5	300	2.72	3.00	64889
70098	6	200	2.00	2.56	64888
70099	6	300	2.50	3.00	64889

**GENERAL TOOLS**

RAPID SWITCH ADAPTERS

End Mill Adapters

Collis Number	RS Number	P	A	B	C
60063	200	1.41	.375	1.00	.75
60064	200	1.41	.500	1.31	.88
60065	200	1.41	.625	1.63	.94
60066	200	1.66	.750	1.72	1.00
■ 60067	200	1.91	.875	1.94	1.00
■ 60068	200	2.03	1.00	1.94	1.12
60069	300	1.28	.375	1.00	.75
60070	300	1.28	.500	1.38	.88
60071	300	1.28	.625	1.63	.94
60072	300	1.53	.750	1.62	1.00
60073	300	1.53	.875	1.94	1.00
◆ 60075	300	1.72	1.00	1.94	1.12
■ 60076	300	3.19	1.25	2.50	1.12

■ For light duty use and single-end End Mills only.

◆ For single-end End Mills only.

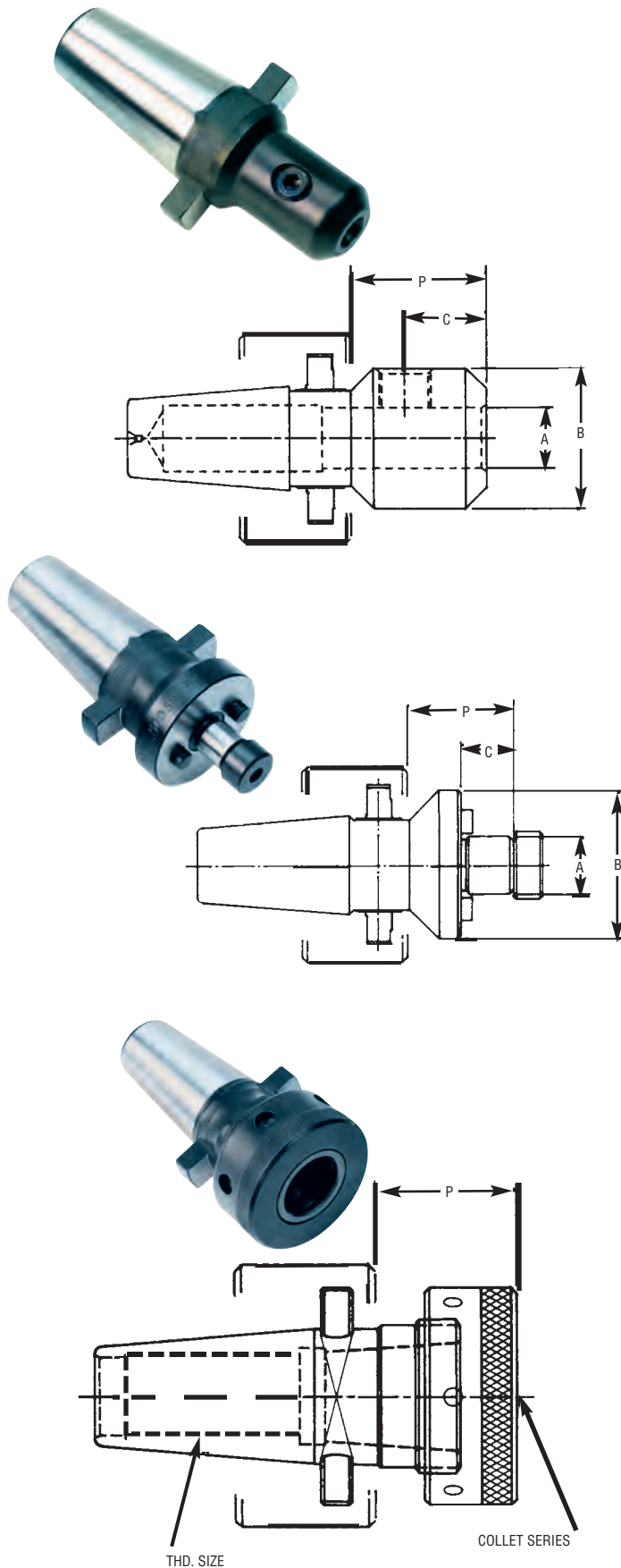
Shell Mill Adapters

Collis Number	RS Number	P	A	B	C	Arbor Screw	Drive Key
70582	200	1.25	.500	1.75	.56	64830	64750
70583	200	1.38	.750	1.94	.69	64831	64751
70584	200	1.38	1.000	2.19	.69	64832	64752
70585	300	1.47	.750	1.94	.69	64831	64751
70586	300	1.47	1.000	2.19	.69	64832	64752
70587	300	1.59	1.250	2.75	.69	64833	64753
70588	300	1.97	1.500	3.62	.94	64834	64754

Collet Chuck Adapters

Collis Number	RS Number	Collet Series	P	Backup Screw Thread Size
70464	200	A-F .11 -.75	1.81	13/16 -16 L.H.
70463	200	DA 180	1.27	13/16 -16 L.H.
70462	200	DA 200	1.10	3/8 -16 L.H.
70570	200	ER 25	1.42	11/16 -16 L.H.
70571	200	ER 40	2.50	7/8 -16 L.H.
70572	200	SA 75	1.38	13/16 -16 L.H.
70573	200	SA 100	3.00	13/16 -16 L.H.
70467	300	A-F .11 -.75	1.41	13/16 -16 L.H.
70468	300	A-F .22 - 1.00	2.03	13/16 -16 L.H.
70574	300	ER 25	1.34	11/16 -16 L.H.
70575	300	ER 40	1.53	7/8 -16 L.H.
70576	300	SA 75	1.38	13/16 -16 L.H.
70577	300	SA 100	3.00	1-1/8 -16 L.H.

See pages 45-49 for Collets.



THD. SIZE

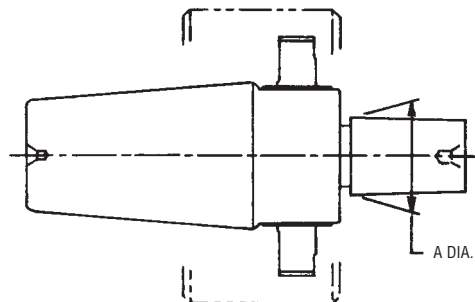
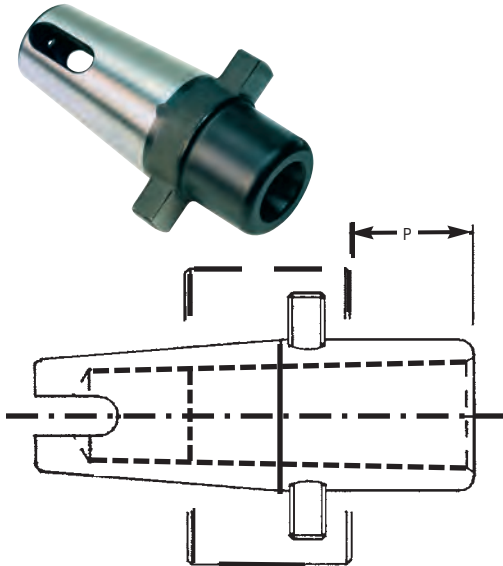
COLLET SERIES


GENERAL TOOLS


RAPID SWITCH ADAPTERS

Morse Taper Adapters

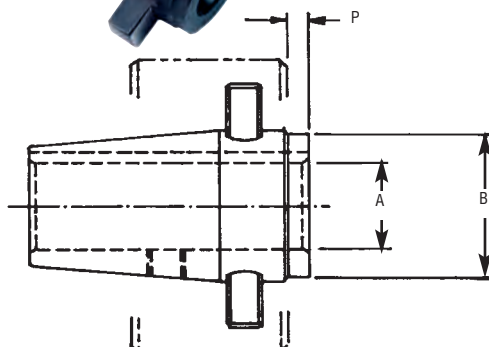
Collis Number	RS Number	M.T. Size	P
60011	200	1	.62
60012	200	2	.75
60013	200	3	1.06
60015	300	2	.72
60016	300	3	.72
60017	300	4	1.59



Jacobs Taper Adapters

Collis Number	RS Number	J.T.	A Dia.
60043	200	2	.559
60044	200	3	.811
60046	200	6	.676
60047	200	33	.624
60049	300	3	.811
60051	300	6	.676
60052	300	33	.624

See drill chuck page 71.



Automotive Straight Shank Adapters

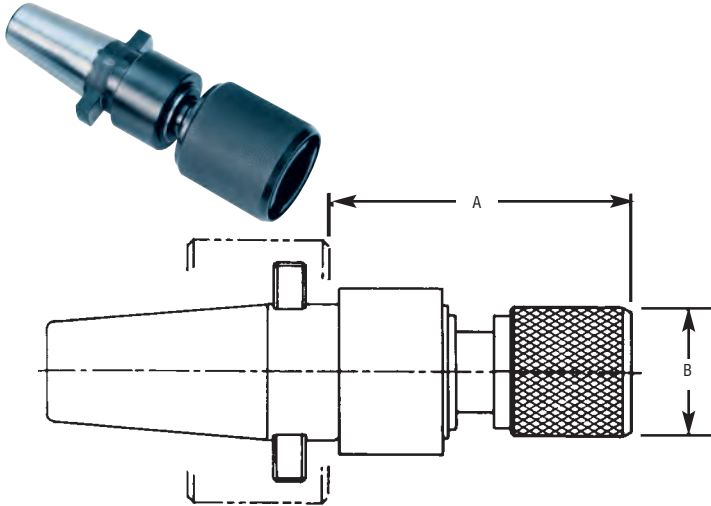
Collis Number	RS Number	P	A	B
60031	200	.19	.750	1.25

See automotive tools page 92.

**GENERAL TOOLS****RAPID SWITCH ADAPTERS****Quick Change Tension/
Compression Tap Holders**

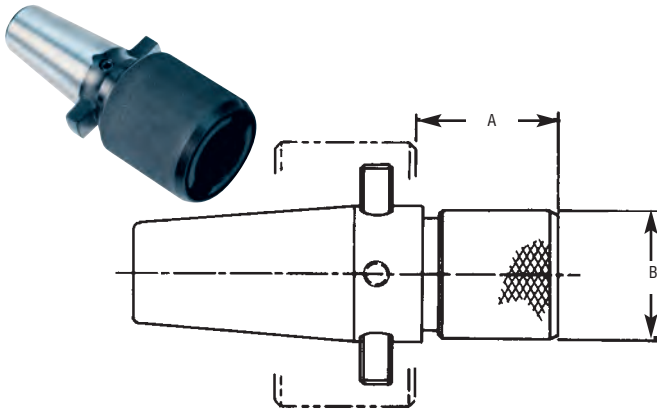
Collis Number	RS Number	Q.C. Size	A Proj.	B Dia.
70592	200	1	3.17	1.25
70593	200	2	3.98	1.96
70596	300	1	3.11	1.25
70597	300	2	3.92	1.96

See pages 61-63 for Tap Adapters.

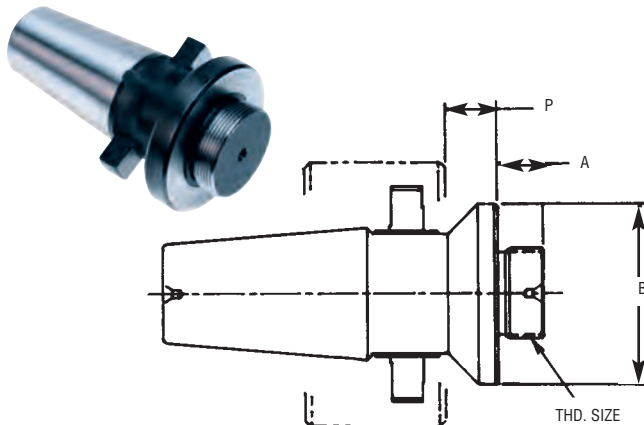
**Quick Change Solid Holders**

Collis Number	RS Number	Q.C. Size	A Proj.	B Dia.
70590	200	1	1.63	1.25
70591	200	2	2.44	1.96
70594	300	1	1.62	1.25
70595	300	2	2.43	1.96

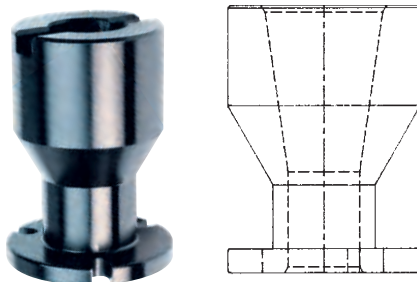
See pages 61-63 for Tap Adapters.

**Boring Head Adapters**

Collis Number	RS Number	Thread Size	P	A	B
70601	200	7/8 - 20	.50	.44	1.75
70603	300	7/8 - 20	.50	.44	1.75
70606	300	1-1/2 - 18	.75	.50	2.50

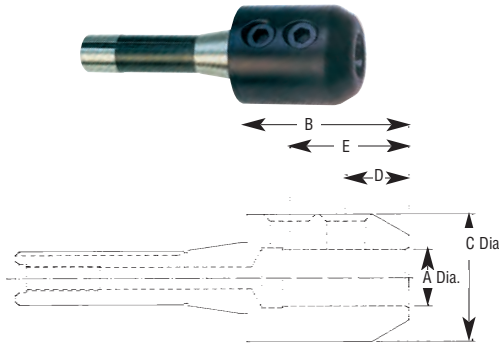
**Locking Fixture**

Collis Number	RS Number
70610	200
70611	300



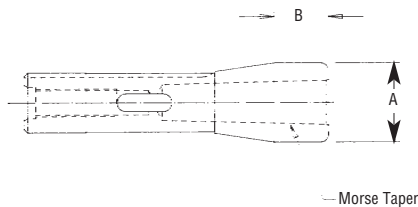

GENERAL TOOLS


R8 End Mill Holders



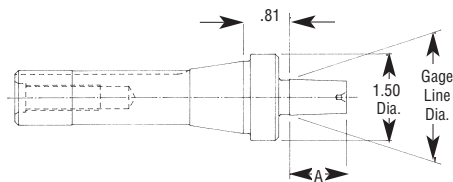
Collis Number	Description	A	B	C	D	E	Set Screw
75900	R8 EMH .187-1.41	.250	1.41	0.69	0.50	—	10-32
75905	R8 EMH 2.50-1.41	.250	1.41	0.69	0.56	—	1/4-28
75901	R8 EMH .375-1.41	.375	1.41	1.00	0.75	—	3/8-24
75902	R8 EMH .500-1.41	.500	1.41	1.38	0.88	—	7/16-20
75903	R8 EMH .625-2.06	.625	2.06	1.62	1.94	—	9/16-18
■ 75904	R8 EMH .750-2.38	.750	2.38	1.75	1.00	—	5/8-18
■ 75911	R8 EMH .875-2.38	.875	2.38	2.00	1.00	1.81	5/8-18
■ 75912	R8 EMH 1.00-3.00	1.00	3.00	2.38	1.12	2.12	3/4-16
■ 75913	R8 EMH 1.25-3.12	1.25	3.12	2.62	1.12	2.12	3/4-16
■ 75915	R8 EMH 1.50-3.38	1.50	3.38	2.75	1.12	2.12	3/4-16

■ Single End Cutters Only.



R8 Morse Taper Holders

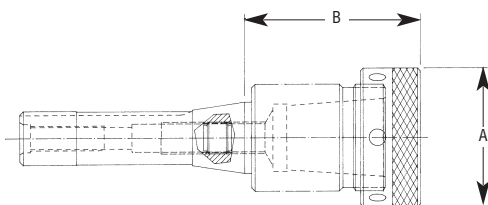
Collis Number	Description	A Dia.	B Proj.
75919	R8 1MT	1.25	.88
75920	R8 2MT	1.25	.88
75921	R8 3MT	1.50	4.62



R8 Jacobs Taper Holders

Collis Number	Description	A Length	Gage Line Dia.
75930	R8 JT #1	0.66	.384
75931	R8 JT #2	0.88	.559
75932	R8 JT #3	1.22	.811
75935	R8 JT #4	1.66	1.124
75934	R8 JT #6	1.00	.676
75933	R8 JT #33	1.00	.624

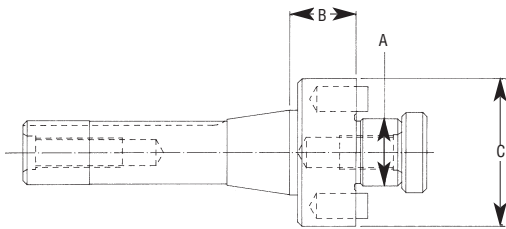
Accessories – see page 71.



R8 Collet Chuck

Collis Number	Description	Nut	B Proj.	Backup Screw	A Dia.
75936	R8 X 75SA	76484	2.38	64768	2.12
75938	R8 X 100SA	76485	3 1/8	64768	2.44
75937	R8 X 16ER	84969	1 1/8	64766	1.08
75939	R8 X 25ER	85007	2.00	64768	1.65
75940	R8 X 40ER	85006	2.50	64768	2.48

See pages 44-49 for Collets.

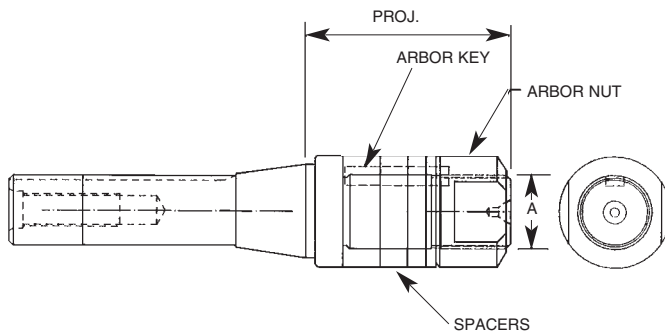

GENERAL TOOLS


R8 Shell Mill Holders

Collis Number	Description	A Pilot	B Proj.	C Dia.
75924	R8 SMH .500-1.00	.500	1.00	1.75
75925	R8 SMH .750-1.00	.750	1.00	1.75
75926	R8 SMH 1.00-1.00	1.00	1.00	2.19
75927	R8 SMH 1.25-1.25	1.25	1.25	2.75
75928	R8 SMH 1.50-1.25	1.50	1.25	3.62

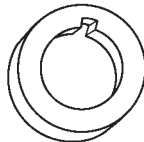
Arbor Screws and Drive Keys included.

Accessories – see page 120.



