

DOMINATOR

MACHINE TOOL ACCESSORIES

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LIVE CENTERS

COLLET CHUCKS

TIGHTENING FIXTURES

END MILL HOLDERS

R8 SHANK END MILL HOLDERS

TAPER ADAPTERS

ER SPRING COLLETS

DRILL CHUCK ARBORS

HIGH-PRECISION DRILL CHUCKS

TOGGLE CLAMPS



5814 Heisley Road
Mentor, Ohio 44060
440-358-0236

1494 E. 361st Street
Eastlake, Ohio 44095
440-951-4700



Live Centers

- SUPER-PRECISION LOW-PROFILE: PG 1
- SUPER-PRECISION LIVE CENTER KITS: PG 1
- SUPER-PRECISION LIVE CENTERS: PG 2
- SUPER-PRECISION HIGH RPM MEDIUM-DUTY: PG 2



Collet Chucks

- CAT40: PGS 3-4
- CAT50: PG 4



Tightening Fixtures

- CAT/BT 30, CAT/BT 40, CAT/BT 50: PG 4



End Mill Holders

- CAT40: PGS 6-8
- CAT50: PGS 9-11



R8 Shank End Mill Holders

- PG 11



Taper Adapters

- MORSE & JACOBS: PG 12

ER Collets



- ER PRECISION - INCH: PG 13
- ER PRECISION - METRIC: PG 14
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Drill Chuck Arbors

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- MT THREADED & MT WITH TANG: PG 22



High-Precision Drill Chucks

- HD 10,000 RPM & HD 4,000 RPM: PG 23
- SA 4,000 RPM: PG 24

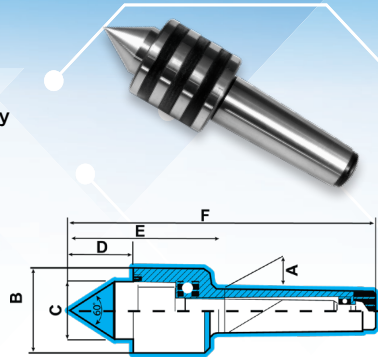


Toggle Clamps

- PUSH/PULL: PG 25
- LATCH: PG 26
- VERTICAL: PG 27
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Super-Precision Low-Profile Live Centers

- High-precision & high-speed design
- Designed for easy lubrication for long life
- One-piece body & spindle made of high-quality forged alloy steel
- Hardened to 60 HRC and precisely ground
- 60° Included Angle
- Front bearings are protected by a special steel/elastomer ring
- Thrust bearings with hardened frame provide excellent rigidity
- Rear bearings strengthen and support for radial load



Item #	Description	MT Size	A	B	C	D	E	F	T.I.R.	Max RPM	Max Load
10000	1MT PRECISION LIVE CENTER	1	0.475"	1.339"	0.709"	0.787"	2.402"	4.528"	0.0004"	5000	900N
10005	2MT PRECISION LIVE CENTER	2	0.7"	1.772"	0.984"	1.024"	3.15"	5.709"	0.0004"	5000	1500N
10010	3MT PRECISION LIVE CENTER	3	0.938"	2.047"	1.102"	1.181"	3.503"	6.693"	0.0004"	4200	2000N
10015	4MT PRECISION LIVE CENTER	4	1.231"	2.362"	1.26"	1.366"	4.102"	8.098"	0.0004"	3200	3200N
10020	5MT PRECISION LIVE CENTER	5	1.748"	3.031"	1.772"	1.772"	4.843"	10"	0.0004"	2400	6300N
10025	6MT PRECISION LIVE CENTER	6	2.494"	4.921"	2.953"	2.697"	7.221"	14.252"	0.0004"	1600	10000N

Super-Precision Live Centers Kits

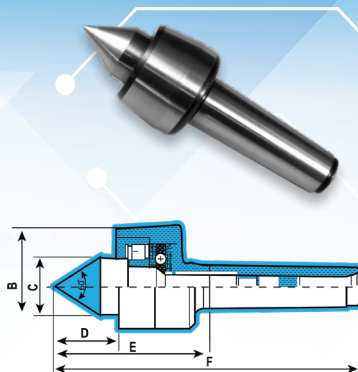
- Triple bearing, heavy-duty, high-speed design
- All centers are provided with high-precision bearings
- One-piece body is made of high-quality forged alloy steel
- Hardened to 60 HRC and precisely ground
- Bearings are protected by a special steel/elastomer ring
- Every set includes: the main body, six inserts and an ejecting wedge
- Set comes with a strong plastic case



Item #	Description	MT Size	A	B	C	D	E	F	T.I.R.	Max RPM	Max Load
10030	2MT PRECISION LIVE CENTER SET	2	0.7"	1.732"	0.787"	1.024"	2.953"	5.512"	0.0004"	5000	1500N
10035	3MT PRECISION LIVE CENTER SET	3	0.938"	1.969"	1.378"	1.122"	3.03"	6.22"	0.0004"	42000	2000N
10040	4MT PRECISION LIVE CENTER SET	4	1.231"	2.598"	2.165"	1.378"	3.94"	7.933"	0.0004"	3200	3200N
10045	5MT PRECISION LIVE CENTER SET	5	1.748"	3.543"	2.756"	1.772"	4.528"	9.685"	0.0004"	2400	6300N

Super-Precision Live Centers

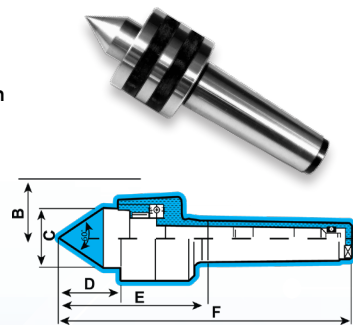
- High-precision, light-duty design
- One-piece body & spindle made of high-quality forged alloy steel
- Hardened to 60 HRC and precisely ground
- Front bearings are protected by a special steel/elastomer ring
- Front ball bearings support the high-speed rotation with excellent accuracy under medium load
- Thrust ball bearings with hardened frame provide excellent rigidity and accuracy
- Rear needle bearings fit design and help counteract heat displacement when running



Item #	Description	MT Size	A	B	C	D	E	F	T.I.R.	Max RPM	Max Load
10050	1MT SUPER PRECISION LIVE CENTER	1	0.475"	1.339"	0.709"	0.779"	2.402"	4.528"	0.0002"	5000	320N
10055	2MT SUPER PRECISION LIVE CENTER	2	0.7"	1.772"	0.984"	1.126"	2.543"	5.102"	0.0002"	5000	400N
10060	3MT SUPER PRECISION LIVE CENTER	3	0.938"	2.047"	1.102"	1.26"	3.117"	6.307"	0.0002"	4500	800N
10065	4MT SUPER PRECISION LIVE CENTER	4	1.231"	2.362"	1.26"	1.437"	3.551"	7.547"	0.0002"	3500	1250N
10070	5MT SUPER PRECISION LIVE CENTER	5	1.748"	3.15"	1.772"	2"	4.469"	9.626"	0.0002"	3000	1500N
10075	6MT SUPER PRECISION LIVE CENTER	6	2.494"	5.118"	2.953"	2.945"	6.749"	13.78"	0.0002"	2500	1800N

Super-Precision High RPM Medium-Duty Live Centers

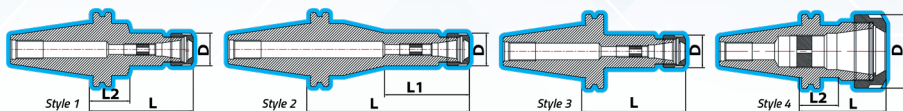
- High-precision, high-speed, medium-duty design
- Provided with adjustable ultra-precision, high-speed radial bearing
- One-piece body & spindle made of high-quality forged alloy steel
- Hardened to 60 HRC and precisely ground.
- Front bearings are protected by a special steel/elastomer ring
- Perfect for all kinds of machining operations on manual and CNC lathes



Item #	Description	MT Size	A	B	C	D	E	F	T.I.R.	Max RPM	Max Load
10080	2MT SUPER PREC. HIGH RPM LIVE CENTER	2	0.7"	1.772"	0.984"	1.024"	3.15"	5.709"	0.0004"	5000	4200N
10085	3MT SUPER PREC. HIGH RPM LIVE CENTER	3	0.938"	2.047"	1.102"	1.181"	3.503"	6.693"	0.0004"	4200	2000N
10090	4MT SUPER PREC. HIGH RPM LIVE CENTER	4	1.231"	2.362"	1.26"	1.366"	4.102"	8.098"	0.0004"	3200	3200N
10095	5MT SUPER PREC. HIGH RPM LIVE CENTER	5	1.748"	3.031"	1.772"	1.772"	4.843"	10"	0.0004"	2400	6300N
10100	6MT SUPER PREC. HIGH RPM LIVE CENTER	6	2.494"	4.921"	2.953"	2.697"	7.221"	14.252"	0.0004"	1600	10000N

ER Collet Chucks

- Taper-to-Taper Runout < 0.0001"
- AD+B coolant through the spindle & flange
- CAT40 Balanced G2.5 @ 30,000 RPM | Draw Bar Threads 5/8"-11
- CAT50 Balanced G2.5 @ 25,000 RPM | Draw Bar Threads 1"-8
- Hardened to 58-62 HRC
- Taper Shank ground to AT3 accuracy (or better)



CAT40 CAT40 Balanced G2.5 @ 30,000 RPM | Draw Bar Threads 5/8"-11

Item #	Series	Collet Cap	Nut	L	L1	L2	D	Locknut	Wrench	Style
40000	11ER	0.04"-0.276"	HEX	2.5"	-	1.38"	0.748"	ER11A	ER11A	1
40005	11ER	0.04"-0.276"	HEX	3"	-	1.38"	0.748"	ER11A	ER11A	1
40010	11ER	0.04"-0.276"	HEX	4"	-	1.38"	0.748"	ER11A	ER11A	1
40015	11ER	0.04"-0.276"	HEX	6"	-	1.38"	0.748"	ER11A	ER11A	1
40020	16ER	0.04"-0.394"	HEX	2.5"	-	1.38"	1.102"	ER16A	ER16A	1
40025	16ER	0.04"-0.394"	HEX	2.76"	-	1.38"	1.102"	ER16A	ER16A	1
40030	16ER	0.04"-0.394"	HEX	3"	-	1.38"	1.102"	ER16A	ER16A	1
40035	16ER	0.04"-0.394"	HEX	3.5"	-	1.38"	1.102"	ER16A	ER16A	1
40040	16ER	0.04"-0.394"	HEX	4"	-	1.38"	1.102"	ER16A	ER16A	1
40045	16ER	0.04"-0.394"	ROUND	5"	-	1.38"	1.102"	ER16A	ER16A	1
40050	16ER	0.04"-0.394"	HEX	6"	-	1.38"	1.102"	ER16A	ER16A	1
40055	16ER	0.04"-0.394"	HEX	8"	-	1.38"	1.102"	ER16A	ER16A	1
40060	16ER	0.04"-0.394"	HEX	9"	-	1.38"	1.102"	ER16A	ER16A	1
40065	16ER	0.04"-0.394"	HEX	10"	-	1.38"	1.102"	ER16A	ER16A	1
40070	20ER	0.04"-0.512"	HEX	2.5"	-	1.38"	1.377"	ER20A	ER20A	1
40075	20ER	0.04"-0.512"	HEX	2.76"	-	1.38"	1.377"	ER20A	ER20A	1
40080	20ER	0.04"-0.512"	HEX	3"	-	1.38"	1.377"	ER20A	ER20A	1
40085	20ER	0.04"-0.512"	HEX	4"	-	1.38"	1.377"	ER20A	ER20A	1
40090	20ER	0.04"-0.512"	HEX	6"	-	1.38"	1.377"	ER20A	ER20A	1
40095	20ER	0.04"-0.512"	HEX	8"	-	1.38"	1.377"	ER20A	ER20A	1
40100	20ER	0.04"-0.512"	HEX	9"	-	1.38"	1.377"	ER20A	ER20A	1
40105	20ER	0.04"-0.512"	HEX	10"	-	1.38"	1.377"	ER20A	ER20A	1
40110	25ER	0.04"-0.63"	ROUND	2.5"	-	-	1.654"	ER25UM	ER25UM	3
40115	25ER	0.04"-0.63"	ROUND	2.76"	-	-	1.654"	ER25UM	ER25UM	3
40120	25ER	0.04"-0.63"	ROUND	4"	-	-	1.654"	ER25UM	ER25UM	3
40125	25ER	0.04"-0.63"	ROUND	6"	-	-	1.654"	ER25UM	ER25UM	3
40130	25ER	0.04"-0.63"	ROUND	8"	-	-	1.654"	ER25UM	ER25UM	3
40135	32ER	0.04"-0.810"	ROUND	2"	-	-	1.97"	ER32UN	ER32UN	3
40140	32ER	0.04"-0.810"	ROUND	2.5"	-	-	1.97"	ER32UN	ER32UN	3
40145	32ER	0.04"-0.810"	ROUND	2.75"	-	-	1.97"	ER32UN	ER32UN	3
40150	32ER	0.04"-0.810"	ROUND	2.36"	-	-	1.97"	ER32UM	ER32UM	3
40155	32ER	0.04"-0.810"	ROUND	3"	-	-	1.97"	ER32UN	ER32UN	3
40160	32ER	0.04"-0.810"	ROUND	3.13"	-	-	1.97"	ER32UN	ER32UN	3
40165	32ER	0.04"-0.810"	ROUND	4"	-	-	1.97"	ER32UM	ER32UM	3
40170	32ER	0.04"-0.810"	ROUND	5"	-	-	1.97"	ER32UN	ER32UN	3
40175	32ER	0.04"-0.810"	ROUND	6"	-	-	1.97"	ER32UM	ER32UM	3
40180	32ER	0.04"-0.810"	ROUND	8"	-	-	1.97"	ER32UM	ER32UM	3
40185	32ER	0.04"-0.810"	ROUND	9"	-	-	1.97"	ER32UN	ER32UN	3

