



Milling Tools

Standard Product Offering

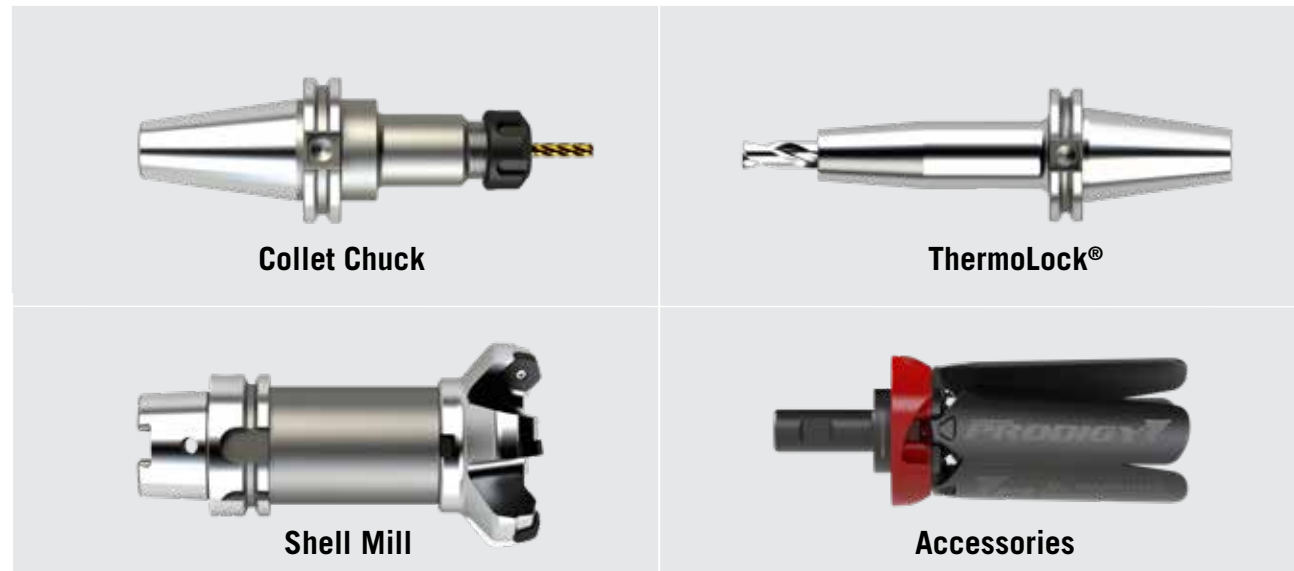
Performance
measured by you

Why Command

At Command Tooling Systems we design and manufacture precision CNC tool holding products for any industry ranging from your basic job shop to the high precision needs of the medical field.

By combining our advanced technologies with our global network, we are able to continually present new, improved, and innovative tooling options for all the industries we serve.

Command Tooling Systems Standard Product Offering for Milling Machines:



All tool types available for CT40, CT50, HSK63A, and HSK100A.

Additional tool types and shank sizes available per request.

Standard Product Offering

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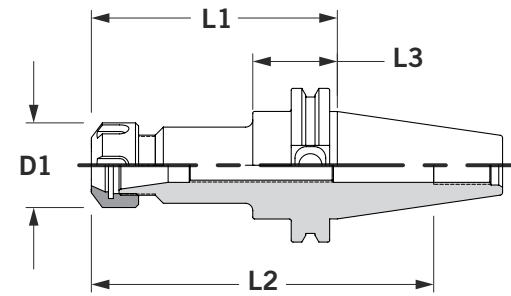
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ER Micro Precision® CT40

▶ ER Micro Precision® collet chucks have AT3 or better shank taper allowing accurate rigid tool holder-to-spindle mount. A wide range of collets are available: 0.020"-1.023" (0.5-26mm), reducing collet, and tool holder inventories. All ER Micro Precision® collet chuck tapers, lengths, and straight shank extensions are in stock and ready to ship.



Measurements are in inches unless noted (mm).

- + Has a flush precision closure nut that grips the tool close to the cutting edge providing accuracy and rigidity.
- + Concentric to 0.0002" T.I.R., which puts tool precisely on spindle centerline.
- + Has less tool wear and replacement resulting in less scrap.

- + Has a fully ground flange and V-groove reducing spindle and changer maintenance.
- + **NOTE:** No stop screws in ER11 holders.
- + **IMPORTANT:** Maximum recommended torque is listed on page 49. Do not over tighten collet nut assembly.

| OPTIONS | | ACCESSORIES | | | |
|-----------------|-----------------|-------------|----|----|----|
| BALANCE OPTIONS | COOLANT OPTIONS | | | | |
| Available | Available | 10-11 | 49 | 50 | 52 |

ER Micro Precision® CT40

| Shorty | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|--------|-------------|------|------|------|------|------|--------------|------------|
| | C4C1-0032 | ER32 | 1.97 | 0.83 | 1.90 | 0.75 | XCCW-P032INT | - |

| Stub | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|------|-------------|------|------|------|------|------|-----------|------------|
| | C4C3-0011 | ER11 | 0.63 | 2.00 | 3.50 | - | XCCW-D011 | - |
| | C4C3-0016 | ER16 | 1.26 | 2.00 | 2.50 | - | XCCW-D016 | XCCS-0720 |
| | C4C3-0020 | ER20 | 1.38 | 2.55 | 2.90 | 1.38 | XCCW-D020 | XCCS-1415 |
| | C4C3-0025 | ER25 | 1.64 | 2.50 | 3.00 | 1.08 | XCCW-D025 | XCCS-1815 |
| | C4C3-0032 | ER32 | 1.97 | 2.70 | 3.30 | 1.38 | XCCW-D032 | XCCS-2215 |
| | C4C3-0040 | ER40 | 2.48 | 3.00 | 2.20 | 1.44 | XCCW-0040 | XCCS-1816 |

| Standard | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|----------|-------------|------|------|------|------|------|-----------|------------|
| | C4C4-0011 | ER11 | 0.63 | 3.00 | 4.57 | 1.38 | XCCW-D016 | - |
| | C4C4-0016 | ER16 | 1.26 | 2.88 | 3.00 | 1.38 | XCCW-D016 | XCCS-0720 |
| | C4C4-0020 | ER20 | 1.38 | 4.00 | 3.50 | 1.38 | XCCW-D020 | XCCS-1415 |
| | C4C4-0025 | ER25 | 1.64 | 4.00 | 3.50 | 1.38 | XCCW-D025 | XCCS-1815 |
| | C4C4-0032 | ER32 | 1.97 | 4.00 | 4.00 | 1.44 | XCCW-D032 | XCCS-2215 |
| | C4C4-0040 | ER40 | 2.48 | 4.00 | 3.20 | 1.44 | XCCW-0040 | XCCS-1816 |

| Extended | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|----------|-------------|------|------|------|------|------|-----------|------------|
| | C4C5-0016 | ER16 | 1.26 | 4.88 | 3.00 | 1.38 | XCCW-D016 | XCCS-0720 |
| | C4C5-0020 | ER20 | 1.38 | 6.00 | 3.50 | 1.38 | XCCW-D020 | XCCS-1415 |
| | C4C5-0025 | ER25 | 1.64 | 6.00 | 3.50 | 1.38 | XCCW-D025 | XCCS-1815 |
| | C4C5-0032 | ER32 | 1.97 | 6.00 | 4.00 | 1.38 | XCCW-D032 | XCCS-2215 |
| | C4C5-0040 | ER40 | 2.48 | 6.00 | 5.00 | 1.44 | XCCW-0040 | XCCS-1816 |

+ **IMPORTANT:** For maximum recommended torque see page 49.

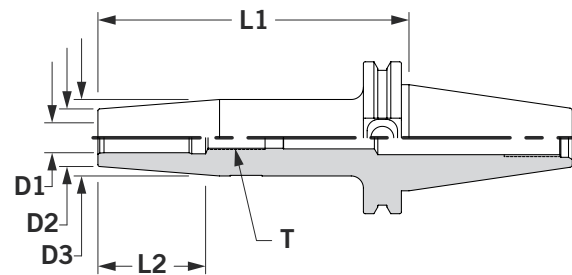
- + ER32 shorty collet chucks use ER32 collets made to precise specifications for tool shank sizes 0.079-0.787" (2.0mm-20.0mm).

- + ER32 shorty collet chucks have the shortest gage length with recessed collet nut design. No stop screws. No safe area.

ThermoLock® CT40

ThermoLock® CT40 Inch

▶ ThermoLock® tool holders offer excellent clamping ability by operating on the principle of thermal induced expansion and contraction. The holder is heated, expanding the nose I.D. to accept a cutting tool. When cooled, the nose I.D. shrinks resulting in incredible gripping power over the full length of the holder/cutting tool interface.



Measurements are in inches unless noted (mm).

- + Has a max T.I.R. of 0.0002" and are balanced to G2.5 @ 25,000 RPM. ThermoLock® tool holders also include adjustable balance screws.
- + Excellent clamping and balance repeatability for higher speeds and superior cut duplication.
- + Comes ready for through-the-spindle coolant. This sealed system yields optimal coolant-fed tooling performance.
- + **IMPORTANT:** Once a ThermoLock® tool holder has been heated, it cannot be returned.
- + Engineered for minimized loss of accuracy across the holder/cutting tool interface.
- + Once a ThermoLock® holder is balanced, the only variable is the cutting tool.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + Extended gage length tool holders have a parabolic profile to maximize rigidity.

| Stub | Part Number | D1 | D2 | D3 | L1 | L3 | T |
|------|-------------|-------|------|------|------|------|---------|
| | C4N3-0125 | 0.125 | 0.39 | - | 3.15 | - | - |
| | C4N3-0187 | 0.187 | 0.39 | - | 3.15 | - | - |
| | C4N3-0250 | 0.250 | 0.83 | 1.06 | 3.15 | 1.38 | M5 x 1 |
| | C4N3-0312 | 0.312 | 0.83 | 1.06 | 3.15 | 1.38 | M6 x 1 |
| | C4N3-0375 | 0.375 | 0.94 | 1.26 | 3.15 | 1.57 | M8 x 1 |
| | C4N3-0437 | 0.437 | 0.94 | 1.26 | 3.15 | 1.57 | M8 x 1 |
| | C4N3-0500 | 0.500 | 0.94 | 1.26 | 3.15 | 1.77 | M10 x 1 |
| | C4N3-0625 | 0.625 | 1.06 | 1.34 | 3.15 | 1.77 | M12 x 1 |
| | C4N3-0750 | 0.750 | 1.30 | 1.65 | 3.15 | 2.17 | M16 x 1 |
| | C4N3-1000 | 1.000 | 1.73 | 2.09 | 3.93 | 2.17 | M16 x 1 |
| | C4N3-1250 | 1.250 | 1.73 | 2.09 | 3.93 | 2.17 | M16 x 1 |