R8 Stub Mill Holders

Collis Number	Proj.	A Dia.	Spacers	Nut	Key
75214	2.75	1.00	1/8, 1/4, 3/8, 1/2	63134	64796
75215	2.81	1.25	1/8, 1/4, 3/8, 1/2	63135	64797

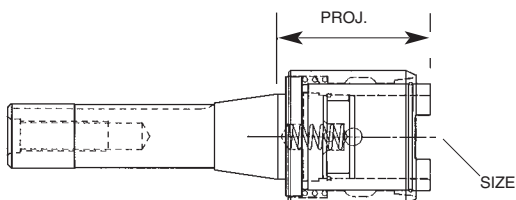


R8 1" Arbor Spacers

Collis Number	Spacers
63310	1/8
63311	1/4
63312	3/8
63313	1/2

R8 1-1/4" Arbor Spacers

Collis Number	Spacers
64310	1/8
64311	1/4
64312	3/8
64313	1/2



R8 Quick Change Tap Adapter

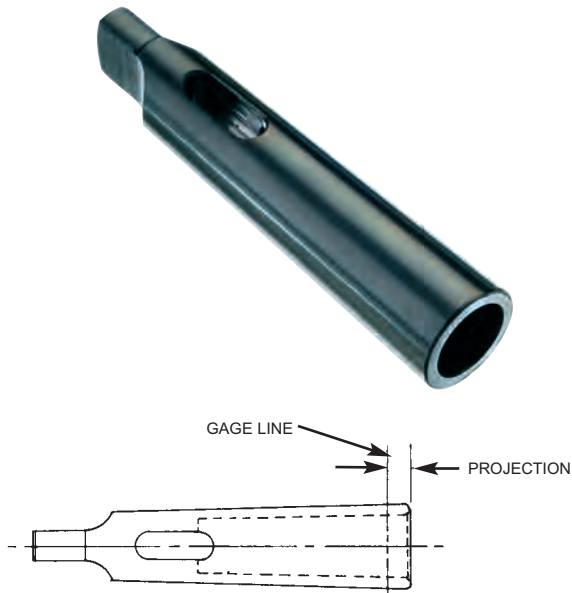
Collis Number	Size	Proj.
75917	1	1.45
75918	2	2.25

See page 61 for Tap Adapters.


GENERAL TOOLS


Reducing Sleeves

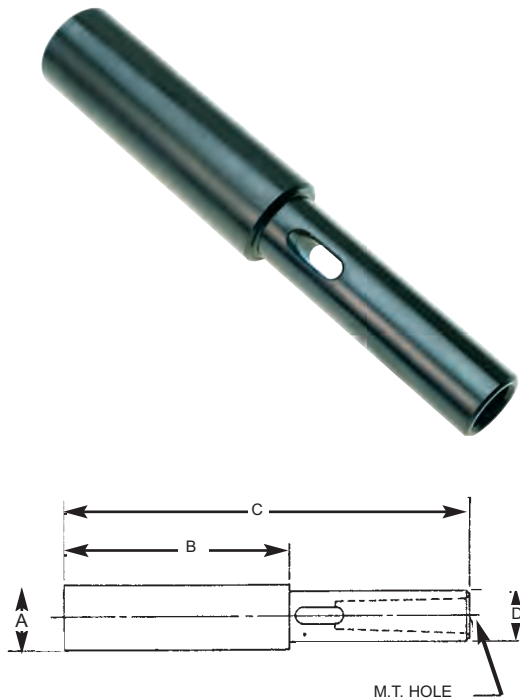
- Adapt small taper shank tools to larger size spindles. Precision ground for excellent concentricity.



Standard Sleeves			Gage Line Diameter	Projection	OAL
Collis Number	Morse Taper				
	Inside	Outside			
60212	1	2	.700	5/8	3 9/16
60213	1	3	.938	1/4	3 15/16
60214	1	4	1.231	1/4	4 7/8
60215	1	5	1.748	1/4	6 1/8
60223	2	3	.938	3/4	4 7/16
60224	2	4	1.231	1/4	4 7/8
60225	2	5	1.748	1/4	6 1/8
60234	3	4	1.231	3/4	5 3/8
60235	3	5	1.748	1/4	6 1/8
60245	4	5	1.748	3/4	6 5/8
60246	4	6	2.494	3/8	8 5/8
60256	5	6	2.494	3/8	8 5/8
60267	6	7	3.270	1-1/4	12 1/2

Rough Sockets

- Rough sockets are provided soft to machine a shank connection of your choice. Shank can selectively be heat treated for better wear characteristics.



Collis Number	Morse Taper Hole Size	A	B	C	D
60901	1	1-1/8	4-1/2	7-1/2	3/4
60902	2	1-1/4	4-1/4	8	1
60903	3	1-1/2	5-3/8	10	1-3/8
60904	4	2	6-7/8	12-1/2	1-13/16
60905	5	2-3/4	9	16	2-1/2

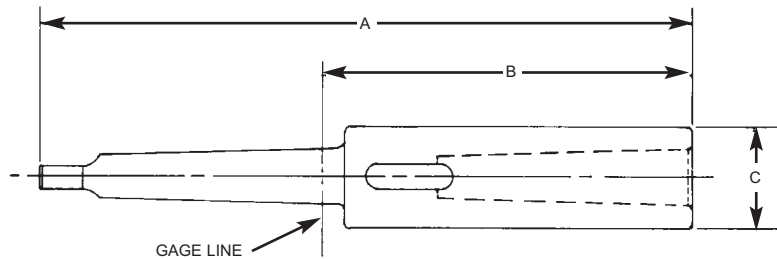


GENERAL TOOLS



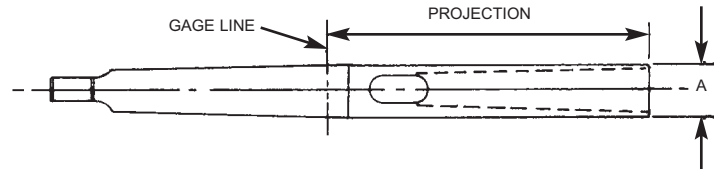
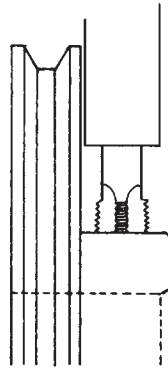
Extension Sockets

- Precision ground for excellent concentricity. Extend morse taper spindle and tools. Increase or decrease the morse taper spindle size of your equipment.



Collis Number	Morse Taper		SHORT LENGTH		MEDIUM LENGTH			LONG LENGTH			C Body Dia.
	Hole Size	Shank Size	A Length	B Proj.	Collis Number	A Length	B Proj.	Collis Number	A Length	B Proj.	
60611	1	1	5-5/8	3-3/16	60711	7-5/8	5-3/16				7/8
60612	1	2	6-3/16	3-1/4	60712	8-3/16	5-1/4	60812	10-3/16	7-1/4	7/8
60613	1	3	6-15/16	3-1/4							1
60621	2	1	6-1/4	3-13/16							1 3/16
60622	2	2	6-13/16	3-7/8	60722	9-3/16	6-1/4	60822	11-9/16	8-5/8	1-3/16
60623	2	3	7-9/16	3-7/8	60723	9-15/16	6-1/4	60823	12-5/16	8-5/8	1-3/16
60624	2	4	8-9/16	3-15/16	60724	10-15/16	6-5/16	60824	13-5/16	8-11/16	1-5/16
*60632	3	2	7-3/4	4-13/16	60732	10-1/2	7-9/16				1 7/16
60633	3	3	8-1/2	4-13/16	60733	11-1/4	7-9/16	60833	14	10-5/16	1-7/16
60634	3	4	9-1/2	4-7/8	60734	12-1/4	7-5/8	60834	15	10-3/8	1-7/16
60635	3	5	10-3/4	4-7/8	60735	13-1/2	7-5/8				1-7/8
*60643	4	3	9-7/16	5-3/4	*60743	12-11/16	9	*60843	15-15/16	12-1/4	1-7/8
60644	4	4	10-7/16	5-13/16	60744	13-11/16	9-1/16	60844	16-15/16	12-5/16	1-7/8
60645	4	5	11-11/16	5-13/16	60745	14-15/16	9-1/16	60845	18-3/16	12-5/16	1-7/8
60653	5	3	10-13/16	7-1/8							2-3/8
*60654	5	4	11-13/16	7-3/16							2-3/8
60655	5	5	13-1/16	7-3/16	60755	16-15/16	11-1/16	60855	20-13/16	14-15/16	2-3/8
60665	6	5	16-1/4	10-1/16							3-3/8
60666	6	6	18-3/4	10-1/8							3-3/8

*NOTE: Where the hole taper is larger than the shank taper it is possible to over power the shank. We caution the user to exercise good judgement to avoid holder damage.


GENERAL TOOLS


Type-C Close Center Tap Drivers

Small diameter for close work, Collis' special designed extensions in projections of 3-1/4", 3-3/4", 4-5/8", 6", 9", provide a range of holders that utilize standard tap or drill and reamer driver.

See Pages 95-103 for additional tap and drill drivers.

Morse Taper Hole Size	Morse Taper Shank Size	A Ext. Dia.	Collis Number			#1 Morse Taper Tap Driver			
			3-1/4" Proj.	6" Proj.	9" Proj.	Tap Size	Collis Number	Tap Size	Collis Number
1 MT	1 MT	.575	75250	75255	75260	0-6	71300	14	71320
1 MT	2 MT	.575	75265	75266	75267	8	71301	1/4	71320
						10	71302	5/16	71321
						12	71303	—	—

Morse Taper Hole Size	Morse Taper Shank Size	A Ext. Dia.	Collis Number			#2 Morse Taper Tap Driver			
			3-3/4" Proj.	6" Proj.	9" Proj.	Tap Size	Collis Number	Tap Size	Collis Number
2 MT	2 MT	.800	75252	75257	75262	1/4	72420	5/8	72427
						5/16	72421	11/16	72428
						3/8	72423	1/16-1/8 SS P.T.	72450
						7/16	72424	1/8 LS P.T.	72451
						1/2	72425	7/16 PULLEY	72434
						9/16	72426	—	—

Morse Taper Hole Size	Morse Taper Shank Size	A Ext. Dia.	Collis Number			#3 Morse Taper Tap Driver			
			4-5/8" Proj.	6" Proj.	9" Proj.	Tap Size	Collis Number	Tap Size	Collis Number
3 MT	3 MT	1.10	75254	75259	75264	1/2	73420	3/4	73424
						9/16	73421	7/8	73425
						5/8	73422	1/4 P.T.	73450
						11/16	73423	1/2 PULLEY	73430

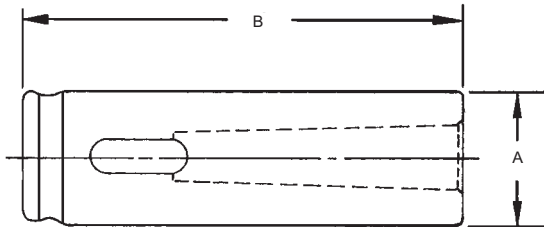
Standard ISO Taps may be used with these Tap Drivers.


GENERAL TOOLS


Turret Tool Holders

EXCLUSIVE EASY-ENTRY

Turret Tool Holders for Morse Taper Shank Tools – precision ground for excellent concentricity.



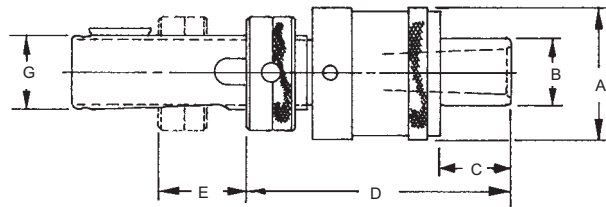
HARDENED & GROUND SHORT SERIES		HARDENED & GROUND LONG SERIES		Outside Diameter A	Morse Taper Hole Size
Collis Number	Length B	Collis Number	Length B		
62801	2-3/8	62941	4	.999	#1
62802	2-15/16	62942	4	.999	#2
62803	2-3/8	62943	4	1.249	#1
62804	2-15/16	62944	4	1.249	#2
62805	3-19/32	62945	5-3/4	1.249	#3
62806	2-3/8	62946	4	1.499	#1
62807	2-15/16	62947	4	1.499	#2
62808	3-19/32	62948	5-3/4	1.499	#3
62809	4-1/2	62949	5-3/4	1.499	#4
62811	2-15/16	62951	4	1.749	#2
62812	3-19/32	62952	5-3/4	1.749	#3
62813	4-1/2	62953	5-3/4	1.749	#4
62814	2-15/16	62954	4	1.999	#2
62815	3-19/32	62955	5-3/4	1.999	#3
62816	4-1/2	62956	5-3/4	1.999	#4
62817	5-3/4	62957	7	1.999	#5
		62958	5-3/4	2.249	#3
		62959	5-3/4	2.249	#4
62820	5-3/4	62960	7	2.249	#5
62821	3-19/32			2.499	#3
62822	4-1/2	62962	5-3/4	2.499	#4
62823	5-3/4	62963	7	2.499	#5
		62964	10-1/8	3.249	#6
		62965	10-1/8	3.499	#6


GENERAL TOOLS


Floating Holders

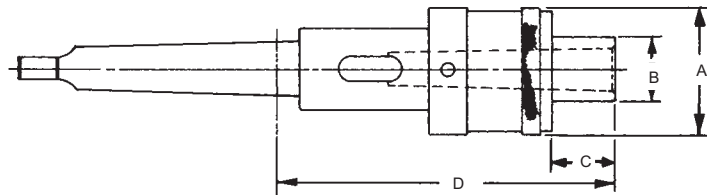
Full floating action that compensates for the misalignment of the tool to the work piece. Lateral float is 1/32" from centerline. Precision action of the holder provides the drive for the closest tolerance work. These holders are self-centering and internal float members are shielded from the intrusion of chips and dirt. All steel working surfaces as well as shank and holder hole are heat treated to maintain precision of spindles and tools.

Morse tapered hole holders when used with the Split Sleeve Reamer and Tap Drivers offer tooling adaptation, simplified floating action minimizes downtime and maintenance requirements.



Automotive Shank – Short Projection

Collis Number	Morse Taper Hole Size	Shank Size G	Morse Taper Driver Range		Body Dia. A	Nose Dia. B	Nose Length C	Min. Proj. D	Axial Adjust. E
			Max. Reamer Size	Max. Tap Size					
77192	1	1-1/16-12	15/32	3/8 SS H.T.	1-9/16	3/4	3/32	1.81	1
77193	2	1-1/16-12	23/32	11/16 H.T.	1-15/16	1	11/32	2.12	1
77194	2	1-3/8-12	23/32	11/16 H.T.	1-15/16	1	11/32	2.12	1-1/8



Morse Taper Shank – Short Projection

Collis Number	Morse Taper Hole Size	Morse Taper Shank Size	Morse Taper Driver Range		Body Dia. A	Nose Dia. B	Nose Length C	Projection D
			Reamer Size	Tap Size				
77003	1	2	15/32	3/8 SS H.T.	1-9/16	3/4	1/2	3-21/32
77005	2	2	23/32	11/16 H.T.	1-15/16	1	55/64	3-31/32
77006	2	3	23/32	11/16 H.T.		1	55/64	3-31/32
77009	3	3	31/32	7/8 H.T.	2-1/2	1-1/2	1-1/4	5-9/32
77010	3	4	31/32	7/8 H.T.		1-1/2	1-1/4	5-3/8
77012	4	3	31/32	1-1/8 H.T.	3-1/8	1-7/8	1-55/64	6-1/8
77013	4	4	31/32	1-1/8 H.T.		1-7/8	1-55/64	6-3/16

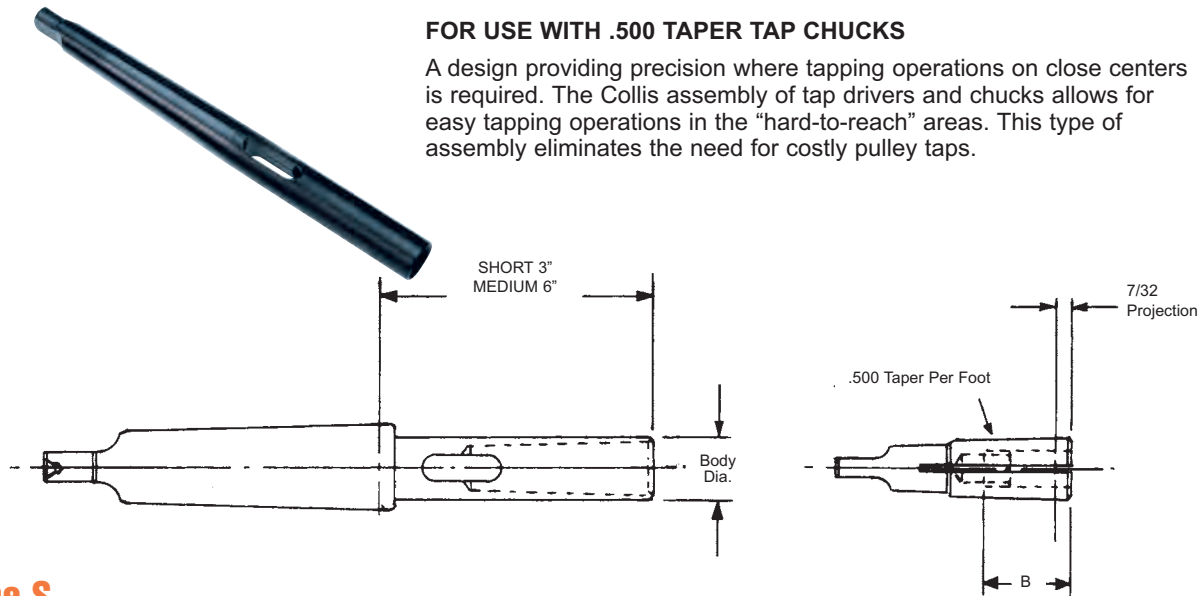


GENERAL TOOLS



FOR USE WITH .500 TAPER TAP CHUCKS

A design providing precision where tapping operations on close centers is required. The Collis assembly of tap drivers and chucks allows for easy tapping operations in the "hard-to-reach" areas. This type of assembly eliminates the need for costly pulley taps.

