

SOWA[®]

METALWORKING SOLUTIONS



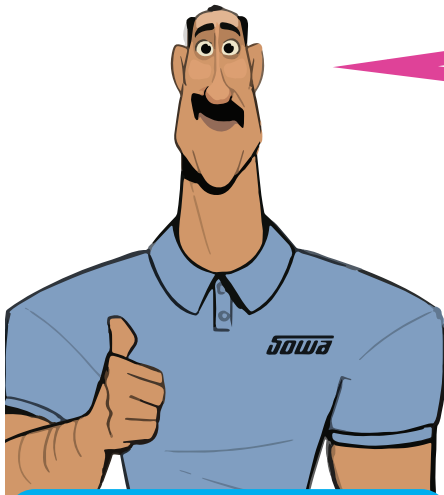
Serving The Metalworking Industry Since 1960



***A Comprehensive Selection Of The Complete GS Brand Work Holding Program
Package Pricing Available On A Variety Of Products***

BEST ADDED VALUE IN THE BUSINESS

WHY TOOL HOLDERS?



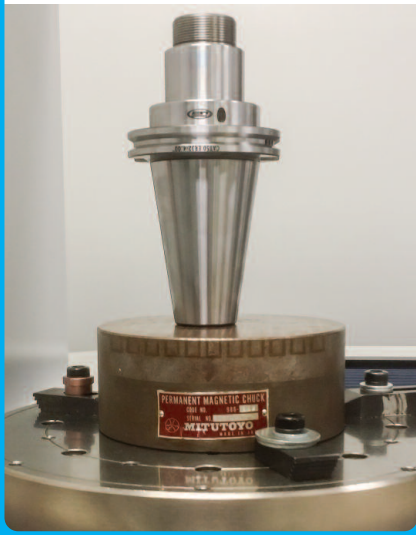
Hi, Hans here, Sowa Tool's Technical Specialist. I read an article in *Modern Machine Shop* recently that I found very interesting and wanted to share.

It was an article on 7/24 taper tooling commonly found on BT, CAT, NMTB, and ISO tool holders. It turns out over 90% of all machining centers in the US use this taper.

Now, although it's easy to assume a taper is a taper, higher quality tool holders achieve the ideal 85-90% taper contact while lesser quality can range between 60-70%. Over time this creates micro-vibration resulting in "fretting" to the tool holder, spindle damage, premature cutting tool wear, and surface finish issues.

So we took it upon ourselves to test our GS holders vs. a cheaper competitor and the results were staggering.

Summary: Published taper to taper runout at 4xD of 0.0002" was actually 0.0025" on the competitor's holder. Whereas our GS holder was a true 0.0002"



Then we did a spin "balance" test. In this test their holder, that claimed to be G2.5 at 20,000rpm, had trouble reaching 11,000rpm. Our GS holder was G2.5 at 60,000rpm, this is 30,000rpm higher than we publish.

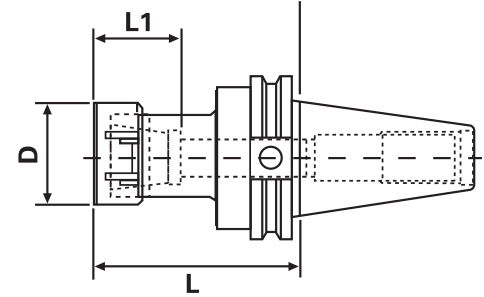


Competitor	GS
***** * BEST BALANCE 2000 Ver. 2.3 * *****	***** * BEST BALANCE 2000 Ver. 2.3 * *****
* D.E.M.....*	* D.E.M.....*
*****	*****
* Measured unbalance ..*	* Measured unbalance ..*
* Quantity 7.4 [gmm] * * Position 334.2 [deg] *	* Quantity 0.5 [gmm] * * Position 121.9 [deg] *
*****	*****
* MAXIMUM SPEED ISO 1940 ..*	* MAXIMUM SPEED ISO 1940 ..*
* GRADE G1 4000 * * GRADE G2.5 11000 * * GRADE G6.3 28000 * * GRADE G16 40000 *	* GRADE G1 67000 * * GRADE G2.5 60000 * * GRADE G6.3 40000 * * GRADE G16 40000 *
*****	*****
* Weight 3.5 [Kg] * * Type * * P/N * * S/H *	* Weight 3.5 [Kg] * * Type * * P/N * * S/H *
*****	*****
* NOTE: * *****	* NOTE: * *****
* Operator * * Date *	* Operator * * Date *
*****	*****

**The Bottom Line - Why buy a cheap holder for that expensive machine spindle?
"Price Is What You Pay. Value Is What You Get."**

CAT Taper ER Collet Chucks

- 100% Forged Construction
- CAT40 Certified balanced 30,000 rpm
- CAT50 Certified balanced 25,000 rpm
- Precision Ground Throughout
- DIN Coolant thru the flange - standard
- Threaded through holes for a back-up screw (tool stop) or coolant through when removed
- TIR, 0.0003" at 4xDia.
- Wrench not included



CAT40

Complete with certificate

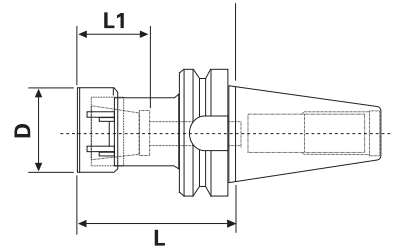
Taper	Collet Series	Collet Range	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
CT40	ER11	0.019-0.275"	2.50"	0.65"	0.75"	29.8	531-400	116.70
CT40	ER11	0.019-0.275"	4.00"	0.65"	0.75"	29.8	531-402	147.85
CT40	ER11	0.019-0.275"	6.00"	0.65"	0.75"	29.8	531-404	132.95
CT40	ER16	0.019-0.413"	2.50"	0.87"	1.26"	56.9	531-406	118.45
CT40	ER16	0.019-0.413"	3.50"	0.87"	1.26"	56.9	531-408	118.45
CT40	ER16	0.019-0.413"	4.00"	0.87"	1.26"	56.9	531-405	119.70
CT40	ER16	0.019-0.413"	6.00"	0.87"	1.26"	56.9	531-410	132.95
CT40	ER16	0.019-0.413"	9.00"	0.87"	1.26"	56.9	531-411	149.35
CT40	ER20	0.019-0.551"	2.50"	1.06"	1.38"	81.3	531-412	117.85
CT40	ER20	0.019-0.551"	4.00"	1.06"	1.38"	81.3	531-414	120.35
CT40	ER20	0.019-0.551"	6.00"	1.06"	1.38"	81.3	531-416	138.60
CT40	ER25	0.059-0.675"	2.50"	1.18"	1.65"	128.8	531-418	118.45
CT40	ER25	0.059-0.675"	4.00"	1.18"	1.65"	128.8	531-420	128.55
CT40	ER25	0.059-0.675"	6.00"	1.18"	1.65"	128.8	531-422	132.95
CT40	ER32	0.078-0.787"	2.50"	1.34"	1.97"	169.5	531-421	126.65
CT40	ER32	0.078-0.787"	3.13"	1.34"	1.97"	169.5	531-424	132.95
CT40	ER32	0.078-0.787"	4.00"	1.34"	1.97"	169.5	531-423	126.65
CT40	ER32	0.078-0.787"	5.00"	1.34"	1.97"	169.5	531-426	126.65
CT40	ER32	0.078-0.787"	6.00"	1.34"	1.97"	169.5	531-425	144.30
CT40	ER40	0.118-1.023"	2.50"	1.50"	2.48"	219.6	531-427	132.95
CT40	ER40	0.118-1.023"	3.13"	1.50"	2.48"	219.6	531-428	132.95
CT40	ER40	0.118-1.023"	4.00"	1.50"	2.48"	219.6	531-429	132.95

CAT50

Taper	Collet Series	Collet Range	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
CT50	ER16	0.019-0.413"	4.12"	0.87"	1.26"	56.9	531-432	147.45
CT50	ER16	0.019-0.413"	6.00"	0.87"	1.26"	56.9	531-434	160.65
CT50	ER20	0.019-0.551"	4.00"	1.06"	1.38"	81.3	531-440	150.60
CT50	ER20	0.019-0.551"	6.00"	1.06"	1.38"	81.3	531-442	149.35
CT50	ER20	0.019-0.551"	8.00"	1.06"	1.38"	81.3	531-444	178.95
CT50	ER25	0.059-0.675"	4.00"	1.18"	1.65"	128.8	531-448	144.90
CT50	ER25	0.059-0.675"	6.00"	1.18"	1.65"	128.8	531-450	154.85
CT50	ER32	0.078-0.787"	4.00"	1.34"	1.97"	169.5	531-454	144.30
CT50	ER32	0.078-0.787"	6.00"	1.34"	1.97"	169.5	531-456	166.95
CT50	ER32	0.078-0.787"	8.00"	1.34"	1.97"	169.5	531-458	199.10
CT50	ER32	0.078-0.787"	12.00"	1.34"	1.97"	169.5	531-459	332.15
CT50	ER40	0.118-1.023"	4.00"	1.50"	2.48"	219.6	531-460	153.10
CT50	ER40	0.118-1.023"	6.00"	1.50"	2.48"	219.6	531-462	171.95

BT Taper ER Collet Chucks

- 100% Forged Construction
- BT30 certified balanced up to 20,000 rpm
- BT40 certified balanced up to 30,000 rpm
- Precision Ground Throughout
- DIN Coolant thru the flange - standard
- Threaded through holes for a back-up screw (tool stop) or coolant through when removed
- Wrench not included

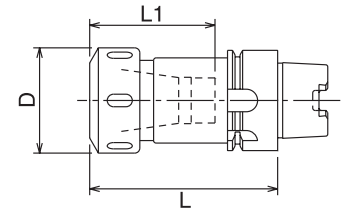


Complete with certificate

Taper	Collet Series	Collet Range	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
BT30								
BT30	ER16	0.019-0.413"	2.36"	0.87"	1.26"	56.9	532-154*	81.90
BT30	ER20	0.019-0.551"	4.00"	1.06"	1.38"	81.3	532-164*	83.25
BT30	ER32	0.078-0.787"	3.00"	1.34"	1.97"	169.5	532-170*	84.45
* Non-Coolant thru the flange								
BT40								
BT40	ER16	0.019-0.413"	3.50"	0.87"	1.26"	56.9	532-180	130.35
BT40	ER16	0.019-0.413"	5.00"	0.87"	1.26"	56.9	532-182	146.25
BT40	ER20	0.019-0.551"	2.50"	1.06"	1.38"	81.3	532-184	129.65
BT40	ER20	0.019-0.551"	4.00"	1.06"	1.38"	81.3	532-186	132.40
BT40	ER32	0.078-0.787"	3.13"	1.34"	1.97"	169.5	532-196	146.25

HSK ER Collet Chucks

- 100% Forged Construction
- HSK63A certified balanced 30,000 rpm
- HSK100A certified balanced 25,000 rpm
- Precision Ground Throughout
- DIN Coolant thru the flange - standard
- High rigidity & torque transmission
- Wrench not included