ER Collet Chucks

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CAT40

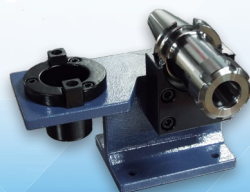
Item #	Series	Collet Cap	Nut	L	L1	L2	D	Locknut	Wrench	Style
40190	32ER	0.04"-0.810"	ROUND	10"	-	-	1.97"	ER32UN	ER32UN	3
40195	40ER	0.118"-1.024"	ROUND	2.5"	-	1.38"	2.48"	ER40UM	ER40UM	4
40200	40ER	0.118"-1.024"	ROUND	3"	-	1.38"	2.48"	ER40UM	ER40UM	4
40205	40ER	0.118"-1.024"	ROUND	3.15"	-	1.38"	2.48"	ER40UM	ER40UM	4
40210	40ER	0.118"-1.024"	ROUND	4"	-	1.38"	2.48"	ER40UM	ER40UM	4
40215	40ER	0.118"-1.024"	ROUND	5"	-	1.38"	2.48"	ER40UM	ER40UM	4
40220	40ER	0.118"-1.024"	ROUND	6"	-	1.38"	2.48"	ER40UM	ER40UM	4
40225	40ER	0.118"-1.024"	ROUND	8"	-	1.38"	2.48"	ER40UM	ER40UM	4

CAT50 CAT50 Balanced G2.5 @ 25,000 RPM | Draw Bar Threads 1"-8

Item #	Series	Collet Cap	Nut	L	L1	L2	D	Locknut	Wrench	Style
50000	16ER	0.04"-0.394"	HEX	4"	-	1.38"	1.102"	ER16A	ER16A	1
50005	16ER	0.04"-0.394"	HEX	6"	-	1.38"	1.102"	ER16A	ER16A	1
50010	16ER	0.04"-0.394"	HEX	8"	-	1.38"	1.102"	ER16A	ER16A	1
50015	16ER	0.04"-0.394"	HEX	10"	-	1.38"	1.102"	ER16A	ER16A	1
50020	16ER	0.04"-0.394"	HEX	12"	-	1.38"	1.102"	ER16A	ER16A	1
50025	20ER	0.04"-0.512"	HEX	2.5"	-	-	1.377"	ER20A	ER20A	1
50030	20ER	0.04"-0.512"	HEX	4"	-	1.38"	1.377"	ER20A	ER20A	1
50035	20ER	0.04"-0.512"	HEX	6"	-	1.38"	1.377"	ER20A	ER20A	1
50040	20ER	0.04"-0.512"	HEX	8"	-	1.38"	1.377"	ER20A	ER20A	1
50045	20ER	0.04"-0.512"	HEX	10"	-	1.38"	1.377"	ER20A	ER20A	1
50050	20ER	0.04"-0.512"	HEX	12"	-	1.38"	1.377"	ER20A	ER20A	1
50055	25ER	0.04"-0.63"	ROUND	2.5"	-	-	1.654"	ER25UM	ER25UM	1
50060	25ER	0.04"-0.63"	ROUND	4"	-	1.38"	1.654"	ER25UM	ER25UM	1
50065	25ER	0.04"-0.63"	ROUND	6"	-	1.38"	1.654"	ER25UM	ER25UM	1
50070	25ER	0.04"-0.63"	ROUND	8"	-	1.38"	1.654"	ER25UM	ER25UM	1
50075	25ER	0.04"-0.63"	ROUND	9"	-	1.38"	1.654"	ER25UM	ER25UM	1
50080	25ER	0.04"-0.63"	ROUND	10"	-	1.38"	1.654"	ER25UM	ER25UM	1
50085	32ER	0.04"-0.810"	ROUND	1.69"	-	1.38"	1.97"	ER32UM	ER32UM	3
50090	32ER	0.04"-0.810"	ROUND	4"	-	1.38"	1.97"	ER32UM	ER32UM	1
50095	32ER	0.04"-0.810"	ROUND	6"	-	1.38"	1.97"	ER32UM	ER32UM	1
50100	32ER	0.04"-0.810"	ROUND	8"	-	1.38"	1.97"	ER32UM	ER32UM	1
50105	32ER	0.04"-0.810"	ROUND	10"	-	1.38"	1.97"	ER32UN	ER32UN	1
50110	32ER	0.04"-0.810"	ROUND	12"	-	1.38"	1.97"	ER32UM	ER32UM	2
50115	40ER	0.118"-1.024"	ROUND	4"	-	1.38"	2.48"	ER40UM	ER40UM	1
50120	40ER	0.118"-1.025"	ROUND	6"	-	1.38"	2.48"	ER40UM	ER40UM	1
50125	40ER	0.118"-1.026"	ROUND	8"	-	1.38"	2.48"	ER40UM	ER40UM	1
50130	40ER	0.118"-1.027"	ROUND	10"	-	1.38"	2.48"	ER40UM	ER40UM	1
50135	50ER	0.118"-1.024"	ROUND	4"	-	1.38"	2.48"	ER40UM	ER40UM	4
50140	50ER	0.118"-1.024"	ROUND	6"	-	1.38"	2.48"	ER40UM	ER40UM	4
50145	50ER	0.118"-1.024"	ROUND	8"	-	1.38"	2.48"	ER40UM	ER40UM	4

Universal H/V CNC Tool Tightening Fixtures

Item #	Description
CNC10	CAT/BT 30 CNC TIGHTENING FIXTURE
CNC00	CAT/BT 40 CNC TIGHTENING FIXTURE
CNC05	CAT/BT 50 CNC TIGHTENING FIXTURE



Tooling System Chart



End Mill Holders

- Taper-to-Bore Runout < 0.0002"
- H5 Bore Tolerance
- AD+B Coolant through the spindle & flange
- CAT40 balanced G2.5 @ 30,000 RPM
- CAT40 Draw Bar Threads: 5/8"-11
- Taper Shank ground to AT3 accuracy (or better)



CAT40 CAT40 Balanced G2.5 @ 30,000 RPM | Draw Bar Threads 5/8"-11

Item #	d	L1	D	L2	A	B	Clamp Screw Size	# of Clamp Screw	Allen Key Size	Style
20000	1/8"	1.38"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20005	1/8"	1.75"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20010	1/8"	2"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20015	1/8"	2.37"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20020	1/8"	2.5"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20025	1/8"	3"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20030	1/8"	4"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20035	1/8"	4.5"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20040	1/8"	5"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20045	1/8"	6"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
20050	3/16"	1.38"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20055	3/16"	1.75"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20060	3/16"	2.5"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20065	3/16"	3"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20070	3/16"	4"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20075	3/16"	4.5"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20080	3/16"	4.72"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20085	3/16"	6"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
20090	1/4"	1.38"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20095	1/4"	1.75"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20100	1/4"	2.5"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20105	1/4"	3"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20110	1/4"	4"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20115	1/4"	4.72"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20120	1/4"	4.5"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20125	1/4"	6"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20130	1/4"	9"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
20135	5/16"	1.38"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20140	5/16"	1.75"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20145	5/16"	2.5"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20150	5/16"	3"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20155	5/16"	4"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20160	5/16"	4.5"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20165	5/16"	4.72"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20170	5/16"	6"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20175	5/16"	9"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
20180	3/8"	1.38"	1"	-	0.61"	-	5/16"-24	1	5/32"	1
20185	3/8"	1.75"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20190	3/8"	2.5"	1"	-	0.37"	-	3/8"-24	1	3/16"	1
20195	3/8"	3"	1"	-	0.37"	-	3/8"-24	1	3/16"	1
20200	3/8"	4"	1"	-	0.61"	-	3/8"-24	1	3/16"	1

End Mill Holders

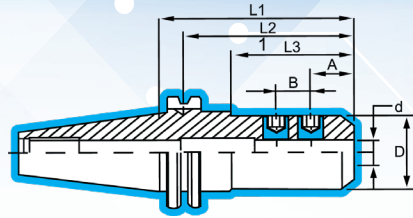
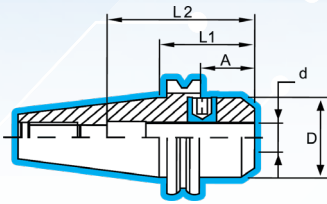
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CAT40 CAT40 Balanced G2.5 @ 30,000 RPM | Draw Bar Threads 5/8"-11

Item #	d	L1	D	L2	A	B	Clamp Screw Size	# of Clamp Screw	Allen Key Size	Style
20205	3/8"	4.72"	1"	-	0.61	-	3/8"-24	1	3/16"	1
20210	3/8"	4.5"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20215	3/8"	5"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20220	3/8"	6"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20225	3/8"	6.5"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20230	3/8"	8"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20235	3/8"	9"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
20240	7/16"	1.75"	1.25"	-	0.875"	-	5/16"-24	1	3/16"	1
20245	7/16"	2.5"	1.25"	-	0.875"	-	5/16"-24	1	3/16"	1
20250	7/16"	2.62"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
20255	7/16"	4"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
20260	7/16"	4.5"	1.25"	-	1.25"	-	5/16"-24	1	5/32"	1
20265	7/16"	9"	1.25"	-	0.63"	-	5/16"-24	1	5/32"	1
20270	1/2"	1.75"	1.38"	-	0.875"	-	7/16"-20	1	5/32"	1
20275	1/2"	2.5"	1.38"	-	0.63"	-	7/16"-20	1	5/32"	1
20280	1/2"	2.62"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20285	1/2"	3"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20290	1/2"	4"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20295	1/2"	4.62"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20300	1/2"	5"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20305	1/2"	6"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20310	1/2"	6.92"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20315	1/2"	8"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20320	1/2"	9"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
20325	9/16"	1.75"	1.5"	2.362"	0.937"	-	7/16"-20	1	7/32"	1
20330	9/16"	2.62"	1.5"	-	0.937"	-	7/16"-20	1	7/32"	1
20335	5/8"	1.75"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
20340	5/8"	2.75"	1.5"	2.362"	0.937"	-	1/2"-20	1	1/4"	1
20345	5/8"	3"	1.5"	2.362"	0.937"	-	1/2"-20	1	1/4"	1
20350	5/8"	3.75"	1.5"	2.362"	0.937"	-	1/2"-21	1	1/4"	1
20355	5/8"	4"	1.5"	2.362"	0.937"	-	1/2"-22	1	1/4"	1
20360	5/8"	5.5"	1.5"	2.362"	0.937"	-	1/2"-22	1	1/4"	1
20365	5/8"	5.75"	1.5"	2.362"	0.937"	-	1/2"-23	1	1/4"	1
20370	5/8"	6"	1.5"	2.56"	0.937"	-	1/2"-23	1	1/4"	1
20375	5/8"	8"	1.5"	2.362"	0.937"	-	1/2"-24	1	1/4"	1
20380	5/8"	9"	1.5"	2.362"	0.937"	-	1/2"-24	1	1/4"	1
20385	3/4"	1.75"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20390	3/4"	3"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20395	3/4"	3.5"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20400	3/4"	3.75"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20405	3/4"	4"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20410	3/4"	5"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20415	3/4"	5.5"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20420	3/4"	5.75"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20425	3/4"	6"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20430	3/4"	6.5"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20435	3/4"	8"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20440	3/4"	9"	1.75"	2.61"	0.965"	-	5/8"-18	1	5/16"	1
20445	7/8"	1.75"	1.75"	2.56"	1.063"	-	5/8"-18	1	5/16"	1