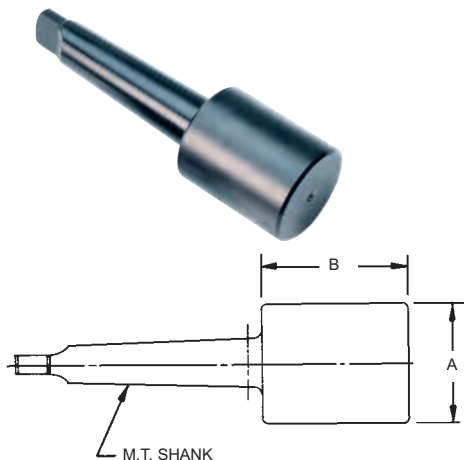


Type S Close Center Tap Drivers

Collis Number	Proj.	Body Dia.	Morse Taper Shank	Tap Chuck Range
75273	3.0	29/64	1	A
75274	6.0	29/64	1	A
75276	3.0	1/2	1	B
75277	6.0	1/2	1	B
75279	3.0	1/2	2	B
75280	6.0	1/2	2	B
75282	3.0	9/16	1	C
75283	6.0	9/16	1	C
75285	3.0	9/16	2	C
75286	6.0	9/16	2	C
75288	3.0	11/16	2	D
75289	6.0	11/16	2	D
75291	3.0	11/16	3	D
75292	6.0	11/16	3	D
75294	3.0	7/8	3	E
75295	6.0	7/8	3	E

Type S Close Center Tap Chucks

Collis Number	Range	Tap Size			Tap Dimensions		B Depth Tap Enters Chuck Dimension
		Machine Screw	Hand	Pipe	Shank	Square	
76504	A	10			.184	.152	57/64
76505	A	12			.220	.165	29/32
76506	A	14	1/4		.255	.191	31/32
76507	A		3/8 S.S.		.275	.206	1-3/64
76508	B			1/16, 1/8 S.S.	.312	.234	1
76509	B		5/16		.318	.238	1
76510	B		7/16		.323	.242	1-5/64
76511	C		1/2		.367	.275	1-7/64
76512	C		3/8 L.S.		.381	.286	1-3/64
76513	D		9/16		.429	.322	1-17/64
76514	D				.480	.360	1-17/64
76515	D			1/8 L.S.	.437	.328	1
76516	E		3/4		.590	.442	1-17/64
76517	E			1/4	.562	.421	1-1/8



BLANK END ARBORS

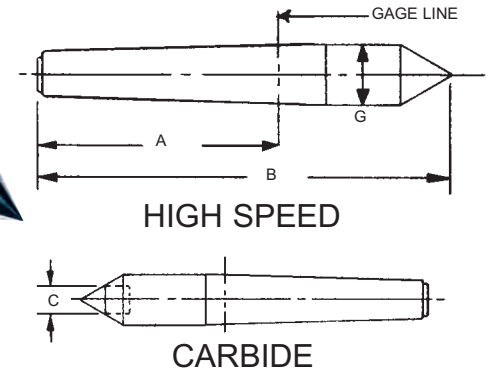
Furnished soft with a precision ground soft Morse Taper Shank. This part can be selectively heat treated after machining.

Collis Number	Morse Taper Shank	A Body Diameter	B Body Length
67702	#2	1-3/4"	2-1/8"
67703	#3	1-3/4"	2-1/8"
67704	#4	2-1/2"	3"
67705	#5	3"	4-1/16"
67706	#6	3"	4-1/16"


GENERAL TOOLS


Lathe Centers For Grinding & Turning

All lathe centers have 60° points



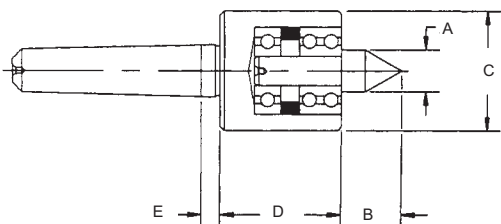
HI- SPEED	CARBIDE		A	B	C	G
Collis Number	Collis Number	Shank Size	Length	Overall Length	Carbide Tip Dia.	Dia.
62001		1	2-1/8	3-5/16		.481
62002	62402	2	2-9/16	4-3/16	.375	.706
62003	62403	3	3-3/16	5-1/4	.500	.948
62004	62404	4	4-1/16	6-3/4	.625	1.244
62005	62405	5	5-3/16	8-1/2	.750	1.768
62006	62406	6	7-1/4	11-1/2	.875	2.520



Collis Precision Live Centers are designed to handle the heaviest loadings and to provide capacity to take thrust and radial load without undue wear. Collis Centers will give you faster production, greater accuracy and long dependable service. **MAXIMUM RUNOUT $\leq$.0002 T.I.R.**

General Duty Live Centers

Collis Number	Morse Taper	A	B	C	D	E	Load Rating
66702	2	.75	1.02	1.75	1.75	.19	1000
66703	3	.75	1.02	1.75	1.75	.31	1000
66704	4	1.12	1.31	2.52	2.88	.31	2400
66705	5	1.12	1.31	2.52	2.88	.31	2400



**GENERAL TOOLS**

Precision 60° Heavy Duty Live Centers



Collis Number	Morse Taper	Center Dia.	Body Dia.	Length	lbs.
65701	1	.625	1.37	4.57	200
65702	2	.875	1.50	5.00	600
65703	3	1.12	1.87	6.25	900
65704	4	1.38	2.18	7.50	1800
65705	5	1.75	2.75	9.50	3000
65706	6	2.37	3.50	12.75	7500

Precision 60° Heavy Duty Bull Nose Live Centers

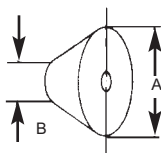


Collis Number	Morse Taper	Cone Large Dia.	Cone Small Dia.	Projection	Load
65713	3	3.15	1.380	3.19	1100
65714	4	4.52	1.730	3.62	2200
65715	5	5.30	1.810	4.33	3200

Roughing Bull Nose Assembly

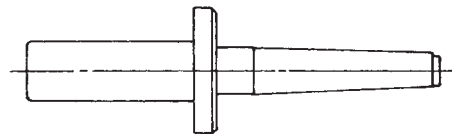


Collis Number	Assembly	Morse Shank
79812	3.5 x 1" Cone	2
79813	3.5 x 1" Cone	3
79814	3.5 x 1" Cone	4
79815	3.5 x 1" Cone	5
79822	6.5 x 3.25" Cone	2
79823	6.5 x 3.25" Cone	3
79824	6.5 x 3.25" Cone	4
79825	6.5 x 3.25" Cone	5



Cones

Collis Number	Description
63101	B=1" A=3-1/2" Hardened Steel Cone
63102	B=3-1/4" A=6-1/2" Durable Steel Cone



Arbor Shanks

HARDENED	Morse Taper	NOTE
Collis Number		
63302	2	
63303	3	
63304	4	
63305	5	

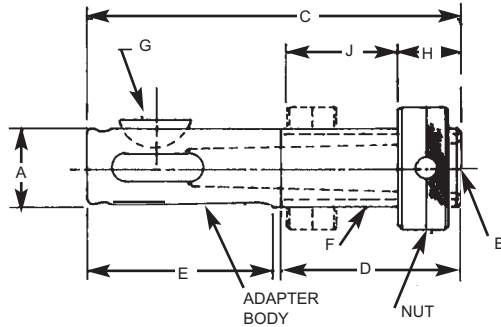
Either large cone
or small cone will
fit any arbor.

**GENERAL TOOLS**

Automotive Adjustable Adapter Assemblies

Multiple spindles require the accuracy of precision Acme threads and the concentricity of a precisely ground O.D. and I.D. All adapters are produced to precise automotive standards to maintain maximum spindle performance and minimize tool runout.

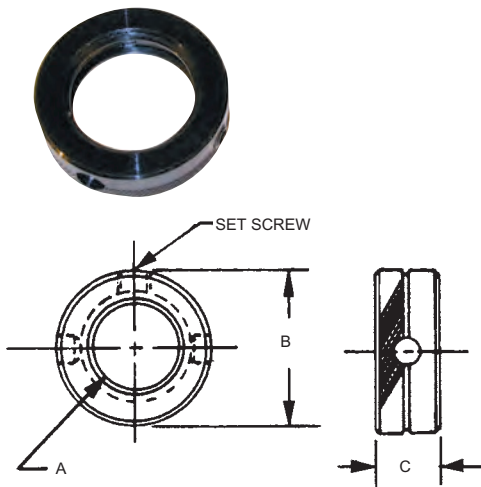
The lock nut provides the positive positioning desired in the spindle.



Collis Assembly	Lock Nut (only)	A Outside Dia.	B Morse Taper Hole Size	C Length	D Length of Thread	E Length of Flat	F National Acme Thread Size	H Min. Proj.	J Axial Adj.	G Woodruff Key Size
70700	66601	1/2	0	3	1-1/2	1-3/8	1/2-16	3/8	1-1/8	1/8x5/8
70701	66602	5/8	1	3	1-1/2	1-3/8	5/8-16	3/8	1-1/8	5/32x5/8
70711	66603	3/4	1	3	1-1/2	1-3/8	3/4-12	3/8	1-1/8	5/32x5/8
70712	66604	7/8	2	3-5/8	1-5/8	1-7/8	7/8-12	3/8	1-1/4	3/16x3/4
70721	66605	1	1	3-5/8	1-5/8	1-7/8	1-12	3/8	1-1/4	3/16x7/8
70722	66605	1	2	3-5/8	1-5/8	1-7/8	1-12	3/8	1-1/4	3/16x7/8
70731	66606	1-1/16	1	3-5/8	1-5/8	1-7/8	1-1/16-12	3/8	1-1/4	3/16x7/8
70732	66606	1-1/16	2	3-5/8	1-5/8	1-7/8	1-1/16-12	3/8	1-1/4	3/16x7/8
70742	66607	1-3/8	2	4-5/8	1-7/8	2-5/8	1-3/8-12	3/8	1-1/2	1/4x1
70743	66607	1-3/8	3	4-5/8	1-7/8	2-5/8	1-3/8-12	3/8	1-1/2	1/4x1
70751	66608	1-7/8	1	5-5/8	2-1/2	3	1-7/8-12	1/2	2	5/16x1-1/4
70752	66608	1-7/8	2	5-5/8	2-1/2	3	1-7/8-12	1/2	2	5/16x1-1/4
70753	66608	1-7/8	3	5-5/8	2-1/2	3	1-7/8-12	1/2	2	5/16x1-1/4
70754	66608	1-7/8	4	5-5/8	2-1/2	3	1-7/8-12	1/2	2	5/16x1-1/4

Locknuts

The locknut provides the positive positioning stop desired in the spindle.

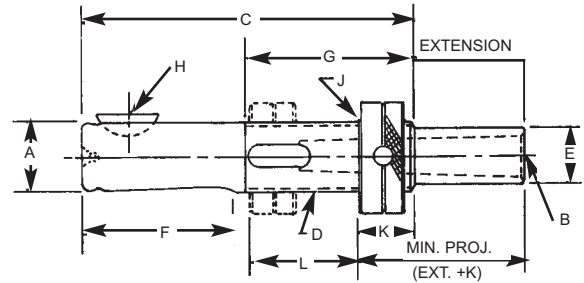


Collis Number	Nominal Body Size	A Inside Thread	B Outside Diameter	C Width
66601	1/2	1/2-16	7/8	.375
66602	5/8	5/8-16	1	.375
66603	3/4	3/4-12	1-1/4	.375
66604	7/8	7/8-12	1-1/4	.375
66605	1	1-12	1-1/2	.375
66606	1-1/16	1-1/16-12	1-9/16	.375
66607	1-3/8	1-3/8-12	1-7/8	.375
66608	1-7/8	1-7/8-12	2-5/8	.500
66611	1-1/4	1-1/4-12	1-3/4	.375


GENERAL TOOLS

Automotive Spindle Extension Assemblies

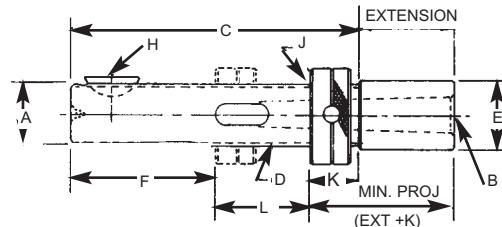
Style "A"



EXTENSION				A Adapter Size	B Morse Taper Hole	C Shank Length	D Thread Size	E Dia.	F	G	H	K	L	J Adj Nut
1"	2"	3"	4"											
COLLIS NUMBER														
68806	68807	68808	68809	3/4	1	3	3/4-12	5/8	1-3/8	1-1/2	5/32x5/8	3/8	1-1/8	66603
68812	68813	68814	68815	7/8	1	3-5/8	7/8-12	3/4	1-7/8	1-5/8	3/16x3/4	3/8	1-1/4	66604
68824	68825	68826	68827	1	2	3-5/8	1-12	7/8	1-7/8	1-5/8	3/16x7/8	3/8	1-1/4	66605
68830	68831	68832	68833	1-1/16	1	3-5/8	1-1/16-12	15/16	1-7/8	1-5/8	3/16x7/8	3/8	1-1/4	66606
68836	68837	68838	68839	1-1/16	2	3-5/8	1-1/16-12	15/16	1-7/8	1-5/8	3/16x7/8	3/8	1-1/4	66606
68842	68843	68844	68845	1-3/8	2	4-5/8	1-3/8-12	1-1/4	2-5/8	1-7/8	1/4x1	3/8	1-1/2	66607
68848	68849	68850	68851	1-3/8	3	4-5/8	1-3/8-12	1-1/4	2-5/8	1-7/8	1/4x1	3/8	1-1/2	66607
68854	68855	68856	68857	1-7/8	3	5-5/8	1-7/8-12	1-3/4	3	2-1/2	5/16x1-1/4	1/2	2	66608
68860	68861	68862	68863	1-7/8	4	5-5/8	1-7/8-12	1-3/4	3	2-1/2	5/16x1-1/4	1/2	2	66608

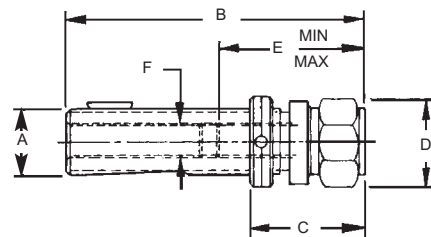

GENERAL TOOLS


Adjustable Spindle Extension Assemblies Style "B"



EXTENSION			A Adapter Size	B Morse Taper Hole	C Shank Length	D Thread Size	E Dia.	F	H	K	L	J Adj. Adapter Nut
2"	3"	4"										
COLLIS NUMBER												
68900	68901	68902	1/2	0	3	1/2-16	1/2	1-3/8	1/8x5/8	3/8	1-1/8	66601
68905	68906	68907	5/8	1	3	5/8-16	5/8	1-3/8	5/32x5/8	3/8	1-1/8	66602
68910	68911	68912	3/4	2	3	3/4-12	1-1/16	1-3/8	5/32x5/8	3/8	1-1/8	66603
68915	68916	68917	7/8	2	3-5/8	7/8-12	1-1/16	1-7/8	3/16x3/4	3/8	1-1/4	66604
68925	68926	68927	1-1/16	3	3-5/8	1-1/16-12	1-5/16	1-7/8	3/16x7/8	3/8	1-1/4	66606
68930	68931	68932	1-3/8	4	4-5/8	1-3/8-12	1-3/4	2-5/8	1/4x1	3/8	1-1/2	66607

Automotive Shank Double Angle Collet Holders



See page 52 for Double Angle Collets.

Collis Number	Collet Series	A Shank Dia.	B Overall Length	C		D Hex	E		F Max. Dia. Thru Shank
				Min.	Max.		Min.	Max.	
76600	300	5/8-16	4-5/32	1-21/32	2-17/32	11/16	1-1/2	3-13/16	1/4
76601	100	7/8-12	5-1/2	2-3/8	3-1/2	1-1/4	1-3/4	4-7/8	1/2
76602	100	1-1/16-12	5-3/16	2-1/16	3-3/16	1-1/4	1-15/16	4-9/16	9/16
76604	180	1-3/8-12	6-1/4	2-1/8	3-1/2	1-1/2	1-15/16	5-9/16	3/4



GENERAL TOOLS



Split Sleeve Drill and Reamer Drivers For Tanged Straight Shank Drills and Reamers Also known as Drill Chucks or Split Drivers

Straight shank tanged drills cost you much less than Morse taper shank drills of the same size. Collis Split Drivers provide the means of precisely adapting straight shank drills to Morse taper spindles and other taper hole holders.

Reduce your tool costs using straight shank drills and reamers with Collis Precision Split Drivers.

Made of high quality material, properly heat treated to fully utilize the superb gripping action split construction. The Collis Drivers conform to Automotive standards.

Precision hole sizing, combined with "Flex Action" grip holds the drill so that resistance to pull-out is maximized. Bore and outside taper are held to close concentricity for best performance of the drills. Stock drill sizes by each outside taper are readily available as listed. Sizes not listed can be quoted and supplied on request.

On Drill, Center Drill, and Tap Drivers
the following projection dimensions are applicable:

#0 Morse Taper	5/32" Proj.
#1 Morse Taper	3/16" Proj.
#2 Morse Taper	1/4" Proj.
#3 Morse Taper	1/4" Proj.
#4 Morse Taper	3/8" Proj.

• Other sizes available upon request.

Drill Size	Decimal Equiv.	Hole +.000 -.001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters
53	.0595	.0591	70115					7/16
1.55MM	.0610	.0610	70116	71116	72201			
1/16	.0625	.0625	70117	71117	72202			
1.60MM	.0630	.0625	70117	71117	72202			
52	.0635	.0635	70119	71119	72204			
1.70MM	.0669	.0669	70121	71121	72206			
51	.0670	.0669	70121	71121	72206			
50	.0700	.0700	70122	71122	72207			
1.80MM	.0709	.0700	70122	71122	72207			
1.85MM	.0728	.0728	70123	71123	72208			
49	.0730	.0728	70123	71123	72208			
48	.0760	.0760	70124	71124	72209			
1.95MM	.0768	.0760	70124	71124	72209			
5/64	.0781	.0781	70125	71125				1/2
47	.0785	.0785	70126	71126	72211			
2.00MM	.0787	.0785	70126	71126	72211			
2.05MM	.0807	.0807	70127	71127	72212			
46	.0810	.0807	70127	71127	72212			
45	.0820	.0820	70128	71128	72213			
2.10MM	.0827	.0820	70128	71128	72213			
44	.0860	.0860	70130	71130	72215			
2.20MM	.0866	.0860	70130	71130	72215			
2.25MM	.0886	.0886	70131	71131	72216			
43	.0890	.0886	70131	71131	72216			
2.30MM	.0906	.0906	70132	71132	72217			
2.35MM	.0925	.0925	70279	71419	72619			
42	.0935	.0935	70134	71134	72219			
3/32	.0938	.0935	70134	71134	72219			