Taper	Collet Series	Collet Range	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
HSK63A								
HSK63A	ER16	0.019-0.413"	5.00"	0.866"	1.260"	56.9	536-116	182.10
HSK63A	ER20	0.019-0.551"	3.00"	1.062"	1.378"	81.3	536-118	182.10
HSK63A	ER20	0.019-0.551"	5.00"	1.062"	1.378"	81.3	536-120	182.10
HSK63A	ER25	0.059-0.675"	3.00"	1.181"	1.654"	128.8	536-122	182.10
HSK63A	ER25	0.059-0.675"	5.00"	1.181"	1.654"	128.8	536-124	182.10
HSK63A	ER32	0.078-0.787"	4.00"	1.260"	1.969"	169.5	536-126	182.10
HSK63A	ER32	0.078-0.787"	6.00"	1.260"	1.969"	169.5	536-128	212.35
HSK63A	ER40	0.118-1.023"	4.00"	1.496"	2.480"	219.6	536-130	182.10
HSK100A								
HSK100A	ER16	0.019-0.413"	6.00"	0.866"	1.260"	56.9	536-136	317.55
HSK100A	ER25	0.059-0.675"	6.00"	1.181"	1.654"	128.8	536-144	347.15
HSK100A	ER32	0.078-0.787"	4.00"	1.260"	1.969"	169.5	536-146	268.40
HSK100A	ER32	0.078-0.787"	6.00"	1.260"	1.969"	169.5	536-148	287.95



V-FLANGE HOLDERS WITH DUAL / FACE CONTACT

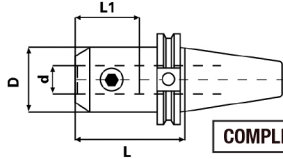
BALANCED 40 TAPER AT 30,000 RPM | 50 TAPER AT 25,000 RPM



Eliminates the gap between the flange and the spindle for increased rigidity

CAT TAPER DUAL CONTACT END MILL HOLDERS FOR DUAL CONTACT SPINDLES

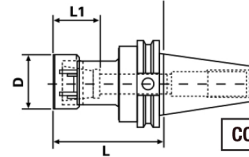
- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life.
- DIN coolant option - standard
- All ground body
- 100% forged construction



COMPLETE WITH CERTIFICATE

CAT TAPER DUAL CONTACT END COLLET CHUCKS FOR DUAL CONTACT SPINDLES

- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life.
- DIN coolant option - standard
- All ground body
- 100% forged construction



COMPLETE WITH CERTIFICATE

CAT TAPER DUAL CONTACT END MILL HOLDERS

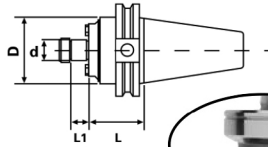
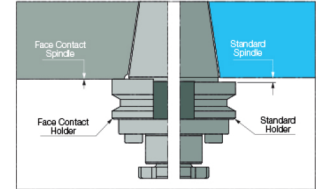
Taper	Hole Dia. (d)	Gauge Length (L)	L1	D	Set Screw	Code No. GS-
CAT-40	1/2"	2.50"	1.50"	1.38"	7/16-20	521-026
		4.00"				521-028
		5.00"				521-030
	5/8"	3.00"	1.61"	1.65"	9/16-18	521-034
		4.00"				521-036
		5.50"				521-038
	3/4"	3.00"	1.77"	1.75"	5/8-18	521-042
		4.00"				521-044
		5.50"				521-046
	1"	2.00"	2.36"	2.36"	3/4-16	521-054
		4.00"				521-056
		6.00"				521-058
1.1/4"	2.00"	2.28"	2.25"	3/4-16	521-060	
	4.00"	2.55"			521-062	
	6.00"	521-064				
1.1/2"	4.50"	2.55"	2.99"	3/4-16	521-066	
CAT-50	1/2"	4.00"	1.50"	1.38"	7/16-20	521-120
		6.00"				521-122
	5/8"	4.00"	1.61"	1.65"	9/16-18	521-130
		6.00"				521-132
	3/4"	3.00"	1.77"	1.89"	5/8-18	521-138
		4.00"				521-140
		6.00"				521-142
	1"	4.00"	2.36"	2.36"	3/4-16	521-154
		6.00"				521-156
		8.00"				521-158
	1.1/4"	4.00"	2.55"	2.48"	3/4-16	521-162
		6.00"				521-164
8.00"		521-166				
1.1/2"	4.50"	2.83"	2.99"	3/4-16	521-170	
	7.00"				521-172	
2"	5.37"	3.34"	3.74"	1"-14	521-178	

CAT TAPER DUAL CONTACT END COLLET CHUCKS

Taper	Collet Series	Collet Range	L	L1	D	Code No. GS-
CAT-40	ER16**	0.019 - 0.406"	2.50"	0.087"	1.260"	521-406
			4.00"			521-405
			6.00"			521-410
	ER32	0.078 - 0.787"	3.13"	1.340"	1.970"	521-424
			4.00"			521-423
			6.00"			521-425
CAT-50	ER16**	0.019 - 0.406"	4.12"	0.870"	1.260"	521-432
			6.00"			521-434
			8.00"			521-436
	ER32	0.078 - 0.787"	4.00"	1.340"	1.970"	521-454
			6.00"			521-456
			8.00"			521-458

CAT TAPER DUAL CONTACT SHELL MILL HOLDERS FOR DUAL CONTACT SPINDLES

- DIN coolant thru the flange option-standard
- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life.
- All ground body
- 100% forged construction



CAT TAPER DUAL CONTACT SHELL MILL HOLDERS

Taper	d	L	D	L1	Key Size	Arbor Thread	Code No. GS-	
CAT-40	3/4"	1.75"	1.75"	0.67"	5/16"	3/8"-24	521-192	
		4.00"					521-194	
		6.00"					521-195	
	1"	1.75"	2.38"	0.67"	3/8"	1/2"-20	521-196	
		4.00"					521-198	
		6.00"					521-199	
	1.1/4"	2.00"	2.88"	0.67"	1/2"	5/8"-18	521-200	
	1.1/2"	4.00"	3.80"	0.93"	5/8"	3/4"-16	521-202	
	CAT-50	3/4"	2.00"	2.00"	0.67"	5/16"	3/8"-24	521-204
			4.00"					521-206
			6.00"					521-208
		1"	1.75"	2.75"	0.69"	3/8"	1/2"-20	521-210
4.00"			521-216					
6.00"			521-218					
CAT-50	1.1/4"	1.75"	2.88"	0.69"	1/2"	5/8"-18	521-220	
		4.00"					521-222	
		6.00"					521-224	
	1.1/2"	2.00"	3.80"	0.93"	5/8"	3/4"-16	521-226	
		4.00"					521-228	
		6.00"					521-230	
2"	2.00"	4.38"	0.93"	3/4"	1"-14	521-232		
	4.00"					521-234		
							521-236	
							521-238	
							521-240	
							521-242	



ER COLLET SETS



* Sizes included are shown in the table on the top left

ER COLLET SETS

Series	Range*	Number of Collets*	Code No. 1-CEN-
ER-11	1/16 - 1/4	7	100-508
ER-16	1/16 - 3/8	11	160-513
ER-20	1/16 - 1/2	15	200-516
ER-25	1/8 - 5/8	17	250-520
ER-32	1/8 - 3/4	21	320-523
ER-40	1/8 - 1	29	400-530

Introducing...

EXTREME PRECISION 5 MICRON COLLETS

Nothing else compares.

DIN 6343 Precision Collets have a runout of 20-30 microns (0.02 - 0.03mm).
GS High Precision Collets have a runout of 10-20 microns (0.01 - 0.02mm).
The new **GS Extreme Precision AA Collets** have a runout of only 5 microns (0.005mm).

Features & Benefits:

- 16 slots allows sufficient collapse while increasing the area of contact with less tendency to distort
- All edges are deburred and rounded to promote good interface with the taper of the chuck without the tendency to damage it. This results in more consistent repeatability
- Collets are polished to eliminate blemishes that promote corrosion. Better corrosion resistance will result in longer product life of both the collet and the holder
- Highly polished OD surfaces reduce the amount of force absorbed by friction between the collet and the collet chuck seat, increasing the grip force on the cutting tool. The inside bore of the collet is intentionally left unpolished to increase the friction between the collet and the cutting tool shank
- Maximized Concentricity
- Evenly distributed cutting edges for high performance machining
- Minimized variation of cutting edges
- Consistent cutting profiles ensure the job stays within desired tolerances
- Improve system performance and lower cost per piece when used with quality GS chucks

The result of an improved AA collet in a quality GS chuck is increased gripping force, improved rigidity, decreased runout, and a renewed confidence in your collet chuck system.



For the full range of AA ER Collets visit www.SowaTool.com

5 MICRON AA ER COLLET SETS

Inch

Series	No. Pcs.	Range	Code No.	SALE \$
ER11	Inch 7pc Set	1/16-1/4 x 1/32	336-992	172.35
ER16	Inch 11pc Set	1/16-3/8 x 1/32	336-993	270.30
ER20	Inch 15pc Set	1/16-1/2 x 1/32	336-994	389.70
ER25	Inch 18pc Set	3/32-5/8 x 1/32	336-995	479.45
ER32	Inch 21pc Set	1/8-3/4 x 1/32	336-996	555.70
ER40	Inch 15pc Set	1/8-1" x 1/16	336-997	425.25

Metric

Series	No. Pcs.	Range	Code No.	SALE \$
ER11	Metric 13pc Set	1-7mm x 0.5mm	336-986	321.30
ER16	Metric 10pc Set	1-10mm x 1.0mm	336-987	242.55
ER20	Metric 12pc Set	2-13mm x 1.0mm	336-988	315.65
ER25	Metric 15pc Set	2-16mm x 1.0mm	336-989	400.05
ER32	Metric 18pc Set	3-20mm x 1.0mm	336-990	476.30
ER40	Metric 23pc Set	4-26mm x 1.0mm	336-991	652.05



ER Steel Sealed Collets

- Alloy Steel
- Sealed for coolant through applications
- ER11 Pressure resistance tested to 500 psi
- ER11 Rubber sealed
- ER16-40 Pressure resistance tested to 2000 psi



* Case may not be as shown

ER 11 Sealed

Size (in)	Code No.	SALE \$	Size (mm)	Code No.	SALE \$
3/16	337-622	23.90	4.0	337-634	23.90
13/64	337-624	23.90	4.5	337-636	23.90
7/32	337-626	23.90	5.0	337-638	23.90
15/64	337-628	23.90	5.5	337-640	23.90
1/4	337-630	23.90	6.0	337-642	23.90
17/64	337-632	23.90	6.5	337-644	23.90
6pc Set	337-929	143.25	7.0	337-646	23.90
3/16-17/64 x 64ths			7pc Set	337-930	167.10
			4.0-7.0mm x 0.5mm		