| Standard | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|----------|-------------|-------|------|------|------|------|---------|
| | C4N4-0250 | 0.250 | 0.83 | 1.06 | 5.12 | 1.38 | M5 x 1 |
| | C4N4-0312 | 0.312 | 0.83 | 1.06 | 5.12 | 1.38 | M6 x 1 |
| | C4N4-0375 | 0.375 | 0.94 | 1.26 | 5.12 | 1.57 | M8 x 1 |
| | C4N4-0437 | 0.437 | 0.94 | 1.26 | 5.12 | 1.57 | M8 x 1 |
| | C4N4-0500 | 0.500 | 0.94 | 1.26 | 5.12 | 1.77 | M10 x 1 |
| | C4N4-0625 | 0.625 | 1.06 | 1.34 | 5.12 | 1.77 | M12 x 1 |
| | C4N4-0750 | 0.750 | 1.30 | 1.65 | 5.12 | 2.17 | M16 x 1 |
| | C4N4-1000 | 1.000 | 1.73 | 2.09 | 5.12 | 2.17 | M16 x 1 |
| | C4N4-1250 | 1.250 | 1.73 | 2.09 | 5.12 | 2.17 | M16 x 1 |

| Extended | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|----------|-------------|-------|------|------|------|------|---------|
| | C4N5-0250 | 0.250 | 0.83 | 1.06 | 6.30 | 1.38 | M5 x 1 |
| | C4N5-0312 | 0.312 | 0.83 | 1.06 | 6.30 | 1.38 | M6 x 1 |
| | C4N5-0375 | 0.375 | 0.94 | 1.26 | 6.30 | 1.57 | M8 x 1 |
| | C4N5-0437 | 0.437 | 0.94 | 1.26 | 6.30 | 1.57 | M8 x 1 |
| | C4N5-0500 | 0.500 | 0.94 | 1.26 | 6.30 | 1.77 | M10 x 1 |
| | C4N5-0625 | 0.625 | 1.06 | 1.34 | 6.30 | 1.77 | M12 x 1 |
| | C4N5-0750 | 0.750 | 1.30 | 1.65 | 6.30 | 2.17 | M16 x 1 |
| | C4N5-1000 | 1.000 | 1.73 | 2.09 | 6.30 | 2.17 | M16 x 1 |
| | C4N5-1250 | 1.250 | 1.73 | 2.09 | 6.30 | 2.17 | M16 x 1 |

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

| ACCESSORIES | | |
|------------------------|------------------------|----|
| SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS | |
| 10-11 | 52 | 66 |

| ACCESSORIES | | |
|------------------------|------------------------|----|
| SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS | |
| 10-11 | 52 | 66 |

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

LATEST COMMAND INNOVATION

Making your job easier, one project at a time.



CNC Cleaning Fans

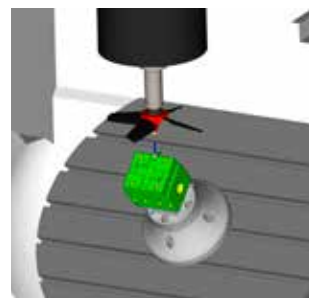
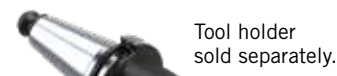


Operating Guide

► The Prodigy CNC cleaning fans are safe and easy to operate within the recommended RPM range in all CNC machining centers.

Step 1: Installation

+ Mount the Prodigy cleaning fan into your tool holder of choice and create length offset as needed. Make sure tool holder is rated for proper RPM.



Step 2: Programming

+ Based on your part geometry, program the cleaning fan similar to that of a facemill.

Step 3: Operation

+ As always, practice safe and good machining practices. Failure to do so could result in premature failure of the cleaning fan.



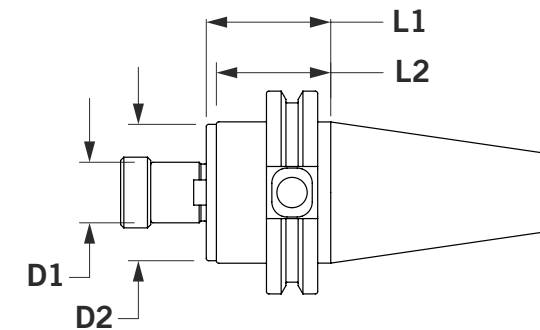
For product details see page 67.

CT40 Standard Product Offering



Shell Mill CT40

► Shell Mill holders' pilot diameter is sized for precision fit with cutter. Removable/replaceable drive keys included; fine thread locking screw included. All tapers and lengths are ready to ship. Get your tools fast!



Measurements are in inches unless noted (mm).

| Standard | Part Number | D1 | D2 | L1 | L2 | Drive Key | Lock Screw |
|----------|-------------|-------|------|------|------|-----------|------------|
| | C4S4-0500 | 0.500 | 1.44 | 1.50 | 1.38 | XSDK-0500 | XSAS-0500 |
| | C4S4-0750 | 0.750 | 1.69 | 1.50 | 1.38 | XSDK-0750 | XSAS-0750 |
| | C4S4-1000 | 1.000 | 2.19 | 2.06 | 1.44 | XSDK-1000 | XSAS-1000 |
| | C4S4-1250 | 1.250 | 2.75 | 2.63 | 1.44 | XSDK-1250 | XSAS-1250 |
| | C4S4-1500 | 1.500 | 3.81 | 3.00 | 1.44 | XSDK-1500 | XSAS-1500 |
| | C4S5-0500 | 0.500 | 1.44 | 3.50 | 1.37 | XSDK-0500 | XSAS-0500 |
| | C4S5-0750 | 0.750 | 1.69 | 3.50 | 1.38 | XSDK-0750 | XSAS-0750 |
| | C4S5-1000 | 1.000 | 2.19 | 4.00 | 1.44 | XSDK-1000 | XSAS-1000 |
| | C4S5-1250 | 1.250 | 2.75 | 4.00 | 1.44 | XSDK-1250 | XSAS-1250 |
| | C4S5-1500 | 1.500 | 3.81 | 4.00 | 1.44 | XSDK-1500 | XSAS-1500 |



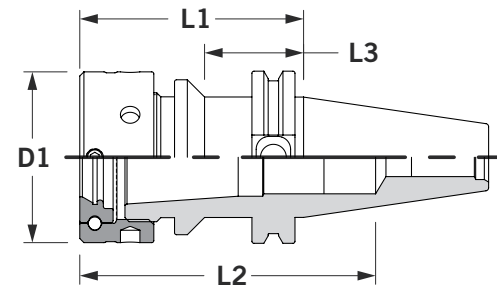
- + Face perpendicular to centerline within 0.0002".
- + Tool holder includes drive key and fine thread locking screw.
- + Part numbers for replacements listed on page 53.
- + **NOTE:** Drive keys are in line with drive slot.

- + AT3 or better shank taper for accurate rigid tool holder-to-spindle mount.
- + Less tool wear and replacement, less scrap.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + 2" and 2.5" Shell Mill holders also have four (4) 5/8"-11 threaded holes on a 4" bolt circle.

| ACCESSORIES | | | OPTIONS | |
|-------------|------------------------|----|-----------------|-----------------|
| | SETUP HOLDING FIXTURES | | BALANCE OPTIONS | COOLANT OPTIONS |
| 10-11 | 52 | 53 | Available | Available |

TG100 Comflex® CT40

► The key reason for the Comflex® collet system's accuracy and gripping power is a unique flush nut design. It incorporates a rotating ball assembly producing a "radial float." This, in effect, forces the collet to self-center for maximum grip, highest precision, and minimum tool wear.



Measurements are in inches unless noted (mm).

| TG100 | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|-------|-------------|-------|------|------|------|------|-----------|------------|
| | C4C3-1000 | TG100 | 2.48 | 2.75 | 3.14 | - | XCCW-1000 | XCCS-1816 |
| | C4C4-1000 | TG100 | 2.48 | 3.25 | 3.64 | 1.44 | XCCW-1000 | XCCS-1816 |
| | C4C5-1000 | TG100 | 2.48 | 4.25 | 4.64 | 2.25 | XCCW-1000 | XCCS-1816 |



- + TG100 collets range from 0.109"-1.000".
- + Provides the flexibility to mill, drill, and ream.
- + AT3 or better shank taper providing accurate, rigid tool holder-to-spindle mount.
- + **IMPORTANT:** Maximum recommended torque is 60 ft.-lb. Do not over tighten collet nut assembly.
- + Results in less tool wear and replacement resulting in less scrap.
- + Fully ground flange and V-groove, reducing spindle and changer maintenance.
- + Add -C at end of part number to specify stop screw with coolant passage.
- + Interchangeable with Erickson type collets.

| OPTIONS | | ACCESSORIES | | | | |
|-----------------|-----------------|-------------|----|----|----|------------------------|
| BALANCE OPTIONS | COOLANT OPTIONS | | | | | SETUP HOLDING FIXTURES |
| Available | Available | 10-11 | 49 | 50 | 50 | 52 |

Retention Knobs Domestic & Import Machines CT40



Measurements are in inches unless noted (mm).

| Domestic & Import Machines CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|-------------------------------------|-------------|-------|------|------|------|----|--------|--------------|-----------|
| | RB4E-0100 | CT40 | 0.59 | 0.39 | 1.05 | 90 | 5/8-11 | No | XRKW-0750 |
| | RB4E-0101 | CT40 | 0.59 | 0.39 | 0.98 | 90 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0104 | CT40 | 0.59 | 0.41 | 1.44 | 45 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0104-C | CT40 | 0.59 | 0.41 | 1.44 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0106 | CT40 | 0.59 | 0.39 | 1.38 | 45 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0109 | CT40 | 0.52 | 0.39 | 0.47 | 50 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0110 | CT40 | 0.98 | 0.83 | 0.99 | 75 | 5/8-11 | No | - |
| | RS4E-0111 | CT40 | 0.50 | 0.31 | 0.75 | 75 | 5/8-11 | No | - |
| | RS4E-0114-H | CT40 | 0.75 | 0.55 | 1.02 | 75 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0201 | CT40 | 0.50 | 0.31 | 0.87 | 75 | 5/8-11 | No | - |
| | RS4E-0203 | CT40 | 0.50 | 0.31 | 2.38 | 90 | 5/8-11 | No | - |
| | RS4E-0207 | CT40 | 0.74 | 0.48 | 0.87 | 75 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0208-C | CT40 | 0.74 | 0.49 | 0.64 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0209-C | CT40 | 0.74 | 0.55 | 1.03 | 75 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0211-C | CT40 | 0.74 | 0.49 | 0.64 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0212 | CT40 | 0.75 | 0.55 | 1.02 | 75 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0212-C | CT40 | 0.75 | 0.55 | 1.02 | 75 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0212-H | CT40 | 0.75 | 0.55 | 1.02 | 75 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0215-C | CT40 | 0.75 | 0.55 | 1.14 | 75 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0220-H | CT40 | 0.59 | 0.39 | 1.26 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0228-H | CT40 | 0.74 | 0.49 | 0.64 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0254-C | CT40 | 0.75 | 0.55 | 1.03 | 75 | 5/8-11 | Yes | XRKW-0750 |

+ **IMPORTANT:** Maximum recommended torque is 30.

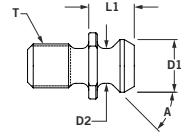
- + Avoid cost of damaged holder and spindles from incorrectly torqued retention knobs.
- + Retention knob wrench and torque wrench details listed on page 53.
- + For special retention knobs, contact Command Customer Service.
- + **NOTE:** Retention knobs are manufactured to the specifications of the machine tool builder and deviations from this could cause serious problems. If you are in doubt about an application, send us a print of the knob so that we may find the correct part. Please specify machine make and model and the tool holder shank being used when ordering.