GENERAL TOOLS


Drill Size	Decimal Equiv.	Hole +.000 -.001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters	Tang Thickness Min. Max.		Tang Length
2.40MM	.0945	.0945	70280	71420	72620			9/16			
41	.0960	.0960	70135	71135	72220						
2.45MM	.0965	.0960	70135	71135	72220						
40	.0980	.0980	70136	71136	72221						
2.50MM	.0984	.0980	70136	71136	72221						
39	.0995	.0995	70137	71137	72222						
2.55MM	.1004	.0995	70137	71137	72222						
38	.1015	.1015	70138	71138	72223						
2.60MM	.1024	.1015	70138	71138	72223						
37	.1040	.1040	70140	71140	72225						
2.65MM	.1043	.1040	70140	71140	72225						
2.70MM	.1063	.1063	70141	71141	72226						
36	.1065	.1063	70141	71141	72226						
7/64	.1094	.1094	70142	71142	72227						
35	.1100	.1100	70143	71143	72228			5/8			
2.80MM	.1102	.1100	70143	71143	72228						
34	.1110	.1110	70144	71144	72229						
2.85MM	.1122	.1122	70145	71145	72230						
33	.1130	.1122	70145	71145	72230						
32	.1160	.1160	70146	71146	72231						
2.95MM	.1161	.1160	70146	71146	72231						
3.00MM	.1181	.1181	70292	71432	72632						
31	.1200	.1200	70147	71147	72232						
3.05MM	.1201	.1200	70147	71147	72232						
3.10MM	.1220	.1220	70148	71148	72233			3/4	.090	.094	9/32
1/8	.1250	.1250	70149	71149	72234						
3.20MM	.1260	.1250	70149	71149	72234						
3.25MM	.1280	.1275	70150	71150	72235						
30	.1285	.1275	70150	71150	72235						
3.30MM	.1299	.1294	70151	71151	72236						
3.40MM	.1339	.1334	70152	71152	72237						
29	.1360	.1355	70153	71153	72238						
3.50MM	.1378	.1373	70154	71154	72239						
28	.1405	.1400	70156	71156	72241						
9/64	.1406	.1400	70156	71156	72241						
3.60MM	.1417	.1412	70354	71438	72638						
27	.1440	.1435	70157	71157	72242						
3.70MM	.1457	.1452	70355	71439	72639						
26	.1470	.1465	70158	71158	72243						
3.75MM	.1476	.1465	70158	71158	72243						
25	.1495	.1490	70159	71159	72244						
3.80MM	.1496	.1490	70159	71159	72244						
24	.1520	.1515	70160	71160	72245						
23	.1540	.1535	70161	71161	72246						
5/32	.1563	.1558	70162	71162	72247						
22	.1570	.1565	70163	71163	72248						
4.00MM	.1575	.1565	70163	71163	72248						
21	.1590	.1585	70164	71164	72249						
20	.1610	.1605	70165	71165	72250						
4.10MM	.1614	.1605	70165	71165	72250						
4.20MM	.1654	.1649	70166	71166	72251						
19	.1660	.1649	70166	71166	72251						



GENERAL TOOLS



Drill Size	Decimal Equiv.	Hole +.000 -.001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters	Tang Thickness Min. Max.		Tang Length
4.30MM	.1693	.1688	70167	71167	72252			3/4	.090	.094	9/32
18	.1695	.1688	70167	71167	72252						
11/64	.1719	.1714	70168	71168	72253						
17	.1730	.1725	70169	71169	72254						
4.40MM	.1732	.1725	70169	71169	72254						
16	.1770	.1765	70170	71170	72255						
4.50MM	.1772	.1765	70170	71170	72255						
15	.1800	.1795	70171	71171	72256						
4.60MM	.1811	.1806	70364	71448	72648						
14	.1820	.1815	70172	71172	72257						
13	.1850	.1845	70173	71173	72258						
4.70MM	.1850	.1845	70173	71173	72258						
4.75MM	.1870	.1865	70174	71174	72259						
3/16	.1875	.1865	70174	71174	72259						
4.80MM	.1890	.1885	70175	71175	72260			7/8	.118	.122	5/16
12	.1890	.1885	70175	71175	72260						
11	.1910	.1905	70176	71176	72261						
4.90MM	.1929	.1924	70177	71177	72262						
10	.1935	.1924	70177	71177	72262						
9	.1960	.1955	70178	71178	72263						
5.00MM	.1969	.1955	70178	71178	72263						
8	.1990	.1985	70179	71179	72264						
5.10MM	.2008	.2003	70180	71180	72265						
7	.2010	.2003	70180	71180	72265						
13/64	.2031	.2026	70181	71181	72266						
6	.2040	.2035	70182	71182	72267						
5.20MM	.2047	.2035	70182	71182	72267						
5	.2055	.2050	70183	71183	72268						
5.30MM	.2087	.2082	70184	71184	72269						
4	.2090	.2082	70184	71184	72269						
5.40MM	.2126	.2121	70185	71185	72270						
3	.2130	.2121	70185	71185	72270						
5.50MM	.2165	.2160	70373	71457	72657						
7/32	.2188	.2183	70186	71186	72271						
5.60MM	.2205	.2200	70187	71187	72271						
2	.2210	.2200	70187	71187	72271						
5.70MM	.2244	.2239	70188	71188	72273						
1	.2280	.2275	70189	71189	72274						
5.80MM	.2283	.2275	70189	71189	72274						
A	.2340	.2335	70191	71191	72276						
15/64	.2344	.2335	70191	71191	72276						
6.00MM	.2362	.2357	70378	71462	72662						
B	.2380	.2375	70192	71192	72277						
6.10MM	.2402	.2397	70193	71193	72278						
C	.2420	.2415	70194	71194	72279						
D	.2460	.2455	70195	71195	72280						
6.25MM	.2461	.2455	70195	71195	72280						
6.30MM	.2480	.2475	70381	71465	72665						
1/4	.2500	.2495	70196	71196	72281						
6.40MM	.2520	.2510		71197	72282			1	.158	.162	11/32
6.50MM	.2559	.2549		71467	72667						
F	.2570	.2560		71198	72283						


GENERAL TOOLS


Drill Size	Decimal Equiv.	Hole +.000 -.001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters	Tang Thickness Min. Max.		Tang Length
6.60MM	.2598	.2588		71468	72668			1	.158	.162	11/32
G	.2610	.2600		71199	72284						
6.70MM	.2638	.2628		71469	72669						
17/64	.2656	.2646		71200	72285						
6.75MM	.2657	.2646		71200	72285						
H	.2660	.2646		71200	72285						
6.80MM	.2677	.2667		71470	72670						
6.90MM	.2717	.2707		71202	72287						
I	.2720	.2707		71202	72287						
7.00MM	.2756	.2746		71472	72672						
J	.2770	.2760		71203	72288						
7.10MM	.2795	.2785		71473	72673						
K	.2810	.2800		71205	72290						
9/32	.2813	.2800		71205	72290						
7.20MM	.2835	.2825		71474	72674						
7.25MM	.2854	.2845		71206	72291						
7.30MM	.2874	.2864		71475	72675						
L	.2900	.2890		71207	72292						
7.40MM	.2913	.2903		71208	72293						
M	.2950	.2940		71209	72294						
7.50MM	.2953	.2940		71209	72294						
19/64	.2969	.2959		71210	72295						
N	.3020	.3010		71211	72296						
7.70MM	.3031	.3021		71479	72679						
7.80MM	.3071	.3061		71212	72297						
7.90MM	.3110	.3100		71481	72681						
5/16	.3125	.3115		71213	72298						
8.00MM	.3150	.3140		71482	72682			1-1/8	.199	.203	3/8
O	.3160	.3150		71214	72299						
8.10MM	.3189	.3179		71483	72683						
8.20MM	.3228	.3218		71215	72300						
P	.3230	.3218		71215	72300						
8.30MM	.3268	.3258		71485	72685						
21/64	.3281	.3271		71216	72301						
8.40MM	.3307	.3297		71486	72686						
Q	.3320	.3310		71217	72302						
8.50MM	.3346	.3336		71487	72687						
8.60MM	.3386	.3376		71218	72303						
R	.3390	.3376		71218	72303						
8.70MM	.3425	.3415		71489	72689						
11/32	.3438	.3428		71219	72304						
8.80M M	.3465	.3455		71490	72690						
S	.3480	.3470		71220	72305						
8.90MM	.3504	.3494		71491	72691						
9.00MM	.3543	.3533		71221	72306						
T	.3580	.3570		71222	72307						
9.10MM	.3583	.3570		71222	72307						
23/64	.3594	.3584		71223	72308						
9.20MM	.3622	.3612		71494	72694						
9.30MM	.3661	.3651		71495	72695						
U	.3680	.3670		71224	72309						



GENERAL TOOLS



Drill Size	Decimal Equiv.	Hole +.000 - .001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters	Tang Thickness Min. Max.		Tang Length
9.50MM	.3740	.3730		71497	72697			1-1/8	.199	.203	3/8
3/8	.3750	.3740		71225	72310						
V	.3770	.3760			72311	73000					
9.60MM	.3780	.3770			72698	73100					
9.70MM	.3819	.3809			72699	73101					
9.8MM	.3858	.3848			72312	73001					
W	.3860	.3848			72312	73001					
9.90MM	.3898	.3888			72313	73002					
25/64	.3906	.3888			72313	73002					
10.00MM	.3937	.3927			72702	73104					
X	.3970	.3960			72314	73003					
10.10MM	.3976	.3960			72314	73003					
10.20MM	.4016	.4006			72704	73106					
Y	.4040	.4030			72315	73004					
10.30MM	.4055	.4045			72316	73005					
13/32	.4063	.4045			72316	73005					
10.40MM	.4094	.4084			72706	73108					
Z	.4130	.4120			72317	73006					
10.70MM	.4213	.4203			72318	73007		1-1/4	.239	.243	7/16
27/64	.4219	.4203			72318	73007					
10.80MM	.4252	.4242			72710	73112					
10.90MM	.4291	.4281			72711	73113					
11.00MM	.4331	.4321			72712	73114					
11.10MM	.4370	.4360			72319	73008					
7/16	.4375	.4360			72319	73008					
11.20MM	.4409	.4399			72714	73116					
11.30MM	.4449	.4439			72715	73117					
11.40MM	.4488	.4478			72716	73118					
11.50MM	.4528	.4518			72320	73009					
29/64	.4531	.4518			72320	73009					
11.60MM	.4567	.4557			72718	73120					
11.70MM	.4606	.4596			72719	73121					
11.80MM	.4646	.4636			72720	73122					
11.90MM	.4685	.4675			72321	73010					
15/32	.4688	.4675			72321	73010					
12.00MM	.4724	.4714			72722	73124					
12.10MM	.4764	.4754			72723	73125					
12.20MM	.4803	.4793			72724	73126					
12.30MM	.4843	.4833			72322	73011					
31/64	.4844	.4833			72322	73011					
12.40MM	.4882	.4872			72726	73128					
12.50MM	.4921	.4911			72727	73129					
12.60MM	.4961	.4951			72728	73130					
12.70MM	.5000	.4990			72323	73012		1-5/16	.297	.303	1/2
1/2	.5000	.4990			72323	73012					
12.80MM	.5039	.5044			72730	73132					
12.90MM	.5079	.5084			72731	73133					
13.00MM	.5118	.5123			72732	73134					
33/64	.5156	.5161			72324	73013					
13.10MM	.5157	.5161			72324	73013					
13.30MM	.5236	.5241			72735	73137					



GENERAL TOOLS



Drill Size	Decimal Equiv.	Hole +.000 -.001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters	Tang Thickness Min. Max.		Tang Length
17/32	.5313	.5318			72325	73014		1-5/16	.297	.303	1/2
13.50MM	.5315	.5318			72325	73014					
13.60MM	.5354	.5359			72738	73140					
13.80MM	.5433	.5438			72740	73142					
35/64	.5469	.5474			72326	73015					
13.90MM	.5472	.5477			72326	73015					
14.00MM	.5512	.5517			72742	73144					
14.20MM	.5591	.5596			72744	73146					
14.25MM	.5610	.5615			80200						
9/16	.5625	.5630			72327	73016					
14.30MM	.5630	.5635			72745	73147		1-15/32	.367	.373	9/16
14.50MM	.5709	.5714			72747	73149					
14 60MM	.5748	.5753			80204	73150					
37/64	.5781	.5786				73017	74000				
14.70MM	.5787	.5786				73017	74000				
15.00MM	.5906	.5911				73154					
19/32	.5938	.5943				73018	74001				
15.10MM	.5945	.5943				73018	74001				
15.20MM	.5984	.5989				73156					
15.25MM	.6004	.6009									
39/64	.6094	.6099				73019	74002				
15.50MM	.6102	.6099				73019	74002				
15.75MM	.6201	.6206									
5/8	.6250	.6255				73020	74003				
16.00MM	.6299	.6304				73164					
41/64	.6406	.6411				73021	74004				
16.50MM	.6496	.6501				73169					
21/32	.6563	.6568				73022	74005	1-5/8	.437	.443	5/8
16.75MM	.6594	.6599									
17.00MM	.6693	.6698				73174					
43/64	.6719	.6724				73023	74006				
17.25MM	.6791	.6796									
17.40MM	.6850	.6855				73178					
11/16	.6875	.6880				73024	74007				
17.50MM	.6890	.6895				73179					
17.60MM	.6929	.6934				73180					
45/64	.7031	.7036				73025	74008				
18.00MM	.7087	.7092				73184					
18.25MM	.7185	.7190				73026	74009				
23/32	.7188	.7193				73026	74009				
18.50MM	.7283	.7288				73189					
18.60MM	.7323	.7328				73190					
47/64	.7344	.7349				73027	74010				
19.00MM	.7480	.7485				73194					
3/4	.7500	.7505				73028	74011	1-15/16	.508	.514	11/16
49/64	.7656	.7666					74012				
19.50MM	.7677	.7687					80406				
25/32	.7813	.7823					74013				
20.00MM	.7874	.7884					80417				
51/64	.7969	.7979				80312	74014				
20.25MM	.7972	.7979				80312	74014				
20.50MM	.8071	.8081				80313					



GENERAL TOOLS



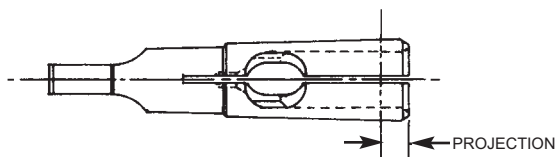
Drill Size	Decimal Equiv.	Hole +.000 -.001	#0 M.T.	#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	Depth Drill Enters	Tang Thickness Min. Max.		Tang Length
13/16	.8125	.8135					74015	1-15/16	.508	.514	11/16
20.75MM	.8169	.8179				80314					
53/64	.8281	.8291					74016				
27/32	.8438	.8448					74017				
21.50MM	.8465	.8475					80416				
55/64	.8594	.8604					74018				
22.00MM	.8661	.8671									
7/8	.8750	.8760					74019				
57/64	.8906	.8916					74020				
29/32	.9063	.9073					74021				
23.25MM	.9154	.9164					80405	2-1/8	.601	.609	3/4
59/64	.9219	.9229					74022				
15/16	.9375	.9385					74023				
24.00MM	.9449	.9459									
61/64	.9531	.9541					74024				
31/32	.9688	.9698					74025				
25.00MM	.9843	.9853					74026				
63/64	.9844	.9853					74026	1	1.0000	1.0010	
1	1.0000	1.0010					74027				

Center Drill Driver Positive Drive Style

Wherever center drills are used, Collis Drivers will provide accuracy and durability. The unused end of the center drill is protected by the design of the driver. The positive drive style holder provides an off center spline hole in the bore which allows a positive drive using the flutes and thus protecting the cutting edge and the tip.

On Drill, Center Drill, and Tap Drivers the following projection dimensions are applicable:

#0 Morse Taper	5/32" Proj.
#1 Morse Taper	3/16" Proj.
#2 Morse Taper	1/4" Proj.
#3 Morse Taper	1/4" Proj.



#1 Morse Taper Collis Number	#2 Morse Taper Collis Number	#3 Morse Taper Collis Number	Nominal Center Drill Size	Center Drill Body Diameter
71149			1 11	1/8
71502	72502		2 12	3/16
71503	72503		3 13	1/4
71504	72504	73503	4 14	5/16
	72505		5 15	7/16
	72506		6 16	1/2
		73501	7 17	5/8
		73502	8 18	3/4



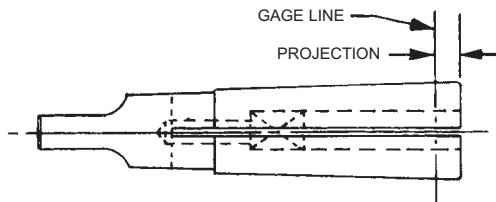
GENERAL TOOLS



Split Sleeve Tap Drivers / Morse Taper

Collis Tap Drivers utilize the four way split to provide maximum gripping of the tap, to minimize pull-out and to reduce down time. Dimensions follow the automotive specifications.

The square on tap shank engages with the broached square hole in the Tap Driver for a positive drive of the tap. Made from high quality steel and heat treated. Collis Tap Drivers are made to withstand the strain and abuse of production tapping operations. Tap Drivers listed are readily available from stock, sizes not listed can be quoted and supplied on request.



On Drill, Center Drill, and Tap Drivers the following projection dimensions are applicable:

#0 Morse Taper	5/32" Proj.
#1 Morse Taper	3/16" Proj.
#2 Morse Taper	1/4" Proj.
#3 Morse Taper	1/4" Proj.
#4 Morse Taper	3/8" Proj.
#5 Morse Taper	7/16" Proj.

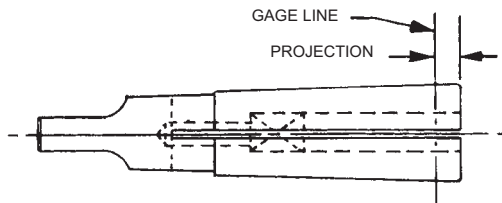
Collis Number	Isometric Tap Sizes	Machine Screw & Hand Tap Sizes	Outside Morse Taper Of Driver	Diameter Of Tap Shank	Size Of Square On Tap Shank	Depth Tap Enters Driver
70250	M1.6, M1.8, M2, M2.2, M3, M3.5	No. 0 to 6	0	.141	.110	23/32
70253	M4	No. 8	0	.168	.131	53/64
70255	M4.5, M5	No. 10	0	.194	.152	57/64
70256	—	No. 12	0	.220	.165	29/32
70259	M6, M6.3	No. 14 & 1/4	0	.255	.191	31/32
71300	M1.6, M1.8, M2, M2.2, M3, M3.5	No. 0 to 6	1	.141	.110	23/32
71301	M4	No. 8	1	.168	.131	53/64
71302	M4.5, M5	No. 10	1	.194	.152	57/64
71303	—	No. 12	1	.220	.165	29/32
71320	M6, M6.3	No. 14 & 1/4	1	.255	.191	31/32
72420	M6, M6.3	No. 14 & 1/4	2	.255	.191	31/32
71321	M7, M8	5/16	1	.318	.238	1
72421	M7, M8	5/16	2	.318	.238	1
71322	—	3/8 S.S.	1	.275	.206	1-3/64
72422	—	3/8 S.S.	2	.275	.206	1-3/64
72423	M10	3/8	2	.381	.286	1-3/64
72424	—	7/16	2	.323	.242	1-5/64
72425	M12, M12.5	1/2	2	.367	.275	1-3/32
73420	M12, M12.5	1/2	3	.367	.275	1-3/32
72426	M14	9/16	2	.429	.322	1-9/32
73421	M14	9/16	3	.429	.322	1-9/32
72427	M16	5/8	2	.480	.360	1-29/64
73422	M16	5/8	3	.480	.360	1-29/64
72428	M18	11/16	2	.542	.406	1-9/16
73423	M18	11/16	3	.542	.406	1-9/16
73424	—	3/4	3	.590	.442	1-51/64
74420	—	3/4	4	.590	.442	1-51/64
73426	M20	13/16	3	.652	.489	1-55/64
73425	M22	7/8	3	.697	.523	1-29/32
74421	M22	7/8	4	.697	.523	1-29/32
74431	M24	15/16	4	.760	.570	1-9/16
74422	M25	1	4	.800	.600	2-1/32
74423	M27	1-1/8	4	.896	.672	2-9/64
74424	M30	1-1/4	4	1.021	.766	2-19/64
75100	M27	1-1/8	5	.896	.672	2-9/64
75101	M30	1-1/4	5	1.021	.766	2-19/64
75102	M33	1-3/8	5	1.108	.831	2-11/32
75103	M36	1-1/2	5	1.233	.925	2-13/32
75114	M39	1-5/8	5	1.305	.979	2-3/8
75104	M42	1-3/4	5	1.430	1.072	2-3/8

**GENERAL TOOLS**

Split Sleeve Tap Drivers / Morse Taper

On Drill, Center Drill, and Tap Drivers the following projection dimensions are applicable:

#1 Morse Taper	3/16" Proj.
#2 Morse Taper	1/4" Proj.
#3 Morse Taper	1/4" Proj.
#4 Morse Taper	3/8" Proj.
#5 Morse Taper	7/16" Proj.