End Mill Holders

Continued



CAT40 CAT40 Balanced G2.5 @ 30,000 RPM | Draw Bar Threads 5/8"- 11

Item #	d	L1	D	L2	A	B	Clamp Screw Size	# of Clamp Screw	Allen Key Size	Style
20450	7/8"	3.5"	1.75"	3.15"	1.063"	-	5/8"-18	1	5/16"	1
20455	7/8"	3.75"	1.75"	3.15"	1.063"	-	5/8"-18	1	5/16"	1
20460	7/8"	4"	1.75"	3.15"	1.063"	-	5/8"-18	1	5/16"	1
20465	7/8"	6"	1.75"	3.15"	1.063"	-	5/8"-18	1	3/8"	1
20470	7/8"	9"	1.75"	3.15"	1.063"	-	5/8"-18	1	3/8"	1
20475	1"	1.75"	2.28"	2.323"	0.945"	-	3/4"-16	1	3/8"	1
20480	1"	2"	2.28"	2.323"	0.945"	-	3/4"-16	1	3/8"	1
20485	1"	3"	2.28"	2.953"	0.945"	-	3/4"-16	1	3/8"	1
20490	1"	4"	2.28"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
20495	1"	6"	2.28"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
20500	1"	8"	2.28"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
20505	1"	9"	2.28"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
20510	1-1/4"	2"	2.5"	2.323"	1.125"	-	3/4"-16	1	3/8"	1
20515	1-1/4"	4"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20520	1-1/4"	4.25"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20525	1-1/4"	4.6"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20530	1-1/4"	6"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20535	1-1/4"	6.25"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20540	1-1/4"	8"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20545	1-1/2"	4"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20550	1-1/2"	4.5"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20555	1-1/2"	4.62"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20560	1-1/2"	6"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20565	1-1/2"	6.62"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
20570	1-1/2"	8"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2

End Mill Holders

- Taper-to-Bore Runout < 0.0002"
- H5 Bore Tolerance
- AD+B Coolant through the spindle & flange
- CAT50 balanced G2.5 @ 25,000 RPM
- CAT50 Draw Bar Threads: 1"-8
- Taper Shank ground to AT3 accuracy (or better)



CAT50 CAT50 Balanced G2.5 @ 25,000 RPM | Draw Bar Threads 1"-8

Item #.	d	L1	D	L2	A	B	Clamp Screw Size	# of Clamp Screw	Allen Key Size	Style
30000	1/8"	2.5"	0.69"	-	0.37"	-	3/16"-24	1	3/32"	1
30005	3/16"	2.5"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
30010	3/16"	4.5"	0.69"	-	0.562"	-	1/4"-28	1	1/8"	1
30015	1/4"	1.38"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30020	1/4"	2.5"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30025	1/4"	4"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30030	1/4"	4.5"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30035	1/4"	6"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30040	1/4"	6.5"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30045	1/4"	8"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30050	1/4"	10"	0.81"	-	0.63"	-	1/4"-28	1	1/8"	1
30055	5/16"	1.38"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
30060	5/16"	2.5"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
30065	5/16"	4"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
30070	5/16"	4.5"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
30075	5/16"	6"	0.88"	-	0.63"	-	5/16"-24	1	5/32"	1
30080	3/8"	1.38"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30085	3/8"	2.5"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30090	3/8"	4"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30095	3/8"	4.5"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30100	3/8"	6"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30105	3/8"	6.5"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30110	3/8"	8"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30115	3/8"	10"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30120	3/8"	14"	1"	-	0.61"	-	3/8"-24	1	3/16"	1
30125	7/16"	1.75"	1.25"	-	0.71"	-	5/16"-24	1	5/32"	1
30130	7/16"	2.5"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
30135	7/16"	4"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
30140	7/16"	4.5"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
30145	7/16"	6"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
30150	7/16"	8"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
30155	7/16"	14"	1.25"	-	0.875"	-	5/16"-24	1	5/32"	1
30160	1/2"	1.75"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30165	1/2"	2.62"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30170	1/2"	4"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30175	1/2"	4.62"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30180	1/2"	5"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30185	1/2"	6"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30190	1/2"	6.62"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30195	1/2"	8"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1

End Mill Holders

Continued

CAT50 CAT50 Balanced G2.5 @ 25,000 RPM | Draw Bar Threads 1"-8

Item #	d	L1	D	L2	A	B	Clamp Screw Size	# of Clamp Screw	Allen Key Size	Style
30200	1/2"	10"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	1
30205	1/2"	14"	1.38"	-	0.875"	-	7/16"-20	1	7/32"	2
30210	9/16"	1.44"	1.5"	-	0.875"	-	-	1	7/32"	1
30215	9/16"	2.62"	1.5"	-	0.875"	-	-	1	7/32"	1
30220	9/16"	3"	1.5"	-	0.875"	-	-	1	7/32"	1
30225	9/16"	6"	1.5"	-	0.875"	-	-	1	7/32"	1
30230	5/8"	1.44"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30235	5/8"	1.75"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30240	5/8"	3"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30245	5/8"	3.75"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30250	5/8"	4"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30255	5/8"	5.75"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30260	5/8"	6"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30265	5/8"	7.5"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30270	5/8"	7.75"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30275	5/8"	8"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30280	5/8"	10"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30285	5/8"	14"	1.5"	-	0.937"	-	1/2"-20	1	1/4"	1
30290	3/4"	1.44"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30295	3/4"	1.62"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30300	3/4"	1.75"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30305	3/4"	3"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30310	3/4"	3.75"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30315	3/4"	5.75"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30320	3/4"	6"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30325	3/4"	7.75"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30330	3/4"	7.75"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30335	3/4"	8"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30340	3/4"	14"	1.75"	-	0.965"	-	5/8"-18	1	5/16"	1
30345	7/8"	1.75"	1.75"	2.56"	1.063"	-	5/8"-18	1	5/16"	1
30350	7/8"	3.75"	1.75"	2.56"	1.06"	-	5/8"-18	1	5/16"	1
30355	7/8"	4"	1.75"	2.56"	1.06"	-	5/8"-18	1	5/16"	1
30360	7/8"	5.75"	1.75"	2.56"	1.06"	-	5/8"-18	1	5/16"	1
30365	7/8"	6"	1.75"	2.56"	1.06"	-	5/8"-18	1	5/16"	1
30370	7/8"	7.75"	1.75"	2.56"	1.06"	-	5/8"-18	1	5/16"	1
30375	7/8"	8"	1.75"	2.56"	1.06"	-	5/8"-18	1	5/16"	1
30380	1"	1.62"	2.48"	2.323"	0.945"	-	3/4"-16	1	3/8"	1
30385	1"	2"	2.48"	2.323"	0.945"	-	3/4"-16	1	3/8"	1
30390	1"	2.62"	2.48"	2.323"	0.945"	-	3/4"-16	1	3/8"	1
30395	1"	4"	2.48"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
30400	1"	6"	2.48"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
30405	1"	8"	2.48"	2.953"	1.125"	1"	3/4"-16	2	3/8"	2
30410	1"	14"	2.48"	2.953"	1.127"	1"	3/4"-16	2	3/8"	2
30415	1-1/4"	2"	2.5"	2.5"	1.125"	-	3/4"-16	1	3/8"	1
30420	1-1/4"	2.62"	2.5"	2.5"	1.125"	-	3/4"-16	1	3/8"	1
30425	1-1/4"	4"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30430	1-1/4"	4.25"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30435	1-1/4"	4.6"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30440	1-1/4"	6"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30445	1-1/4"	6.25"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2

End Mill Holders

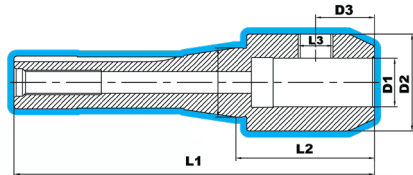
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CAT50 CAT50 Balanced G2.5 @ 25,000 RPM | Draw Bar Threads 1"-8

Item #	d	L1	D	L2	A	B	Clamp Screw Size	# of Clamp Screw	Allen Key Size	Style
30450	1-1/4"	8"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30460	1-1/2"	2"	2.5"	2.5"	1.125"	1"	3/4"-16	1	3/8"	1
30465	1-1/2"	2.25"	2.5"	2.5"	1.125"	1"	3/4"-16	1	3/8"	1
30470	1-1/2"	2.62"	2.5"	2.5"	1.125"	1"	3/4"-16	1	3/8"	1
30475	1-1/2"	4"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30480	1-1/2"	4.62"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30485	1-1/2"	6"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30490	1-1/2"	6.62"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30495	1-1/2"	7"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30500	1-1/2"	8"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30505	1-1/2"	9"	2.5"	3"	1.125"	1"	3/4"-16	2	3/8"	2
30510	2"	3.63"	3.75"	3"	1.335"	-	3/4"-16	1	3/8"	1
30515	2"	5.37"	3.75"	3.74"	1.335"	1.41"	3/4"-16	2	3/8"	2
30520	2"	5.62"	3.75"	3.74"	1.335"	1.41"	3/4"-16	2	3/8"	2
30525	2"	6"	3.75"	3.74"	1.335"	1.41"	3/4"-16	2	3/8"	2
30530	2"	7.62"	3.75"	3.74"	1.335"	1.41"	3/4"-16	2	3/8"	2
30535	2"	8"	3.75"	3.74"	1.335"	1.41"	3/4"-16	2	3/8"	2
30550	2-1/2"	6.5"	4.921"	3.66"	1.575"	1.575"	3/4"-16	2	3/8"	2

R8 Shank End Mill Holders

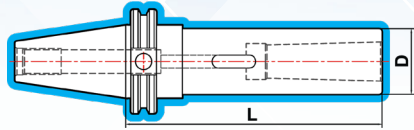
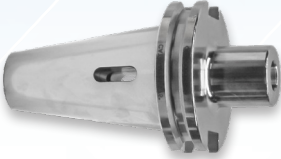
R8 Shank T.I.R. < 0.0001" • Draw bar thread 7/16"-20 • H7 Bore Tolerance



Item #	D1	D2	D3	L1	L2	L3
85540	3/16"	0.69"	M6	5.2"	1.2"	7/16"-20
85545	3/8"	1"	M10	5.2"	1.2"	7/16"-20
85550	1/2"	1.378"	M12	6"	2"	7/16"-20
85555	5/8"	1.5"	M12	6"	2"	7/16"-20
85560	3/4"	1.75"	M16	6"	2"	7/16"-20
85565	7/8"	1.75"	M16	6.5"	2.5"	7/16"-20
85570	1"	1.89"	M16	7"	2.99"	7/16"-20

Morse Taper Adapters

- Coolant through the Spindle
- Taper Shank ground to AT3 accuracy or better
- MT-CAT Form A
- CAT40 balanced G2.5 @ 30,000 RPM | Draw Bar Threads: 5/8"-11
- CAT50 balanced G2.5 @ 20,000 RPM | Draw Bar Threads: 1"-8



CAT40

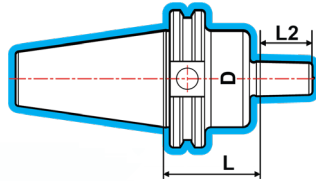
Item #	Taper Size	D	L
85405	1	0.984"	2.205"
85410	2	1.260"	2.638"
85415	3	1.575"	3.307"
85420	4	1.89"	4.213"

CAT50

Item #	Taper Size	D	L
85425	2	1.260"	2.638"
85430	3	1.575"	3.307"
85435	4	1.89"	4.213"
85440	5	2.48"	5.236"

Jacobs Taper Adapters

- Designed to use with Keyless Jacobs Chucks
- Non-coolant
- Taper Shank ground to AT3 accuracy or better
- Balanced by design
- CAT40 Draw Bar Threads: 5/8"-11
- CAT50 Draw Bar Threads: 1"-8



CAT40

Item #	Taper Size	D	L	L2
85445	JT2	1.75"	1.57"	0.875"
85450	JT2	1.75"	2.44"	0.875"
85455	JT3	1.75"	1.57"	1.21"
85460	JT3	1.75"	2.78"	1.21"
85465	JT33	1.75"	1.57"	1.015"
85470	JT33	1.75"	2.56"	1.015"
85475	JT4	1.75"	1.57"	1.665"
85480	JT4	1.75"	2.44"	1.665"
85485	JT6	1.75"	1.57"	1.025"
85490	JT6	1.75"	2.44"	1.025"

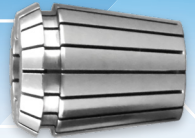
CAT50

Item #	Taper Size	D	L	L2
85495	JT2	2.75"	1.57"	0.875"
85500	JT3	2.75"	1.57"	1.21"
85505	JT3	2.75"	2.78"	1.21"
85510	JT33	2.75"	1.57"	1.015"
85515	JT33	2.75"	2.56"	1.015"
85520	JT4	2.75"	1.57"	1.6"
85525	JT4	2.75"	3.25"	1.6"
85530	JT5	2.75"	1.57"	1.86"
85535	JT6	2.75"	1.57"	0.975"

Precision ER Collets

0.0003" T.I.R.