ER 16 Sealed

Size (in)	Code No.	SALE \$	Size (mm)	Code No.	SALE \$
1/8	337-841	26.50	3.0	338-290	26.50
5/32	337-842	26.50	3.5	338-291	26.50
3/16	337-843	26.50	4.0	338-292	26.50
13/64	337-826	26.50	4.5	338-294	26.50
7/32	337-844	26.50	5.0	338-296	26.50
15/64	337-827	26.50	5.5	338-298	26.50
1/4	337-845	26.50	6.0	338-300	26.50
17/64	337-828	26.50	6.5	338-302	26.50
9/32	337-846	26.50	7.0	338-304	26.50
19/64	337-829	26.50	7.5	338-305	26.50
5/16	337-847	26.50	8.0	338-306	26.50
21/64	337-831	26.50	8.5	338-307	26.50
11/32	337-848	26.50	9.0	338-308	26.50
23/64	337-832	26.50	9.5	338-309	26.50
3/8	337-849	26.50	10.0	338-310	26.50
25/64	337-833	26.50	13pc Set	337-932	344.00
13/32	337-834	26.50	4.0-10.0mm x 0.5mm		
10pc Set	337-931	264.60			
1/8-13/32 x 32nds					

ER 20 Sealed

Size (in)	Code No.	SALE \$	Size (mm)	Code No.	SALE \$
1/8	337-856	29.65	4.0	338-325	29.65
5/32	337-857	29.65	4.5	338-299	29.65
3/16	337-858	29.65	5.0	338-330	29.65
7/32	337-859	29.65	5.5	338-334	29.65
1/4	337-860	29.65	6.0	338-336	29.65
9/32	337-861	29.65	6.5	338-337	29.65
5/16	337-862	29.65	7.0	338-338	29.65
11/32	337-863	29.65	7.5	338-339	29.65
3/8	337-864	29.65	8.0	338-340	29.65
13/32	337-865	29.65	8.5	338-341	29.65
7/16	337-866	29.65	9.0	338-342	29.65
15/32	337-867	29.65	9.5	338-343	29.65
1/2	337-868	29.65	10.0	338-344	29.65
12pc Set	337-933	357.25	10.5	338-345	29.65
5/32-1/2 x 32nds			11.0	338-346	29.65
			11.5	338-347	29.65
			12.0	338-348	29.65
			12.5	338-349	29.65
			13.0	338-350	29.65
			17pc Set	337-935	506.35
			5.0-13.0mm x 0.5mm		

ER 25 Sealed

Size (in)	Code No.	SALE \$	Size (mm)	Code No.	SALE \$
1/8	337-878	30.90	3.0	338-297	30.90
5/32	337-879	30.90	3.5	338-326	30.90
3/16	337-880	30.90	4.0	338-327	30.90
7/32	337-881	30.90	5.0	338-329	30.90
1/4	337-882	30.90	5.5	338-331	30.90
17/64	338-352	30.90	6.0	338-360	30.90
9/32	337-883	30.90	6.5	338-362	30.90
19/64	338-354	30.90	7.0	338-364	30.90
5/16	337-884	30.90	7.5	338-366	30.90
21/64	338-356	30.90	8.0	338-368	30.90
11/32	337-885	30.90	8.5	338-370	30.90
23/64	338-358	30.90	9.0	338-372	30.90
3/8	337-886	30.90	9.5	338-374	30.90
25/64	337-916	30.90	10.0	338-376	30.90
13/32	337-887	30.90	10.5	338-378	30.90
27/64	337-917	30.90	11.0	338-380	30.90
7/16	337-888	30.90	11.5	338-382	30.90
29/64	337-918	30.90	12.0	338-384	30.90
15/32	337-889	30.90	12.5	338-386	30.90
31/64	337-919	30.90	13.0	338-388	30.90
1/2	337-890	30.90	13.5	338-390	30.90
33/64	337-920	30.90	14.0	338-392	30.90
17/32	337-891	30.90	14.5	338-394	30.90
35/64	337-921	30.90	15.0	338-396	30.90
9/16	337-892	30.90	15.5	338-398	30.90
37/64	337-922	30.90	16.0	338-400	30.90
19/32	337-893	30.90	21pc Set	337-939	617.40
39/64	337-923	30.90	6.0-16.0mm x 0.5mm		
5/8	337-894	30.90			
13pc Set	337-938	404.25			
1/4-5/8 x 32nds					

ER 32 Sealed

Size (in)	Code No.	SALE \$	Size (mm)	Code No.	SALE \$
1/8	338-200	33.40	3.0	338-335	33.40
5/32	338-201	33.40	3.5	338-351	33.40
3/16	338-202	33.40	4.0	338-353	33.40
7/32	338-203	33.40	4.5	338-333	32.90
1/4	338-204	33.40	5.0	338-355	33.40
17/64	338-301	33.40	5.5	338-363	33.40
9/32	338-205	33.40	6.0	338-320	33.40
19/64	338-303	33.40	6.5	338-365	33.40
5/16	338-206	33.40	7.0	338-357	33.40
21/64	338-311	33.40	7.5	338-367	33.40
11/32	338-207	33.40	8.0	338-324	33.40
23/64	338-312	33.40	8.5	338-369	33.40
3/8	338-208	33.40	9.0	338-359	33.40
25/64	338-313	33.40	9.5	338-361	33.40
13/32	338-209	33.40	10.0	338-328	33.40
27/64	338-314	33.40	10.5	338-404	33.40
7/16	338-210	33.40	11.0	338-406	33.40
29/64	338-315	33.40	11.5	338-371	33.40
15/32	338-211	33.40	12.0	338-332	33.40
31/64	338-316	33.40	12.5	338-408	33.40
1/2	338-212	33.40	13.0	338-410	33.40
33/64	338-317	33.40	13.5	338-412	33.40
17/32	338-213	33.40	14.0	338-414	33.40
35/64	338-318	33.40	14.5	338-416	33.40
9/16	338-214	33.40	15.0	338-418	33.40
37/64	338-319	33.40	15.5	338-420	33.40
19/32	338-215	33.40	16.0	338-422	33.40
39/64	338-321	33.40	16.5	338-424	33.40
5/8	338-216	33.40	17.0	338-426	33.40
41/64	337-924	38.45	17.5	338-428	33.40
21/32	338-217	33.40	18.0	338-430	33.40
43/64	337-925	38.45	18.5	338-432	33.40
11/16	338-218	33.40	19.0	338-434	33.40
45/64	337-926	38.45	19.5	338-436	33.40
23/32	338-219	33.40	20.0	338-438	33.40
47/64	337-927	38.45	20pc Set	337-942	667.80
3/4	338-220	33.40	10.0-20.0mm x 0.5mm		
49/64	337-928	38.45			
25/32	338-322	33.40			
17pc Set	337-940	562.35			
1/4-3/4 x 32nds					

ER 40 Sealed

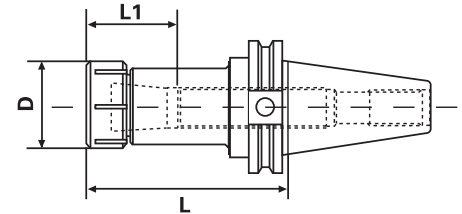
Size (in)	Code No.	SALE \$	Size (mm)	Code No.	SALE \$
1/8	338-238	36.55	6.0	338-441	36.55
5/32	338-239	36.55	6.5	338-435	36.55
3/16	338-240	36.55	7.0	338-443	36.55
7/32	338-241	36.55	7.5	338-437	36.55
1/4	338-242	36.55	8.0	338-445	36.55
9/32	338-243	36.55	8.5	338-439	36.55
5/16	338-244	36.55	9.0	338-447	36.55
11/32	338-245	36.55	9.5	338-449	36.55
3/8	338-246	36.55	10.0	338-440	36.55
13/32	338-247	36.55	10.5	338-442	36.55
7/16	338-248	36.55	11.0	338-444	36.55
15/32	338-249	36.55	11.5	338-446	36.55
1/2	338-250	36.55	12.0	338-448	36.55
17/32	338-251	36.55	12.5	338-450	36.55
9/16	338-252	36.55	13.0	338-452	36.55
19/32	338-253	36.55	13.5	338-454	36.55
5/8	338-254	36.55	14.0	338-456	36.55
21/32	338-255	36.55	14.5	338-458	36.55
11/16	338-256	36.55	15.0	338-460	36.55
23/32	338-257	36.55	15.5	338-462	36.55
3/4	338-258	36.55	16.0	338-464	36.55
25/32	338-259	36.55	16.5	338-468	36.55
13/16	338-260	36.55	17.0	338-470	36.55
27/32	338-261	36.55	17.5	338-472	36.55
7/8	338-262	36.55	18.0	338-474	36.55
29/32	338-263	36.55	18.5	338-476	36.55
15/16	338-264	36.55	19.0	338-478	36.55
31/32	338-265	36.55	19.5	338-480	36.55
1	338-266	36.55	20.0	338-482	36.55
			20.5	338-484	36.55
			21.0	338-486	36.55
			21.5	338-488	36.55
			22.0	338-490	36.55
			22.5	338-492	36.55
			23.0	338-494	36.55
			23.5	338-496	36.55
			24.0	338-498	36.55
			24.5	338-500	36.55
			25.0	338-502	36.55
			25.5	338-504	36.55
			26.0	338-506	36.55
			33pc Set	337-944	1,200.25
			10.0-26.0mm x 0.5mm		

CAT Taper TG Collet Chucks

- 100% Forged Construction
- CAT40 certified balanced up to 20,000 rpm
- CAT50 certified balanced up to 15,000 rpm
- Precision Ground Throughout
- DIN Coolant thru the flange - standard
- Shank traverse ground to obtain optimum accuracy
- Meets or exceeds ANSI specifications
- Threaded through holes for a back-up screw (tool stop) or coolant through when removed
- TIR, 0.0006"
- Wrench not included



Complete with certificate



CAT40

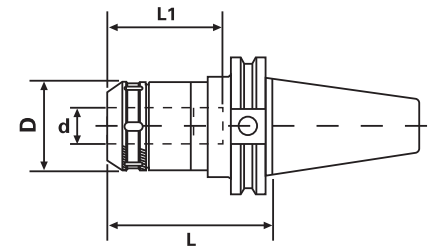
Taper	Collet Series	Collet Range	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
CT40	100TG	3/64-1"	3.00"	2.13"	2.50"	81.3	531-288	100.20
CT40	100TG	3/64-1"	3.50"	2.13"	2.50"	81.3	531-290	100.20

CAT50

Taper	Collet Series	Collet Range	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
CT50	100TG	3/64-1"	3.50"	2.13"	2.50"	81.3	531-300	143.05
CT50	100TG	3/64-1"	5.50"	2.13"	2.50"	81.3	531-302	162.65

CAT Taper Milling Chucks

- DIN coolant thru the flange
- Rough milling or 'hogging' operations
- Improved tool life over regular end mill holders
- 360° gripping contact
- Extreme rigidity over taper collets
- 0.0002" TIR for maximum tool life and accuracy