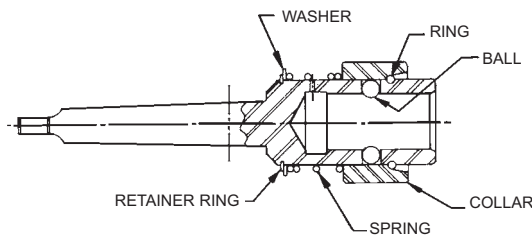


Collis Number	Tap Size and Type		Outside Morse Taper Of Driver	Diameter Of Tap Shank	Size Of Square On Tap Shank	Depth Tap Enters Driver
72450	PIPE TAP SIZES	1/16&1/8 Sm. Shank	2	.312	.234	1
72451		1/8 Large Shank	2	.437	.328	1
73450		1/4	3	.562	.421	1-1/16
74450		3/8	4	.700	.531	1-1/2
74451		1/2	4	.687	.515	1-1/2
74452		3/4	4	.906	.679	1-11/16
75110		3/4	5	.906	.679	1-11/16
75111		1	5	1.125	.843	1-7/8
75112		1-1/4	5	1.312	.984	2-1/8
75113		1-1/2	5	1.500	1.120	2-1/4
72440	TAPPER TAP SIZES	1/4	2	.185	.139	1-13/64
72441		5/16	2	.240	.180	1-1/4
72442		3/8	2	.294	.220	1-19/64
72443		7/16	2	.345	.259	1-11/32
72444		1/2	2	.400	.300	1-29/64
74440	PULLEY TAP SIZES	3/4	4	.616	.462	2-3/64
72420		1/4	2	.255	.191	31/32
72421		5/16	2	.318	.238	1
72422		3/8 S.S.	2	.275	.206	1-3/64
72423		3/8	2	.381	.286	1-3/64
72434		7/16	2	.444	.333	1-1/8
73430		1/2	3	.507	.380	1-3/16
74430		5/8	4	.633	.475	1-7/16
74431		3/4	4	.759	.569	1-9/16

**GENERAL TOOLS**

Magic Chucks for Horizontal Spindles

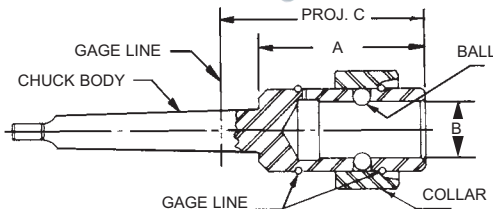
NOTE: Dimensions A, B, and C are the same as listed for Magic Chucks – vertical spindles.



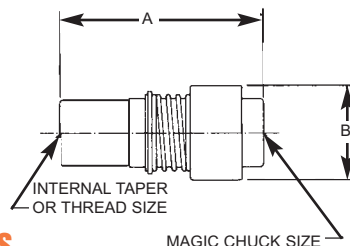
Chuck Size	B Collet Diameter	A Dimension	C Proj.	MORSE TAPER SHANK			
				#2	#3	#4	#5
#1	15/16	2-1/4	2-11/16	63763	63764	63765	
#2	1-1/4	3-1/8	3-5/8	63766	63767	63768	63769
#3	1-11/16	3-13/16	4-7/16	63770	63771	63772	63773
#4	2-3/8	4-1/2	5			63776	63777

Magic Chucks for Vertical Spindles

- Sizes not listed can be supplied on special order.
- Prices on request.
- Straight shank supplied on special order – send print on shank requirements.



Chuck Size	B Collet Diameter	A Dimension	C Proj.	MORSE TAPER SHANK			
				#2	#3	#4	#5
#1	15/16	2-1/4	2-11/16	63712	63713	63714	
#2	1-1/4	3-1/8	3-5/8	63722	63723	63724	63725
#3	1-11/16	3-13/16	4-7/16	63732	63733	63734	63735
#4	2-3/8	4-1/2	5			63744	63745



Jacobs Taper Magic Chucks

Collis Number	Internal Jacobs Taper	Magic Chuck Size	A O.A.L.	B O.D.
63782	2 Jacobs	No. 0	2-15/16	1.36
63783	33 Jacobs	No. 0	2-15/16	1.36



Threaded Magic Chucks

Collis Number	Internal Thread Size	Magic Chuck Size	A O.A.L.	B O.D.
63784	3/4-16 Thd.	No. 0	2-15/16	1.36
63785	3/8-24 Thd.	No. 1	2-5/8	1.98

Magic Chuck Instructional Aid

All Magic chucks have a collar on its diameter that needs to be slid back toward the spindle to eject the tool and magic chuck collet. The next tool to be inserted in the chuck may have to be rotated to align the locking ball mechanism. When the outside diameter collar is released, the magic chuck will lock in place. In our catalog we recommend the spindle not be running during the tool change. Collis recommends if you choose to not stop the spindle to change tools, that you engineer the job for the proper spindle speed and guarding that would protect the machine operator. **The safest method to change tools is to stop the machine operation.**

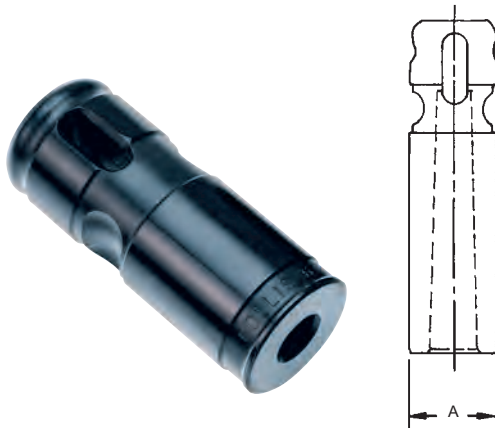
**GENERAL TOOLS**

MAGIC CHUCK COLLETS (With Exclusive Easy-Entry)

Standard AA Collets

Safety Guard Collets are heat treated and precision ground. The Morse Taper hole allows the use of standard Morse Taper shank tools or use these with our standard split sleeve drivers which permit the use of straight shank tanged drills and reamers, as well as taps.

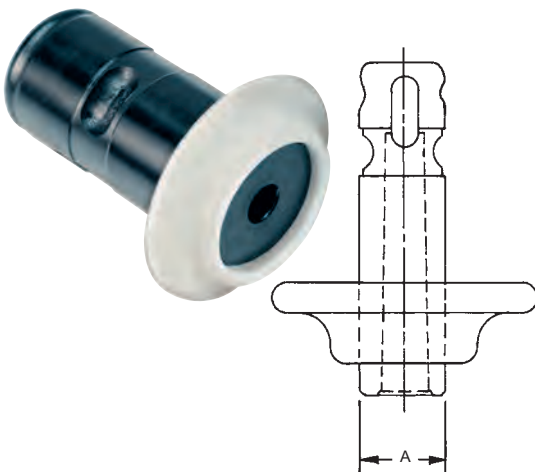
MORSE TAPER HOLE SIZE		Chuck Size	A Diameter
COLLIS NUMBER			
#1 M.T.	#2 M.T.		
63901		#0	11/16
63911	63912	#1	15/16



Safety-Guard Collets

Safety guard collets have a free running safety collar added to minimize accidental slippage when changing collets.

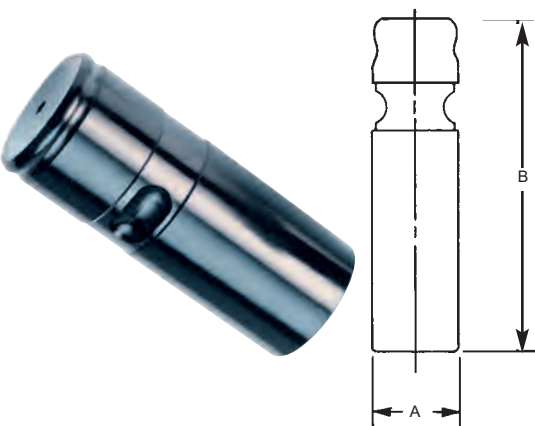
MORSE TAPER HOLE SIZE					Chuck Size	A Diameter
COLLIS NUMBER						
#1 M.T.	#2 M.T.	#3 M.T.	#4 M.T.	#5 M.T.		
64121	64122	64123			#2	1-1/4
64131	64132	64133	64134		#3	1-11/16
64141	64142	64143	64144	64145	#4	2-3/8



Blank Collets

Blank Collets are furnished soft with a ball race and ground O.D. to permit your own toolroom to cut a hole fitted to your own special requirements.

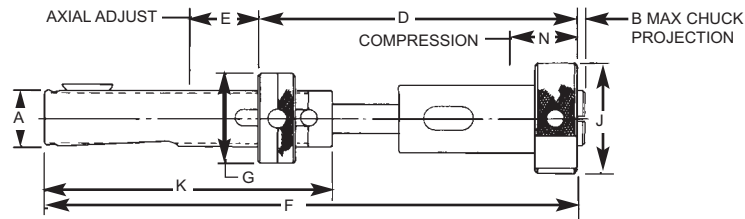
Collis Number	Chuck Size	A Diameter	B Length
64010	1	15/16	3
64020	2	1-1/4	3-1/2
64030	3	1-11/16	4-1/4
64040	4	2-3/8	5-1/4



**GENERAL TOOLS**

STA-TITE TAP HOLDERS

Compression

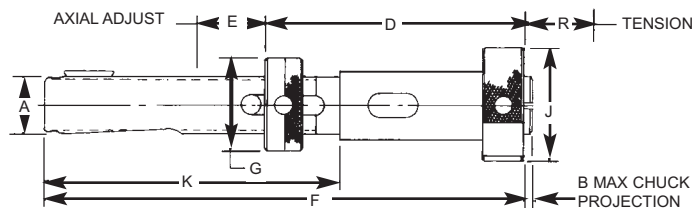


Collis Number	Shank & Thd. Size	Chuck Size	Mach. Screw	Hand	Pipe	K Shank Length	G Stand. Adj. Nut Dia.	J Sta-Tite Nut Dia.	E Axial Adj.	F Overall Length	N Stroke	D Key Proj.	B Chuck Proj.
79020	1/2-16	ST-1	0-14	1/4-1/2		3.25	.88	1.25	1.00	6.00	.75	3.38	.18
79021	5/8-16	ST-1	0-14	1-4-1/2		3.25	1.00	1.25	1.00	6.00	.75	3.38	.18
79022	3/4-12	ST-1	0-14	1/4-1/2		4.00	1.25	1.25	1.00	7.19	1.218	4.56	.18
79023	7/8-12	ST-1	0-14	1/4-1/2		4.00	1.25	1.25	1.12	7.19	1.218	4.38	.18
79024	1-12	ST-2	0-14	1/4-3/4	1/16-1/4	4.19	1.50	1.62	1.12	7.84	1.312	4.59	.18
79025	1-1/16-12	ST-2	0-14	1/4-3/4	1/16-1/4	4.19	1.56	1.62	1.12	7.84	1.312	4.56	.18

See pages 108-109 for Sta-Tite Chucks.

Tension

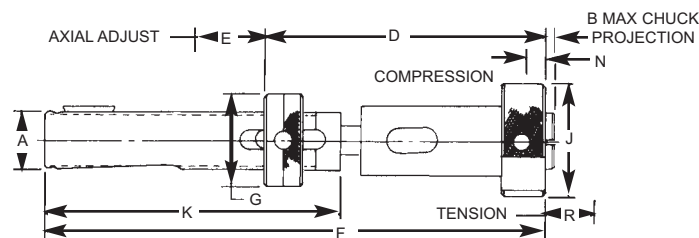
(Springs may be added to convert tension holder to tension/compression holder. Price on request.)



Collis Number	Shank & Thd. Size	Chuck Size	Mach. Screw	Hand	Pipe	K Shank Length	G Stand. Adj. Nut Dia.	J Sta-Tite Nut Dia.	E Axial Adj.	F Overall Length	N Stroke	D Key Proj.	B Chuck Proj.
79031	5/8-16	ST-1	0-14	1/4-1/2		3.25	1.00	1.25	1.00	5.25	.75	2.62	.18
79032	3/4-12	ST-1	0-14	1-4-1/2		4.00	1.25	1.25	1.00	5.94	1.218	3.31	.18
79033	7/8-12	ST-1	0-14	1/4-1/2		4.00	1.25	1.25	1.12	5.94	1.218	3.00	.18
79034	1-12	ST-2	0-14	1/4-3/4	1/16-1/4	4.19	1.50	1.62	1.12	6.47	1.312	3.22	.18
79035	1-1/16-12	ST-2	0-14	1/4-3/4	1/16-1/4	4.19	1.56	1.62	1.12	6.47	1.312	3.22	.18
79036	1-3/8-12	ST-2	0-14	1/4-3/4	1/16-1/4	4.62	1.88	1.62	1.12	6.94	1.312	2.75	.18

See pages 108-109 for Sta-Tite Chucks.

Tension/Compression



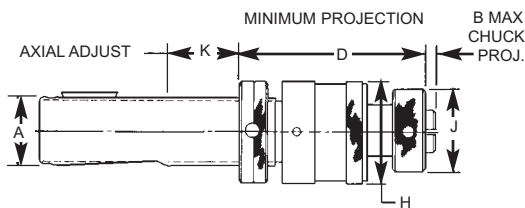
Collis Number	Shank & Thd. Size	Chuck Size	Mach. Screw	Hand	Pipe	K Shank Length	G Stand. Adj. Nut Dia.	J Sta-Tite Nut Dia.	E Axial Adj.	R Tension Stroke	F Overall Length	N Comp. Stroke	D Key Proj.	B Chuck Proj.
79040	1-12	ST-2	0-14	1/4-3/4	3.25	4.19	1.50	1.62	1.12	.66	7.16	.19	3.91	.18
79041	1-1/16-12	ST-2	0-14	1-4-3/4	3.25	4.19	1.56	1.62	1.12	.66	7.16	.19	3.91	.18
79042	1-3/8-12	ST-3	0-14	1/4-1	4.00	5.44	1.88	2.12	1.25	.71	9.16	.62	4.91	.11

See pages 108-109 for Sta-Tite Chucks.

**GENERAL TOOLS**

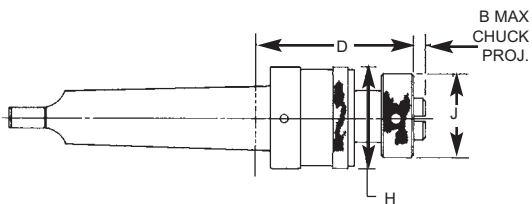
Sta-Tite Floating Holders with Adjustable Adapter Shanks

The Collis floating holders allow for 1/32" parallel or radial float.



Collis Number	D	K Axial Adj.	Shank & Thread Size	Radial Float	J Nut Dia.	H Max. Dia.
ST-1						
77251	2.62	.88	5/8-16	.03	1.25	1.56
77252	2.62	.88	3/4-12			
77253	2.62	1.00	7/8-12			
77254	2.62	1.00	1-1/2			
77255	2.62	1.00	1-1/6-12			
77256	2.62	1.12	1-3/8-12			
ST-2						
77257	3.06	1.00	7/8-12	.03	1.62	1.93
77258	3.06	1.00	1-1/2			
77259	3.06	1.00	1-1/16-12			
77260	3.06	1.12	1-3/8-12			
ST-3						
77262	3.50	1.12	1-3/8-12	.03	2.12	2.50

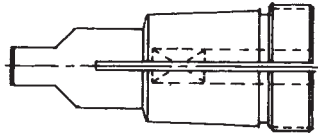
See pages 108-109 for Sta-Tite Chucks.



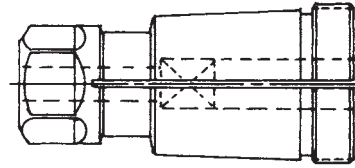
Sta-Tite Floating Holders with Morse Taper Shanks

Collis Number	D	Morse Taper Shank	Radial Float	J Nut Dia.	H Max. Dia.
ST-1					
77351	2.34	2	.03	1.25	1.56
77352	2.34	3			
ST-2					
77353	2.78	2	.03	1.62	1.93
77354	2.78	3			
ST-3					
77356	3.28	3	.03	2.12	2.50

See pages 108-109 for Sta-Tite Chucks.

**GENERAL TOOLS****“Sta-Tite” Tap Chucks**

**STA-TITE
ST-1 AND ST-2
ASSEMBLIES
WITH TANG END DRIVE**



**STA-TITE
ST-3
ASSEMBLY
WITH HEX END DRIVE**

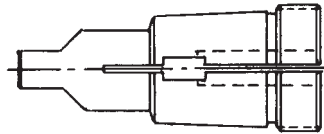
ST-1 Chuck Size	ST-2 Chuck Size	ST-3 Chuck Size	Tap Size			Tap Dimensions		Depth Tap Enters Chuck		
Collis Number	Collis Number	Collis Number	Machine	Hand	Pipe	Shank	Square	Sta-Tite ST-1 Chuck	Sta-Tite ST-2 Chuck	Sta-Tite ST-3 Chuck
76100	76200		0-6			.141	.110	7/8	1	
76101	76201		8			.168	.131	15/16	1-1/16	
76102	76202		10			.194	.152	15/16	1-1/16	
76103	76203		12			.220	.165	31/32	1-3/32	
76104	76204	76300	14	1/4		.255	.191	31/32	1-3/32	1-7/32
76110	76213	76310			1/16+ 1/8SS	.3125	.234	1-1/16	1-3/16	1-5/16
76105	76205	76301		5/16		.318	.238	1	1-1/8	1-1/4
76106				3/8SS		.275	.206	1-11/64		
76107	76206	76302		3/8LS		.381	.286	1-1/16	1-3/16	1-5/16
76108	76207	76303		7/16		.323	.242	1-3/32	1-7/32	1-11/32
*76109	76208	76304		1/2		.367	.275	1-1/32	1-1/4	1-3/8
	76214	76311			1/8LS	.4375	.328		1-3/16	1-5/16
	76209	76305		9/16		.429	.322		1-5/16	1-7/16
	76210	76306		5/8		.480	.360		1-3/8	1-1/2
	76215	76312			1/4	.5625	.421		1-1/4	1-5/16
	*76211	76307		3/4		.590	.442		1-1/2	1-5/8
		76313			3/8	.7000	.531			1-7/16
		76314			1/2	.6875	.515			1-9/16
		76308		7/8		.697	.523			1-11/16
		76309		1		.800	.600			1-3/4

Standard ISO Taps may be used with these Tap Chucks. *LIGHT DUTY ONLY

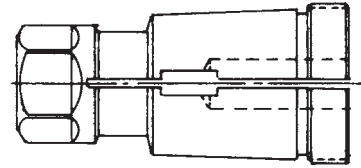
See pages 106-107 for Sta-Tite Holders.