- Collet accuracy: 0.0003" - 0.0004" T.I.R.
- Wide clamping ranges: 0.02" - 0.039" collapsibility
- Made of high-quality case hardened steel for long operating life and elasticity of collet



INCH

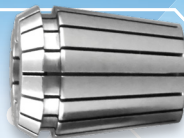
Item #	Series	Nominal Size	Capacity Max-Min inch	Capacity Max-Min mm
60000	ER11	1/16"	.0625-.0225	1.588-1.00
60005	ER11	3/32"	.0938-.0538	2.383-1.382
60010	ER11	1/8"	.1250-.0850	3.175-2.174
60015	ER11	5/32"	.1563-.1163	3.970-2.969
60020	ER11	3/16"	.1875-.1475	4.763-3.762
60025	ER11	7/32"	.2188-.1788	5.558-4.557
60030	ER11	1/4"	.2500-.2100	6.350-5.349
60035	ER16	1/16"	.0625-.0225	1.588-1.080
60040	ER16	3/32"	.0938-.0538	2.383-1.382
60045	ER16	1/8"	.1250-.0850	3.175-2.174
60050	ER16	5/32"	.1563-.1163	3.970-2.969
60055	ER16	3/16"	.1875-.1475	4.763-3.762
60060	ER16	7/32"	.2188-.1788	5.558-4.557
60065	ER16	1/4"	.2500-.2100	6.350-5.349
60070	ER16	9/32"	.2813-.2413	7.145-6.144
60075	ER16	5/16"	.3125-.2725	7.938-6.937
60080	ER16	11/32"	.3438-.3038	8.733-7.732
60085	ER16	3/8"	.3750-.3350	9.525-8.524
60090	ER16	13/32"	.4063-.3663	10.320-9.319
60095	ER20	3/32"	.0938-.0538	2.383-1.382
60100	ER20	1/8"	.1250-.0850	3.175-2.174
60105	ER20	5/32"	.1563-.1163	3.970-2.969
60110	ER20	3/16"	.1875-.1475	4.763-3.762
60115	ER20	7/32"	.2188-.1788	5.558-4.557
60120	ER20	1/4"	.2500-.2100	6.350-5.349
60125	ER20	9/32"	.2813-.2413	7.145-6.144
60130	ER20	5/16"	.3125-.2725	7.938-6.937
60135	ER20	11/32"	.3438-.3038	8.733-7.732
60140	ER20	3/8"	.3750-.3350	9.525-8.524
60145	ER20	13/32"	.4063-.3663	10.320-9.319
60150	ER20	7/16"	.4375-.3975	11.113-10.112
60155	ER20	15/32"	.4688-.4288	11.908-10.907
60160	ER20	1/2"	.5000-.4600	12.700-11.836
60165	ER25	1/16"	.0625-.0225	1.588-1.080
60170	ER25	3/32"	.0938-.0538	2.383-1.382
60175	ER25	1/8"	.1250-.0850	3.175-2.174
60180	ER25	5/32"	.1563-.1163	3.970-2.969
60185	ER25	3/16"	.1875-.1475	4.763-3.762
60190	ER25	7/32"	.2188-.1788	5.558-4.557
60195	ER25	1/4"	.2500-.2100	6.350-5.349
60200	ER25	9/32"	.2813-.2413	7.145-6.144
60205	ER25	5/16"	.3125-.2725	7.938-6.937
60210	ER25	11/32"	.3438-.3038	8.733-7.732
60215	ER25	3/8"	.3750-.3350	9.525-8.524
60220	ER25	13/32"	.4063-.3663	10.320-9.319
60225	ER25	7/16"	.4375-.3975	11.113-10.112
60230	ER25	15/32"	.4688-.4288	11.908-10.907
60235	ER25	1/2"	.5000-.4600	12.700-11.836
60240	ER25	17/32"	.5313-.4913	13.495-12.494
60245	ER25	9/16"	.5625-.5225	14.288-13.287
60250	ER25	19/32"	.5938-.5538	15.083-14.082
60255	ER25	5/8"	.6250-.5850	15.875-14.874

Item No.	Series	Nominal Size	Capacity Max-Min inch	Capacity Max-Min mm
60260	ER32	1/8"	.1250-.0850	3.175-2.174
60265	ER32	5/32"	.1563-.1163	3.970-2.969
60270	ER32	3/16"	.1875-.1475	4.763-3.762
60275	ER32	7/32"	.2188-.1788	5.558-4.557
60280	ER32	1/4"	.2500-.2100	6.350-5.349
60285	ER32	9/32"	.2813-.2413	7.145-6.144
60290	ER32	5/16"	.3125-.2725	7.938-6.937
60295	ER32	11/32"	.3438-.3038	8.733-7.732
60300	ER32	3/8"	.3750-.3350	9.525-8.524
60305	ER32	13/32"	.4063-.3663	10.320-9.319
60310	ER32	7/16"	.4375-.3975	11.113-10.112
60315	ER32	15/32"	.4688-.4288	11.908-10.907
60320	ER32	1/2"	.5000-.4600	12.700-11.836
60325	ER32	17/32"	.5313-.4913	13.495-12.494
60330	ER32	9/16"	.5625-.5225	14.288-13.287
60335	ER32	19/32"	.5938-.5538	15.083-14.082
60340	ER32	5/8"	.6250-.5850	15.875-14.874
60345	ER32	21/32"	.6563-.6163	16.670-15.669
60350	ER32	11/16"	.6875-.6475	17.463-16.462
60355	ER32	23/32"	.7188-.6788	18.258-17.257
60360	ER32	3/4"	.7500-.7113	19.050-18.049
60365	ER32	25/32"	.7813-.7413	19.845-18.844
60370	ER32	13/16"	.8125-.7725	20.639-19.637
60375	ER40	1/8"	.1250-.0850	3.175-2.174
60380	ER40	5/32"	.1563-.1163	3.970-2.969
60385	ER40	3/16"	.1875-.1475	4.763-3.762
60390	ER40	7/32"	.2188-.1788	5.558-4.557
60395	ER40	1/4"	.2500-.2100	6.350-5.349
60400	ER40	9/32"	.2813-.2413	7.145-6.144
60405	ER40	5/16"	.3125-.2725	7.938-6.937
60410	ER40	11/32"	.3438-.3038	8.733-7.732
60415	ER40	3/8"	.3750-.3350	9.525-8.524
60420	ER40	13/32"	.4063-.3663	10.320-9.319
60425	ER40	7/16"	.4375-.3975	11.113-10.112
60430	ER40	15/32"	.4688-.4288	11.908-10.907
60435	ER40	1/2"	.5000-.4600	12.700-11.836
60440	ER40	17/32"	.5313-.4913	13.495-12.494
60445	ER40	9/16"	.5625-.5225	14.288-13.287
60450	ER40	19/32"	.5938-.5538	15.083-14.082
60455	ER40	5/8"	.6250-.5850	15.875-14.874
60460	ER40	21/32"	.6563-.6163	16.670-15.669
60465	ER40	11/16"	.6875-.6475	17.463-16.462
60470	ER40	23/32"	.7188-.6788	18.258-17.257
60475	ER40	3/4"	.7500-.7113	19.050-18.049
60480	ER40	25/32"	.7813-.7413	19.845-18.844
60485	ER40	13/16"	.8125-.7725	20.639-19.637
60490	ER40	27/32"	.8438-.8038	21.433-20.432
60495	ER40	7/8"	.8750-.8350	22.225-21.224
60500	ER40	29/32"	.9063-.8663	23.020-22.019
60505	ER40	15/16"	.9375-.8975	23.813-22.812
60510	ER40	31/32"	.9688-.9288	24.608-23.607
60515	ER40	1"	1.000-.9600	25.400-24.399

Precision ER Collets

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- Collet accuracy: 0.0003" - 0.0004" T.I.R.
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METRIC

Item #	Series	Nominal Size	Capacity Max-Min Inch	Capacity Max-Min mm
60520	ER11	1.0mm	.3940-0197	1.0-0.5
60525	ER11	1.5mm	.0590-0394	1.5-1.0
60530	ER11	2.0mm	.0787-0390	2.0-1.0
60535	ER11	2.5mm	.0984-0590	2.5-1.5
60540	ER11	3.0mm	.1181-0787	3.0-2.0
60545	ER11	3.5mm	.1378-0980	3.5-2.5
60550	ER11	4.0mm	.1575-1181	4.0-3.0
60555	ER11	4.5mm	.1772-1575	4.5-3.5
60560	ER11	5.0mm	.1969-1575	5.0-4.0
60565	ER11	5.5mm	.2165-1770	5.5-4.5
60570	ER11	6.0mm	.2362-1969	6.0-5.0
60575	ER11	6.5mm	.2559-2170	6.5-5.5
60580	ER11	7.0mm	.2756-2362	7.0-6.0
60585	ER16	1.0mm	.3940-0197	1.0-0.5
60590	ER16	1.5mm	.0590-0394	1.5-1.0
60595	ER16	2.0mm	.0787-0390	2.0-1.0
60600	ER16	2.5mm	.0984-0590	2.5-1.5
60605	ER16	3.0mm	.1181-0787	3.0-2.0
60610	ER16	3.5mm	.1378-0980	3.5-2.5
60615	ER16	4.0mm	.1575-1181	4.0-3.0
60620	ER16	4.5mm	.1772-1575	4.5-3.5
60625	ER16	5.0mm	.1969-1575	5.0-4.0
60630	ER16	5.5mm	.2165-1770	5.5-4.5
60635	ER16	6mm	.2165-1770	6.0-5.5
60640	ER16	6.5mm	.2559-2170	6.5-5.5
60645	ER16	7.0mm	.2756-2362	7.0-6.0
60650	ER16	7.5mm	.2953-2559	7.5-6.5
60655	ER16	8.0mm	.3150-2756	8.0-7.0
60660	ER16	8.5mm	.3346-2953	8.5-7.5
60665	ER16	9.0mm	.3543-3150	9.0-8.0
60670	ER16	9.5mm	.3740-3346	9.5-8.5
60675	ER16	10.0mm	.3937-3543	10.0-9.0
60680	ER20	1.0mm	.3940-0197	1.0-0.5
60685	ER20	2.0mm	.0787-0390	2.0-1.0
60690	ER20	3.0mm	.1181-0787	3.0-2.0
60695	ER20	4.0mm	.1575-1181	4.0-3.0
60700	ER20	5.0mm	.1969-1575	5.0-4.0
60705	ER20	6.0mm	.2362-1969	6.0-5.0
60710	ER20	7.0mm	.2756-2362	7.0-6.0
60715	ER20	8.0mm	.3150-2756	8.0-7.0
60720	ER20	9.0mm	.3543-3150	9.0-8.0
60725	ER20	10.0mm	.3937-3543	10.0-9.0
60730	ER20	11.0mm	.4330-3543	11.0-10.0
60735	ER20	12.0mm	.4724-4330	12.0-11.0
60740	ER20	13.0mm	.5118-4724	13.0-12.0
60745	ER25	2.0mm	.0787-0390	2.0-1.0
60750	ER25	3.0mm	.1181-0787	3.0-2.0
60755	ER25	4.0mm	.1575-1181	4.0-3.0
60760	ER25	5.0mm	.1969-1575	5.0-4.0
60765	ER25	6.0mm	.2362-1969	6.0-5.0