Retention Knobs U.S. ANSI CT40



Measurements are in inches unless noted (mm).

| U.S. ANSI CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|--------------------|-------------|-------|------|------|------|----|--------|--------------|-----------|
| | RC4E-0002 | CT40 | 0.74 | 0.49 | 0.64 | 45 | 5/8-11 | No | XRKW-0750 |
| | RC4E-0001 | CT40 | 0.74 | 0.49 | 0.64 | 45 | 5/8-11 | Yes | XRKW-0750 |



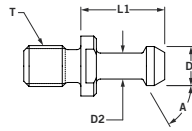
+ **IMPORTANT:** Maximum recommended torque is 30.

Retention Knobs MAS Style CT40



Measurements are in inches unless noted (mm).

| MAS Style CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|--------------------|-------------|-------|------|------|------|----|--------|--------------|-----------|
| | RB4E-0001 | CT40 | 0.59 | 0.39 | 1.27 | 45 | 5/8-11 | No | XRKW-0750 |
| | RB4E-0001-C | CT40 | 0.59 | 0.39 | 1.27 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RS4E-0221 | CT40 | 0.59 | 0.39 | 1.27 | 45 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0221-C | CT40 | 0.59 | 0.39 | 1.27 | 45 | 5/8-11 | Yes | XRKW-0750 |
| | RB4E-0002 | CT40 | 0.59 | 0.39 | 1.27 | 60 | 5/8-11 | No | XRKW-0750 |
| | RB4E-0002-C | CT40 | 0.59 | 0.39 | 1.27 | 60 | 5/8-11 | Yes | XRKW-0750 |
| | RB4E-0003 | CT40 | 0.59 | 0.39 | 1.27 | 90 | 5/8-11 | No | XRKW-0750 |
| | RB4E-0003-C | CT40 | 0.59 | 0.39 | 1.27 | 90 | 5/8-11 | Yes | XRKW-0750 |



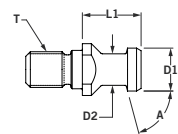
+ **IMPORTANT:** Maximum recommended torque is 30.

Retention Knobs DIN/ISO CT40



Measurements are in inches unless noted (mm).

| DIN/ISO CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|------------------|-------------|-------|------|------|------|----|--------|--------------|-----------|
| | RS4E-0114 | CT40 | 0.75 | 0.55 | 1.02 | 75 | 5/8-11 | No | XRKW-0750 |
| | RS4E-0114-C | CT40 | 0.75 | 0.55 | 1.02 | 75 | 5/8-11 | Yes | XRKW-0750 |

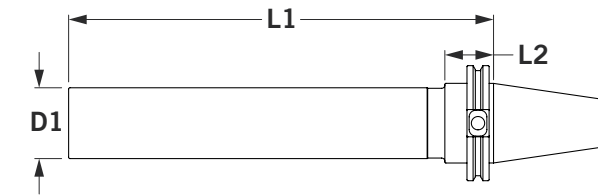


+ **IMPORTANT:** Maximum recommended torque is 30.

Test Bar CT40

► Our calibrated and certified precision test bars accurately align workpieces and/or holding fixtures. Test bars are hardened, normalized, and ground for reliable permanent accuracy. Wooden storage case included with test bar.

Nose specifications: Concentric to taper within .002" T.I.R.; diameter within .0002" over the entire length.



Measurements are in inches unless noted (mm).

| CT40 | Part Number | Taper | D1 | L1 |
|------|-------------|-------|------|-------|
| | C4W4-0004 | CT40 | 2.00 | 10.00 |



- + Wooden case with durable foam for maximum storage protection.
- + Includes an inspection certificate with measured dimensions for user reference.

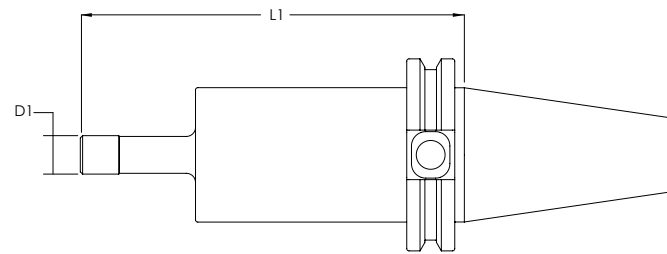
+ Tapers are precision ground to AT3 (or better) for accurate spindle run-out reading.

Calibration Kits CT40

- Our certified adapters are ready to be used to recalibrate any CT40 machines. These tools are precision ground for accurate readings to ensure best results. The kit includes a reusable foamed case, a certified ring gage, and a retention knob of your choice.



(Full Kit Shown)



Measurements are in inches unless noted (mm).

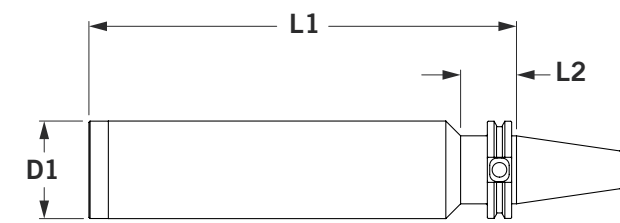
| Calibration Adapter | Part Number | D1 | L1 |
|---------------------|----------------|-------|------|
| | C4A4-0500 | 0.500 | 5.00 |
| | C4A4-0500-KIT1 | 0.500 | 5.00 |



- + Calibrate your table tool probe.
- + Available for CT40, CT50, HSK63A, and HSK100A.
- + Comes with carrying case.
- + Tools are laser marked with certified dimensions for quick setup.
- + Certification and ring gage included.
- + Comes with retention knob of your choice. See page 10-11

Blank Bars CT40

- Blank Bars have a case hardened shank, taper, and flange. Nose is unhardened for custom milling. Have a tool holder design that doesn't meet any standard holders? Blank bars are perfect for your custom applications. The nose is left unhardened for any creation. You design it. You fabricate it.



Measurements are in inches unless noted (mm).

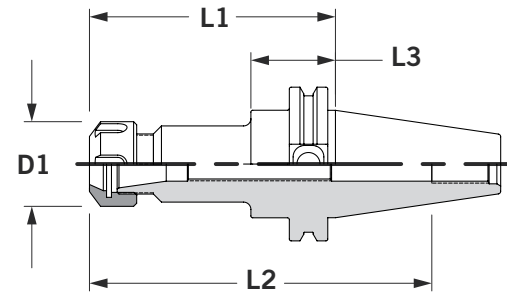
| Stub | Part Number | D1 | L1 | L2 |
|------|-------------|-------|-------|------|
| | C4X3-0004 | 2.500 | 6.00 | 1.44 |
| | C4X4-0004 | 2.500 | 11.00 | 1.44 |



- + Shank taper and flange are case hardened and precision ground. Nose is unhardened 8620 alloy steel machinable for making custom and emergency holders.
- + Precision internal center eases alignment.
- + Nose includes an indicator band for users to reference for accurate machining profiles.

ER Micro Precision® CT50

▶ ER Micro Precision® collet chucks have AT3 or better shank taper allowing accurate rigid tool holder-to-spindle mount. A wide range of collets are available: 0.020"-1.023" (0.5-26mm), reducing collet, and tool holder inventories. All ER Micro Precision® collet chuck tapers, lengths, and straight shank extensions are in stock and ready to ship.



Measurements are in inches unless noted (mm).

- + Has a flush precision closure nut that grips the tool close to the cutting edge providing accuracy and rigidity.
- + Concentric to 0.0002" T.I.R., which puts tool precisely on spindle centerline.
- + Has less tool wear and replacement resulting in less scrap.

- + Has a fully ground flange and V-groove, reducing spindle and changer maintenance.
- + **NOTE:** No stop screws in ER11 holders.
- + **IMPORTANT:** Maximum recommended torque is listed on page 49. Do not over-tighten collet nut assembly.

OPTIONS

| | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

ACCESSORIES

| | | | |
|-------|----|----|----|
| | | | |
| 22-23 | 49 | 50 | 52 |

ER Micro Precision® CT50

| Shorty | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|--------|-------------|------|------|------|------|------|--------------|------------|
| | C6C1-0032 | ER32 | 1.97 | 0.75 | 3.00 | 0.75 | XCCW-P032INT | - |

| Standard | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|----------|-------------|------|------|------|------|------|-----------|------------|
| | C6C4-0016 | ER16 | 1.26 | 4.88 | 7.13 | 1.38 | XCCW-D016 | XCCS-0720 |
| | C6C4-0020 | ER20 | 1.38 | 4.00 | 6.25 | 1.38 | XCCW-D020 | XCCS-1415 |
| | C6C4-0025 | ER25 | 1.64 | 4.00 | 6.25 | 1.38 | XCCW-D025 | XCCS-1815 |
| | C6C4-0032 | ER32 | 1.97 | 4.00 | 6.25 | 1.38 | XCCW-D032 | XCCS-2215 |
| | C6C4-0040 | ER40 | 2.48 | 4.00 | 6.25 | 1.38 | XCCW-0040 | XCCS-1816 |

| Extended | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|----------|-------------|------|------|------|------|------|-----------|------------|
| | C6C5-0016 | ER16 | 1.26 | 6.88 | 9.13 | 1.38 | XCCW-D016 | XCCS-0720 |
| | C6C5-0020 | ER20 | 1.38 | 6.00 | 8.30 | 1.38 | XCCW-D020 | XCCS-1415 |
| | C6C5-0025 | ER25 | 1.64 | 6.00 | 8.25 | 1.38 | XCCW-D025 | XCCS-1815 |
| | C6C5-0032 | ER32 | 1.97 | 6.00 | 8.25 | 1.38 | XCCW-D032 | XCCS-2215 |
| | C6C5-0040 | ER40 | 2.48 | 6.00 | 8.25 | 1.38 | XCCW-0040 | XCCS-1816 |

| Extra Extended | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|----------------|-------------|------|------|------|-------|------|-----------|------------|
| | C6C6-0020 | ER20 | 1.38 | 8.00 | 10.25 | 1.38 | XCCW-D020 | - |
| | C6C6-0032 | ER32 | 1.97 | 8.00 | 10.25 | 1.38 | XCCW-D032 | - |

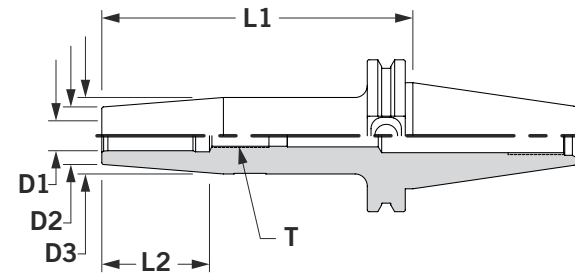
+ **IMPORTANT:** For maximum recommended torque see page 49.

- + ER32 shorty collet chucks use ER32 collets made to precise specifications for tool shank size 0.079"-0.787" (2.0mm - 20.0mm).

- + ER32 shorty collet chucks have the shortest gage length with recessed collet nut design. No stop screws. No safe area.