**GENERAL TOOLS**

“Sta-Tite” Drill, Tap & Reamer Chucks



**STA-TITE
ST-1 AND ST-2
ASSEMBLIES
WITH TANG END DRIVE**



**STA-TITE
ST-3
ASSEMBLY
WITH HEX END DRIVE**

Collis “STA-TITE” Tap, Drill, and Reamer Chucks are designed for maximum gripping power. The four way split of the chucks allow for the tightening of the cutting tools in order to prevent tool pull-out. Collis “STA-TITE” Chucks are used with Collis “STA-TITE” adjustable adapters, tension and compression tap holders and floating holders.

ST-1 Chuck Size	ST-2 Chuck Size	ST-3 Chuck Size	Drill Size		Reamer Size		Depth Drill or Reamer Enters Chuck		
Collis Number	Collis Number	Collis Number	Fraction No. & Letter	Decimal Equiv.	Fraction	Max. Shank	Sta-Tite ST-1 Chuck	Sta-Tite ST-2 Chuck	Sta-Tite ST-3 Chuck
76150			31	.1200	1/8	.1190	3/4		
76151			1/8	.1250			7/8		
76152			24	.1520	5/32	.1510	7/8		
76154			15	.1800	3/16	.1805	7/8		
76155			3/16	.1875			7/8		
76158			3	.2130			1		
76160	76251		C	.2420	1/4	.2405	1	1	
76161	76252		1/4-E	.2500	17/64 & 9/32	.2485	1	1	
76162	76253		9/32	.2812	19/64-11/32	.2792	1-1/8	1-1/8	
76163	76254		5/16	.3125	23/64-13/32	.3105	1-1/8	1-1/8	
76165	76255		3/8	.3750	27/64-15/32	.3730	1-1/4	1-1/4	
	76256	76350	7/16	.4375	31/64-19/32	.4355		1-3/8	1-3/8
	76257	76351	1/2	.5000				1-7/16	1-7/16
	76258	76352	9/16	.5625	518 -23/32	.5620		1-7/16	1-7/16
		76353	5/8	.6250	3/4 -27/32	.6245			1-19/32
		76354	3/4	.7500	7/8 -31/32	.7495			1-3/4

See pages 106-107 for Sta-Tite Holders.

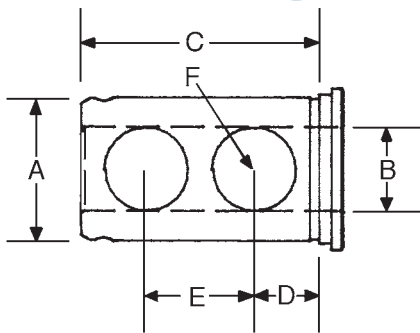


GENERAL TOOLS



Type J Toolholder Bushing

- Collis Tool bushings available for all sizes of CNC lathes

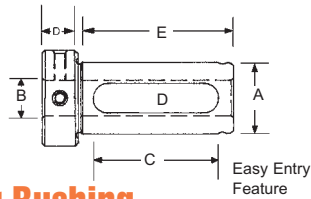


- Collis Exclusive Easy-Entry feature for precision bores (See page 32)
- Extreme Rigidity
- Axial Accuracy: Concentricity $\leq .0002$
- Evenly grips across the shank of the tool
- Flats and depressions will not distort Collis tool bushings
- Highest quality materials are used to maximize resistance to tool pull out
- 52-55 Rockwell C Hardness provides improved tool life and reduced costs
- 16 RMS finish, Best in the Industry
- Traverse ground O.D. and I.D. surfaces for ultimate precision
- Extended length tool bushings available upon request
- Special sizes can be purchased for a standard price
- Universally used in CNC machines, Turning Lathes and machine spindles to adapt drills and boring bars and special tool shanks
- Fully black oxide finish to prevent rusting problems in the machine bore
- Interchangeable with the general duty bushings supplied from other manufacturers

Collis Number	O.D. A	Bore B	Length C	D	E	F
85400	.75	.250	1.500	.375	.812	.375
85401	.75	.312	1.500	.375	.812	.375
85402	.75	.375	1.500	.375	.812	.375
85403	.75	.500	1.500	.375	.812	.375
85405	1	.250	2	.437	.875	.625
85406	1	.312	2	.437	.875	.625
85407	1	.437	2	.437	.875	.625
85408	1	.562	2	.437	.875	.625
85410	1	.375	1.750	.437	.875	.625
85411	1	.500	1.750	.437	.875	.625
85412	1	.625	1.750	.437	.875	.625
85413	1	.750	1.750	.437	.875	.625
85420	1.25	.375	2.125	.625	1	.625
85421	1.25	.500	2.125	.625	1	.625
85422	1.25	.625	2.125	.625	1	.625
85423	1.25	.750	2.125	.625	1	.625
85424	1.25	.875	2.125	.625	1	.625
85425	1.25	1	2.125	.625	1	.625
85440	1.50	.375	2.500	.687	1.125	.875
85441	1.50	.500	2.500	.687	1.125	.875
85442	1.50	.625	2.500	.687	1.125	.875
85443	1.50	.750	2.500	.687	1.125	.875
85444	1.50	.875	2.500	.687	1.125	.875
85445	1.50	1	2.500	.687	1.125	.875
85446	1.50	1.25	2.500	.687	1.125	.875
85447	1.50	.562	2.750	.687	1.125	.875
85448	1.50	.687	2.750	.687	1.125	.875
85449	1.50	.812	2.750	.687	1.125	.875
85450	1.50	.937	2.750	.687	1.125	.875
85451	1.50	1.125	2.750	.687	1.125	.875
85460	1.75	.500	3	.750	1.250	.875
85461	1.75	.625	3	.750	1.250	.875
85462	1.75	.750	3	.750	1.250	.875
85463	1.75	.875	3	.750	1.250	.875
85464	1.75	1	3	.750	1.250	.875
85465	1.75	1.25	3	.750	1.250	.875
85466	1.75	1.50	3	.750	1.250	.875
85480	2	.500	3.500	.750	1.500	1
85481	2	.625	3.500	.750	1.500	1
85482	2	.750	3.500	.750	1.500	1
85483	2	.875	3.500	.750	1.500	1
85484	2	1	3.500	.750	1.500	1
85485	2	1.25	3.500	.750	1.500	1
85486	2	1.50	3.500	.750	1.500	1
85487	2	1.75	3.500	.750	1.500	1
85488	.75	.75	4.250	.875	1.750	1.25
85489	2.50	1.00	4.250	.875	1.750	1.25
85490	2.50	1.25	4.250	.875	1.750	1.25
85491	2.50	1.50	4.250	.875	1.750	1.25
85492	2.50	1.75	4.250	.875	1.750	1.25
85493	2.50	2.00	4.250	.875	1.750	1.25
85494	2.50	2.25	4.250	.875	1.750	1.25
85495	2.50	.500	4.250	.875	1.750	1.25
85496	2.50	.875	4.250	.875	1.750	1.25
85497	1.25	.937	2.375	.625	1	.625



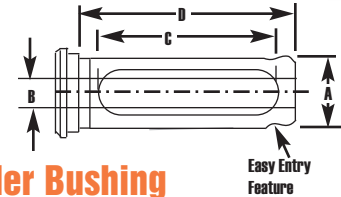
GENERAL TOOLS



Type Z Toolholder Bushing

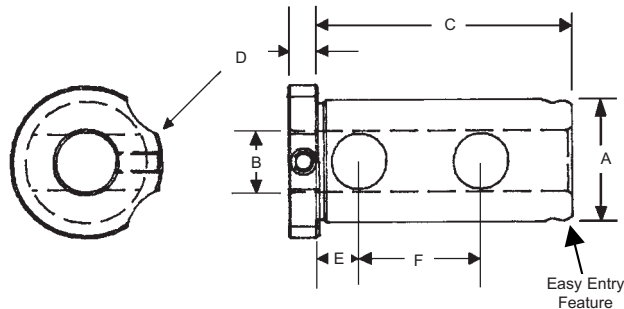
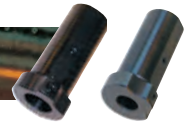
Collis Number	O.D. A	Bore B	Length C	D	E
85600	1.00	.250	2.375	.500	2.75
85601	1.00	.312	2.375	.500	2.75
85602	1.00	.375	2.375	.500	2.75
85603	1.00	.500	2.375	.500	2.75
85604	1.00	.625	2.375	.500	2.75
85605	1.00	.750	2.375	.500	2.75
85620	1.25	.375	2.625	.625	3
85621	1.25	.500	2.625	.625	3
85622	1.25	.625	2.625	.625	3
85623	1.25	.750	2.625	.625	3
85624	1.25	.875	2.625	.625	3
85625	1.25	1	2.625	.625	3
85640	1.50	.375	2.875	.750	3.25
85641	1.50	.500	2.875	.750	3.25
85642	1.50	.625	2.875	.750	3.25
85643	1.50	.750	2.875	.750	3.25
85644	1.50	.875	2.875	.750	3.25
85645	1.50	1	2.875	.750	3.25
85646	1.50	1.25	2.875	.750	3.25
85660	1.75	.500	3.125	.750	3.50
85661	1.75	.625	3.125	.750	3.50
85662	1.75	.750	3.125	.750	3.50
85663	1.75	.875	3.125	.750	3.50
85664	1.75	1	3.125	.750	3.50
85665	1.75	1.25	3.125	.750	3.50
85666	1.75	1.50	3.125	.750	3.50
85680	2	.500	3.375	.750	3.75
85681	2	.625	3.375	.750	3.75
85682	2	.750	3.375	.750	3.75
85683	2	.875	3.375	.750	3.75
85684	2	1	3.375	.750	3.75
85685	2	1.25	3.375	.750	3.75
85686	2	1.50	3.375	.750	3.75
85687	2	1.75	3.875	.750	3.75
85690	2.50	.500	3.875	1	4.25
85691	2.50	.625	3.875	1	4.25
85692	2.50	.750	3.875	1	4.25
85693	2.50	.875	3.875	1	4.25
85694	2.50	1.00	3.875	1	4.25
85695	2.50	1.25	3.875	1	4.25
85696	2.50	1.50	3.875	1	4.25
85697	2.50	1.75	3.875	1	4.25
85698	2.50	2.00	3.875	1	4.25
85699	2.50	2.25	3.875	1	4.25

- Collis exclusive easy-entry feature for precision bores (see pg. 32)
- Extreme Rigidity
- Evenly grips across the shank of the tool



Type C Toolholder Bushing

Collis Number	O.D. A	Bore B	Length C	D
85500	.750	.250	1.875	2.250
85501	.750	.312	1.875	2.250
85502	.750	.375	1.875	2.250
85503	.750	.500	1.875	2.250
85510	1	.250	2.375	2.750
85511	1	.312	2.375	2.750
85512	1	.375	2.375	2.750
85513	1	.500	2.375	2.750
85514	1	.625	2.375	2.750
85515	1	.750	2.375	2.750
85520	1.250	.375	2.875	3.250
85521	1.250	.500	2.875	3.250
85522	1.250	.625	2.875	3.250
85523	1.250	.750	2.875	3.250
85524	1.250	.875	2.875	3.250
85525	1.250	1	2.875	3.250
85530	1.500	.375	3	3.375
85531	1.500	.500	3	3.375
85532	1.500	.625	3	3.375
85533	1.500	.750	3	3.375
85534	1.500	.875	3	3.375
85535	1.500	1	3	3.375
85536	1.500	1.25	3	3.375
85537	1.500	.562	3	3.375
85540	1.750	.500	3.125	3.500
85541	1.750	.625	3.125	3.500
85542	1.750	.750	3.125	3.500
85543	1.750	.875	3.125	3.500
85544	1.750	1	3.125	3.500
85545	1.750	1.25	3.125	3.500
85546	1.750	1.50	3.125	3.500
85550	2	.500	3.625	4
85551	2	.625	3.625	4
85552	2	.750	3.625	4
85553	2	1	3.625	4
85554	2	1.25	3.625	4
85555	2	1.50	3.625	4
85556	2	1.75	3.625	4
85557	2.500	1	4.125	4.500
85558	2.500	1.25	4.125	4.500
85559	2.500	1.50	4.125	4.500
85560	2.500	1.75	4.125	4.500
85561	2.500	2	4.125	4.500
85562	2.500	.500	4.125	4.500
85563	2.500	.625	4.125	4.500
85564	2.500	.750	4.125	4.500
85565	2.500	2.25	4.125	4.500

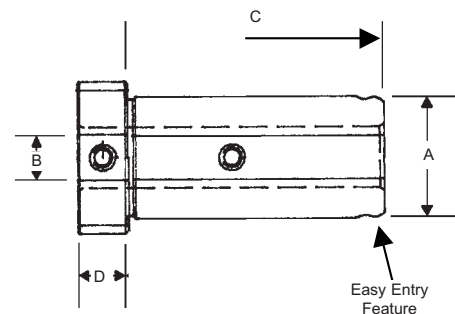
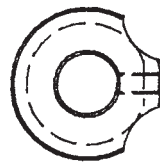

GENERAL TOOLS


Type LB Toolholder Bushing

LB Bushings allow you to clamp directly onto the straight shank drill, boring bar, and other straight shank tools.

Collis Number	O.D. A	Bore B	Length C	D	E	F	2 Holes G
85700	1.500	.250	3.125	.375	.500	1.75	.750
85701	1.500	.375	3.125	.375	.500	1.75	.750
85702	1.500	.500	3.125	.375	.500	1.75	.750
85703	1.500	.625	3.125	.375	.500	1.75	.750
85704	1.500	.750	3.125	.375	.500	1.75	.750
85705	1.500	.875	3.125	.375	.500	1.75	.750
85706	1.500	1	3.125	.375	.500	1.75	.750
85707	1.500	1.25	3.125	.375	.500	1.75	.750

- Flats and depressions will not distort Collis tool bushings
- Highest quality materials are used to maximize resistance to tool pull out
- 52-55 Rockwell C Hardness provides improved tool life and reduced costs

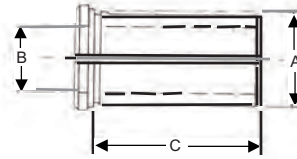


Type LBF Toolholder Bushing

LBF Bushings are for clamping drills, boring bars and other round shank tools that have a flat to seat the set screws.

Collis Number	O.D. A	Bore B	Length C	D
85720	1.50	.250	3.156	.625
85721	1.50	.375	3.156	.625
85722	1.50	.500	3.156	.625
85723	1.50	.625	3.156	.625
85724	1.50	.750	3.156	.625
85725	1.50	.875	3.156	.625
85726	1.50	1	3.156	.625
85727	1.50	1.25	3.156	.625

- 16 RMS finish, Best in the Industry
- Traverse ground O.D. and I.D. surfaces for ultimate precision
- Fully black oxide finish to prevent rusting problems in the machine bore


GENERAL TOOLS


Type B Toolholder Bushing

Collis Number	O.D. A	Bore B	Length C
85200	.750	.125	1.44
85201	.750	.187	1.44
85202	.750	.250	1.44
85203	.750	.312	1.44
85204	.750	.375	1.44
85205	.750	.437	1.44
85206	.750	.500	1.44
85207	1	.187	1.72
85208	1	.250	1.72
85209	1	.312	1.72
85210	1	.375	1.72
85211	1	.437	1.72
85212	1	.500	1.72
85213	1	.562	1.72
85214	1	.625	1.72
85215	1	.687	1.72
85216	1	.750	1.72
85217	1.250	.125	2.15
85218	1.250	.187	2.15
85219	1.250	.250	2.15
85220	1.250	.312	2.15
85221	1.250	.375	2.15
85222	1.250	.437	2.15
85223	1.250	.500	2.15
85224	1.250	.562	2.15
85225	1.250	.625	2.15
85226	1.250	.687	2.15
85227	1.250	.750	2.15
85228	1.250	.812	2.15
85229	1.250	.875	2.15
85230	1.250	.937	2.15
85231	1.250	1	2.15
85232	1.500	.250	2.51
85233	1.500	.312	2.51
85234	1.500	.375	2.51
85235	1.500	.437	2.51
85236	1.500	.500	2.51
85237	1.500	.562	2.51
85238	1.500	.625	2.51
85239	1.500	.687	2.51
85240	1.500	.750	2.51
85241	1.500	.812	2.51
85242	1.500	.875	2.51
85243	1.500	.937	2.51
85244	1.500	1	2.51
85245	1.500	1.062	2.51
85246	1.500	1.125	2.51

Collis Number	O.D. A	Bore B	Length C
85247	1.500	1.187	2.51
85248	1.500	1.250	2.51
85249	1.750	.250	3.00
85250	1.750	.312	3.00
85251	1.750	.375	3.00
85252	1.750	.437	3.00
85253	1.750	.500	3.00
85254	1.750	.562	3.00
85255	1.750	.625	3.00
85256	1.750	.687	3.00
85257	1.750	.750	3.00
85258	1.750	.812	3.00
85259	1.750	.875	3.00
85260	1.750	.937	3.00
85261	1.750	1.000	3.00
85262	1.750	1.062	3.00
85263	1.750	1.125	3.00
85264	1.750	1.187	3.00
85265	1.750	1.250	3.00
85266	1.750	1.312	3.00
85267	1.750	1.375	3.00
85268	1.750	1.437	3.00
85269	1.750	1.500	3.00
85270	2	.500	3.49
85271	2	.625	3.49
85272	2	.750	3.49
85273	2	.875	3.49
85274	2	1.000	3.49
85275	2	1.125	3.49
85276	2	1.250	3.49
85277	2	1.375	3.49
85278	2	1.500	3.49
85279	2	1.625	3.49
85280	2	1.750	3.49
85281	2.500	.500	4.00
85282	2.500	.625	4.00
85283	2.500	.750	4.00
85284	2.500	.875	4.00
85285	2.500	1.000	4.00
85286	2.500	1.125	4.00
85287	2.500	1.250	4.00
85288	2.500	1.375	4.00
85289	2.500	1.500	4.00
85290	2.500	1.625	4.00
85291	2.500	1.750	4.00
85292	2.500	1.875	4.00
85293	2.500	2.000	4.00



CUSTOM SPECIALS



Specials Policy

There are many sizes and types of holders that are not listed in this catalog. Please contact us as we would be happy to quote these items to you as specials.

We require a drawing or sketch along with your specifications.