Item #	Series	Nominal Size	Capacity Max-Min inch	Capacity Max-Min mm
60770	ER25	7.0mm	.2756-2362	7.0-6.0
60775	ER25	8.0mm	.3150-2756	8.0-7.0
60780	ER25	9.0mm	.3543-3150	9.0-8.0
60785	ER25	10.0mm	.3937-3543	10.0-9.0
60790	ER25	11.0mm	.4330-3543	11.0-10.0
60795	ER25	12.0mm	.4724-4330	12.0-11.0
60800	ER25	13.0mm	.5118-4724	13.0-12.0
60805	ER25	14.0mm	.5512-5118	14.0-13.0
60810	ER25	15.0mm	.5906-5512	15.0-14.0
60815	ER25	16.0mm	.6299-5906	16.0-15.0
60820	ER32	3.0mm	.1181-0787	3.0-2.0
60825	ER32	4.0mm	.1575-1181	4.0-3.0
60830	ER32	5.0mm	.1969-1575	5.0-4.0
60835	ER32	6.0mm	.2362-1969	6.0-5.0
60840	ER32	7.0mm	.2756-2362	7.0-6.0
60845	ER32	8.0mm	.3150-2756	8.0-7.0
60850	ER32	9.0mm	.3543-3150	9.0-8.0
60855	ER32	10.0mm	.3937-3543	10.0-9.0
60860	ER32	11.0mm	.4330-3543	11.0-10.0
60865	ER32	12.0mm	.4724-4330	12.0-11.0
60870	ER32	13.0mm	.5118-4724	13.0-12.0
60875	ER32	14.0mm	.5512-5118	14.0-13.0
60880	ER32	15.0mm	.5906-5512	15.0-14.0
60885	ER32	16.0mm	.6299-5906	16.0-15.0
60890	ER32	17.0mm	.6693-6299	17.0-16.0
60895	ER32	18.0mm	.7087-6693	18.0-17.0
60900	ER32	19.0mm	.7480-7087	19.0-18.0
60905	ER32	20.0mm	.7874-7480	20.0-19.0
60910	ER40	4.0mm	.1575-1181	4.0-3.0
60915	ER40	5.0mm	.1969-1575	5.0-4.0
60920	ER40	6.0mm	.2362-1969	6.0-5.0
60925	ER40	7.0mm	.2756-2362	7.0-6.0
60930	ER40	8.0mm	.3150-2756	8.0-7.0
60935	ER40	9.0mm	.3543-3150	9.0-8.0
60940	ER40	10.0mm	.3937-3543	10.0-9.0
60945	ER40	11.0mm	.4330-3543	11.0-10.0
60950	ER40	12.0mm	.4724-4330	12.0-11.0
60955	ER40	13.0mm	.5118-4724	13.0-12.0
60960	ER40	14.0mm	.5512-5118	14.0-13.0
60965	ER40	15.0mm	.5906-5512	15.0-14.0
60970	ER40	16.0mm	.6299-5906	16.0-15.0
60975	ER40	17.0mm	.6693-6299	17.0-16.0
60980	ER40	18.0mm	.7087-6693	18.0-17.0
60985	ER40	19.0mm	.7480-7087	19.0-18.0
60990	ER40	20.0mm	.7874-7480	20.0-19.0
60995	ER40	21.0mm	.8270-7874	21.0-20.0
61000	ER40	22.0mm	.8661-8270	22.0-21.0
61005	ER40	23.0mm	.9055-8661	23.0-22.0
61010	ER40	24.0mm	.9449-9055	24.0-23.0
61015	ER40	25.0mm	.9843-9449	25.0-24.0
61020	ER40	26.0mm	1.0236-9843	26.0-25.0

Precision ER Collets Sets 0.0003" T.I.R.

- Collet accuracy: 0.0003" - 0.0004" T.I.R.
- Wide clamping ranges: 0.02" - 0.039" collapsibility
- Made of high-quality case hardened steel for long operating life and elasticity of collet



INCH

Item #	Series	Number of Pieces	Increments Inch	Set Includes
61025	ER11	7	1/32"	1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4
61035	ER16	12	1/32"	1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 13/32
61045	ER20	8	1/16"	3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2
61055	ER25	10	1/16"	3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8
61065	ER32	12	1/16"	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16
61075	ER40	15	1/16"	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1



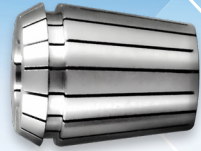
METRIC

Item #	Series	Number of Pieces	Increments mm	Set Includes
61030	ER11	13	.50mm	1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7
61040	ER16	10	1.0mm	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
61050	ER20	12	1.0mm	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
61060	ER25	15	1.0mm	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
61070	ER32	18	1.0mm	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
61080	ER40	23	1.0mm	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

Ultra-Precision ER Collets

0.0001" T.I.R.

- Collet accuracy: 0.0001" - 0.0002" T.I.R.
0.005mm - 5 microns
- Wide clamping ranges: 0.02" - 0.039" collapsibility
- Made of high-quality case hardened steel for long operating life and elasticity of collet



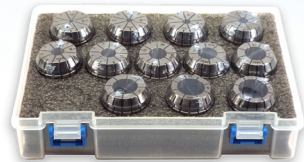
INCH

Item #	Series	Nominal Size	Capacity Max-Min inch	Capacity Max-Min mm
70000	ER16	1/16"	.0625-.0225	1.588-1.080
70005	ER16	3/32"	.0938-.0538	2.383-1.382
70010	ER16	1/8"	.1250-.0850	3.175-2.174
70015	ER16	5/32"	.1563-.1163	3.970-2.969
70020	ER16	3/16"	.1875-.1475	4.763-3.762
70025	ER16	7/32"	.2188-.1788	5.558-4.557
70030	ER16	1/4"	.2500-.2100	6.350-5.349
70035	ER16	9/32"	.2813-.2413	7.145-6.144
70040	ER16	5/16"	.3125-.2725	7.938-6.937
70045	ER16	11/32"	.3438-.3038	8.733-7.732
70050	ER16	3/8"	.3750-.3350	9.525-8.524
70055	ER16	13/32"	.4063-.3663	10.320-9.319
70060	ER20	3/32"	.0938-.0538	2.383-1.382
70065	ER20	1/8"	.1250-.0850	3.175-2.174
70070	ER20	5/32"	.1563-.1163	3.970-2.969
70075	ER20	3/16"	.1875-.1475	4.763-3.762
70080	ER20	7/32"	.2188-.1788	5.558-4.557
70085	ER20	1/4"	.2500-.2100	6.350-5.349
70090	ER20	9/32"	.2813-.2413	7.145-6.144
70095	ER20	5/16"	.3125-.2725	7.938-6.937
70100	ER20	11/32"	.3438-.3038	8.733-7.732
70105	ER20	3/8"	.3750-.3350	9.525-8.524
70110	ER20	13/32"	.4063-.3663	10.320-9.319
70115	ER20	7/16"	.4375-.3975	11.113-10.112
70120	ER20	15/32"	.4688-.4288	11.908-10.907
70125	ER20	1/2"	.5000-.4600	12.700-11.836
70130	ER25	1/16"	.0625-.0225	1.588-1.080
70135	ER25	3/32"	.0938-.0538	2.383-1.382
70140	ER25	1/8"	.1250-.0850	3.175-2.174
70145	ER25	5/32"	.1563-.1163	3.970-2.969
70150	ER25	3/16"	.1875-.1475	4.763-3.762
70155	ER25	7/32"	.2188-.1788	5.558-4.557
70160	ER25	1/4"	.2500-.2100	6.350-5.349
70165	ER25	9/32"	.2813-.2413	7.145-6.144
70170	ER25	5/16"	.3125-.2725	7.938-6.937
70175	ER25	11/32"	.3438-.3038	8.733-7.732
70180	ER25	3/8"	.3750-.3350	9.525-8.524
70185	ER25	13/32"	.4063-.3663	10.320-9.319
70190	ER25	7/16"	.4375-.3975	11.113-10.112
70195	ER25	15/32"	.4688-.4288	11.908-10.907
70200	ER25	1/2"	.5000-.4600	12.700-11.836
70205	ER25	17/32"	.5313-.4913	13.495-12.494
70210	ER25	9/16"	.5625-.5225	14.288-13.287
70215	ER25	19/32"	.5938-.5538	15.083-14.082
70220	ER25	5/8"	.6250-.5850	15.875-14.874
70225	ER32	1/8"	.1250-.0850	3.175-2.174
70230	ER32	5/32"	.1563-.1163	3.970-2.969
70235	ER32	3/16"	.1875-.1475	4.763-3.762
70235	ER32	3/16"	.1875-.1475	4.763-3.762

Item #	Series	Nominal Size	Capacity Max-Min inch	Capacity Max-Min mm
70240	ER32	7/32"	.2188-.1788	5.558-4.557
70245	ER32	1/4"	.2500-.2100	6.350-5.349
70250	ER32	9/32"	.2813-.2413	7.145-6.144
70255	ER32	5/16"	.3125-.2725	7.938-6.937
70260	ER32	11/32"	.3438-.3038	8.733-7.732
70265	ER32	3/8"	.3750-.3350	9.525-8.524
70270	ER32	13/32"	.4063-.3663	10.320-9.319
70275	ER32	7/16"	.4375-.3975	11.113-10.112
70280	ER32	15/32"	.4688-.4288	11.908-10.907
70285	ER32	1/2"	.5000-.4600	12.700-11.836
70290	ER32	17/32"	.5313-.4913	13.495-12.494
70295	ER32	9/16"	.5625-.5225	14.288-13.287
70300	ER32	19/32"	.5938-.5538	15.083-14.082
70305	ER32	5/8"	.6250-.5850	15.875-14.874
70310	ER32	21/32"	.6563-.6163	16.670-15.669
70315	ER32	11/16"	.6875-.6475	17.463-16.462
70320	ER32	23/32"	.7188-.6788	18.258-17.257
70325	ER32	3/4"	.7500-.7100	19.050-18.049
70330	ER32	25/32"	.7813-.7413	19.845-18.844
70335	ER32	13/16"	.8125-.7725	20.638-19.637
70340	ER40	1/8"	.1250-.0850	3.175-2.174
70345	ER40	5/32"	.1563-.1163	3.970-2.969
70350	ER40	3/16"	.1875-.1475	4.763-3.762
70355	ER40	7/32"	.2188-.1788	5.558-4.557
70360	ER40	1/4"	.2500-.2100	6.350-5.349
70365	ER40	9/32"	.2813-.2413	7.145-6.144
70370	ER40	5/16"	.3125-.2725	7.938-6.937
70375	ER40	11/32"	.3438-.3038	8.733-7.732
70380	ER40	3/8"	.3750-.3350	9.525-8.524
70385	ER40	13/32"	.4063-.3663	10.320-9.319
70390	ER40	7/16"	.4375-.3975	11.113-10.112
70395	ER40	15/32"	.4688-.4288	11.908-10.907
70400	ER40	1/2"	.5000-.4600	12.700-11.836
70405	ER40	17/32"	.5313-.4913	13.495-12.494
70410	ER40	9/16"	.5625-.5225	14.288-13.287
70415	ER40	19/32"	.5938-.5538	15.083-14.082
70420	ER40	5/8"	.6250-.5850	15.875-14.874
70425	ER40	21/32"	.6563-.6163	16.670-15.669
70430	ER40	11/16"	.6875-.6475	17.463-16.462
70435	ER40	23/32"	.7188-.6788	18.258-17.257
70440	ER40	3/4"	.7500-.7100	19.050-18.049
70445	ER40	25/32"	.7813-.7413	19.845-18.844
70450	ER40	13/16"	.8125-.7725	20.638-19.637
70455	ER40	27/32"	.8438-.8038	21.433-20.432
70460	ER40	7/8"	.8750-.8350	22.225-21.224
70465	ER40	29/32"	.9063-.8663	23.020-22.019
70470	ER40	15/16"	.9375-.8975	23.813-22.812
70475	ER40	13/32"	.9688-.9288	24.608-23.607
70480	ER40	1"	1.0000-.9600	25.400-24.399

Ultra-Precision ER Collets Sets *0.0001" T.I.R.*

- Collet accuracy: 0.0001" - 0.0002" T.I.R.
0.005mm - 5 microns
- Wide clamping ranges: 0.02" - 0.039" collapsibility
- Made of high-quality case hardened steel or long operating life and elasticity of collet



INCH

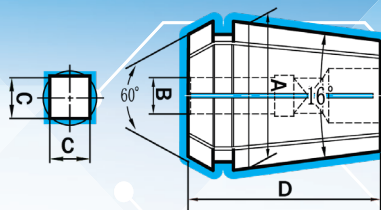
Item #	Series	Number of Pieces	Increments Inch	Set Includes
70485	ER16	12	1/32	1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 13/32
70490	ER20	8	1/16	3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2
70495	ER25	10	1/16	3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8
70500	ER32	12	1/16	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16
70505	ER40	15	1/16	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1



ER Rigid Tap Collets

0.0003" T.I.R.