ThermoLock® CT50

▶ ThermoLock® tool holders offer excellent clamping ability by operating on the principle of thermal-induced expansion and contraction. The holder is heated, expanding the nose I.D. to accept a cutting tool. When cooled, the nose I.D. shrinks resulting in incredible gripping power over the full length of the holder/cutting tool interface.



Measurements are in inches unless noted (mm).

- + Has a max T.I.R. of 0.0002" and are balanced to G2.5 @ 25,000 RPM. ThermoLock® tool holders also include adjustable balance screws.
- + Excellent clamping and balance repeatability for higher speeds and superior cut duplication.
- + Comes ready for through-the-spindle coolant. This sealed system yields optimal coolant-fed tooling performance.
- + **IMPORTANT:** Once a ThermoLock® tool holder has been heated, it cannot be returned.
- + Engineered for minimized loss of accuracy across the holder/cutting tool interface.
- + Once a ThermoLock® holder is balanced, the only variable is the cutting tool.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + Extended gage length tool holders have a parabolic profile to maximize rigidity.

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

| ACCESSORIES | | |
|-------------|------------------------|------------------------|
| | SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS |
| | 22-23 | 52 66 |

ThermoLock® CT50 Inch

| Stub | Part Number | D1 | D2 | D3 | L1 | L3 | T |
|------|-------------|-------|------|------|------|------|---------|
| | C6N3-0250 | 0.250 | 0.83 | 1.06 | 3.15 | 1.38 | M5 x 1 |
| | C6N3-0312 | 0.312 | 0.83 | 1.06 | 3.15 | 1.38 | M6 x 1 |
| | C6N3-0375 | 0.375 | 0.94 | 1.26 | 3.15 | 1.57 | M8 x 1 |
| | C6N3-0437 | 0.437 | 0.94 | 1.26 | 3.15 | 1.57 | M8 x 1 |
| | C6N3-0500 | 0.500 | 0.94 | 1.26 | 3.15 | 1.77 | M10 x 1 |
| | C6N3-0625 | 0.625 | 1.06 | 1.34 | 3.15 | 1.77 | M12 x 1 |
| | C6N3-0750 | 0.750 | 1.30 | 1.65 | 3.15 | 2.17 | M16 x 1 |
| | C6N3-1000 | 1.000 | 1.73 | 2.09 | 3.93 | 2.17 | M16 x 1 |
| | C6N3-1250 | 1.250 | 1.73 | 2.09 | 3.93 | 2.17 | M16 x 1 |

| Standard | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|----------|-------------|-------|------|------|------|------|---------|
| | C6N4-0250 | 0.250 | 0.83 | 1.06 | 5.12 | 1.38 | M5 x 1 |
| | C6N4-0312 | 0.312 | 0.83 | 1.06 | 5.12 | 1.38 | M6 x 1 |
| | C6N4-0375 | 0.375 | 0.94 | 1.26 | 5.12 | 1.57 | M8 x 1 |
| | C6N4-0437 | 0.437 | 0.94 | 1.26 | 5.12 | 1.57 | M8 x 1 |
| | C6N4-0500 | 0.500 | 0.94 | 1.26 | 5.12 | 1.77 | M10 x 1 |
| | C6N4-0625 | 0.625 | 1.06 | 1.34 | 5.12 | 1.77 | M12 x 1 |
| | C6N4-0750 | 0.750 | 1.30 | 1.65 | 5.12 | 2.17 | M16 x 1 |
| | C6N4-1000 | 1.000 | 1.73 | 2.09 | 5.12 | 2.17 | M16 x 1 |
| | C6N4-1250 | 1.250 | 1.73 | 2.09 | 5.12 | 2.17 | M16 x 1 |

| Extended | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|----------|-------------|-------|------|------|------|------|---------|
| | C6N5-0250 | 0.250 | 0.83 | 1.06 | 6.30 | 1.38 | M5 x 1 |
| | C6N5-0312 | 0.312 | 0.83 | 1.06 | 6.30 | 1.38 | M6 x 1 |
| | C6N5-0375 | 0.375 | 0.94 | 1.26 | 6.30 | 1.57 | M8 x 1 |
| | C6N5-0437 | 0.437 | 0.94 | 1.26 | 6.30 | 1.57 | M8 x 1 |
| | C6N5-0500 | 0.500 | 0.94 | 1.26 | 6.30 | 1.77 | M10 x 1 |
| | C6N5-0625 | 0.625 | 1.06 | 1.34 | 6.30 | 1.77 | M12 x 1 |
| | C6N5-0750 | 0.750 | 1.30 | 1.65 | 6.30 | 2.17 | M16 x 1 |
| | C6N5-1000 | 1.000 | 1.73 | 2.09 | 6.30 | 2.17 | M16 x 1 |
| | C6N5-1250 | 1.250 | 1.73 | 2.09 | 6.30 | 2.17 | M16 x 1 |

| ACCESSORIES | | |
|-------------|------------------------|------------------------|
| | SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS |
| | 22-23 | 52 66 |

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

THE LATEST COMMAND INNOVATION

Making your job easier, one project at a time.



Collet Chuck Tool Fixtures for CT40 & CT50

Lock and Unlock in *Seconds!*

Ease of Use

► Fastest and easiest change-out of tooling on the market today! Gemini's heavy-duty construction make this tool fixture extremely rigid to endure extreme forces without causing any damage. Each tool can be locked-in easily, quickly, and precisely set with just the push of two buttons... it doesn't get any *easier* or *faster* than that. Shown below is the G2 tool fixture for the CT40 and CT50.



Step 1: Insert Tool
+ Place tooling inside tool fixture.



Step 2: Lock-in System
+ Place thumbs on both buttons. Push down to securely and accurately lock-in tool.



Step 3: Unlock Tool
+ Place fingers on each securely locked button. Push both buttons upward to quickly and easily unfasten tool.



Step 4: Remove Tool
+ Easily remove calibrated tool... *it's that easy!*

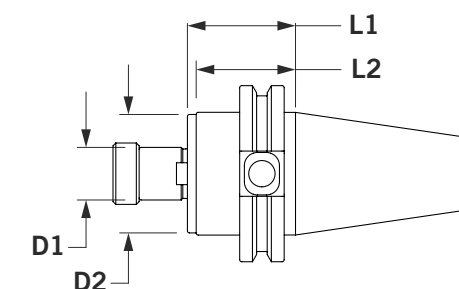


CT50 Standard Product Offering



Shell Mill CT50

► Shell Mill holder's pilot diameter is sized for precision fit with cutter. Removable/replaceable drive keys included; fine thread locking screw included. All tapers and lengths are ready to ship. Get your tools fast!



Measurements are in inches unless noted (mm).

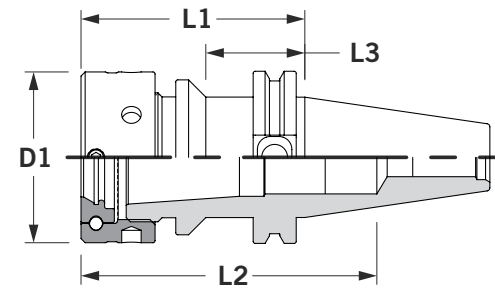
| Standard | Part Number | D1 | D2 | L1 | L2 | Drive Key | Lock Screw |
|----------------|-------------|-------|------|------|------|-----------|------------|
| | C6S4-0500 | 0.500 | 1.44 | 1.50 | 1.38 | XSDK-0500 | XSAS-0500 |
| | C6S4-0750 | 0.750 | 1.69 | 1.50 | 1.38 | XSDK-0750 | XSAS-0750 |
| | C6S4-1000 | 1.000 | 2.19 | 2.00 | 1.38 | XSDK-1000 | XSAS-1000 |
| | C6S4-1250 | 1.250 | 2.75 | 1.50 | N/A | XSDK-1250 | XSAS-1250 |
| | C6S4-1500 | 1.500 | 3.81 | 2.50 | 1.44 | XSDK-1500 | XSAS-1500 |
| | C6S4-2000 | 2.000 | 4.88 | 3.00 | 1.44 | XSDK-2000 | XSAS-2000 |
| | C6S4-2500 | 2.500 | 4.88 | 2.40 | 1.44 | XSDK-2500 | XSAS-2500 |
| Extended | Part Number | D1 | D2 | L1 | L2 | Drive Key | Lock Screw |
| | C6S5-0500 | 0.500 | 1.44 | 3.50 | 1.38 | XSDK-0500 | XSAS-0500 |
| | C6S5-0750 | 0.750 | 1.69 | 3.50 | 1.38 | XSDK-0750 | XSAS-0750 |
| | C6S5-1000 | 1.000 | 2.19 | 4.00 | 1.38 | XSDK-1000 | XSAS-1000 |
| | C6S5-1250 | 1.250 | 2.75 | 3.50 | N/A | XSDK-1250 | XSAS-1250 |
| | C6S5-1500 | 1.500 | 3.81 | 4.00 | 1.44 | XSDK-1500 | XSAS-1500 |
| | C6S5-2000 | 2.000 | 4.88 | 4.00 | 1.44 | XSDK-2000 | XSAS-2000 |
| | C6S5-2500 | 2.500 | 4.88 | 4.00 | 1.44 | XSDK-2500 | XSAS-2500 |
| Extra Extended | Part Number | D1 | D2 | L1 | L2 | Drive Key | Lock Screw |
| | C6S6-0500 | 0.500 | 1.44 | 5.50 | 1.38 | XSDK-0500 | XSAS-0500 |
| | C6S6-0750 | 0.750 | 1.69 | 5.50 | 1.38 | XSDK-0750 | XSAS-0750 |
| | C6S6-1000 | 1.000 | 2.19 | 6.00 | 1.38 | XSDK-1000 | XSAS-1000 |
| | C6S6-1250 | 1.250 | 2.75 | 5.50 | N/A | XSDK-1250 | XSAS-1250 |
| | C6S6-1500 | 1.500 | 3.81 | 6.00 | 1.44 | XSDK-1500 | XSAS-1500 |
| | C6S6-2000 | 2.000 | 4.88 | 6.00 | 1.44 | XSDK-2000 | XSAS-2000 |

- + Face perpendicular to centerline within 0.0002".
- + Tool holder includes drive key and fine thread locking screw.
- + AT3 or better shank taper for accurate rigid tool holder-to-spindle mount.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.

| ACCESSORIES | | | OPTIONS | |
|-------------|------------------------|----|-----------------|-----------------|
| | SETUP HOLDING FIXTURES | | BALANCE OPTIONS | COOLANT OPTIONS |
| 22-23 | 52 | 53 | Available | Available |

TG100 & TG150 Comflex® CT50

► The key reason for the Comflex® collet system's accuracy and gripping power is a unique flush nut design. It incorporates a rotating ball assembly producing a "radial float." This, in effect, forces the collet to self-center for maximum grip, highest precision, and minimum tool wear.