Collis reserves the right to overship or undership any order for manufactured specials by ten percent or one part on an order less than five pieces. No returns will be allowed on manufactured specials. A five piece minimum quantity is required.

Toolholder Quotation Request

Company Name

Your Name

Address

City

State

Zip

Phone

Fax



CALL FOR CURRENT PRICING

(800) 562-0900

ACCESSORIES



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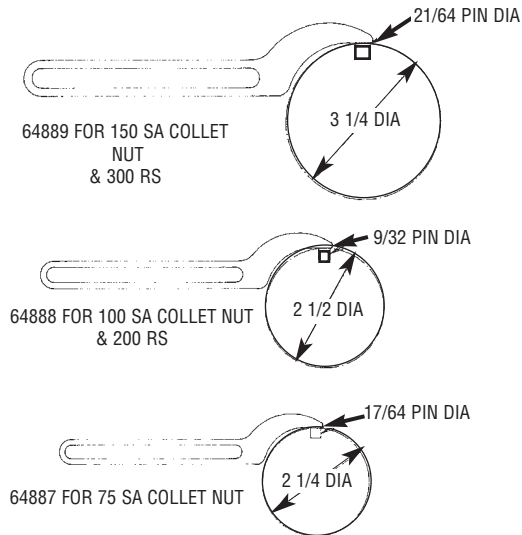
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ACCESSORIES



Non-Adjustable Spanner Wrenches



Adjustable Pin Spanner Wrench



Collis Part #64879
(2" to 4 3/4" Capacity, 1/4" Pin)

Wrenches – E/R Collet System

Collis Number	Collet Size Used	Clamping Nut Used
64740	E/R 11	85001
64741	E/R 16	85002
64742	E/R 20	85003
64743	E/R 25	85004
64746	E/R 25	85007
64744	E/R 32	85005
64745	E/R 40	85006
64747	E/R 16	84969
64748	E/R 20	84967
64749	E/R 25	85007



Drill Drifts

Drop forged drifts are carburized hardened for maximum wear characteristics. Conforms to industry standards.

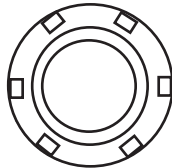
Collis Number	Size	Description	Length
67801	#1	Drill Drift for #1 Morse Taper	5"
67802	#2	Drill Drift for #2 Morse Taper	6"
67803	#3	Drill Drift for #3 Morse Taper	7"
67804	#4	Drill Drift for #4 Morse Taper	8-1/4"



ACCESSORIES

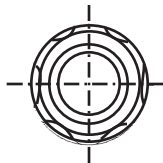


E/R Clamping Nuts



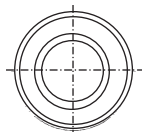
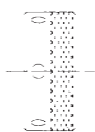
Collis Number	Collet Size Used	Clamping Nut Nose Diameter Inches / Metric	Style
85001	E/R 11	.63 (16.00mm)	Mini Nut
85002	E/R 16	.87 (22.09mm)	
85003	E/R 20	1.10 (27.94mm)	
85004	E/R 25	1.38 (35.00mm)	
85007	E/R 25	1.65 (41.91mm)	E Style Nut
85005	E/R 32	1.97 (50.03mm)	
85006	E/R 40	2.48 (62.99mm)	
84969	E/R 16	1.08 (27.42mm)	Hex Style
84967	E/R 20	1.34 (34.04mm)	

PG Style Collet Holder Hex Nut



Collis Number	Collet Series	HEX
76489	#075 SA	1 7/8
76487	#100 SA	2 1/4

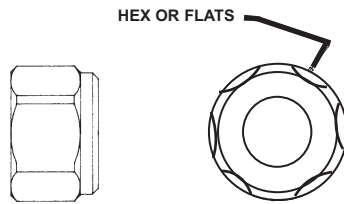
PG Style Collet Holder Spanner Nut



Collis Number	Collet Series	Wrench
76484	# 75 SA	64887
76485	#100 SA	64888
76486	#150 SA	64889

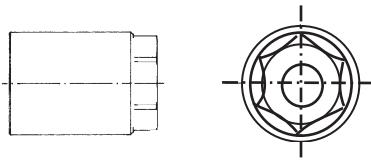


ACCESSORIES



Double Angle Collet Holder Nose Piece

Collis Number	Collet Series	Model	Thread	HEX or FLATS	Wrench
76440	#300	08	9/16 - 18	3/4 HEX	64706
76441	#200	08	3/4 - 16	1 HEX	64747
76442	#100	08	1 - 14	1 1/4 HEX	64708
76443	#180	08	1 1/4 - 12	1 1/2 FLATS	64709

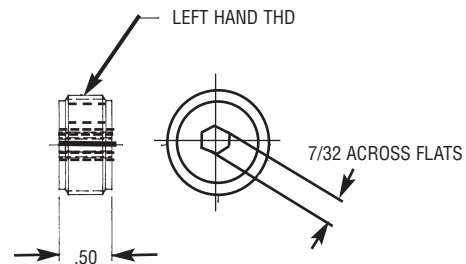


Double Angle Stub Nose Holder Nose Piece-Extension

Collis Number	Collet Series	Model	Thread	HEX	Wrench
76432	100DA	04	15/16 - 20	7/8	64707
76433	180DA		1 3/16 - 20	1 1/4	64708
76431	200DA	04	11/16 - 20	3/4	64706
76430	300DA	04	7/16 - 32	1/2	64705

Coolant Through Back-Up Screw (Collet Holder)

Collis Number	Thread
64760	1 1/8 - 16
64761	1 3/8 - 16
64762	1 5/8 - 16
64763	1 1/4 - 16
64764	13/16 - 16
64765	15/16 - 16
64766	7/16 - 16
64767	5/8 - 16
64768	9/16 - 16
64769	7/8 - 16
64770	11/16 - 16
64771	1/2 - 16
64772	1 1/4 - 12
64773	1 3/8 - 12
64774	1 5/8 - 12
64790	1 1/8 - 16
64791	1 3/8 - 16
64792	1 5/8 - 16

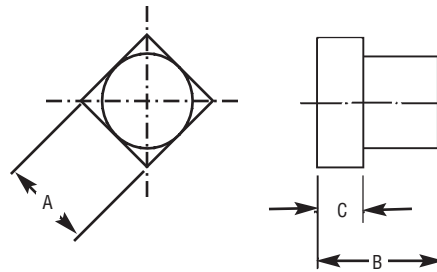




ACCESSORIES

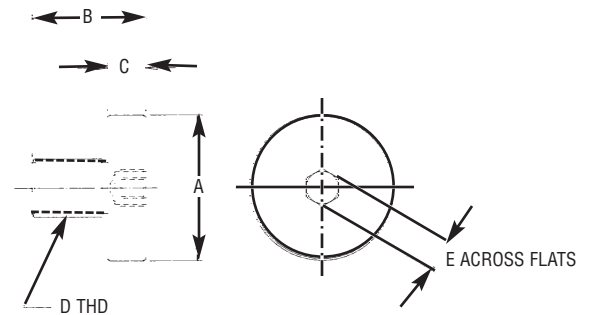
Shell Mill Holder Drive Keys

Collis Number	Pilot Size	A Dia.	B	C
64750	.500	.250	.50	.12
64751	.750	.312	.53	.15
64752	1.000	.375	.68	.18
64753	1.250	.500	.88	.25
64754	1.500	.625	1.06	.31
64755	2.000	.750	1.12	.38
64756	2.500	1.000	1.38	.50



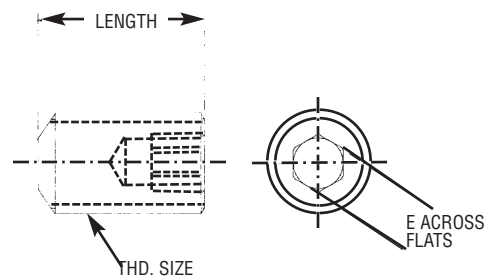
Shell Mill Holder Arbor Screws

Collis Number	Pilot Dia.	A Head Dia.	B O.A. Length	C Head Height	D Thread Unified	E Hex X DP.
64830	1/2	21/32	1	3/8	1/4 - 28	3/16 x 3/16
64831	3/4	7/8	1 1/16	3/8	3/8 - 24	1/4 x 1/4
64832	1	1 3/16	1 1/16	3/8	1/2 - 20	5/16 - 1/4
64833	1 1/4	1 1/2	1 3/8	1/2	5/8 - 18	5/16 x 7/16
64834	1 1/2	1 7/8	1 7/16	1/2	3/4 - 16	3/8 x 7/16
64835	2	2 1/2	1 7/16	1/2	1 - 14	1/2 x 5/8
64836	2 1/2	3 1/8	2	1/2	1 - 14	1/2 x 5/8



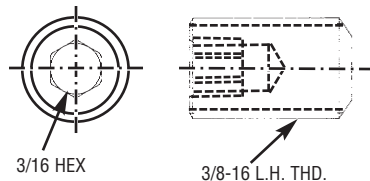
End Mill Holder Set Screws

Collis Number	End Mill Diameter	Thread Size	Length	E
64870	3/16 & 1/8	10 - 32	1/4	1/16
64840	1/4	1/4 - 28	1/4	1/8
64841	3/8	3/8 - 24	5/16	3/16
64842	1/2	7/16 - 20	3/8	7/32
64843	5/8	9/16 - 18	1/2	1/4
64844	3/4 & 7/8	5/8 - 18	1/2	5/16
64845	1, 1 1/4 & 1 1/2	3/4 - 16	5/8	3/8
64846	2	1 - 14	7/8	1/2



Back-Up Screw

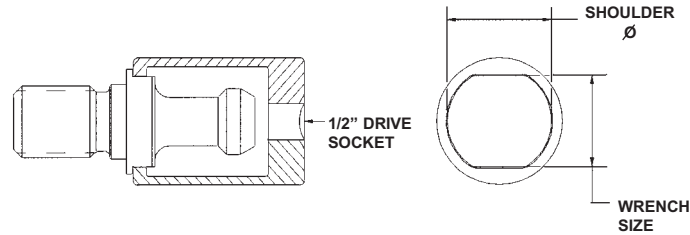
Collis Number	Thread
64921	3/8 - 16





ACCESSORIES

Retention Knobs



Collis Number	Size Taper	1/2 Inch Drive Socket Fits Retention Knob Type	Thread Size	Shoulder Dia. Max.	Wrench Size Max.
64686	30	ANSI	1/2-13 UNC	0.655	0.535
64687	30	JMTBA	& M-12	0.675	0.511
64688	30	DIN	M-12	0.675	0.556
64689	40	ANSI JMTBA, ISO TYPE A, DIN	5/8-11 UNC	0.944	0.755
64690	40	ISO TYPE B	& M-16	0.894	0.711
64691	45	ANSI	3/4-10 UNC	1.205	1.004
64692	45	JMTBA, ISO, DIN	& M-20	1.225	0.950
64693	50	ANSI	1.00-8 UNC	1.450	1.255
64694	50	JMTBA, ISO TYPE A&B, DIN	& M-24	1.500	1.185

Torque (FT.-LBS.) specifications supplied with Sockets.

Sockets aid in the installation and removal of Retention Knobs. By using a Socket and a Torque Wrench the ideal tightness is achieved without rounding off the Retention Knob's corners. Sockets are designed to work when flats are up to .020 under Wrench Size Max.

Note: Some Retention Knobs have mixed standards. Check the Shoulder Diameter and Wrench Sizes carefully when selecting a Socket to fit your requirements.

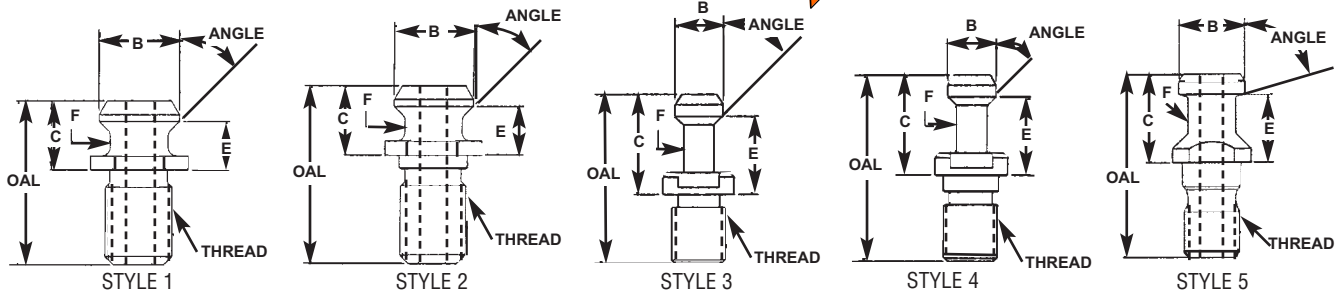
If you need a specific retention knob, copy page 122
Fill out the data and fax to **1-800-572-0839**



ACCESSORIES

Retention Knobs

NEW!



Collis Number	Thread	Angle	OAL	B	C	E	F	Coolant Hole	Style	Specification/ Feature
67751	5/8-11	45	1.50	.740	.640	.440	.490	.281	1	ANSI Std
64724	5/8-11	45	1.50	.740	.640	.440	.490	—	1	ANSI Std Solid
67752	3/4-10	45	1.80	.940	.820	.580	.605	.375	1	ANSI Std
67753	1"-8	45	2.30	1.140	1.000	.700	.820	.468	1	ANSI Std.
69993	1"-8	45	2.30	1.140	1.000	.700	.820	—	1	ANSI Std Solid
64737	1"-8	45	2.30	1.140	1.000	.700	.820	.468	1	Mazak O-Ring Seal Groove
69980	M16-2	45	1.50	.740	.640	.440	.490	.281	2	ANSI for Metric Shank
69026	M24-3	45	2.30	1.140	1.000	.700	.820	.468	2	ANSI for Metric Shank
64723	M12-1.75	45	1.70	.430	.908	.710	.273	—	4	MAS BT 60 DEG
64721	M12-1.75	60	1.70	.430	.908	.710	.273	—	4	MAS BT 60 DEG
64683	5/8-11	90	2.13	.590	1.277	.990	.393	—	3	
69025	5/8-11	30	2.13	.588	1.275	.988	.391	.197	3	
69059	M16-2	90	2.36	.590	1.378	1.102	.393	—	4	MAS BT 90 DEG
64711	M16-2	45	2.36	.590	1.378	1.102	.393	—	4	MAS BT 45 DEG
64713	M16-2	60	2.36	.590	1.378	1.102	.393	—	4	MAS BT 60 DEG
64729	5/8-11	45	2.13	.590	1.270	.970	.393	—	3	
64730	5/8-11	15	1.88	.746	1.024	.787	.549	.276	3	
64712	5/8-11	30	2.12	.589	1.264	.988	.392	—	3	
69024	5/8-11	45	2.12	.589	1.264	.988	.392	.197	3	
64714	5/8-11	60	2.13	.590	1.270	.990	.393	—	3	
64682	1"-8	90	3.35	.905	1.780	1.386	.670	—	4	
64719	M24-3	90	3.35	.906	1.772	1.378	.669	—	4	MAS BT 90 DEG
69995	M24-3	45	3.35	.906	1.772	1.378	.669	—	4	MAS BT 45 DEG
69028	M24-3	30	3.34	.904	1.770	1.376	.667	.250	4	
69027	M24-3	60	3.35	.906	1.772	1.378	.669	—	4	MAS BT 60 DEG
64720	1"-8	45	3.36	.905	1.780	1.386	.670	—	4	
64731	1"-8	45	3.09	.901	1.791	1.378	.665	.250	3	
64722	1"-8	60	3.07	.906	1.772	1.378	.669	—	3	
64725	5/8-11	45	2.29	.590	1.438	1.139	.406	—	3	
69029	5/8-11	30	2.30	.588	1.436	1.137	.404	.157	3	
69047	M16-2	45	1.85	.740	.752	.552	.490	—	4	FADAL BT40
69004	5/8-11	75	1.89	.746	1.020	.789	.550	.281	5	



ACCESSORIES

Retention Knob Specification Sheet

Copy this page, fill out the specifications of your retention knob needs and fax to **1-800-572-0839**.

Company Name _____

Your Name _____

Address _____

City _____

State _____

Zip _____

Phone _____

Zip _____

Machine Make _____

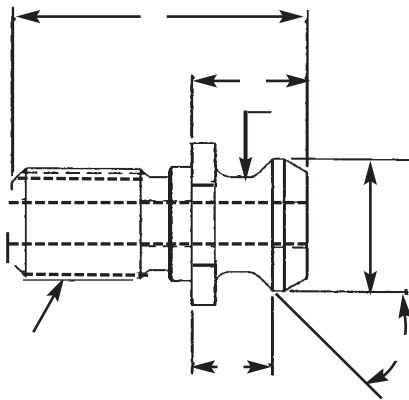
Machine Model _____

Taper Size _____

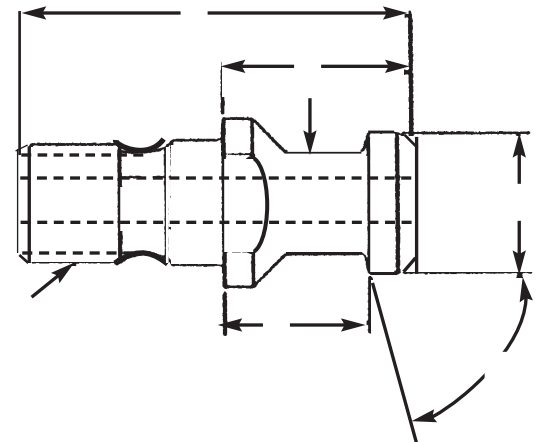
Special Features _____

Coolant Hole Diameter _____

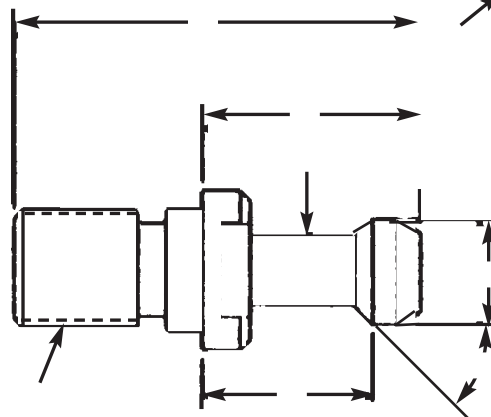
ANSI



DIN/ISO

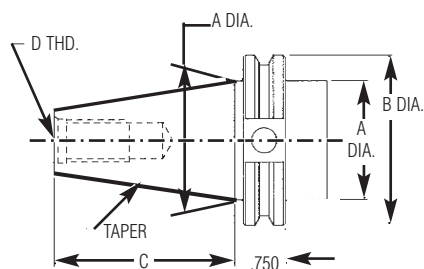


MAS BT



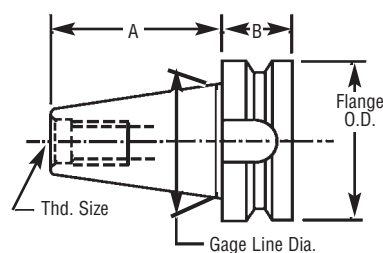


SHANK DATA



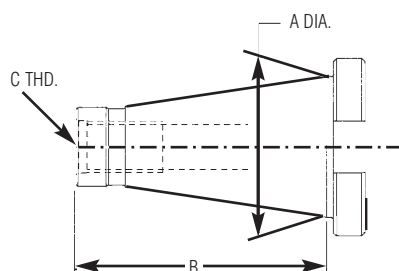
CV

Taper	A	B	C	D
30	1.250	1.812	1.875	1/2 - 13
40	1.750	2.500	2.687	5/8 - 11
45	2.250	3.250	3.250	3/4 - 10
50	2.750	3.875	4.000	1-8
60	4.250	5.500	6.375	1 1/4 - 7