- Collet accuracy: 0.0003" - 0.0004" T.I.R.
- Special design locks tap square in slots
- Shanks ASME B94.9-1999
- Collet holes made for tool shanks with H6 tolerance
- Collets do not collapse to the same degree as standard ER collets
- Slotted ER tap collets are designed to clamp both the round and square shank on the tap, providing greater rigidity and better tapping performance
- Made of high-quality case hardened steel for long operating life and elasticity of collet



Item #	Series	Tap Size Inch	Metric ANSI Shank Tap	Tap Shank Diameter	Drive Square Size
80000	ER16	#6	M1.6-M3.5	.141"	.110"
80005	ER16	#8	M4	.168"	.131"
80010	ER16	#10	M4.5, M5	.194"	.152"
80015	ER16	#12	-	.220"	.165"
80020	ER16	1/4"	M6, M6.3	.225"	.191"
80025	ER20	#6	M1.6-M3.5	.141"	.110"
80030	ER20	#8	M4	.168"	.131"
80035	ER20	#10	M4.5, M5	.194"	.152"
80040	ER20	#12	-	.220"	.165"
80045	ER20	1/4"	M6, M6.3	.225"	.191"
80050	ER20	5/16"	M7, M8	.318"	.238"
80055	ER20	3/8"	M10	.381"	.286"
80060	ER20	7/16"	M11	.323"	.242"
80065	ER20	1/2"	M12, M12.5	.367"	.275"
80070	ER25	#6	M1.6-M3.5	.141"	.110"
80075	ER25	#8	M4	.168"	.131"
80080	ER25	#10	M4.5, M5	.194"	.152"
80085	ER25	#12	-	.220"	.165"
80090	ER25	1/8" NPT	-	.437"	.328"
80095	ER25	1/4"	M6, M6.3	.255"	.191"
80100	ER25	5/16"	M7, M8	.318"	.238"
80105	ER25	3/8"	M10	.381"	.286"
80110	ER25	7/16"	M11	.323"	.242"
80115	ER25	1/2"	M12, M12.5	.367"	.275"
80120	ER25	9/16"	M14	.429"	.322"
80125	ER25	5/8"	M16	.480"	.360"
80130	ER32	#6	M1.6-M3.5	.141"	.110"
80135	ER32	#8	M4	.168"	.131"
80140	ER32	#10	M4.5, M5	.194"	.152"
80145	ER32	#12	-	.220"	.165"
80150	ER32	1/8" NPT	-	.437"	.328"

Item #	Series	Tap Size Inch	Metric ANSI Shank Tap	Tap Shank Diameter	Drive Square Size
80155	ER32	1/4" NPT	-	.562"	.421"
80160	ER32	1/4"	M6, M6.3	.255"	.191"
80165	ER32	5/16"	M7, M8	.318"	.238"
80170	ER32	3/8"	M10	.381"	.286"
80175	ER32	7/16"	M11	.323"	.242"
80180	ER32	1/2"	M12, M12.5	.367"	.275"
80185	ER32	9/16"	M14	.429"	.322"
80190	ER32	5/8"	M16	.480"	.360"
80195	ER32	11/16"	M18	.542"	.406"
80200	ER32	3/4"	-	.590"	.442"
80205	ER32	13/16"	M20	.562"	.489"
80210	ER40	#6	M1.6-M3.5	.141"	.110"
80215	ER40	#8	M4	.168"	.131"
80220	ER40	#10	M4.5, M5	.194"	.152"
80225	ER40	#12	-	.220"	.165"
80230	ER40	1/8" NPT	-	.437"	.328"
80235	ER40	1/4" NPT	-	.562"	.421"
80240	ER40	1/4"	M6, M6.3	.255"	.191"
80245	ER40	5/16"	M7, M8	.318"	.238"
80250	ER40	3/8" NPT	-	.700"	.531"
80255	ER40	3/8"	M10	.381"	.286"
80260	ER40	7/16"	M11	.323"	.242"
80265	ER40	1/2" NPT	-	.687"	.515"
80270	ER40	1/2"	M12, M12.5	.367"	.275"
80275	ER40	9/16"	M14	.429"	.322"
80280	ER40	5/8"	M16	.480"	.360"
80285	ER40	11/16"	M18	.542"	.406"
80290	ER40	3/4"	-	.590"	.442"
80295	ER40	13/16"	M20	.562"	.489"
80300	ER40	7/8"	-	.697"	.523"
80305	ER40	15/16"	M24	.760"	.570"
80310	ER40	1"	M25	.800"	.600"

Steel Sealed ER Collets

0.0003" T.I.R.

- Collet accuracy: 0.0003"- 0.0004" T.I.R.
- Collet capacity .118"-.236 or 3mm-6mm
- For optimal collet performance, use tools with shank diameter equal to the collet nominal size
- Coolant allowable pressure: 1,500 PSI
- Made of high-quality case hardened steel



INCH

Item #	Series	Nominal Size
80315	ER16	1/8"
80320	ER16	5/32"
80325	ER16	3/16"
80330	ER16	7/32"
80335	ER16	1/4"
80340	ER16	9/32"
80345	ER16	5/16"
80350	ER16	11/32"
80355	ER16	3/8"
80360	ER16	13/32"
80365	ER20	1/8"
80370	ER20	5/32"
80375	ER20	3/16"
80380	ER20	7/32"
80385	ER20	1/4"
80390	ER20	9/32"
80395	ER20	5/16"
80400	ER20	11/32"
80405	ER20	3/8"
80410	ER20	13/32"
80415	ER20	7/16"
80420	ER20	15/32"
80425	ER20	1/2"

Item #	Series	Nominal Size
80430	ER25	1/8"
80435	ER25	5/32"
80440	ER25	3/16"
80445	ER25	7/32"
80450	ER25	1/4"
80455	ER25	9/32"
80460	ER25	5/16"
80465	ER25	11/32"
80470	ER25	3/8"
80475	ER25	13/32"
80480	ER25	7/16"
80485	ER25	15/32"
80490	ER25	1/2"
80495	ER25	17/32"
80500	ER25	9/16"
80505	ER25	19/32"
80510	ER25	5/8"
80515	ER32	1/8"
80520	ER32	5/32"
80525	ER32	3/16"
80530	ER32	7/32"
80535	ER32	1/4"
80540	ER32	9/32"

Item #	Series	Nominal Size
80545	ER32	5/16"
80550	ER32	11/32"
80555	ER32	3/8"
80560	ER32	13/32"
80565	ER32	7/16"
80570	ER32	15/32"
80575	ER32	1/2"
80580	ER32	17/32"
80585	ER32	9/16"
80590	ER32	19/32"
80595	ER32	5/8"
80600	ER32	21/32"
80605	ER32	11/16"
80610	ER32	23/32"
80615	ER32	3/4"
80620	ER32	25/32"
80625	ER32	13/16"
80630	ER40	1/8"
80635	ER40	5/32"
80640	ER40	3/16"
80645	ER40	7/32"
80650	ER40	1/4"
80655	ER40	9/32"

Item #	Series	Nominal Size
80660	ER40	5/16"
80665	ER40	11/32"
80670	ER40	3/8"
80675	ER40	13/32"
80680	ER40	7/16"
80685	ER40	15/32"
80690	ER40	1/2"
80695	ER40	17/32"
80700	ER40	9/16"
80705	ER40	19/32"
80710	ER40	5/8"
80715	ER40	21/32"
80720	ER40	11/16"
80725	ER40	23/32"
80730	ER40	3/4"
80735	ER40	25/32"
80740	ER40	13/16"
80745	ER40	27/32"
80750	ER40	7/8"
80755	ER40	29/32"
80760	ER40	15/16"
80765	ER40	31/32"
80770	ER40	1"

Steel Sealed ER Collets Sets

0.0003" T.I.R.

INCH

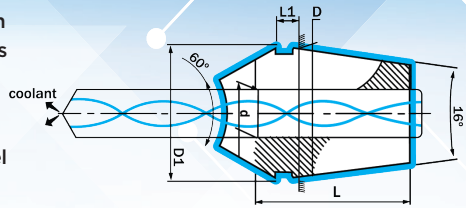


Item #	Series	Number of Pieces	Increments Inch	Set Includes
81180	ER16	10	1/32"	1/8, 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 13/32
81185	ER20	7	1/16"	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2
81190	ER25	9	1/16"	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8
81195	ER32	12	1/16"	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16
81200	ER32	18	1/32"	7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 13/32, 7/16, 15/32, 1/2, 17/32, 9/16, 19/32, 5/8, 21/32, 11/16, 23/32, 3/4
81205	ER40	15	1/16"	1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1

Steel Sealed ER Collets

0.0003" T.I.R.

- Collet accuracy: 0.0003"- 0.0004" T.I.R.
- Collet capacity .118"-.236 or 3mm-6mm
- For optimal collet performance, use tools with shank diameter equal to the collet nominal size
- Coolant allowable pressure: 1,500 PSI
- Made of high-quality case hardened steel



METRIC

Item #	Series	Nominal Size
80775	ER16	3.0mm
80780	ER16	3.5mm
80785	ER16	4.0mm
80790	ER16	4.5mm
80795	ER16	5.0mm
80800	ER16	5.5mm
80805	ER16	6.0mm
80810	ER16	6.5mm
80815	ER16	7.0mm
80820	ER16	7.5mm
80825	ER16	8.0mm
80830	ER16	8.5mm
80835	ER16	9.0mm
80840	ER16	9.5mm
80845	ER16	10.0mm
80850	ER20	3.0mm
80855	ER20	4.0mm
80860	ER20	5.0mm
80865	ER20	6.0mm
80870	ER20	7.0mm

Item #	Series	Nominal Size
80875	ER20	8.0mm
80880	ER20	9.0mm
80885	ER20	10.0mm
80890	ER20	11.0mm
80895	ER20	12.0mm
80900	ER20	13.0mm
80905	ER25	3.0mm
80910	ER25	4.0mm
80915	ER25	5.0mm
80920	ER25	6.0mm
80925	ER25	7.0mm
80930	ER25	8.0mm
80935	ER25	9.0mm
80940	ER25	10.0mm
80945	ER25	11.0mm
80950	ER25	12.0mm
80955	ER25	13.0mm
80960	ER25	14.0mm
80965	ER25	15.0mm
80970	ER25	16.0mm

Item #	Series	Nominal Size
80975	ER32	3.0mm
80980	ER32	4.0mm
80985	ER32	5.0mm
80990	ER32	6.0mm
80995	ER32	7.0mm
81000	ER32	8.0mm
81005	ER32	9.0mm
81010	ER32	10.0mm
81015	ER32	11.0mm
81020	ER32	12.0mm
81025	ER32	13.0mm
81030	ER32	14.0mm
81035	ER32	15.0mm
81040	ER32	16.0mm
81045	ER32	17.0mm
81050	ER32	18.0mm
81055	ER32	19.0mm
81060	ER32	20.0mm
81065	ER40	4.0mm
81070	ER40	5.0mm

Item #	Series	Nominal Size
81075	ER40	6.0mm
81080	ER40	7.0mm
81085	ER40	8.0mm
81090	ER40	9.0mm
81095	ER40	10.0mm
81100	ER40	11.0mm
81105	ER40	12.0mm
81110	ER40	13.0mm
81115	ER40	14.0mm
81120	ER40	15.0mm
81125	ER40	16.0mm
81130	ER40	17.0mm
81135	ER40	18.0mm
81140	ER40	19.0mm
81145	ER40	20.0mm
81150	ER40	21.0mm
81155	ER40	22.0mm
81160	ER40	23.0mm
81165	ER40	24.0mm
81170	ER40	25.0mm
81175	ER40	26.0mm

Steel Sealed ER Collets Sets

0.0003" T.I.R.