Measurements are in inches unless noted (mm).

| TG100 & TG150 | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---------------|-------------|-------|------|------|------|------|-----------|------------|
| | C6C3-1000 | TG100 | 2.48 | 2.75 | 4.47 | 1.38 | XCCW-1000 | XCCS-1816 |
| | C6C4-1000 | TG100 | 2.48 | 3.25 | 5.00 | 1.38 | XCCW-1000 | XCCS-1816 |
| | C6C5-1000 | TG100 | 2.48 | 5.25 | 6.84 | 1.38 | XCCW-1000 | XCCS-1816 |
| | C6C6-1000 | TG100 | 2.48 | 7.25 | 7.00 | 1.38 | XCCW-1000 | XCCS-1816 |
| | C6C4-1500 | TG150 | 3.46 | 3.50 | 5.29 | N/A | XCCW-1500 | XCCS-2612 |
| | C6C5-1500 | TG150 | 3.46 | 5.54 | 7.00 | N/A | XCCW-1500 | XCCS-2612 |
| | C6C6-1500 | TG150 | 3.46 | 7.50 | 7.00 | N/A | XCCW-1500 | XCCS-2612 |

- + TG100 Collets range from 0.109"-1.500". TG150 Collets range from 1.234"-1.000".
- + Provide the flexibility to mill, drill, and ream.
- + Has an AT3 or better shank taper providing accurate, rigid tool holder-to-spindle mount.
- + **IMPORTANT:** Maximum recommended torque is 60 ft.-lb. Do not over-tighten collet nut assembly.
- + Result in less tool wear and replacement resulting in less scrap.
- + Has a fully ground flange and V-groove, reducing spindle and changer maintenance.
- + Add -C at end of part number to specify stop screw with coolant passage.
- + Comflex® TG collets are interchangeable with Erickson-type collets.

| OPTIONS | | ACCESSORIES | | | | |
|-----------------|-----------------|-------------|----|----|----|----|
| BALANCE OPTIONS | COOLANT OPTIONS | | | | | |
| Available | Available | 22-23 | 49 | 50 | 53 | 52 |

Domestic & Import Machines CT50



Measurements are in inches unless noted (mm).

| Domestic & Import Machines CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|-------------------------------------|-------------|-------|------|------|------|--------|-----|--------------|-----------|
| | RB6E-0100 | CT50 | 0.90 | 0.67 | 1.78 | 90 | 1-8 | No | XRKW-0750 |
| | RS6E-0101 | CT50 | 0.94 | 0.71 | 1.23 | 90 | 1-8 | No | XRKW-1187 |
| | RS6E-0101-C | CT50 | 0.94 | 0.71 | 1.23 | 90 | 1-8 | Yes | XRKW-1187 |
| | RS6E-0102-C | CT50 | 0.95 | 0.70 | 2.49 | 0.22 R | 1-8 | Yes | XRKW-1250 |
| | RS6E-0103-C | CT50 | 0.95 | 0.70 | 3.48 | 0.22 R | 1-8 | Yes | XRKW-1250 |
| | RS6E-0204-C | CT50 | 1.14 | 0.82 | 1.00 | 45 | 1-8 | Yes | XRKW-1187 |
| | RS6E-0214-H | CT50 | 0.75 | 0.57 | 1.78 | 60 | 1-8 | Yes | XRKW-0750 |
| | RS6E-0232-H | CT50 | 0.90 | 0.66 | 1.78 | 45 | 1-8 | Yes | XRKW-1187 |
| | RS6E-0242-H | CT50 | 0.90 | 0.66 | 1.78 | 60 | 1-8 | Yes | XRKW-1187 |

+ **IMPORTANT:** Maximum recommended torque is 30.

Retention Knobs U.S. ANSI CT50



Measurements are in inches unless noted (mm).

| U.S. ANSI CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|--------------------|-------------|-------|------|------|------|----|-----|--------------|-----------|
| | RC6E-0002 | CT50 | 1.14 | 0.83 | 1.00 | 45 | 1-8 | No | XRKW-1187 |
| | RC6E-0001 | CT50 | 1.14 | 0.83 | 1.00 | 45 | 1-8 | Yes | XRKW-1187 |

+ **IMPORTANT:** Maximum recommended torque is 30.

- + Avoid cost of damaged holder and spindles from incorrectly torqued retention knobs.
- + Retention knob wrench and torque wrench details listed on page 53.
- + For special retention knobs, contact Command Customer Service.
- + **NOTE:** Retention knobs are manufactured to the specifications of the machine tool builder and deviations from this could cause serious problems. If you are in doubt about an application, send us a print of the knob so that we may find the correct part. Please specify machine make and model and the tool holder shank being used when ordering.

Retention Knobs MAS Style CT50



Measurements are in inches unless noted (mm).

| MAS Style CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|--------------------|-------------|-------|------|------|------|----|-----|--------------|-----------|
| | RB6E-0001 | CT50 | 0.91 | 0.67 | 1.78 | 45 | 1-8 | No | XRKW-1187 |
| | RB6E-0001-C | CT50 | 0.91 | 0.67 | 1.78 | 45 | 1-8 | Yes | XRKW-1187 |
| | RB6E-0002 | CT50 | 0.91 | 0.67 | 1.78 | 60 | 1-8 | No | XRKW-1187 |
| | RB6E-0002-C | CT50 | 0.91 | 0.67 | 1.78 | 60 | 1-8 | Yes | XRKW-1187 |
| | RB6E-0003 | CT50 | 0.91 | 0.67 | 1.78 | 90 | 1-8 | No | XRKW-1187 |
| | RB6E-0003-C | CT50 | 0.91 | 0.67 | 1.78 | 90 | 1-8 | Yes | XRKW-1187 |

+ **IMPORTANT:** Maximum recommended torque is 30.

Retention Knobs DIN/ISO CT50



Measurements are in inches unless noted (mm).

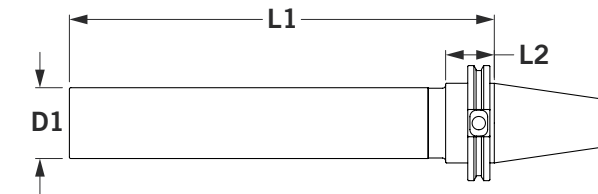
| DIN/ISO CT Taper | Part Number | Taper | D1 | D2 | L1 | A | T | Thru Coolant | Wrench |
|------------------|-------------|-------|------|------|------|----|-----|--------------|-----------|
| | RS6E-0114 | CT50 | 1.10 | 0.83 | 1.34 | 75 | 1-8 | No | XRKW-1187 |
| | RS6E-0114-C | CT50 | 1.10 | 0.83 | 1.34 | 75 | 1-8 | Yes | XRKW-1187 |

+ **IMPORTANT:** Maximum recommended torque is 30.

Test Bar CT50

- Our calibrated and certified precision test bars accurately align workpieces and/or holding fixtures. Test bars are hardened, normalized, and ground for reliable permanent accuracy. Wooden storage case included with test bar.

Nose specifications: Concentric to taper within .002" T.I.R.; diameter within .0002" over the entire length.



Measurements are in inches unless noted (mm).

| CT50 | Part Number | Taper | D1 | L1 |
|------|-------------|-------|------|-------|
| | C6W4-0006 | CT50 | 2.00 | 12.00 |



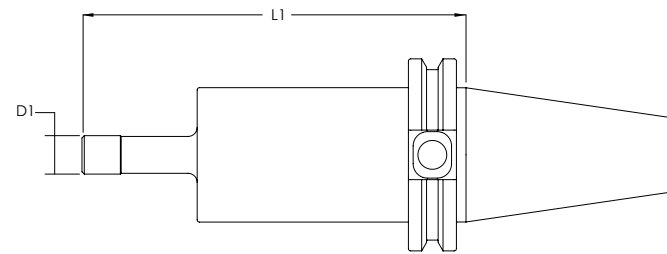
- + Wooden case with durable foam for maximum storage protection.
- + Tapers are precision ground to AT3 (or better) for accurate spindle run out reading.
- + Includes an inspection certificate with measured dimensions for user reference.

Calibration Kits CT50

- ▶ Our certified adapters are ready to be used to recalibrate any CT50 machines. These tools are precision ground for accurate readings to ensure best results. The kit includes a reusable foamed case, a certified ring gage, and a retention knob of your choice.



(Full Kit Shown)



Measurements are in inches unless noted (mm).

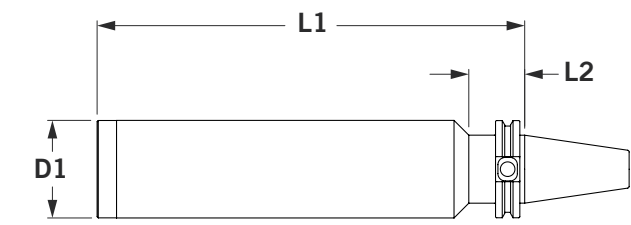
| Calibration Adapter | Part Number | D1 | L1 |
|---------------------|----------------|-------|------|
| | C6A4-0500 | 0.500 | 5.00 |
| | C6A4-0500-KIT1 | 0.500 | 5.00 |



- + Calibrate your table tool probe.
- + Available for CT40, CT50, HSK63A, and HSK100A.
- + Comes with carrying case.
- + Tools are laser marked with certified dimensions for quick setup.
- + Certification and ring gage included.
- + Comes with retention knob of your choice. See pages 22-23

Blank Bars CT50

- ▶ Blank Bars have a case hardened shank taper and flange. Nose is unhardened for custom milling. Have a tool holder design that doesn't meet any standard holders? Blank bars are perfect for your custom applications. These blanks have a case hardened shank taper and flange. The nose is left unhardened for any creation. You design it. You fabricate it.



Measurements are in inches unless noted (mm).

| Stub | Part Number | D1 | L1 | L2 |
|------|-------------|-------|-------|------|
| | C6X3-0006 | 3.875 | 6.00 | 1.44 |
| | C6X4-0006 | 3.875 | 11.00 | 1.44 |




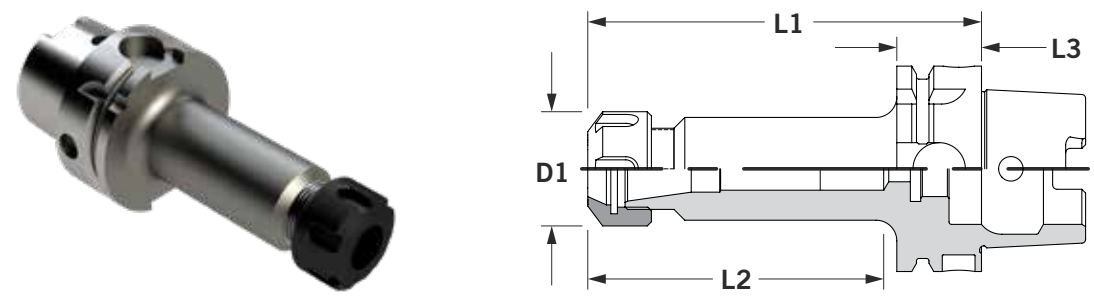
- + Shank taper and flange are case hardened and precision ground. Nose is unhardened 8620 alloy steel machinable for making custom and emergency holders.
- + Precision internal center eases alignment.
- + Nose includes an indicator band for users to reference for accurate machining profiles.