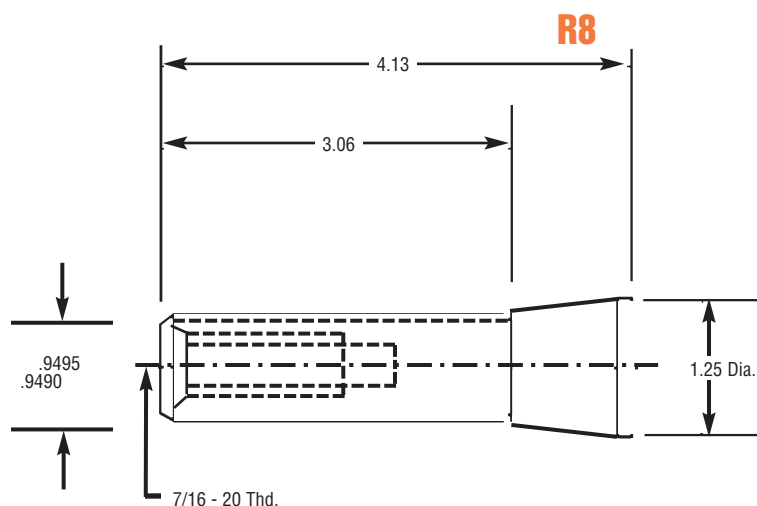
BT

Taper	Gage Line	A LG.	B LG.	Flange O.D.	Thd. Size
30	1.250	1.985	.787	1.811	M12 x 1.75
35	1.500	2.299	.866	2.087	M12 x 1.75
40	1.750	2.654	.984	2.480	M16 x 2
45	2.250	3.378	1.181	3.346	M20 x 2.5
50	2.750	4.126	1.378	3.937	M24 x 3



NMTB

Taper	A	B	C
30	1.250	2.687	1/2 - 13
40	1.750	3.687	5/8 - 11
50	2.750	5.000	1-8
60	4.250	8.125	1 1/4 - 7



R8

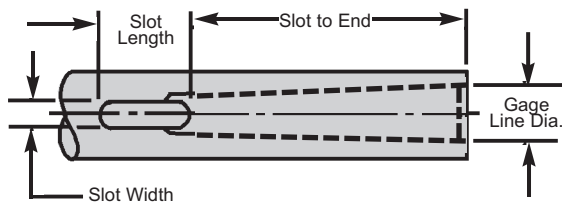


TAPER DATA

The following is a brief explanation to aid in the identification of tapers.

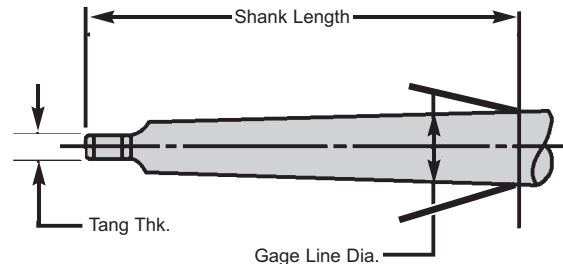
Self Holding Taper

Morse Taper & ASA (also #1, #2, & #3 B&S)



Tapers may be identified by measuring the diameter of the hole at the face (or gage line) of the spindle, or by the location, length and width of the tang slot.

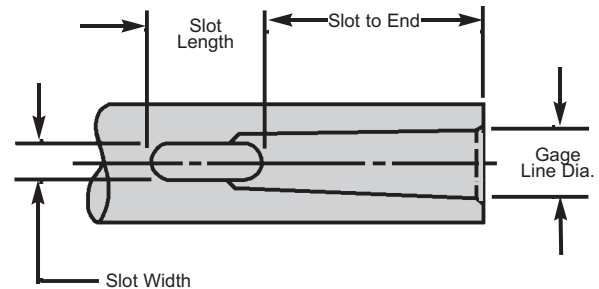
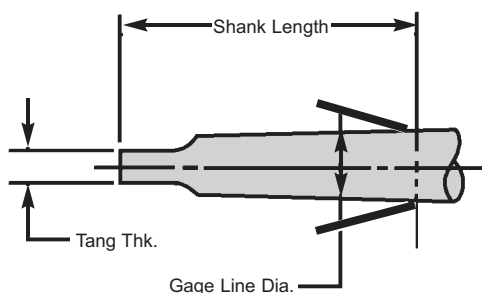
Shanks are identified also by the gage diameter and by the length of the shank or tang thickness.



	TAPER NO.	GAGE LINE DIA.	SLOT TO END SPIN.	SLOT DIM.		TANG THICKNESS	SHANK LENGTH	TAPER/ FOOT
MORSE TAPER	0	.3561	1-15/16	9/16	.172	.156	2-7/32	.62460
	1	.475	2-1/16	3/4	.218	.203	2-7/16	.59858
	2	.700	2-1/2	7/8	.266	.250	2-15/16	.59941
	3	.938	3-1/16	1-3/16	.328	.312	3-11/16	.60235
	4	1.231	3-7/8	1-1/4	.484	.469	4-5/8	.62326
	5	1.748	4-15/16	1-1/2	.656	.625	5-7/8	.63151
	6	2.494	7	1-3/4	.781	.750	8-1/4	.62565
	7	3.270	9-1/2	2-5/8	1.156	1.125	11-1/4	.62400
ASA & B&S #1, #2, & #3	.239	.239	15/16	3/8	.141	.125	1-3/16	.50200
	.299	.299	1-11/64	1/2	.172	.156	1-1/2	.50200
	.375	.375	1-15/32	5/8	.203	.187	1-7/8	.50200

Morse Stub Tapers

These are as the name implies, a short version of the standard Morse Taper. However, the only dimensions that are common throughout the two series are the taper per foot and the gage line diameters. The tang and tang slot dimensions vary from standard M.T. in most cases.



TAPER NO.	GAGE LINE DIA.	TANG END OF SPIN	SLOT DIM.		TANG THICKNESS	SHANK LENGTH	TAPER/ FOOT
1	.475	25/32	23/32	7/32	13/64	1-1/8	.59858
2	.700	15/16	15/16	5/16	19/64	1-7/16	.59941
3	.938	1-1/16	1-1/8	13/32	25/64	1-3/4	.60235
4	1.231	1-3/16	1-3/8	17/32	33/64	2-1/16	.62326
5	1.748	1-7/16	1-3/4	25/32	3/4	2-11/16	.63151



TAPER DATA

Brown & Sharpe Tapers

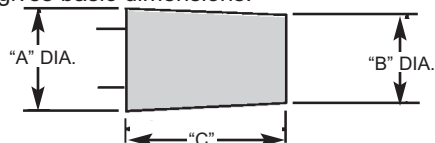
The 1, 2 & 3 B&S Tapers are the same as the .239, .299 & .375 ASA Tapers and may be identified as shown under "ASA Tapers".

The B&S Tapers 4 through 18 are identified by the diameter of the plug at the small end and the plug length. The gage line diameter (as we know it from other tapers) may vary within a given B&S Taper number due to the different plug lengths. Therefore more information has to be given than simply the number of the B&S Taper. Dimensions such as the shank length along with the gage line diameter and tang thickness.

In the case of B&S holes, the G.L. diameter along with the location of the tang slot from the gage line diameter and the slot width need to be known.

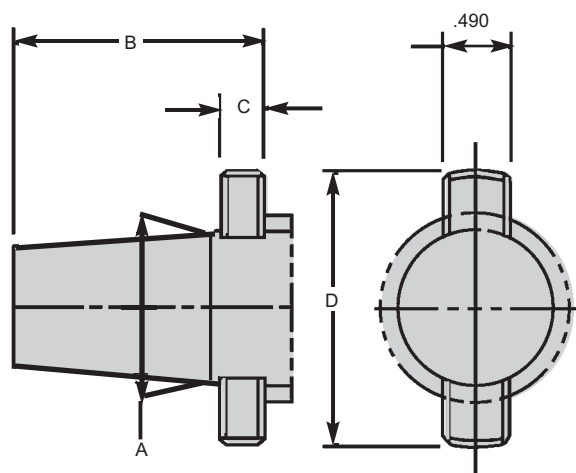
Jacobs Tapers

Jacobs Tapers are usually easy to identify. The following table gives basic dimensions.



NO.	"A" DIA.	"B" DIA.	"C" LENGTH	TAPER PER FOOT
0	.2500	.22844	.43750	.59145
1	.3840	.33341	.65625	.92508
2	.5590	.48764	.87500	.97861
2A	.5488	.48764	.75000	.97861
3	.8110	.74610	1.21875	.63898
4	1.1240	1.03720	1.65630	.62886
5	1.4130	1.31610	1.87500	.62010
6	.6760	.62410	1.00000	.62292
33	.6240	.56050	1.00000	.76194

Rapid Switch Adapters



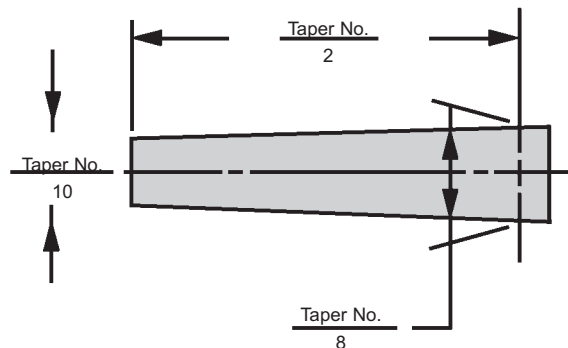
TAPER/FOOT 2.000"

SIZE NO.	"A" GAGE LINE DIA.	"B" LENGTH	"C" WIDTH	"D" DIA.
200	1.312	2.50	.310	2.13
300	1.625	2.95	.373	2.50

Jarno Tapers

Identification of Jarno Tapers is made simple by the fact that they are set up to a formula. The number of the taper is the number of eights in the G.L. diameter, the number of tenths in the small end diameter and the number of half inches in the length.

ALL JARNO TAPERS
ARE .600 PER FOOT



EXAMPLE: #5 Jarno Taper

Gage line diameter is 5/8"

Small end diameter is 5/10 (or 1/2")

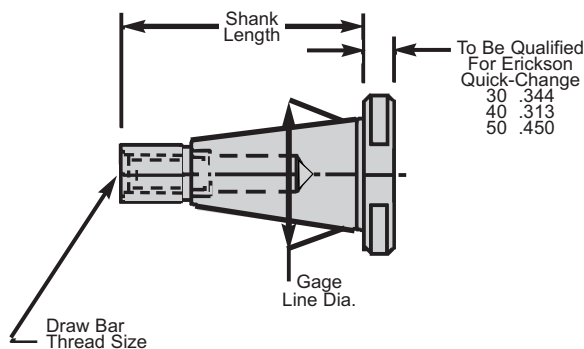
Length is 5/2 (or 2-1/2")

Self Releasing Tapers

(STEEP MACHINE TAPERS)

NMTB OR MILLING MACHINE SHANKS

These are most easily identified by their gage line diameter. See table below.



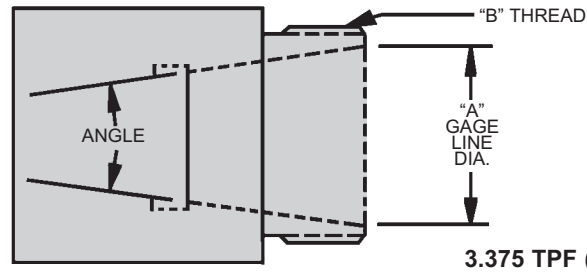
TAPER/FOOT 3.500"

TAPER NO.	GAGE LINE DIA.	SHANK LENGTH	DRAW BAR THD. SIZE
30	1.250	2.75	1/2 - 13
40	1.750	3.75	5/8 - 11
45	2.250	4.38	3/4 - 10
50	2.750	5.12	1 - 8
60	4.250	8.25	1 1/4 - 7



TAPER DATA

Single Angle Collet Cavities



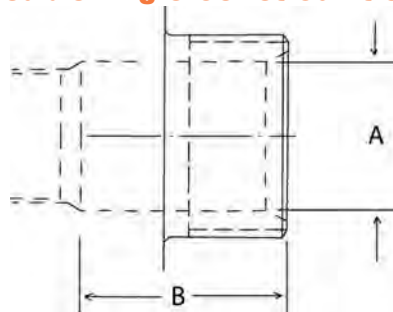
Precision Grip &
Single Angle Collets
1.678 TPF (8p)

PG SERIES	"A" DIA.	"B" THD. ACME 12 P
075	1.05	1 1/2
100	1.37	1 7/8
150	1.99	2 5/8

"B" THREAD METRIC

ER SERIES	"A" DIA.	MINI SERIES	HEX & "E" SERIES
11	.433	M13 x .75	M14 x .75
16	.630	M19 x 1	M22 x 1.5
20	.787	M24 x 1	M25 x 1.5
25	.984	M30 x 1	M32 x 1.5
32	1.260	—	M40 x 1.5
40	1.575	—	M50 x 1.5

Double Angle Collet Cavities



These DIM's to be used to
determine the collet series only

SERIES #	"A" DIA.	"B" LG.
300	21/64	.67
200	31/64	.79
100	11/16	.95
180	29/32	1.26

This image shows a full page of blank graph paper. The grid consists of small, uniform squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.



NOTES

This image shows a full page of blank graph paper. The grid consists of small, uniform squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.



CONVERSION TABLES

CONVERSION TABLES									
DECIMALS TO MILLIMETERS				FRACTIONS TO DECIMALS TO MILLIMETERS					
Decimal	mm	Decimal	mm	Fraction	Decimal	mm	Fraction	Decimal	mm
0.001	0.0254	0.500	12.7000	1/64	0.0156	0.3969	33/64	0.5156	13.0969
0.002	0.0508	0.510	12.9540	1/32	0.0312	0.7938	17/32	0.5312	13.4938
0.003	0.0762	0.520	13.2080	3/64	0.0469	1.1906	35/64	0.5469	13.8906
0.004	0.1016	0.530	13.4620						
0.005	0.1270	0.540	13.7160						
0.006	0.1524	0.550	13.9700	1/16	0.0625	1.5875	9/16	0.5625	14.2875
0.007	0.1778	0.560	14.2240						
0.008	0.2032	0.570	14.4780						
0.009	0.2286	0.580	14.7320	5/64	0.0781	1.9844	37/64	0.5781	14.6844
		0.590	14.9860	3/32	0.0938	2.3812	19/32	0.5938	15.0812
0.010	0.2540			7/64	0.1094	2.7781	39/64	0.6094	15.4781
0.020	0.5080								
0.030	0.7620								
0.040	1.0160	0.600	15.2400						
0.050	1.2700	0.610	15.4940	1/8	0.1250	3.1750	5/8	0.6250	15.8750
0.060	1.5240	0.620	15.7480						
0.070	1.7780	0.630	15.0020						
0.080	2.0320	0.640	16.2560	9/64	0.1406	3.5719	41/64	0.6406	16.2719
0.090	2.2860	0.650	16.5100	5/32	0.1562	3.9688	21/32	0.6562	16.6688
		0.660	16.7640	11/64	0.1719	4.3656	43/64	0.6719	17.0656
0.100	2.5400	0.670	17.0180						
0.110	2.7940	0.680	17.2720						
0.120	3.0480	0.690	17.5260	3/16	0.1875	4.7625	11/16	0.6875	17.4625
0.130	3.3020								
0.140	3.5560								
0.150	3.8100			13/64	0.2031	5.1594	45/64	0.7031	17.8594
0.160	4.0640	0.700	17.7800	7/32	0.2188	5.5562	23/32	0.7188	18.2562
0.170	4.3180	0.710	18.0340	15/64	0.2344	5.9531	47/64	0.7344	18.6531
0.180	4.5720	0.720	18.2880						
0.190	4.8260	0.730	18.5420						
		0.740	18.7960	1/4	0.2500	6.3500	3/4	0.7500	19.0500
0.200	5.0800	0.750	19.0500						
0.210	5.3340	0.760	19.3040						
0.220	5.5880	0.770	19.5580	17/64	0.2656	6.7469	49/64	0.7656	19.4469
0.230	5.8420	0.780	19.8120	9/32	0.2812	7.1438	25/32	0.7812	19.8438
0.240	6.0960	0.790	20.0660	19/64	0.2969	7.5406	51/64	0.7969	20.2406
0.250	6.3500								
0.260	6.6040								
0.270	6.8580			5/16	0.3125	7.9375	13/16	0.8125	20.6375
0.280	7.1120	0.800	20.3200						
0.290	7.3660	0.810	20.5740						
		0.820	20.8280	21/64	0.3281	8.3344	53/64	0.8281	21.0344
0.300	7.6200	0.830	21.0820	11/32	0.3438	8.7312	27/32	0.8438	21.4312
0.310	7.8740	0.840	21.3360	23/64	0.3594	9.1281	55/64	0.8594	21.8281
0.320	8.1280	0.850	21.5900						
0.330	8.3820	0.860	21.8440						
0.340	8.6360	0.870	22.0980	3/8	0.3750	9.5250	7/8	0.8750	22.2250
0.350	8.8900	0.880	22.3520						
0.360	9.1440	0.890	22.6060						
0.370	9.3980			25/64	0.3906	9.9219	57/64	0.8906	22.6219
0.380	9.6520			13/32	0.4062	10.3188	29/32	0.9062	23.0188
0.390	9.9060			27/64	0.4219	10.7156	59/64	0.9219	23.4156
		0.900	22.8600						
0.400	10.1600	0.910	23.1140						
0.410	10.4140	0.910	23.3680	7/16	0.4375	11.1125	15/16	0.9375	23.8125
0.420	10.6680	0.930	23.6220						
0.430	10.9220	0.940	23.8760						
0.440	11.1760	0.950	24.1300	29/64	0.4531	11.5094	61/64	0.9531	24.2094
0.450	11.4300	0.960	24.3840	15/32	0.4688	11.9062	31/32	0.9688	24.6062
0.460	11.6840	0.970	24.6380	31/64	0.4844	12.3031	63/64	0.9844	25.0031
0.470	11.9380	0.980	24.8920						
0.480	12.1920	0.990	25.1460						
0.490	12.4460	1.000	25.4000	1/2	0.5000	12.7000	1	1.0000	25.4000