CAT40

Taper	Collet Series	Collet Range	d	L	L1	D	Tightening Torque (Nm)	Code No.	SALE \$
CT40	GS 3/4"	0.125-0.750"	.750"	3.54"	3.15"	2.05"	50-70	531-253	221.15
CT40	GS 1"	0.125-1.00"	1.00"	3.54"	3.15"	2.41"	50-70	531-255*	221.15
CT40	GS 1-1/4"	0.187-1.25"	1.25"	3.54"	3.34"	2.88"	60-80	531-257*	221.15
CT40	GS 1-1/4"	0.187-1.25"	1.25"	4.14"	3.34"	2.88"	60-80	531-256	221.15

* Non-Coolant thru the flange

CAT50

Taper	Collet Series	Collet Range	d	L	L1	D	Tightening Torque (Nm)	Code No.	Price \$
CT50	GS 3/4"	0.125-0.750"	.750"	4.14"	3.15"	2.05"	50-70	531-260	276.30
CT50	GS 1-1/4"	0.187-1.25"	1.25"	3.54"	4.73"	2.88"	60-80	531-265	349.30
CT50	GS 1-1/4"	0.187-1.25"	1.25"	4.14"	4.73"	2.88"	60-80	531-266	319.90

TG 100 Standard Collets

- 1/64" collapse per collet
- 0.0005" in T.I.R. precision per DIN 6341
- 90 ft-lbs maximum tightening torque



Size (in.)	Code No.	SALE \$
3/64	334-418	16.40
5/64	334-423	16.40
3/32	334-425N	16.40
7/64	334-426	16.40
1/8	334-427N	16.40
9/64	334-428	16.40
5/32	334-429N	16.40
11/64	334-430	16.40
3/16	334-431N	16.40
13/64	334-432	16.40
7/32	334-433N	16.40
15/64	334-434	16.40
1/4	334-435N	16.40
17/64	334-436	16.40
9/32	334-437N	16.40
19/64	334-438	16.40
5/16	334-439N	16.40
21/64	334-440	16.40
11/32	334-441N	16.40
23/64	334-442	16.40
3/8	334-443N	16.40
25/64	334-444	16.40
13/32	334-445N	16.40
27/64	334-446	16.40
7/16	334-447N	16.40
29/64	334-448	16.40
15/32	334-449N	16.40
31/64	334-450	16.40
1/2	334-451N	16.40
33/64	334-452	16.40
17/32	334-453N	16.40

Size (in.)	Code No.	SALE \$
35/64	334-454	16.40
9/16	334-455N	16.40
37/64	334-456	16.40
19/32	334-457N	16.40
39/64	334-458	16.40
5/8	334-459N	16.40
41/64	334-460	16.40
21/32	334-461N	16.40
43/64	334-462	16.40
11/16	334-463N	16.40
45/64	334-464	16.40
23/32	334-465N	16.40
47/64	334-466	16.40
3/4	334-467N	16.40
49/64	334-468	16.40
25/32	334-469N	16.40
51/64	334-470	16.40
13/16	334-471N	16.40
53/64	334-472	16.40
27/32	334-473N	16.40
55/64	334-474	16.40
7/8	334-475N	16.40
57/64	334-476	16.40
29/32	334-477N	16.40
59/64	334-478	16.40
15/16	334-479N	16.40
61/64	334-480	16.40
31/32	334-481N	16.40
63/64	334-482	16.40
1	334-483N	16.40

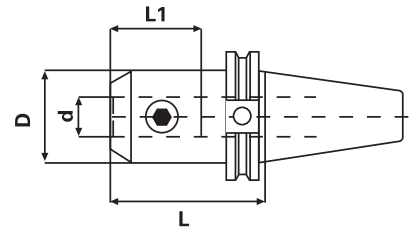
GS Milling Collets

I.D.	GS 3/4"		GS 1"		GS 1-1/4"	
	Code No.	SALE \$	Code No.	SALE \$	Code No.	SALE \$
Inch						
1/8"	534-650	17.10	534-682	19.05	-	-
3/16"	331-469N	17.10	534-684	19.05	331-481N	22.20
1/4"	331-470N	17.10	534-686	19.05	331-482N	22.20
5/16"	331-472N	17.10	534-688	19.05	331-484N	22.20
3/8"	331-474N	17.10	534-690	19.05	331-486N	22.20
7/16"	534-660	17.10	534-692	19.05	534-726	22.20
1/2"	331-476N	17.10	534-694	19.05	331-488N	22.20
9/16"	331-477N	17.10	-	-	331-489N	22.20
5/8"	331-478N	17.10	534-696	19.05	331-490N	22.20
3/4"	-	-	534-698	19.05	331-492N	22.20
7/8"	-	-	-	-	331-494N	22.20
1"	-	-	-	-	331-496N	22.20
Metric						
6mm	534-668	17.10	534-702	19.05	534-740	22.20
7mm	534-670	17.10	-	-	-	-
8mm	534-672	17.10	534-704	19.05	534-742	22.20
10mm	534-674	17.10	534-706	19.05	534-744	22.20
12mm	534-676	17.10	534-708	19.05	534-746	22.20
14mm	534-678	17.10	534-710	19.05	534-748	22.20
16mm	534-680	17.10	534-712	19.05	534-750	22.20
18mm	-	-	534-714	19.05	-	-
20mm	-	-	534-716	19.05	534-752	22.20
25mm	-	-	-	-	534-754	24.60



CAT Taper End Mill Holders

- 100% Forged Construction
- CAT40 Certified balanced to 30,000 rpm
- CAT50 Certified balanced to 25,000 rpm
- Precision Ground Throughout
- DIN Coolant thru the flange - standard (not available on stubby models)



Complete with certificate

CAT40

Taper	Hole Dia. (d)	Gage Length (L)	L1	D	Set Screw	Code No.	SALE \$
CT40	1/8"	1.35"*	0.63"	0.75"	8-32	531-069	75.50
CT40	1/8"	2.50"	0.63"	0.75"	8-32	531-070	75.50
CT40	1/8"	4.00"	0.63"	0.75"	8-32	531-071	101.95
CT40	3/16"	2.50"	0.86"	0.75"	10-32	531-073	67.70
CT40	3/16"	4.00"	0.86"	0.75"	10-32	531-074	101.95
CT40	1/4"	1.38"*	1.18"	0.79"	1/4"-28	531-000	70.60
CT40	1/4"	2.50"	1.10"	0.79"	1/4"-28	531-002	70.60
CT40	1/4"	4.00"	1.10"	0.79"	1/4"-28	531-004	77.50
CT40	5/16"	2.50"	1.26"	0.87"	5/16"-24	531-008	76.90
CT40	5/16"	4.00"	1.26"	0.87"	5/16"-24	531-010	67.70
CT40	3/8"	1.38"*	1.34"	1.00"	3/8"-24	531-012	76.90
CT40	3/8"	2.50"	1.26"	1.00"	3/8"-24	531-014	76.90
CT40	3/8"	4.00"	1.26"	1.00"	3/8"-24	531-016	77.50
CT40	3/8"	5.00"	1.26"	1.00"	3/8"-24	531-018	85.70
CT40	1/2"	1.75"*	1.50"	1.38"	7/16"-20	531-024	67.70
CT40	1/2"	2.50"	1.50"	1.38"	7/16"-20	531-026	77.50
CT40	1/2"	4.00"	1.50"	1.38"	7/16"-20	531-028	77.50
CT40	1/2"	5.00"	1.50"	1.38"	7/16"-20	531-030	85.70
CT40	5/8"	1.75"*	1.61"	1.65"	9/16"-18	531-032	68.70
CT40	5/8"	3.00"	1.61"	1.65"	9/16"-18	531-034	77.50
CT40	5/8"	4.00"	1.61"	1.65"	9/16"-18	531-036	77.50
CT40	3/4"	1.75"*	1.77"	1.89"	5/8"-18	531-040	77.50
CT40	3/4"	3.00"	1.77"	1.75"	5/8"-18	531-042	77.50
CT40	3/4"	4.00"	1.77"	1.75"	5/8"-18	531-044	77.50
CT40	1"	2.00"*	2.36"	2.25"	3/4"-16	531-054	76.90
CT40	1"	4.00"	2.36"	2.36"	3/4"-16	531-056	77.50
CT40	1-1/4"	2.00"*	2.28"	2.25"	3/4"-16	531-060	84.00
CT40	1-1/4"	4.00"	2.55"	2.48"	3/4"-16	531-062	77.50
CT40	1-1/2"	4.50"	2.55"	2.99"	3/4"-16	531-066	93.25

* Stubby Length

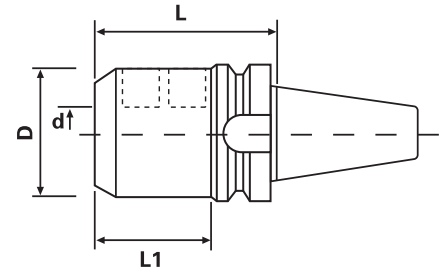
CAT50

Taper	Hole Dia. (d)	Gage Length (L)	L1	D	Set Screw	Code No.	SALE \$
CT50	1/2"	4.00"	1.50"	1.38"	7/16"-20	531-120	105.25
CT50	5/8"	3.00"	1.61"	1.65"	9/16"-18	531-128	103.50
CT50	5/8"	4.00"	1.61"	1.65"	9/16"-18	531-130	103.50
CT50	5/8"	6.00"	1.61"	1.65"	9/16"-18	531-132	115.30
CT50	3/4"	1.75"*	1.77"	1.89"	5/8"-18	531-136	90.10
CT50	3/4"	3.00"	1.77"	1.89"	5/8"-18	531-138	90.10
CT50	3/4"	4.00"	1.77"	1.89"	5/8"-18	531-140	105.25
CT50	3/4"	6.00"	1.77"	1.89"	5/8"-18	531-142	119.00
CT50	3/4"	8.00"	1.77"	1.89"	5/8"-18	531-144	137.70
CT50	1"	2.00"*	2.36"	2.36"	3/4"-16	531-152	97.60
CT50	1"	4.00"	2.36"	2.36"	3/4"-16	531-154	105.25
CT50	1"	6.00"	2.36"	2.36"	3/4"-16	531-156	107.40
CT50	1"	8.00"	2.36"	2.36"	3/4"-16	531-158	124.50
CT50	1-1/4"	2.00"*	2.55"	2.75"	3/4"-16	531-160	119.00
CT50	1-1/4"	4.00"	2.55"	2.48"	3/4"-16	531-162	108.40
CT50	1-1/4"	6.00"	2.55"	2.48"	3/4"-16	531-164	123.70
CT50	1-1/2"	2.25"*	2.83"	2.75"	3/4"-16	531-168	106.65
CT50	1-1/2"	4.50"	2.83"	2.99"	3/4"8-16	531-170	108.40
CT50	2"	5.37"	3.34"	3.74"	1"-14	531-178	134.65

* Stubby Length

BT Taper End Mill Holders

- 100% Forged Construction
- Certified balanced to 30,000 rpm
- Precision Ground Throughout
- DIN Coolant thru the flange - standard