ER Micro Precision® HSK63A


ER Micro Precision® HSK63A


▶ ER Micro Precision® collet chucks have AT3 or better shank taper allowing accurate rigid tool holder-to-spindle mount. A wide range of collets are available: 0.020"-1.023" (0.5-26mm), reducing collet, and tool holder inventories. All ER Micro Precision® collet chuck tapers, lengths, and straight shank extensions are in stock and ready to ship.

| Stub | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|------|------|------|------|------|-----------|------------|
|  | H4C3A0011 | ER11 | 0.63 | 2.00 | 1.10 | 1.02 | XCCW-D011 | - |
| | H4C3A0016 | ER16 | 1.26 | 2.50 | 1.30 | 1.02 | XCCW-D016 | - |
| | H4C3A0020 | ER20 | 1.38 | 2.75 | 1.40 | 1.02 | XCCW-D020 | - |
| | H4C3A0025 | ER25 | 1.64 | 3.00 | 1.70 | 1.02 | XCCW-D025 | - |
| | H4C3A0032 | ER32 | 1.97 | 3.25 | 1.80 | 1.02 | XCCW-D032 | - |
| | H4C3A0040 | ER40 | 2.48 | 3.15 | 1.75 | 1.02 | XCCW-0040 | - |



Measurements are in inches unless noted (mm).

| Standard | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|------|------|------|------|------|-----------|------------|
|  | H4C4A0011 | ER11 | 0.63 | 4.00 | 3.10 | 1.02 | XCCW-D011 | - |
| | H4C4A0016 | ER16 | 1.26 | 4.50 | 2.00 | 1.02 | XCCW-D016 | XCCS-0720 |
| | H4C4A0020 | ER20 | 1.38 | 4.75 | 2.40 | 1.02 | XCCW-D020 | XCCS-1415 |
| | H4C4A0025 | ER25 | 1.64 | 5.00 | 2.80 | 1.02 | XCCW-D025 | XCCS-1815 |
| | H4C4A0032 | ER32 | 1.97 | 5.25 | 2.80 | 1.02 | XCCW-D032 | XCCS-2215 |
| | H4C4A0040 | ER40 | 2.48 | 4.72 | 2.50 | 1.02 | XCCW-0040 | XCCS-1816 |

| Extended | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|------|------|------|------|------|-----------|------------|
|  | H4C5A0016 | ER16 | 1.26 | 4.88 | 3.00 | 1.38 | XCCW-D016 | XCCS-0720 |
| | H4C5A0020 | ER20 | 1.38 | 6.00 | 3.50 | 1.38 | XCCW-D020 | XCCS-1415 |
| | H4C5A0025 | ER25 | 1.64 | 6.00 | 3.50 | 1.38 | XCCW-D025 | XCCS-1815 |
| | H4C5A0032 | ER32 | 1.97 | 6.00 | 4.00 | 1.38 | XCCW-D032 | XCCS-2215 |

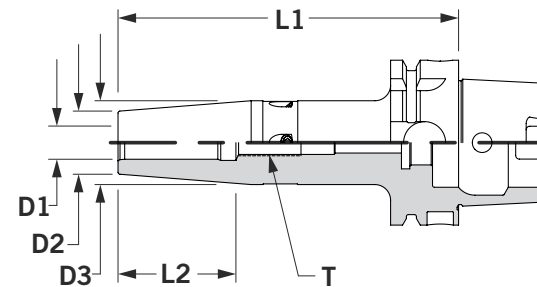
+ **IMPORTANT:** For maximum recommended torque see page 49.

- + Has a flush precision closure nut that grips the tool close to the cutting edge providing accuracy and rigidity.
- + Concentric to 0.0002" T.I.R., which puts tool precisely on spindle centerline.
- + Has less tool wear and replacement resulting in less scrap.
- + Has a fully ground flange and V-groove, reducing spindle and changer maintenance.
- + **NOTE:** No stop screws in ER11 holders.
- + **IMPORTANT:** Maximum recommended torque is listed on page 49. Do not over-tighten collet nut assembly.

| OPTIONS | | ACCESSORIES | | | |
|-----------------|-----------------|-----------------|---|---|------------------------|
| BALANCE OPTIONS | COOLANT OPTIONS | HSK Accessories |  |  | SETUP HOLDING FIXTURES |
| Available | Available | 45 | 49 | 50 | 52 |

ThermoLock® HSK63A

► ThermoLock® HP tool holders offer excellent clamping ability by operating on the principle of thermal induced expansion and contraction. The holder is heated, expanding the nose I.D. to accept a cutting tool. When cooled, the nose I.D. shrinks resulting in incredible gripping power over the full length of the holder/cutting tool interface.



Measurements are in inches unless noted (mm).

- + Has a max T.I.R. of 0.0002" and are balanced to G2.5 @ 25,000 RPM. ThermoLock® tool holders also include adjustable balance screws.
- + Excellent clamping and balance repeatability for higher speeds and superior cut duplication.
- + Comes ready for through-the-spindle coolant. This sealed system yields optimal coolant-fed tooling performance.
- + **IMPORTANT:** Once a ThermoLock® tool holder has been heated, it cannot be returned.
- + Engineered for minimized loss of accuracy across the holder/cutting tool interface.
- + Once balanced, the only variable is the cutting tool.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + Extended gage length tool holders have a parabolic profile to maximize rigidity.

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

| ACCESSORIES | | |
|-----------------|------------------------|------------------------|
| HSK Accessories | SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS |
| 45 | 52 | 66 |

ThermoLock® HSK63A Inch

| Stub | Part Number | D1 | D2 | D3 | L1 | L3 | T |
|------|-------------|-------|------|------|------|------|---------|
| | H4N3A0125 | 0.125 | 0.39 | - | 3.15 | - | - |
| | H4N3A0187 | 0.187 | 0.39 | - | 3.15 | - | - |
| | H4N3A0250 | 0.250 | 0.83 | 1.06 | 3.15 | 1.38 | M5 x 1 |
| | H4N3A0312 | 0.312 | 0.94 | 1.26 | 3.35 | 1.57 | M6 x 1 |
| | H4N3A0375 | 0.375 | 0.94 | 1.26 | 3.54 | 1.77 | M8 x 1 |
| | H4N3A0500 | 0.500 | 0.94 | 1.26 | 3.54 | 1.77 | M8 x 1 |
| | H4N3A0625 | 0.625 | 1.06 | 1.34 | 3.54 | 1.77 | M10 x 1 |
| | H4N3A0750 | 0.750 | 1.30 | 1.65 | 3.93 | 2.17 | M12 x 1 |
| | H4N3A1000 | 1.000 | 1.73 | 2.05 | 4.53 | 2.17 | M16 x 1 |
| | H4N3A1250 | 1.250 | 1.73 | 2.05 | 4.72 | 2.17 | M16 x 1 |

| Standard | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|----------|-------------|-------|------|------|------|------|---------|
| | H4N4A0250 | 0.250 | 0.83 | 1.06 | 5.12 | 1.38 | M5 x 1 |
| | H4N4A0312 | 0.312 | 0.83 | 1.06 | 5.12 | 1.38 | M6 x 1 |
| | H4N4A0375 | 0.375 | 0.94 | 1.26 | 5.12 | 1.57 | M8 x 1 |
| | H4N4A0500 | 0.500 | 0.94 | 1.26 | 5.12 | 1.77 | M10 x 1 |
| | H4N4A0625 | 0.625 | 1.06 | 1.34 | 5.12 | 1.77 | M12 x 1 |
| | H4N4A0750 | 0.750 | 1.30 | 1.65 | 5.12 | 2.17 | M16 x 1 |

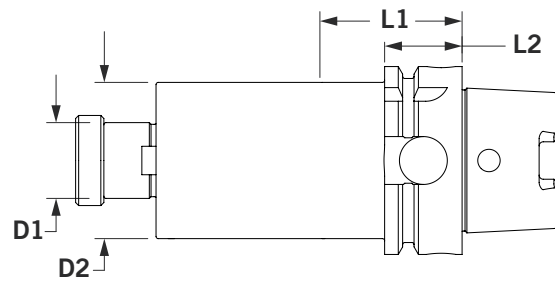
| Extended | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|----------|-------------|-------|------|------|------|------|---------|
| | H4N5A0250 | 0.250 | 0.83 | 1.06 | 6.30 | 1.38 | M5 x 1 |
| | H4N5A0312 | 0.312 | 0.83 | 1.06 | 6.30 | 1.38 | M6 x 1 |
| | H4N5A0375 | 0.375 | 0.94 | 1.26 | 6.30 | 1.57 | M8 x 1 |
| | H4N5A0500 | 0.500 | 0.94 | 1.26 | 6.30 | 1.77 | M10 x 1 |
| | H4N5A0625 | 0.625 | 1.06 | 1.34 | 6.30 | 1.77 | M12 x 1 |
| | H4N5A0750 | 0.750 | 1.30 | 1.65 | 6.30 | 2.17 | M16 x 1 |
| | H4N5A1000 | 1.000 | 1.73 | 2.05 | 6.30 | 2.17 | M16 x 1 |
| | H4N5A1250 | 1.250 | 1.73 | 2.05 | 6.30 | 2.17 | M16 x 1 |

| ACCESSORIES | | |
|-----------------|------------------------|------------------------|
| HSK Accessories | SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS |
| 45 | 52 | 66 |

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| 9 | 15 |

Shell Mill HSK63A

- ▶ Shell Mill holder's pilot diameter is sized for precision fit with cutter. Removable/replaceable drive keys included; fine thread locking screw included. All tapers and lengths are ready to ship. Get your tools fast!



Measurements are in inches unless noted (mm).

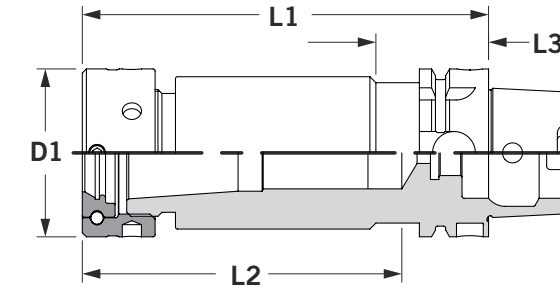
| Standard | Part Number | D1 | D2 | L1 | L2 | Drive Key | Lock Screw |
|----------|-------------|-------|------|------|------|-----------|------------|
| | H4S3A0750 | 0.750 | 1.69 | 1.75 | 1.02 | XSDK-0500 | XSAS-0500 |
| | H4S3A1000 | 1.000 | 2.06 | 1.88 | 1.02 | XSDK-0750 | XSAS-0750 |
| | H4S3A1250 | 1.250 | 2.75 | 2.50 | 1.02 | XSDK-1000 | XSAS-1000 |
| | H4S3A1500 | 1.500 | 3.81 | 2.75 | 1.02 | XSDK-1250 | XSAS-1250 |
| | H4S4A0750 | 0.750 | 1.69 | 4.00 | 1.02 | XSDK-1500 | XSAS-1500 |
| | H4S4A1000 | 1.000 | 2.06 | 4.00 | 1.02 | XSDK-0500 | XSAS-0500 |
| | H4S4A1250 | 1.250 | 2.75 | 4.00 | 1.02 | XSDK-0750 | XSAS-0750 |
| | H4S4A1500 | 1.500 | 3.81 | 4.00 | 1.02 | XSDK-1000 | XSAS-1000 |

- + Face perpendicular to centerline within 0.0002".
- + Tool holder includes drive key and fine thread locking screw.
- + Part numbers for replacements listed on page 53.
- + **NOTE:** Drive keys are in line with drive slot.
- + AT3 or better shank taper for accurate rigid tool holder-to-spindle mount.
- + Less tool wear and replacement; less scrap.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + 2" and 2.5" Shell Mill holders also have four (4) 5/8"-11 threaded holes on a 4" bolt circle.

| OPTIONS | | ACCESSORIES | | |
|-----------------|-----------------|-----------------|------------------------|----|
| BALANCE OPTIONS | COOLANT OPTIONS | HSK Accessories | SETUP HOLDING FIXTURES | |
| Available | Available | 45 | 52 | 53 |

TG100 Comflex® HSK63A

- ▶ The key reason for the Comflex® collet system's accuracy and gripping power is a unique flush nut design. It incorporates a rotating ball assembly producing a "radial float." This, in effect, forces the collet to self-center for maximum grip, highest precision, and minimum tool wear.