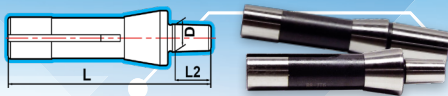


METRIC

Item #	Series	Number of Pieces	Increments Metric	Set Includes
81210	ER16	8	1.00mm	3, 4, 5, 6, 7, 8, 9, 10
81215	ER20	11	1.00mm	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,
81220	ER25	14	1.00mm	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
81225	ER32	18	1.00mm	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
81230	ER40	23	1.00mm	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

R8 Shank Drill Chuck Arbors

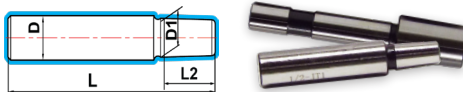
- Shank to taper runout <0.0001"
- Made of heat treated carbon steel



Item #	Shank Size	JT Size	L	L2	D
85360	R8	1JT	4.80"	0.69"	0.384"
85365	R8	2JT	5.04"	0.93"	0.559"
85370	R8	33JT	5.2"	1.075"	0.624"
85375	R8	3JT	5.39"	1.26"	0.858"
85380	R8	4JT	5.83"	1.675"	1.124"
85385	R8	6JT	5.39"	1.08"	0.676"

Straight Shank Drill Chuck Arbors

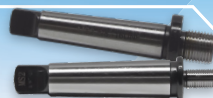
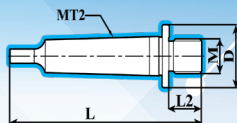
- Shank to taper runout <0.0001"
- Made of heat treated carbon steel
- Through coolant capable



Item #	Description	Shank Diameter D	JT Size	L	L2	D1
85255	1/2" TO JT0 SS DRILL CHUCK ARBOR	1/2"	0JT	3.09"	0.46"	0.25"
85260	1/2" TO JT1 SS DRILL CHUCK ARBOR	1/2"	1JT	3.31"	0.63"	0.384"
85265	1/2" TO JT2 SS DRILL CHUCK ARBOR	1/2"	2JT	3.54"	0.9"	0.559"
85270	1/2" TO JT33 SS DRILL CHUCK ARBOR	1/2"	33JT	3.66"	1.025"	0.624"
85275	1/2" TO JT3 SS DRILL CHUCK ARBOR	1/2"	3JT	3.66"	1.225"	0.811"
85280	1/2" TO JT4 SS DRILL CHUCK ARBOR	1/2"	4JT	4.31"	1.695"	1.124"
85285	1/2" TO JT6 SS DRILL CHUCK ARBOR	1/2"	6JT	3.66"	1.025"	0.676"
85290	5/8" TO JT1 SS DRILL CHUCK ARBOR	5/8"	1JT	3.31"	0.645"	0.384"
85295	5/8" TO JT2 SS DRILL CHUCK ARBOR	5/8"	2JT	3.54"	0.875"	0.559"
85300	5/8" TO JT33 SS DRILL CHUCK ARBOR	5/8"	33JT	3.66"	1"	0.624"
85305	5/8" TO JT3 SS DRILL CHUCK ARBOR	5/8"	3JT	3.88"	1.217"	0.811"
85310	5/8" TO JT6 SS DRILL CHUCK ARBOR	5/8"	6JT	3.66"	1.027"	0.676"
85315	3/4" TO JT2 SS DRILL CHUCK ARBOR	3/4"	2JT	3.54"	0.91"	0.559"
85320	3/4" TO JT33 SS DRILL CHUCK ARBOR	3/4"	33JT	3.66"	1.005"	0.624"
85325	3/4" TO JT3 SS DRILL CHUCK ARBOR	3/4"	3JT	3.88"	1.265"	0.811"
85330	3/4" TO JT4 SS DRILL CHUCK ARBOR	3/4"	4JT	4.31"	1.702"	1.124"
85335	3/4" TO JT6 SS DRILL CHUCK ARBOR	3/4"	6JT	3.66"	1.025"	0.676"
85340	1" TO JT33 SS DRILL CHUCK ARBOR	1"	33JT	3.66"	0.985"	0.624"
85345	1" TO JT3 SS DRILL CHUCK ARBOR	1"	3JT	3.88"	1.205"	0.811"
85350	1" TO JT4 SS DRILL CHUCK ARBOR	1"	4JT	4.31"	1.69"	1.124"
85355	1" TO JT6 SS DRILL CHUCK ARBOR	1"	6JT	3.66"	0.988"	0.676"

Morse Taper Threaded Drill Chuck Arbors

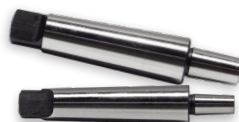
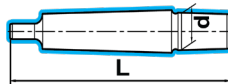
- Shank to taper runout <0.0001"
- Made of heat treated carbon steel



Item #	MT Shank Size	L Inch	L1 Inch	L2	D	MT Thread Size
85390	2	3.819"	0.531"	0.625"	0.944"	3/8"-24
85395	2	3.937"	0.610"	0.45"	1.062"	1/2"-20
85400	2	4.055"	0.689"	0.6"	1.141"	5/8"-16

Morse Taper with Tang Drill Chuck Arbors

- Shank to taper runout <0.0001"
- Made of heat treated carbon steel

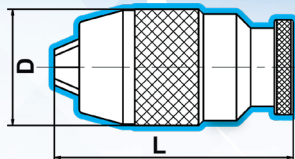


Item #	MT Shank Size	JT Size	L	L2	d
85120	1	0JT	3.11"	0.45"	0.25"
85125	1	1JT	3.346"	0.65"	0.384"
85130	1	2JT	3.543"	0.9"	0.559"
85135	1	33JT	3.700"	1.08"	0.624"
85140	1	6JT	3.701"	1.062"	0.676"
85145	2	0JT	3.701"	0.465"	0.25"
85150	2	1JT	3.937"	0.715"	0.384"
85155	2	2JT	4.134"	0.875"	0.559"
85160	2	33JT	4.252"	1.025"	0.624"
85165	2	3JT	4.488"	1.35"	0.811"
85170	2	4JT	4.921"	1.723"	1.124"
85175	2	6JT	4.252"	1"	0.676"
85180	3	1JT	4.646"	0.65"	0.384"
85185	3	2JT	4.882"	0.85"	0.559"
85190	3	33JT	5"	1.025"	0.624"
85195	3	3JT	5.236"	1.2"	0.811"
85200	3	4JT	5.669"	1.695"	1.124"
85205	3	5JT	5.866"	1.938"	1.413"
85210	3	6JT	5"	1.05"	0.676"
85215	4	2JT	5.866"	0.925"	0.559"
85220	4	33JT	5.984"	1.035"	0.624"
85225	4	3JT	6.22"	1.325"	0.811"
85230	4	4JT	6.654"	1.7"	1.124"
85235	4	5JT	6.850"	1.875"	1.413"
85240	4	6JT	5.984"	1.065"	0.676"
85245	5	3JT	7.480"	1.285"	0.811"
85250	5	4JT	7.913"	1.7"	1.124"

High-Precision Heavy-Duty Industrial Keyless Drill Chucks

10,000 RPM

- Nickel coated
- Self-tightening
- Heavy-duty
- High-precision +/- 0.0003" - 0.0006" runout
- Heat treated and precision ground to very tight tolerances

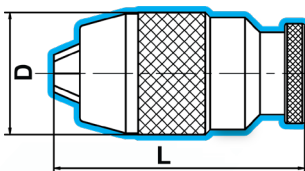


Item #	Capacity Inch	Capacity Metric	Taper Size	Runout	D	L
85075	1/64"-1/4"	0.2mm-6mm	JT1	0.003"	1.339"	2.780"
85080	1/64"-5/16"	0.2mm-8mm	JT2	0.003"	1.535"	3.165"
85085	1/64"-3/8"	0.2mm-8mm	JT2	0.003"	1.732"	3.551"
85090	1/64"-3/8"	0.2mm-10mm	JT33	0.003"	1.732"	3.551"
85095	1/64"-1/2"	0.2mm-10mm	JT2	0.003"	1.929"	3.551"
85100	1/64"-1/2"	0.2mm-13mm	JT33	0.003"	1.929"	3.961"
85105	1/64"-1/2"	0.2mm-13mm	JT6	0.003"	1.929"	3.961"
85110	1/64"-5/8"	0.2mm-16mm	JT6	0.003"	2.126"	4.417"
85115	1/64"-3/4"	0.2mm-20mm	JT3	0.003"	2.323"	5.177"

High-Precision Heavy-Duty Industrial Keyless Drill Chucks

4,000 RPM

- Self-tightening
- Heavy-duty
- High-precision +/- 0.0003" - 0.0006" runout
- Heat treated and precision ground to very tight tolerances

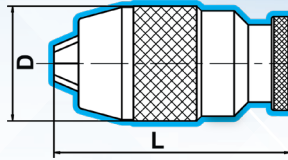


Item #	Capacity Inch	Capacity Metric	Taper Size	Runout	D	L
85035	1/64"-1/4"	0.2mm- 6mm	JT1	0.003"	1.339"	2.780"
85040	1/64"-3/8"	0.2mm-10mm	JT2	0.003"	1.732"	3.551"
85045	1/64"-3/8"	0.2mm-10mm	JT33	0.003"	1.732"	3.551"
85050	1/64"-1/2"	0.2mm-13mm	JT2	0.003"	1.929"	3.961"
85055	1/64"-1/2"	0.2mm-13mm	JT33	0.003"	1.929"	3.961"
85060	1/64"-1/2"	0.2mm-13mm	JT6	0.004"	1.929"	3.961"
85065	1/64"-5/8"	0.2mm-16mm	JT6	0.004"	2.126"	4.417"
85070	1/64"-3/4"	0.2mm-20mm	JT3	0.006"	2.323"	5.177"

High-Precision Standard-Accuracy Industrial Keyless Drill Chucks

4,000 RPM

- Self-tightening
- Heavy-duty
- High-precision
+/-0.0005" - 0.0006" runout
- Heat treated and precision
ground to very tight tolerances

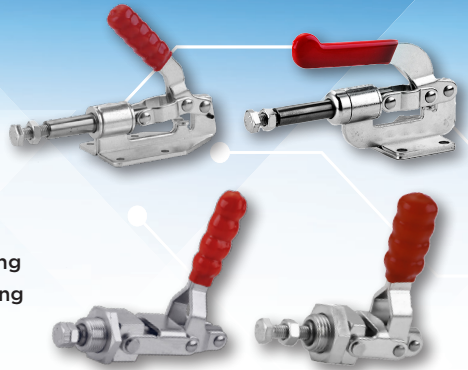


Item #	Capacity Inch	Capacity Metric	Taper Size	Runout	D	L
85000	1/64"-1/4"	0.2mm-6mm	JT1	0.005"	1.339"	2.780"
85005	1/64"-3/8"	0.2mm-10mm	JT2	0.004"	1.732"	3.551"
85010	1/64"-1/2"	0.2mm-13mm	JT6	0.005"	1.929"	3.961"
85015	1/64"-1/2"	0.2mm-13mm	JT2	0.005"	1.929"	3.961"
85020	1/64"-1/2"	0.2mm-13mm	JT33	0.005"	1.929"	3.961"
85025	1/64"-5/8"	0.2mm-16mm	JT6	0.005"	2.126"	4.417"
85030	1/64"-3/4"	0.2mm-20mm	JT3	0.006"	2.323"	5.177"

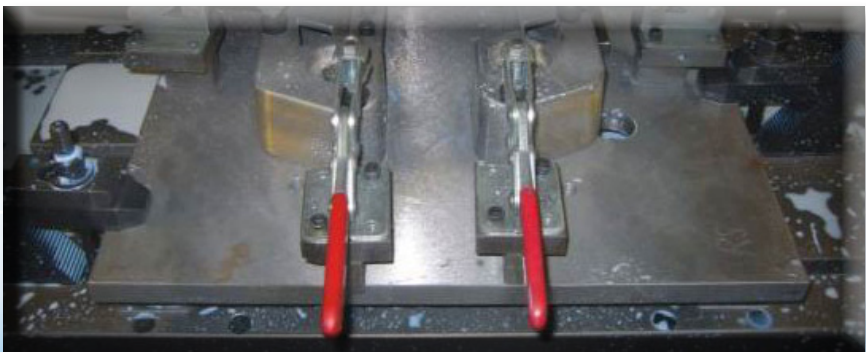


Push-Pull Toggle Clamps

- High-quality carbon steel
- Stainless steel models available
- Versatile and compact straight-line/ push-pull action clamps
- 100lbs-2500lbs
- Low-profile with high holding capacity
- Threaded body for through hole mounting
- Handle can rotate and fall below mounting position to lock in retracted position
- Ergonomic handle
- 100% USA quality control