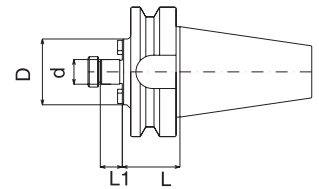
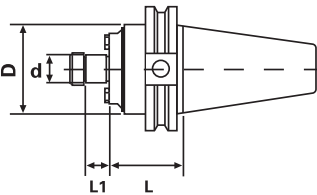


Complete with certificate

Taper	Hole Dia. (d)	Gage Length (L)	L1	D	Set Screw	Code No.	SALE \$
BT40	1/8"	2.50"	0.63"	0.75"	8-32	531-021	83.05
BT40	1/8"	4.00"	0.63"	0.75"	8-32	531-023	112.15
BT40	3/16"	2.50"	0.86"	0.75"	10-32	531-027	74.50
BT40	1/4"	2.50"	1.10"	0.79"	1/4"-28	532-020	77.65
BT40	3/8"	2.50"	1.26"	1.00"	3/8"-24	532-032	84.60
BT40	1/2"	2.50"	1.50"	1.38"	7/16"-20	532-040	85.30
BT40	3/4"	2.50"	1.77"	1.89"	5/8"-18	532-052	85.30

CAT & BT Taper Shell Mill Holders

- 100% Forged Construction
- Precision Ground Throughout
- DIN Coolant thru the flange - standard



CAT40

Taper	d	L	D	L1	Key Size	Arbor Thread	Code No.	SALE \$
CT40	1/2"	1.75"	1.38"	0.57"	1/4"	1/4"-28	531-190	101.15
CT40	3/4"	1.75"	1.75"	0.67"	5/16"	3/8"-24	531-192	91.80
CT40	3/4"	4.00"	1.75"	0.67"	5/16"	3/8"-24	531-194	123.70
CT40	3/4"	6.00"	1.75"	0.67"	5/16"	3/8"-24	531-195	139.25
CT40	1"	1.75"	2.38"	0.67"	3/8"	1/2"-20	531-196	91.80
CT40	1"	4.00"	2.38"	0.67"	3/8"	1/2"-20	531-198	123.70
CT40	1-1/4"	2.00"	2.88"	0.67"	1/2"	5/8"-18	531-200	98.00
CT40	1-1/2"	2.00"	3.80"	0.93"	5/8"	3/4"-16	531-204	108.95

CAT50

CT50	3/4"	1.75"	2.00"	0.67"	5/16"	3/8"-24	531-208	110.50
CT50	3/4"	4.00"	2.00"	0.67"	5/16"	3/8"-24	531-210	143.15
CT50	3/4"	6.00"	2.00"	0.67"	5/16"	3/8"-24	531-212	184.40
CT50	3/4"	8.00"	2.00"	0.67"	5/16"	3/8"-24	531-214	228.70
CT50	1"	1.75"	2.75"	0.69"	3/8"	1/2"-20	531-216	114.40
CT50	1"	4.00"	2.75"	0.69"	3/8"	1/2"-20	531-218	155.65
CT50	1"	6.00"	2.75"	0.69"	3/8"	1/2"-20	531-220	200.70
CT50	1-1/4"	4.00"	2.88"	0.69"	1/2"	5/8"-18	531-226	155.55
CT50	1-1/2"	2.00"	3.80"	0.93"	5/8"	3/4"-16	531-232	131.35
CT50	1-1/2"	4.00"	3.80"	0.93"	5/8"	3/4"-16	531-234	155.55
CT50	1-1/2"	6.00"	3.80"	0.93"	5/8"	3/4"-16	531-236	200.70

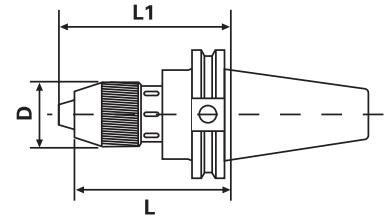
BT40

BT40	1"	1.75"	2.38"	0.67"	3/8"	1/2"-20	532-090	101.05
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CAT Taper Integral Keyless Drill Chucks

These chucks provide exceptionally high torque - up to three times the gripping strength of conventional drill chuck / taper holder combinations. The design eliminates any possibility of chuck / holder misalignment, and it ensures separation safety

- High precision, premium tolerance
- The jaws feature a TiN coated surface treatment to ensure durability
- Comes with wrench

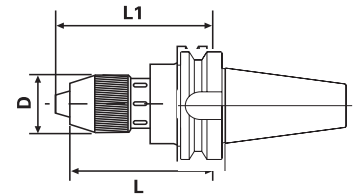


Taper	Cap.	L	L1	D	Code No.	SALE \$
CAT40						
CT40	1/4"	2.559"	2.795"	1.3"	531-480	175.70
CT40	1/2"	4.527"	4.992"	1.97"	531-482	185.50
CT40	5/8"	4.724"	5.236"	2.24"	531-483	273.95
CAT50						
CT50	1/2"	3.54"	3.996"	1.97"	531-484	214.80
CT50	5/8"	3.7"	4.134"	2.24"	531-485	300.55

BT Taper Integral Keyless Drill Chucks

These chucks provide exceptionally high torque - up to three times the gripping strength of conventional drill chuck / taper holder combinations. The design eliminates any possibility of chuck / holder misalignment, and it ensures separation safety

- High precision, premium tolerance
- The jaws feature a TiN coated surface treatment to ensure durability
- Comes with wrench



Taper	Cap.	L	L1	D	Code No.	SALE \$
BT30						
BT30	1/4"	3.15"	3.38"	1.3"	532-210	175.70
BT30	1/2"	3.55"	4.02"	1.97"	532-212	185.50
BT40						
BT40	1/4"	2.95"	3.19"	1.3"	532-214	175.70
BT40	1/2"	3.74"	4.18"	1.97"	532-216	185.50
BT50						
BT50	5/8"	5.12"	5.59"	2.24"	532-219	242.70

Plain Bearing Drill Chucks

GS Ball Bearing Chucks are specially designed for stationary drilling, turning, milling, and woodworking machines.

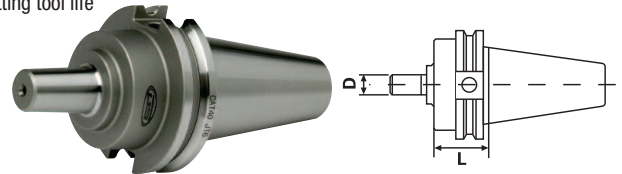
- Sleeve design eliminates the possibility of tooth breakage
- Hardened jaws and body help to avoid wear and lengthen the life of the chuck
- Each chuck supplied with a key



Chuck Model	Capacity (in.)	Mount	Code No.	SALE \$
13GH	3/64-1/2	JT6	536-516	27.55
16GH	3/64-5/8	JT3	536-520	32.20

CAT Taper Jacobs Taper Adapters

- Shank traverse ground to obtain optimum accuracy
- Meets or exceeds ANSI specifications
- 0.0002" or better TIR ensures the best possible cutting tool life



Taper	JT Size	L	D	Code No.	SALE \$
CAT40					
CT40	JT#3	1.58"	.812"	531-492	71.85
CT40	JT#6	1.61"	.677"	531-496	71.85
CAT50					
CT50	JT#3	1.58"	.812"	531-502	94.80



ANGLE HEADS

Treated steel head body with 360° position and internal air pressure, maximum rigidity, and corrosion resistant. Minimum thermal expansion

- Case hardened and ground shank and shaft
- Positioning pin with automatic release
- Standard external coolant through pin
- 1 Year warranty against manufacturer defects

Angular contact preloaded ball bearings of precision class ABE 7/9



Gleason ground spiral bevel gears for maximum performance and minimum vibration

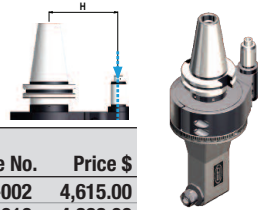


MADE IN ITALY
1 Year Warranty
(against manufacturer defects)



GFX07 ER 11 Fixed 90° Right Angle Heads

- Max 10,000 rpm
- End mill & drill cap.: 7mm
- Tap size cap.: M6



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	170mm	ER 11	65	381-002	4,615.00
HSK63	177mm	ER 11	65	381-010	4,868.00

GFX07L ER 11 Fixed 90° Right Angle Head

- Max 10,000 rpm
- End mill & drill cap.: 7mm
- Tap size cap.: M6



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	215mm	ER 11	65	381-302	4,466.00

GFX10 ER 16 Fixed 90° Right Angle Head

- Max 10,000 rpm
- End mill & drill cap.: 10mm
- Tap size cap.: M8



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	150mm	ER 16	65	381-020	3,735.00

GFX10L ER 16 Fixed 90° Right Angle Heads

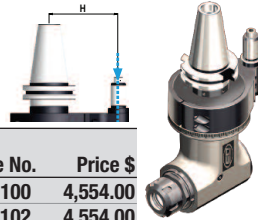
- Max 10,000 rpm
- End mill & drill cap.: 10mm
- Tap size cap.: M8



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	225mm	ER 16	65	381-320	4,668.00
CAT 50	225mm	ER 16	80	381-322	4,668.00
HSK100	235mm	ER 16	80	381-330	4,974.00

GFX16 ER 25 Fixed 90° Right Angle Heads

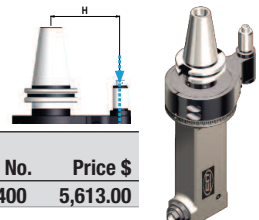
- Max 8,000 rpm
- End mill & drill cap.: 16mm
- Tap size cap.: M12



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	150mm	ER 25	65	381-100	4,554.00
CAT 50	150mm	ER 25	80	381-102	4,554.00

GFX16L ER 25 Fixed 90° Right Angle Head

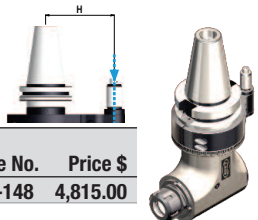
- Max 8,000 rpm
- End mill & drill cap.: 16mm
- Tap size cap.: M12



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	220mm	ER 25	65	381-400	5,613.00

GFX20 ER 32 Fixed 90° Right Angle Head

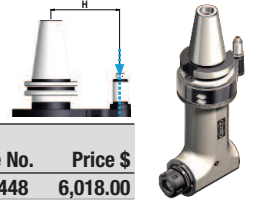
- Max 4,000 rpm
- End mill & drill cap.: 20mm
- Tap size cap.: M16



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 50	160mm	ER 32	80	381-148	4,815.00

GFX20L ER 32 Fixed 90° Right Angle Head

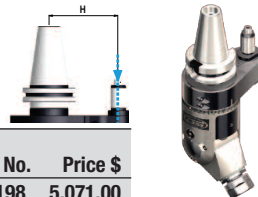
- Max 4,000 rpm
- End mill & drill cap.: 20mm
- Tap size cap.: M16