Measurements are in inches unless noted (mm).

| TG100 | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|-------|-------------|-------|------|------|------|------|-----------|------------|
| | H4C3A1000 | TG100 | 2.48 | 4.00 | 2.00 | 1.02 | XCCW-1000 | - |
| | H4C4A1000 | TG100 | 2.48 | 6.00 | 4.06 | 1.02 | XCCW-1000 | XCCS-1816 |





- + TG100 collets range from 0.109"-1.000".
- + Provide the flexibility to mill, drill, and ream.
- + Has an AT3 or better shank taper providing accurate rigid tool holder-to-spindle mount.
- + **IMPORTANT:** Maximum recommended torque is 60 ft.-lb. Do not over-tighten collet nut assembly.
- + Result in less tool wear and replacement resulting in less scrap.
- + Have a fully ground flange and V-groove, reducing spindle and changer maintenance.
- + Add -C at end of part number to specify stop screw with coolant passage.
- + Interchangeable with Erickson-type collets.


| ACCESSORIES | | OPTIONS | |
|-----------------|----|-----------------|-----------------|
| HSK Accessories | | BALANCE OPTIONS | COOLANT OPTIONS |
| 45 | 49 | Available | Available |

Coolant Tubes & Accessories HSK63A

- ▶ Coolant tubes and accessories for your HSK63A through coolant holders.

| Coolant Tube | Part Number | Description |
|---|-------------|--------------|
|  | XSCCA0063 | Coolant Tube |

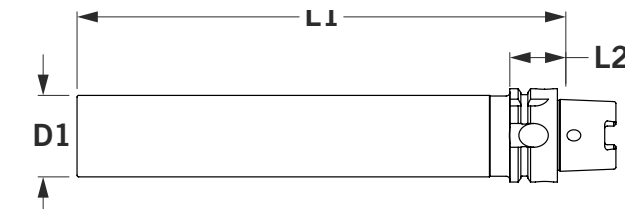
| Coolant Tube Wrench | Part Number | Description |
|---|-------------|----------------------------|
|  | XCTWA0063 | HSK63A Coolant Tube Wrench |

| Coolant Hole Plug | Part Number | Description |
|---|-------------|--------------------------|
|  | XCHPA0063 | HSK63A Coolant Hole Plug |


Test Bar HSK63A

- ▶ Our calibrated and certified precision test bars accurately align workpieces and/or holding fixtures. Test bars are hardened, normalized, and ground for reliable permanent accuracy. Wooden storage case included with test bar.

Nose Specifications: Concentric to taper within .002" T.I.R.; diameter within .0002" over the entire length.



Measurements are in inches unless noted (mm).

| HSK63A | Part Number | Taper | D1 | L1 |
|---|-------------|--------|------|-------|
|  | H4W4A0004 | HSK63A | 2.00 | 10.00 |

- + Wooden case with durable foam for maximum storage protection.
- + Includes an inspection certificate with measured dimensions for user reference.

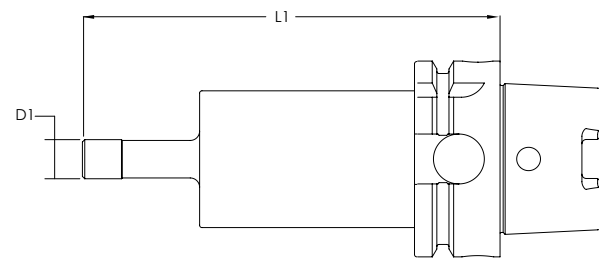
- + Tapers are precision ground to AT3 (or better) for accurate spindle run out reading.

Calibration Kits HSK63A

- Our certified adapters are ready to be used to recalibrate any HSK63A machines. These tools are precision ground for accurate readings to ensure best results. The kit includes a reusable foamed case and a certified ring gage.



(Full Kit Shown)



Measurements are in inches unless noted (mm).

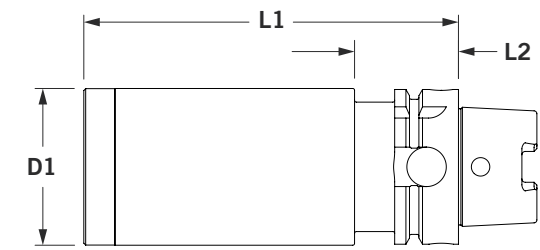
| Calibration Adapter | Part Number | D1 | L1 |
|---------------------|----------------|------|------|
| | H4A4A0500 | .500 | 5.00 |
| | H4A4A0500-KIT1 | .500 | 5.00 |



- + Calibrate your table tool probe.
- + Available for CT40, CT50, HSK63A, and HSK100A.
- + Comes with carrying case.
- + Tools are laser marked with certified dimensions for quick setup.
- + Certification and ring gage included.

Blank Bar HSK63A

- Blank bars have a case hardened shank taper and flange. Nose is unhardened for custom milling. Have a tool holder design that doesn't meet any standard holders? Blank bars are perfect for your custom applications. These blanks have a case hardened shank taper and flange. The nose is left unhardened for any creation. You design it. You fabricate it.



Measurements are in inches unless noted (mm).

| Stub | Part Number | D1 | L1 | L2 |
|------|-------------|-------|------|------|
| | H4X3A0004 | 2.500 | 6.00 | 1.66 |




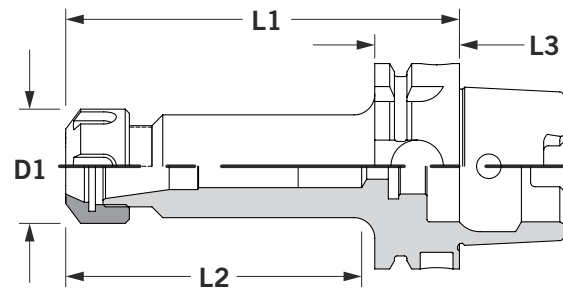
- + Shank taper and flange are case hardened and precision ground. Nose is unhardened 8620 alloy steel machinable for making custom and emergency holders.
- + Precision internal center eases alignment.
- + Nose includes an indicator band for users to reference for accurate machining profiles.

ER Micro Precision® HSK100A


ER Micro Precision® HSK100A


▶ ER Micro Precision® collet chucks have AT3 or better shank taper allowing accurate, rigid tool holder-to-spindle mount. A wide range of collets are available: 0.020"-1.023" (0.5mm-26mm), reducing collet, and tool holder inventories. All ER Micro Precision® collet chuck tapers, lengths, and straight shank extensions are in stock and ready to ship.

| Stub | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|------|------|------|------|------|-----------|------------|
|  | H6C3A0016 | ER16 | 1.26 | 2.50 | 1.30 | 1.14 | XCCW-D011 | - |
| | H6C3A0020 | ER20 | 1.38 | 3.00 | 1.40 | 1.14 | XCCW-D016 | - |
| | H6C3A0025 | ER25 | 1.64 | 3.25 | 1.70 | 1.14 | XCCW-D020 | - |
| | H6C3A0032 | ER32 | 1.97 | 3.38 | 1.80 | 1.14 | XCCW-D032 | - |



Measurements are in inches unless noted (mm).

| Standard | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|------|------|------|------|------|-----------|------------|
|  | H6C4A0016 | ER16 | 1.26 | 4.50 | 3.00 | 1.14 | XCCW-D011 | - |
| | H6C4A0020 | ER20 | 1.38 | 5.00 | 2.40 | 1.14 | XCCW-D016 | XCCS-0720 |
| | H6C4A0025 | ER25 | 1.64 | 5.25 | 2.60 | 1.14 | XCCW-D020 | XCCS-1415 |
| | H6C4A0032 | ER32 | 1.97 | 5.38 | 2.90 | 1.14 | XCCW-D025 | XCCS-1815 |
| | H6C4A0040 | ER40 | 2.48 | 4.72 | 2.60 | 1.14 | XCCW-D032 | XCCS-2215 |

| Extended | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|------|------|------|------|------|-----------|------------|
|  | H6C5A0016 | ER16 | 1.26 | 6.50 | 3.00 | 1.14 | XCCW-D016 | XCCS-0720 |
| | H6C5A0020 | ER20 | 1.38 | 7.00 | 3.50 | 1.14 | XCCW-D020 | XCCS-1415 |
| | H6C5A0025 | ER25 | 1.64 | 7.25 | 3.50 | 1.14 | XCCW-D025 | XCCS-1815 |
| | H6C5A0032 | ER32 | 1.97 | 7.38 | 4.00 | 1.14 | XCCW-D032 | XCCS-2215 |

+ **IMPORTANT:** For maximum recommended torque see page 49.

- + Has a flush precision closure nut that grips the tool close to the cutting edge providing accuracy and rigidity.
- + Concentric to 0.0002" T.I.R., which puts tool precisely on spindle centerline.
- + Has less tool wear and replacement resulting in less scrap.

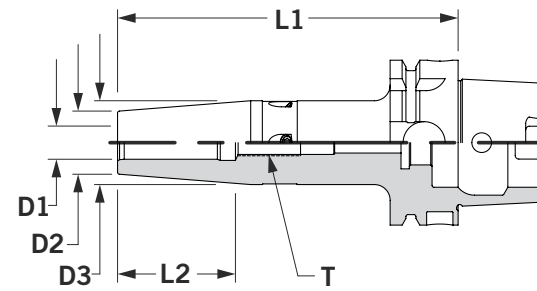
- + Has a fully ground flange and V-groove, reducing spindle and changer maintenance.
- + **NOTE:** No stop screws in ER11 holders.
- + **IMPORTANT:** Maximum recommended torque is listed on page 49. Do not over-tighten collet nut assembly.

| OPTIONS | | ACCESSORIES | | | |
|-----------------|-----------------|-----------------|----|----|------------------------|
| BALANCE OPTIONS | COOLANT OPTIONS | HSK Accessories | | | SETUP HOLDING FIXTURES |
| Available | Available | 45 | 49 | 50 | 52 |

ThermoLock® HSK100A


ThermoLock® HSK100A Inch


▶ ThermoLock® HP tool holders offer excellent clamping ability by operating on the principle of thermal induced expansion and contraction. The holder is heated, expanding the nose I.D. to accept a cutting tool. When cooled, the nose I.D. shrinks resulting in incredible gripping power over the full length of the holder/cutting tool interface.