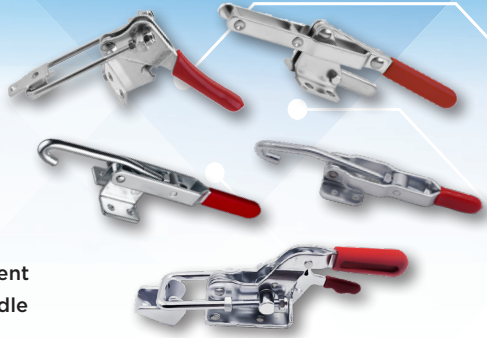


Item #	Competitor	Description
90000	601-M	100lb · M4 P=0.7 · FLANGE BASE · STRAIGHT-LINE CLAMP · METRIC THREAD
90005	601	100lb · FLANGE BASE · STRAIGHT-LINE CLAMP
90010	602-SS	200lb · 1/4"-20 · THREADED BODY · STRAIGHT-LINE CLAMP · STAINLESS STEEL
90015	602-MSS	200lb · M6 THREADED BODY · STRAIGHT-LINE CLAMP · STAINLESS STEEL
90020	602-MM	200lb · M6 · THREADED BODY · STRAIGHT-LINE CLAMP · METRIC THREAD
90025	602	200lb · 1/4"-20 · THREADED BODY · STRAIGHT-LINE CLAMP
90030	604-SS	300lb · 5/16"-18 · THREADED BODY · STRAIGHT-LINE CLAMP · STAINLESS STEEL
90035	604-MSS	300lb · M8 · THREADED BODY · STRAIGHT-LINE CLAMP · STAINLESS STEEL
90040	604-MM	300lb · M8 · THREADED BODY · STRAIGHT-LINE CLAMP · METRIC THREAD
90045	604	300lb · 5/16"-18 · THREADED BODY · STRAIGHT-LINE CLAMP
90050	605	300lb · FLANGE BASE · STRAIGHT-LINE CLAMP
90055	609	400lb · 5/16"-18 · FLANGE BASE · STRAIGHT-LINE CLAMP
90060	603-M	600lb · M8 · P=1.25 · BASE MOUNT · STRAIGHT-LINE CLAMP · METRIC THREAD
90065	603	600lb · 5/16"-18 · BASE MOUNT · 45 DEGREE HANDLE · STRAIGHT-LINE CLAMP · INTERNAL THREAD
90070	607	700lb · 5/16"-18 · FLANGE BASE · STRAIGHT-LINE CLAMP
90075	624-MM	700lb · M10 · P=1.5 · THREADED BODY · STRAIGHT-LINE CLAMP · METRIC THREAD
90080	624	700lb · 3/8"-16 · THREADED BODY · STRAIGHT-LINE CLAMP
90085	610-M	800lb · FLANGE BASE · STRAIGHT-LINE CLAMP
90090	608-M	850lb · M10 · P=1.5 · FLANGE BASE · STRAIGHT-LINE CLAMP · METRIC THREAD
90095	630-M	2500lb · FLANGE BASE · STRAIGHT-LINE CLAMP · METRIC THREAD

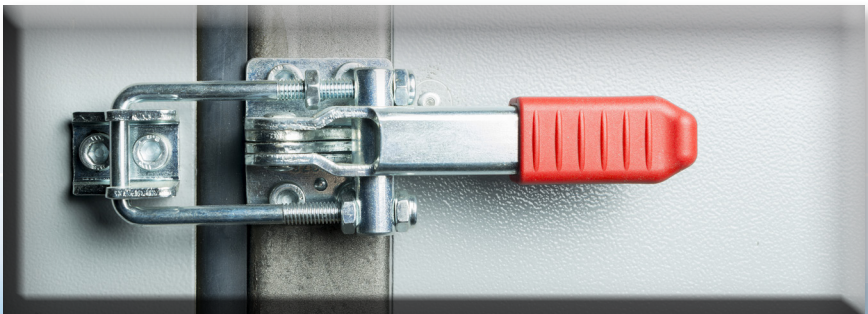


Latch Toggle Clamps

- High-quality carbon steel
- Stainless steel models available
- Hardened steel bushings
- 360lbs - 7500lbs
- Heavy and light-duty availability
- U-hook, J-hook and solid hook
- U-hook clamps supplied with fully threaded u-hooks for easy adjustment
- Offered with fixed stop to limit handle travel at various positions
- 100% USA quality control

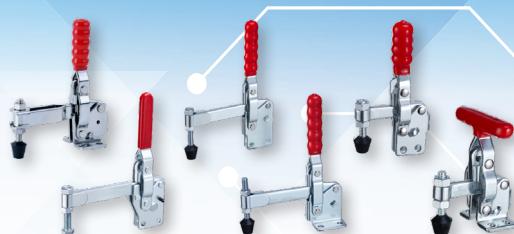


Item #	Competitor	Description
90100	323-SS	360lb · U-HOOK · FLANGE BASE · LATCH CLAMP · STAINLESS STEEL
90105	323	360lb · U-HOOK · FLANGE BASE · LATCH CLAMP
90110	351-SS	375lb · J-HOOK · FLANGE BASE · LATCH CLAMP · STAINLESS STEEL
90115	301	375lb · SOLID HOOK · FLANGE BASE · LATCH CLAMP
90120	351-B	375lb · J-HOOK · NARROW BASE · LATCH CLAMP
90125	351	375lb · J-HOOK · FLANGE BASE · LATCH CLAMP
90130	324-SS	500lb · VERTICAL · U-HOOK · FLANGE BASE · LATCH CLAMP · STAINLESS STEEL
90135	324	500lb · VERTICAL · U-HOOK · FLANGE BASE · LATCH CLAMP
90140		600lb · U-BOLT-5.25 · FLANGE BASE · LATCH CLAMP
90145	331-SS	700lb · U-HOOK · FLANGE BASE · LATCH CLAMP · STAINLESS STEEL
90150	331	700lb · U-HOOK · FLANGE BASE · LATCH CLAMP
90155	371	750lb · J-HOOK · FLANGE BASE · LATCH CLAMP
90160	334-SS	1000lb · VERTICAL U-HOOK · FLANGE BASE · LATCH CLAMP · STAINLESS STEEL
90165	381	1000lb · J-HOOK · FLANGE BASE · LATCH CLAMP
90170	334	1000lb · VERTICAL · U-HOOK · FLANGE BASE · LATCH CLAMP
90175	341-SS	2000lb · U-HOOK · FLANGE BASE · LATCH CLAMP · STAINLESS STEEL
90180	344	2000lb · VERTICAL · U-HOOK · FLANGE BASE · LATCH CLAMP
90185	341	2000lb · U-HOOK · FLANGE BASE · LATCH CLAMP
90190	341-R	2000lb · HORIZONTAL · FLANGE BASE · SELF-LOCKING · LATCH CLAMP · LATCH INCLUDED
90195	375	4000lb · U-HOOK · LATCH CLAMP · WITHOUT LATCH PLATE
90200	385	7500lb · U-HOOK · LATCH CLAMP · WITHOUT LATCH PLATE



Vertical Toggle Clamps

- High-quality carbon steel
- Stainless steel models available
- Hardened steel bushings
- 100lbs - 1200lbs
- Low-profile, t-handle options
- Smooth vertical action
- Ergonomic handle
- 100% USA quality control

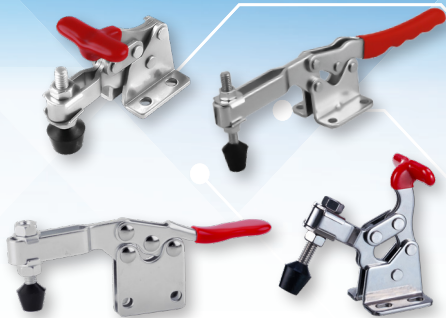


Item #	Competitor	Description
90205	201-USS	100lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90210	201-U	100lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90215	201-UB	100lb · U-BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90220	202-USS	200lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90225	202-T	200lb · SOLID BAR · FLANGED BASE · VERTICAL · T-HANDLE · HOLD-DOWN CLAMP
90230	202-UB	200lb · U-BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90235	202-B	200lb · FIXED SPINDLE · STRAIGHT HANDLE · VERTICAL · HOLD-DOWN CLAMP
90240	202-TU	200lb · FIXED SPINDLE · FLANGE BASE · T-HANDLE · VERTICAL · HOLD-DOWN CLAMP
90245	202	200lb · FIXBAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90250	202-U	200lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90255	317-U	225lb · U-BAR · DOUBLE FLANGE BASE · VERTICAL/HORIZONTAL · HOLD-DOWN CLAMP
90260	207-USS	500lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90265	207-ULB	500lb · LONG U-BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90270	207-LB	500lb · SOLID LONG BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90275	207-L	500lb · SOLID LONG BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90280	207-S	500lb · SOLID BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90285	207-SB	500lb · SOLID BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90290	207-UB	500lb · U-BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90295	207-UL	500lb · LONG U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90300	207-U	500lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90305	207-TU	500lb · T-HANDLE · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90310	210-UB	750lb · U-BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90315	210-S	750lb · SOLID BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90320	210-TU	750lb · U-BAR · FLANGE BASE · VERTICAL · T-HANDLE · HOLD-DOWN CLAMP
90325	210-SB	750lb · SOLID BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90330	210-U	750lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90335	247-SB	1000lb · SOLID BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90340	247-S	1000lb · SOLID BAR · FLANGED BASE · VERTICAL · HOLD-DOWN CLAMP
90345	247-UB	1000lb · U-BAR · STRAIGHT BASE · VERTICAL · HOLD-DOWN CLAMP
90350	247-U	1000lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90355	267-S	1200lb · SOLID BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP
90360	267-U	1200lb · U-BAR · FLANGE BASE · VERTICAL · HOLD-DOWN CLAMP

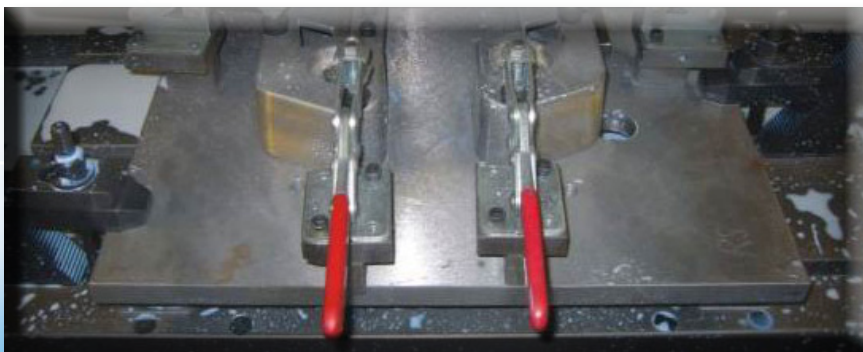


Horizontal Toggle Clamps

- High-quality carbon steel
- Stainless steel models available
- Hardened steel bushings
- 60lbs - 750lbs
- Heavy and light-duty availability
- Compact design, Ideal for confined spaces
- Low-profile options
- U-Bar and Solid Bar
- Variety of sizes for all applications
- Horizontal action
- Ergonomic handle
- 100% USA quality control



Item #	Competitor	Description
90365	205-USS	60lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90370	205-U	60lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90375	205-S	60lb · SOLID BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90380	205-SB	60lb · SOLID BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP
90385	205-UB	60lb · U-BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP
90390	305-USS	150lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90395	213-U	150lb · FLANGE BASE · U-BAR · LOW-PROFILE · HORIZONTAL TOGGLE CLAMP
90400	305-U	150lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD DOWN CLAMP
90405	215-SB	200lb · SOLID BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP
90410	215-U	200lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90415	215-S	200lb · SOLID BAR · FLANGED BASE · HORIZONTAL · HOLD-DOWN CLAMP
90420	215-UB	200lb · U-BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP
90425	307-U	300lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90430	307-USS	300lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90435	225-USS	500lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP · STAINLESS STEEL
90440	225-U	500lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90445	225-UB	500lb · U-BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP
90450	309-U	700lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90455	235-U	750lb · U-BAR · FLANGE BASE · HORIZONTAL · HOLD-DOWN CLAMP
90460	235-UB	750lb · U-BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP
90315	235-UB	750lb · U-BAR · STRAIGHT BASE · HORIZONTAL · HOLD-DOWN CLAMP



DOMINATOR

MACHINE TOOL ACCESSORIES

dominatormachinetools.com



5814 Heisley Road
Mentor, Ohio 44060
440-358-0236
1-888-900-5103
Mentor@shopsupply.net

1494 E. 361st Street
Eastlake, Ohio 44095
440-951-4700
Eastlake@shopsupply.net