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 50	240mm	ER 32	80	381-448	6,018.00

GPV13 ER 20 Pivoting Right Angle Heads

- Max 4,000 rpm
- End mill & drill cap.: 13mm
- Tap size cap.: M10



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	130mm	ER 20	65	381-198	5,071.00
CAT 50	130mm	ER 20	80	381-200	5,071.00

GPV16 ER 25 Pivoting Right Angle Heads

- Max 4,000 rpm
- End mill & drill cap.: 16mm
- Tap size cap.: M12



Taper	Gage Length	Collet System	H (mm)	Code No.	Price \$
CAT 40	150mm	ER 25	65	381-270	5,336.00
BT 40	150mm	ER 25	65	381-274	5,336.00



DRIVEN TOOLS

MADE IN ITALY



2 Year Warranty

(against manufacturer defects)

Main technical features

- Main body designed to maximize rigidity and reduce vibration
- Specially treated corrosion resistant steel body
- Angular contact bearings + taper roller bearings on output spindle for better rigidity and longer life
- Gleason spiral bevel gears with completely ground involute form

- Internal coolant option
- Designed, manufactured and assembled in Italy
- 2 Year warranty against manufacturer defects

▼ Direction of rotation is opposite to the machine spindle

▼ Direction of rotation is the same as the machine spindle

Driven Tools For DMG MORI Lathes

Model	Orient	Rotation	Turret	Output	Int. Coolant	Nm	Rpm	Gage Length	Code No.	Price \$
99.MS.A59	Axial	▼	NL60	ER-32	-	60	10,000	Max 89.9	381-504	1,564.10
99.MS.A60	Axial	▼	NL60	ER-32	• 80bar	60	10,000	Max 89.9	381-505	2,314.20
99.MS.A72	Radial	▼	NL60	ER-32	-	60	10,000	90	381-506	3,351.60
99.MS.A73	Radial	▼	NL60	ER-32	• 80bar	60	10,000	90	381-507	3,750.60

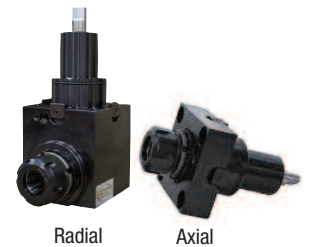


Radial

Axial

Driven Tools For DOOSAN Lathes

Model	Orient	Rotation	Turret	Output	Int. Coolant	Nm	Rpm	Gage Length	Code No.	Price \$
99.DS.A01	Axial	▼	BMT55	ER-25	-	40	8,000	57.2	381-512	1,356.60
99.DS.A02	Axial	▼	BMT55	ER-25	• 80bar	40	8,000	57.2	381-513	1,556.10
99.DS.A11	Radial	▼	BMT55	ER-25	-	40	8,000	70	381-514	2,553.60
99.DS.A12	Radial	▼	BMT55	ER-25	• 80bar	40	8,000	70	381-515	3,016.50
99.DS.A41	Axial	▼	BMT65	ER-32	-	70	6,000	72.5	381-516	1,596.00
99.DS.A42	Axial	▼	BMT65	ER-32	• 70bar	70	6,000	72.5	381-517	1,835.40
99.DS.A51	Radial	▼	BMT65	ER-32	-	70	6,000	72	381-518	2,681.30
99.DS.A52	Radial	▼	BMT65	ER-32	• 70bar	70	6,000	72	381-519	3,176.10



Radial

Axial

Driven Tools For HAAS Lathes

Model	Orient	Rotation	Turret	Output	Int. Coolant	Nm	Rpm	Gage Length	Code No.	Price \$
99.HA.590082	Axial	▼	VDI40	ER-32	-	63	6,000	82.1	381-500	1,181.10
99.HA.590082B	Axial	▼	VDI40	ER-32	• 25bar	63	6,000	82.1	381-501	1,476.30
99.HA.590084	Radial	▼	VDI40	ER-32	-	63	6,000	Max. 75	381-502	2,218.50
99.HA.590084B	Radial	▼	VDI40	ER-32	• 25bar	63	6,000	Max. 75	381-503	2,806.30



Radial

Axial

Driven Tools For MAZAK Lathes

Model	Orient	Rotation	Turret	Output	Int. Coolant	Nm	Rpm	Gage Length	Code No.	Price \$
99.MZ.A58	Offset-Axial	▼	QTN2-40	ER-32	-	80	6,000	50	381-508	2,074.80
99.MZ.A59	Offset-Axial	▼	QTN2-40	ER-32	• 80bar	80	6,000	116	381-509	3,192.00
99.MZ.A65	Radial	▼	QTN2-40	ER-32	-	80	6,000	130	381-510	2,217.20
99.MZ.A66	Radial	▼	QTN2-40	ER-32	• 80bar	80	6,000	130	381-511	2,926.00



Radial

Offset axial

WE INVITE INQUIRIES FOR OKUMA, NAKAMURA, MIYANO, BIGLIA

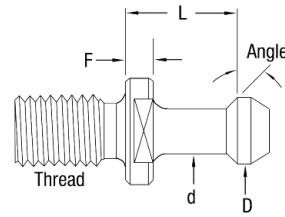
Pull Studs

Can't find your pull stud?

We invite your inquiries.

Please have ready the following information when calling:

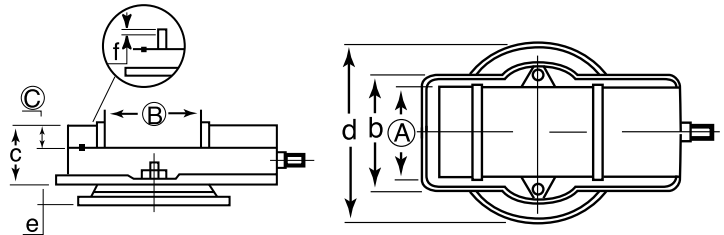
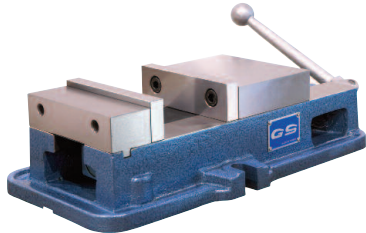
- Taper of Machine
- Make & Model No. of the Machine
- Draw Bar Thread Dia & Pitch
- Taper Angle required underneath head of stud
- Drawing if possible



Taper	Model	Coolant Thru	D	d	L	F	Angle	Thread	Code No.	Price \$
BT30	GS585X45	N	0.433	0.276	0.709	0.197	45	M12x1.75	366-000	21.60
BT30	GS585X60	N	0.433	0.276	0.709	0.197	60	M12x1.75	366-002	21.60
BT40	PS444X15	N	0.748	0.551	0.905	0.275	15	M16x2	366-003	27.70
BT40	GSC444X15	Y	0.748	0.551	0.905	0.275	15	M16x2	366-004	28.80
BT40	GS444X45	N	0.590	0.390	1.102	0.236	45	M16x2	366-006	21.60
BT40	GS444X60	N	0.590	0.390	1.102	0.236	60	M16x2	366-008	21.60
BT40	PS444X90	N	0.590	0.390	1.102	0.236	90	M16x2	366-010	21.60
BT40	GSC444X45	Y	0.590	0.390	1.102	0.236	45	M16x2	366-012	23.40
BT40	GSC444X60	Y	0.590	0.390	1.102	0.236	60	M16x2	366-014	23.40
BT40	PSC444X90	Y	0.590	0.390	1.102	0.236	90	M16x2	366-016	25.50
BT40	PS477	N	0.740	0.490	0.552	0.236	45	M16x2	366-018	24.30
BT40	PSC478	Y	0.740	0.490	0.440	0.120	45	M16x2	366-020	23.40
BT40	PSC479	Y	0.740	0.490	0.552	0.120	45	M16x2	366-022	27.70
BT40	GSC477	Y	0.740	0.490	0.552	0.236	45	M16x2	366-024	27.70
BT40	PSC480X15	Y	0.748	0.551	0.900	0.157	15	M16x2	366-026	29.20
BT40	PS534X45	N	0.590	0.390	0.990	0.236	45	M16x2	366-028	26.30
BT40	PS554	N	0.594	0.406	1.250	0.187	45	M16x2	366-030	26.30
BT40	PSC554	Y	0.594	0.406	1.250	0.187	45	M16x2	366-032	32.10
BT50	PSC278	Y	1.140	0.820	0.700	0.200	45	M24x3	366-082	30.70
BT50	GS446X45	N	0.906	0.669	1.378	0.394	45	M24x3	366-084	42.30
BT50	PS446X60	N	0.906	0.669	1.378	0.394	60	M24x3	366-086	42.30
BT50	PS446X90	N	0.906	0.669	1.378	0.394	90	M24x3	366-088	32.40
BT50	GSC446X45	Y	0.906	0.669	1.378	0.394	45	M24x3	366-090	44.10
CT40	GSC470X15	Y	0.748	0.551	0.787	0.157	15	5/8x11	366-034	18.00
CT40	GS474	N	0.740	0.490	0.440	0.118	45	5/8x11	366-036	18.00
CT40	GSC474	Y	0.740	0.490	0.440	0.118	45	5/8x11	366-038	18.00
CT40	GSC475	Y	0.740	0.490	0.440	0.120	45	5/8x11	366-040	18.00
CT40	GS475	N	0.740	0.490	0.440	0.120	45	5/8x11	366-042	18.00
CT40	PS498	N	0.590	0.390	0.777	0.200	90	5/8x11	366-044	23.40
CT40	PS531X45	N	0.590	0.390	1.000	0.236	45	5/8x11	366-046	20.00
CT40	GS532X15	N	0.748	0.551	0.792	0.275	15	5/8x11	366-048	18.00
CT40	GS532X45	N	0.590	0.390	0.990	0.236	45	5/8x11	366-050	18.00
CT40	GS532X60	N	0.590	0.390	0.990	0.236	60	5/8x11	366-052	18.00
CT40	GS532X90	N	0.590	0.390	0.990	0.236	90	5/8x11	366-054	18.00
CT40	GSC532X15	Y	0.748	0.551	0.792	0.275	15	5/8x11	366-056	18.00
CT40	GSC532X45	Y	0.590	0.390	0.990	0.236	45	5/8x11	366-058	18.00
CT40	GSC532X60	Y	0.590	0.390	0.990	0.236	60	5/8x11	366-060	18.00
CT40	GSC532X90	Y	0.590	0.390	0.990	0.236	90	5/8x11	366-062	18.00
CT40	PS552	N	0.594	0.406	1.139	0.187	45	5/8x11	366-064	24.80
CT40	PSC552	Y	0.594	0.406	1.139	0.187	45	5/8x11	366-066	30.70
CT40	GS572X45	N	0.590	0.390	0.990	0.120	45	5/8x11	366-068	18.00
CT40	PS572X60	N	0.590	0.390	0.990	0.120	60	5/8x11	366-070	26.10
CT40	PS572X90	N	0.590	0.390	0.990	0.120	90	5/8x11	366-072	20.00
CT40	PSC572X45	Y	0.590	0.390	0.990	0.120	45	5/8x11	366-074	24.40
CT40	PSC572X60	Y	0.590	0.390	0.990	0.120	60	5/8x11	366-076	29.70
CT40	PSC572X90	Y	0.590	0.390	0.990	0.120	90	5/8x11	366-078	20.00
CT45	PSC375	Y	0.940	0.605	0.580	0.160	45	3/4x10	366-080	23.40
CT50	GS275	N	1.140	0.820	0.700	0.200	45	1x8	366-092	22.50
CT50	PSC274	Y	1.140	0.820	0.700	0.200	45	1x8	366-094	32.10
CT50	GSC275	Y	1.140	0.820	0.700	0.200	45	1x8	366-096	22.50
CT50	GS536X45	N	0.906	0.669	1.386	0.394	45	1x8	366-098	22.50
CT50	GS536X60	N	0.906	0.669	1.386	0.394	60	1x8	366-100	22.50
CT50	GS536X90	N	0.906	0.669	1.386	0.394	90	1x8	366-102	22.50
CT50	GSC536X45	Y	0.906	0.669	1.386	0.394	45	1x8	366-104	22.50
CT50	GSC536X60	Y	0.906	0.669	1.386	0.394	60	1x8	366-106	22.50
CT50	GSC536X90	Y	0.906	0.669	1.386	0.394	90	1x8	366-108	22.50

GS 6" Precision Milling Machine Vises

- Vises are Matched (Bed Height: 2.875")
- An integral key and large fasteners reduce deflection by 50%
- 4 jaw plate positions allow extra capacity with the jaw plates in the outside position
- Chip cover protects leadscrew from damage
- The quality movable jaw does not lift off the bed, and the deflection of the stationary jaw is minimized

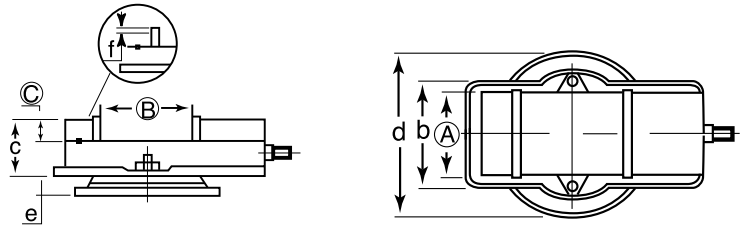
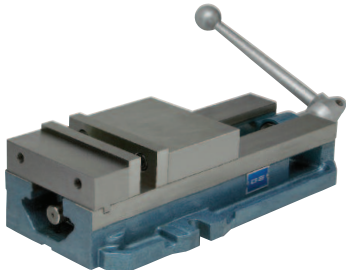


(Inch)

Model	Jaw Width		Jaw Open		C	O.A.L.	b	c	d	e	f	Plain Ship	
	A	B	A	B								Wt	Code No.
GS675	6"	7.5"	1.77"	17.2"	9.13"	4.6"	12"	1.65"	.39"	80lbs	327-275M	387.45	
GS890	6"	8.9"	1.5"	17.2"	8.3"	4.6"	12"	1.7"	.2"	80lbs	327-290M	415.15	

GS 8" Precision Milling Machine Vise

- Vises are Matched (Bed Height: 3.310")
- An integral key and large fasteners reduce deflection by 50%
- 4 jaw plate positions allow extra capacity with the jaw plates in the outside position
- Chip cover protects leadscrew from damage
- The quality movable jaw does not lift off the bed, and the deflection of the stationary jaw is minimized



(Inch)

Model	Jaw Width		Jaw Open		C	O.A.L.	b	c	d	e	f	Plain Ship	
	A	B	A	B								Wt	Code No.
GS810	8"	10.0"	2.25"	21.8"	11.62"	5.55"	15.0"	1.85"	.43"	158lbs	327-300	1,198.80	

Silver Line Heavy Duty Live Centers



Made in Czech Republic

SKODA - YOUR BULLET TO HIT THE TARGET

- » Improved bearings and sealing
- » Unique hologram on the body for authenticity
- » Special ring gasket helps prevent coolant, dirt and swarf from entering the bearing space of the live center



Standard Features:

- The rotating spindle is extended right through the tapered shank
- Two specially designed adjustable needle-roller bearings carry all radial loads
- A heavy duty ball thrust bearing takes all axial thrust

Morse Taper	Center Point Angle	Maximum Weight of Work Piece	Code No.	SALE \$
2	60°	750 lb	310-110	147.25
3	60°	880 lb	310-115	175.35
4	60°	2860 lb	310-120	223.00
5	60°	4400 lb	310-125	321.85
6	60°	8800 lb	310-130	531.00

Simple Tool Setting Stands

Quick and easy way to change cutters and pull studs. Protects the taper of holder with protective insert.

Available in all tapers.

- This is an excellent helping tool for simple, rapid and safe tool holding
- For Cat, BT & NMTB Tapers

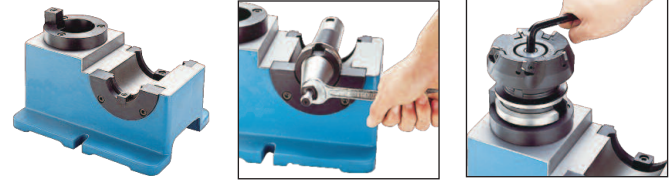


Model	Taper	Code No.	SALE \$
TL-30	30	335-200	183.90
TL-35	35	335-205	183.90
TL-40	40	335-210	183.90
TL-50	50	335-220	183.90

Deluxe Tool Setting Stands

Quick and easy way to change cutters and pull studs. Protects the taper of holder with protective insert. Available in all tapers.

- Select between horizontal or vertical tool holding; quick and simple operation
- For Cat, BT & NMTB Tapers



Vertical	Horizontal	Code No.	SALE \$
TL40 Taper	40 Taper x 2 (only BT & NMTB)	335-250	342.10
TL50 Taper	50 Taper x 2 (only BT & NMTB)	335-260	342.10
TL50 Taper	50 Taper x 1 / 40 Taper x 1	335-240*	342.10
TL40 Taper	50 Taper x 1 / 40 Taper x 1	335-230*	342.10

*Limited stock available

Tool Holder Locking Devices

- For Cat, BT & NMTB Tapers



Description	Code No.	SALE \$
30 Taper	335-270	189.25
40 Taper	335-275	189.25
50 Taper (Only CAT50 & NMTB50)	335-280	189.25

HSK Tool Holder Locking Fixture

- Weight: 4.5 kg



Description	Code No.	SALE \$
HSK63	335-225	409.05

Spindle Taper Wipers

Features:

- For easily and quickly cleaning spindle holes.
- Plastic body, the taper wiper is made of special cotton material therefore not damaging the spindle.
- The BT & DIN tapers are the same.



Model No.	Taper	Total Length	Code No.	SALE \$
VTW-30	#30	168mm	326-210	19.05
VTW-40	#40	159mm	326-215	19.05
VTW-50	#50	265mm	326-220	27.70

NC/CNC Trolleys

Complete Tool Trolley with 4 Tool Trays and Inserts.

- Trays bolt in
- (W)1002mm x (D)650mm x (H)830mm
- Weight: 51kgs



Desc.	Taper Type	Inserts Per Tray	Tool Cart Code No.	SALE \$
Trolley, 4 trays hold 28 inserts	40	7	326-985	599.70
Trolley, 4 trays hold 20 inserts	50	5	326-995	599.70



DUAL CONTACT HOLDERS & DIRECT COOLANT HOLDERS

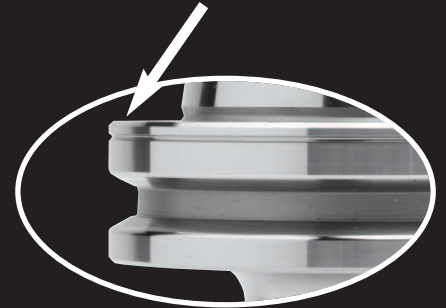
DUAL CONTACT HOLDERS & CHUCKS FOR DUAL CONTACT SPINDLES

Features:

- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life.
- Premium Balanced up to 30,000 rpm
- DIN Coolant thru the flange
- All Ground Body
- 100% Forged Construction



Eliminates the gap between the flange and the spindle for increased rigidity



DIRECT COOLANT END MILL HOLDERS NOW 3 COOLANT OPTIONS ALL IN ONE!

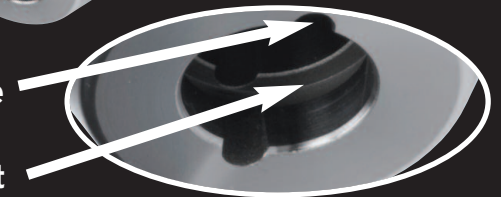
Features:

- Coolant thru the spindle
- DIN Coolant thru flange
- Coolant thru the body
- Premium Balanced up to 30,000 rpm
- All Ground Body
- 100% Forged Construction



Coolant thru slots for directing coolant onto the tool.

O-Ring Seal for Non Direct Coolant Operations.



BALANCEABLE SHRINK FIT HOLDERS COOLANT THRU THE NOSE!

Features:

- With threaded holes in order to balance with supplied balancing screws
- Coolant thru the spindle capability
- 4 Coolant ports in the nose
- Pre-balanced up to 30,000 rpm
- For maximum gripping power with exceptional concentricity
- Concentricity of ≤ 0.0001 " with tool shrunk in holder
- Tool is gripped 360° along the entire length of bore resulting in an evenly distributed clamping force
- Back up screws are available on request

Coolant thru the nose





CAT40 TOOLING PACKAGE QUOTE REQUEST FORM

Fax back to **SOWA** Toll Free Fax: 1-866-511-7692 Fax: 519-748-9304

CAT40 End Mill Holders

- DIN Coolant option - standard
- All Ground Body
- 100% Forged Construction



Taper	Hole Dia.	Gage Length	Code No.	Qty.
CT40	1/8"	1.35**	531-069	<input type="checkbox"/>
CT40	1/8"	2.50"	531-070	<input type="checkbox"/>
CT40	1/8"	4.00"	531-071	<input type="checkbox"/>
CT40	3/16"	1.38**	531-072	<input type="checkbox"/>
CT40	3/16"	2.50"	531-073	<input type="checkbox"/>
CT40	3/16"	4.00"	531-074	<input type="checkbox"/>
CT40	1/4"	1.38**	531-000	<input type="checkbox"/>
CT40	1/4"	2.50"	531-002	<input type="checkbox"/>
CT40	1/4"	4.00"	531-004	<input type="checkbox"/>
CT40	1/4"	9.00"	531-005	<input type="checkbox"/>
CT40	5/16"	1.38**	531-006	<input type="checkbox"/>
CT40	5/16"	2.50"	531-008	<input type="checkbox"/>
CT40	5/16"	4.00"	531-010	<input type="checkbox"/>
CT40	5/16"	9.00"	531-011	<input type="checkbox"/>
CT40	3/8"	1.38**	531-012	<input type="checkbox"/>
CT40	3/8"	2.50"	531-014	<input type="checkbox"/>
CT40	3/8"	4.00"	531-016	<input type="checkbox"/>
CT40	3/8"	5.00"	531-018	<input type="checkbox"/>
CT40	3/8"	9.00"	531-031	<input type="checkbox"/>
CT40	7/16"	2.50"	531-020	<input type="checkbox"/>
CT40	7/16"	4.00"	531-022	<input type="checkbox"/>
CT40	7/16"	9.00"	531-033	<input type="checkbox"/>
CT40	1/2"	1.75**	531-024	<input type="checkbox"/>
CT40	1/2"	2.50"	531-026	<input type="checkbox"/>
CT40	1/2"	4.00"	531-028	<input type="checkbox"/>
CT40	1/2"	5.00"	531-030	<input type="checkbox"/>
CT40	1/2"	9.00"	531-035	<input type="checkbox"/>
CT40	5/8"	1.75**	531-032	<input type="checkbox"/>
CT40	5/8"	3.00"	531-034	<input type="checkbox"/>
CT40	5/8"	4.00"	531-036	<input type="checkbox"/>
CT40	5/8"	5.50"	531-038	<input type="checkbox"/>
CT40	5/8"	9.00"	531-037	<input type="checkbox"/>
CT40	3/4"	1.75**	531-040	<input type="checkbox"/>
CT40	3/4"	3.00"	531-042	<input type="checkbox"/>
CT40	3/4"	4.00"	531-044	<input type="checkbox"/>
CT40	3/4"	5.50"	531-046	<input type="checkbox"/>
CT40	3/4"	9.00"	531-039	<input type="checkbox"/>
CT40	7/8"	1.75**	531-048	<input type="checkbox"/>
CT40	7/8"	3.50"	531-050	<input type="checkbox"/>
CT40	7/8"	6.00"	531-052	<input type="checkbox"/>
CT40	7/8"	9.00"	531-041	<input type="checkbox"/>
CT40	1"	2.00**	531-054	<input type="checkbox"/>
CT40	1"	4.00"	531-056	<input type="checkbox"/>
CT40	1"	6.00"	531-058	<input type="checkbox"/>
CT40	1"	9.00"	531-043	<input type="checkbox"/>
CT40	1-1/4"	2.00**	531-060†	<input type="checkbox"/>
CT40	1-1/4"	4.00"	531-062	<input type="checkbox"/>
CT40	1-1/4"	6.00"	531-064	<input type="checkbox"/>
CT40	1-1/2"	4.50"	531-066	<input type="checkbox"/>
CT40	1-1/2"	6.00"	531-068	<input type="checkbox"/>

* Stubby Length

† Not DIN Coolant

CAT40 Shell Mill Holders

- DIN Coolant option - standard
- All Ground Body
- 100% Forged Construction



Taper	Dia.	Gage Length	Code No.	Qty.
CT40	1/2"	1.75"	531-190	<input type="checkbox"/>
CT40	3/4"	1.75"	531-192	<input type="checkbox"/>
CT40	3/4"	4.00"	531-194	<input type="checkbox"/>
CT40	3/4"	6.00"	531-195	<input type="checkbox"/>
CT40	1"	1.75"	531-196	<input type="checkbox"/>
CT40	1"	4.00"	531-198	<input type="checkbox"/>
CT40	1"	6.00"	531-199	<input type="checkbox"/>
CT40	1-1/4"	2.00"	531-200	<input type="checkbox"/>
CT40	1-1/4"	4.00"	531-202	<input type="checkbox"/>
CT40	1-1/4"	6.00"	531-203	<input type="checkbox"/>
CT40	1-1/2"	2.00"	531-204	<input type="checkbox"/>
CT40	1-1/2"	4.00"	531-206	<input type="checkbox"/>

CAT40 ER Collet Chucks

- DIN Coolant option - standard
- All Ground Body
- 100% Forged Construction
- Factory Balanced to save spindle life, tool life and increase productivity
- Threaded through holes for a back-up screw (tool stop) or coolant through when removed
- Wrench not included



Taper	Collet Series	Collet Range	Gage Length	Code No.	Qty.
CT40	ER11	.019-.275"	2.50"	531-400	<input type="checkbox"/>
CT40	ER11	.019-.275"	4.00"	531-402	<input type="checkbox"/>
CT40	ER11	.019-.275"	6.00"	531-404	<input type="checkbox"/>
CT40	ER16	.019-.406"	2.50"	531-406	<input type="checkbox"/>
CT40	ER16	.019-.406"	3.50"	531-408	<input type="checkbox"/>
CT40	ER16	.019-.406"	4.00"	531-405	<input type="checkbox"/>
CT40	ER16	.019-.406"	6.00"	531-410	<input type="checkbox"/>
CT40	ER16	.019-.406"	9.00"	531-411	<input type="checkbox"/>
CT40	ER20	.039-.511"	2.50"	531-412	<input type="checkbox"/>
CT40	ER20	.039-.511"	4.00"	531-414	<input type="checkbox"/>
CT40	ER20	.039-.511"	6.00"	531-416	<input type="checkbox"/>
CT40	ER20	.039-.511"	9.00"	531-417	<input type="checkbox"/>
CT40	ER25	.039-.629"	2.50"	531-418	<input type="checkbox"/>
CT40	ER25	.039-.629"	4.00"	531-420	<input type="checkbox"/>
CT40	ER25	.039-.629"	6.00"	531-422	<input type="checkbox"/>
CT40	ER32	.078-.787"	.750"	531-401*	<input type="checkbox"/>
CT40	ER32	.078-.787"	2.50"	531-421	<input type="checkbox"/>
CT40	ER32	.078-.787"	3.13"	531-424	<input type="checkbox"/>
CT40	ER32	.078-.787"	4.00"	531-423	<input type="checkbox"/>
CT40	ER32	.078-.787"	5.00"	531-426	<input type="checkbox"/>
CT40	ER32	.078-.787"	6.00"	531-425	<input type="checkbox"/>
CT40	ER32	.078-.787"	9.00"	531-419	<input type="checkbox"/>
CT40	ER40	.118-1.023"	2.50"	531-427	<input type="checkbox"/>
CT40	ER40	.118-1.023"	3.13"	531-428	<input type="checkbox"/>
CT40	ER40	.118-1.023"	4.00"	531-429	<input type="checkbox"/>
CT40	ER40	.118-1.023"	5.00"	531-430	<input type="checkbox"/>
CT40	ER40	.118-1.023"	6.00"	531-431	<input type="checkbox"/>

* ER Shorty collet chuck

Company: _____

Contact: _____

Phone: _____

Fax: _____

E-mail: _____

Notes: _____

ER Collet Sets



* Case may not be as shown



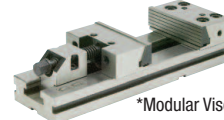
• Alloy Steel

Collet	Description	Range	Code No.	Qty.
ER11	Inch Size 7pc Collet Set	1/16-1/4 x 32nds	337-401	<input type="checkbox"/>
ER11	Decimal 13pc Collet Set	.019"-.271"	337-379	<input type="checkbox"/>
ER16	Inch Size 11pc Collet Set	1/16-3/8 x 32nds	337-403	<input type="checkbox"/>
ER16	Decimal 10pc Collet Set	.019"-.393"	337-380	<input type="checkbox"/>
ER20	Inch Size 15pc Collet Set	1/16-1/2 x 32nds	337-404	<input type="checkbox"/>
ER20	Decimal 12pc Collet Set	.039"-.510"	337-382	<input type="checkbox"/>
ER25	Inch Size 17pc Collet Set	1/8-5/8 x 32nds	337-405	<input type="checkbox"/>
ER25	Decimal 15pc Collet Set	.039"-.629"	337-383	<input type="checkbox"/>
ER32	Inch Size 21pc Collet Set	1/8-3/4 x 32nds	337-407	<input type="checkbox"/>
ER32	Decimal 18pc Collet Set	.078"-.787"	337-384	<input type="checkbox"/>
ER40	Inch Size 29pc Collet Set	1/8-1" x 32nds	337-409	<input type="checkbox"/>
ER40	Decimal 23pc Collet Set	.118"-1.023"	337-386	<input type="checkbox"/>

GS Modular & Milling Machine Vises

• Vises are Matched

*Milling Machine Vise



*Modular Vise



Model	Jaw Width	Jaw Opening	Code No.	Qty.
GS675	6	7.5	327-275M	<input type="checkbox"/>
GS890	6	8.9	327-290M	<input type="checkbox"/>
GS810	8	10.0	327-300	<input type="checkbox"/>
#3 Modular	6	8	382-015	<input type="checkbox"/>

NC/CNC Trolley

Complete Tool Trolley with 4 Tool Trays and Inserts.

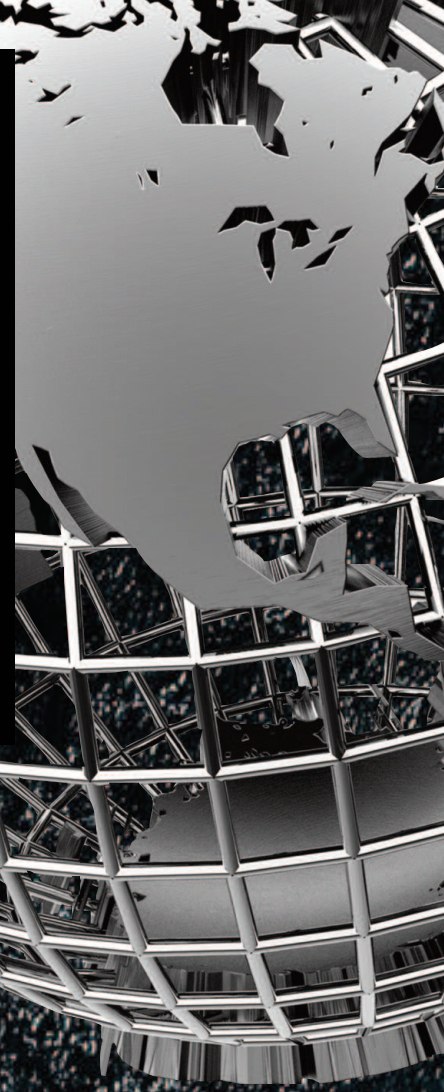
- Trays bolt in
- (W) 39.45"
- (D) 25.59"
- (H) 32.68"
- Weight: 112.20 lbs



Desc.	Taper Type	Trays x Inserts	Code No.	Qty.
Trolley	40	4 x 7	326-985	<input type="checkbox"/>
Trolley	50	4 x 5	326-995	<input type="checkbox"/>

Download the CAT40/50 and BT40 tooling package request forms





Sowa Tool & Machine Co. Ltd.
500 Manitou Drive
Kitchener, Ontario
N2C 1L3

Maumee, Ohio Branch
416 W. Dussel Drive
Maumee, Ohio
43537

Toll Free: 1-800-265-8221
Phone: (519) 748-5750
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sales@sowatool.com



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