Measurements are in inches unless noted (mm).

- + Has a max T.I.R. of 0.0002" and are balanced to G2.5 @ 25,000 RPM. ThermoLock® tool holders also include adjustable balance screws.
- + Excellent clamping and balance repeatability for higher speeds and superior cut duplication.
- + Comes ready for through-the-spindle coolant. This sealed system yields optimal coolant-fed tooling performance.
- + **IMPORTANT:** Once a ThermoLock® tool holder has been heated, it cannot be returned.
- + Engineered for minimized loss of accuracy across the holder/cutting tool interface.
- + Once a ThermoLock® holder is balanced, the only variable is the cutting tool.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + ThermoLock® extended gage length tool holders have a parabolic profile to maximize rigidity.

| Stub | Part Number | D1 | D2 | D3 | L1 | L3 | T |
|---|-------------|-------|------|------|------|------|---------|
|  | H6N3A0250 | 0.250 | 0.83 | 1.06 | 3.35 | 1.38 | M5 x 1 |
| | H6N3A0375 | 0.375 | 0.94 | 1.26 | 3.54 | 1.57 | M8 x 1 |
| | H6N3A0500 | 0.500 | 0.94 | 1.26 | 3.74 | 1.77 | M10 x 1 |
| | H6N3A0625 | 0.625 | 1.06 | 1.34 | 3.93 | 1.77 | M12 x 1 |
| | H6N3A0750 | 0.750 | 1.3 | 1.65 | 4.13 | 2.17 | M16 x 1 |
| | H6N3A1000 | 1.000 | 1.73 | 2.09 | 4.52 | 2.17 | M16 x 1 |
| | H6N3A1250 | 1.250 | 1.73 | 2.09 | 6.3 | 2.17 | M16 x 1 |

| Standard | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|---|-------------|-------|------|------|------|------|---------|
|  | H6N4A0250 | 0.250 | 0.83 | 1.06 | 5.12 | 1.38 | M5 x 1 |
| | H6N4A0375 | 0.375 | 0.94 | 1.26 | 5.12 | 1.57 | M8 x 1 |
| | H6N4A0500 | 0.500 | 0.94 | 1.26 | 5.12 | 1.77 | M10 x 1 |
| | H6N4A0625 | 0.625 | 1.06 | 1.34 | 5.12 | 1.77 | M12 x 1 |
| | H6N4A0750 | 0.750 | 1.3 | 1.65 | 5.12 | 2.17 | M16 x 1 |
| | H6N4A1000 | 1.000 | 1.73 | 2.09 | 5.12 | 2.17 | M16 x 1 |
| | H6N4A1250 | 1.250 | 1.73 | 2.09 | 5.12 | 2.17 | M16 x 1 |

| Extended | Part Number | D1 | D2 | D3 | L1 | L2 | T |
|---|-------------|-------|------|------|------|------|---------|
|  | H6N5A0250 | 0.250 | 0.83 | 1.06 | 6.30 | 1.38 | M5 x 1 |
| | H6N5A0375 | 0.375 | 0.94 | 1.26 | 6.30 | 1.57 | M6 x 1 |
| | H6N5A0500 | 0.500 | 0.94 | 1.26 | 6.30 | 1.77 | M8 x 1 |
| | H6N5A0625 | 0.625 | 1.06 | 1.34 | 6.30 | 1.77 | M10 x 1 |
| | H6N5A0750 | 0.750 | 1.3 | 1.65 | 6.30 | 2.17 | M12 x 1 |
| | H6N5A1000 | 1.000 | 1.73 | 2.09 | 6.30 | 2.17 | M16 x 1 |
| | H6N5A1250 | 1.250 | 1.73 | 2.09 | 6.30 | 2.17 | M16 x 1 |

| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

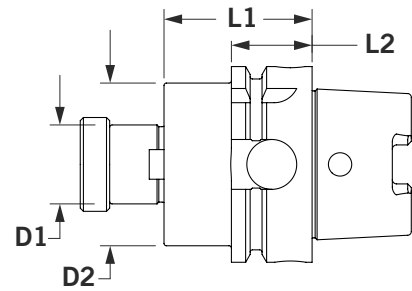
| ACCESSORIES | | |
|-----------------|------------------------|------------------------|
| HSK Accessories | SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS |
| 45 | 52 | 66 |

| ACCESSORIES | | |
|-----------------|------------------------|------------------------|
| HSK Accessories | SETUP HOLDING FIXTURES | ThermoLock® EXTENSIONS |
| 45 | 52 | 66 |


| OPTIONS | |
|-----------------|-----------------|
| BALANCE OPTIONS | COOLANT OPTIONS |
| Available | Available |

Shell Mill HSK100A

- ▶ Shell Mill holder's pilot diameter is sized for precision fit with cutter. Removable/replaceable drive keys included; fine thread locking screw included. All tapers and lengths are ready to ship. Get your tools fast!



Measurements are in inches unless noted (mm).

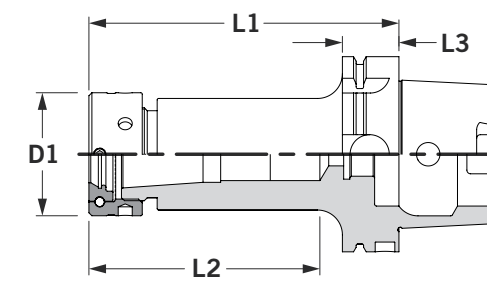
| Standard | Part Number | D1 | D2 | L1 | L2 | Drive Key | Lock Screw |
|--|-------------|-------|------|------|------|-----------|------------|
|  | H6S3A0750 | 0.750 | 1.69 | 1.88 | 1.14 | XSDK-0500 | XSAS-0750 |
| | H6S3A1000 | 1.000 | 2.19 | 2.00 | 1.14 | XSDK-0750 | XSAS-1000 |
| | H6S3A1250 | 1.250 | 2.75 | 2.25 | 1.14 | XSDK-1000 | XSAS-1250 |
| | H6S3A1500 | 1.500 | 3.81 | 2.50 | 1.14 | XSDK-1250 | XSAS-1500 |

- + Face perpendicular to centerline within 0.0002".
- + Tool holder includes drive key and fine thread locking screw.
- + Part numbers for replacements listed on page 53.
- + **NOTE:** Drive keys are in line with drive slot.
- + AT3 or better shank taper for accurate rigid tool holder-to-spindle mount.
- + Less tool wear and replacement; less scrap.
- + Fully ground flange and V-groove—easy on tool changers for less spindle and changer maintenance.
- + 2" and 2.5" Shell Mill holders also have four (4) 5/8"-11 threaded holes on a 4" bolt circle.


| OPTIONS | | ACCESSORIES | | |
|-----------------|-----------------|-----------------|------------------------|---|
| BALANCE OPTIONS | COOLANT OPTIONS | HSK Accessories | SETUP HOLDING FIXTURES |  |
| Available | Available | 45 | 52 | 53 |

TG100 & TG150 Comflex® HSK100A

- ▶ The key reason for the Comflex® collet system's accuracy and gripping power is a unique flush nut design. It incorporates a rotating ball assembly producing a "radial float." This, in effect, forces the collet to self-center for maximum grip, highest precision, and minimum tool wear.



Measurements are in inches unless noted (mm).


| TG100 & TG150 | Part Number | Size | D1 | L1 | L2 | L3 | Wrench | Stop Screw |
|---|-------------|-------|------|------|------|------|-----------|------------|
|  | H6C3A1000 | TG100 | 2.48 | 4.25 | 2.00 | 1.14 | XCCW-1000 | - |
| | H6C4A1000 | TG100 | 2.48 | 6.25 | 4.00 | 1.14 | XCCW-1000 | XCCS-1816 |
| | H6C3A1500 | TG150 | 3.46 | 4.88 | 2.52 | 1.14 | XCCW-1500 | - |
| | H6C4A1500 | TG150 | 3.46 | 6.88 | 4.55 | 1.14 | XCCW-1500 | - |


- + TG100 collets range from 0.109"-1.000". TG150 collets range from 1.234"-1.000".
- + Comflex® collet systems provide the flexibility to mill, drill, and ream.
- + Has an AT3 or better shank taper providing accurate rigid tool holder-to-spindle mount.
- + **IMPORTANT:** Maximum recommended torque is 60 ft.-lb. Do not over-tighten collet nut assembly.
- + Result in less tool wear and replacement resulting in less scrap.
- + Have a fully ground flange and V-groove, reducing spindle and changer maintenance.
- + Add -C at end of part number to specify stop screw with coolant passage.
- + Comflex® TG collets are interchangeable with Erickson-type collets.


| ACCESSORIES | | OPTIONS | |
|-----------------|---|-----------------|-----------------|
| HSK Accessories |  | BALANCE OPTIONS | COOLANT OPTIONS |
| 45 | 49 | Available | Available |

Coolant Tubes & Accessories HSK100A

► Coolant tubes and accessories for your HSK100A through coolant holders.

| Coolant Tube | Part Number | Description |
|---|-------------|--------------|
|  | XSCCA0100 | Coolant Tube |

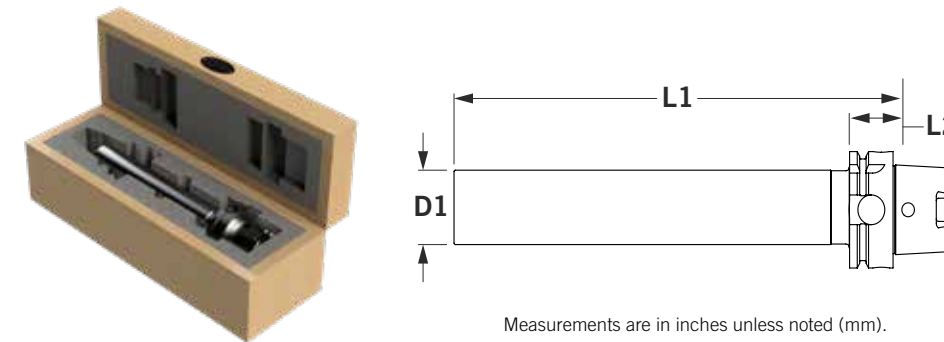
| Coolant Tube Wrench | Part Number | Description |
|--|-------------|-----------------------------|
|  | XCTWA0100 | HSK100A Coolant Tube Wrench |

| Coolant Hole Plug | Part Number | Description |
|---|-------------|---------------------------|
|  | XCHPA0100 | HSK100A Coolant Hole Plug |

Test Bar HSK100A

► Our calibrated and certified precision test bars accurately align workpieces and/or holding fixtures. Test bars are hardened, normalized, and ground for reliable permanent accuracy. Wooden storage case included with test bar.

Nose Specifications: Concentric to taper within .002" T.I.R.; diameter within .0002" over the entire length.



Measurements are in inches unless noted (mm).

| HSK100A | Part Number | Taper | D1 | L1 |
|---|-------------|---------|------|-------|
|  | H6W4A0006 | HSK100A | 2.00 | 12.00 |

- + Wooden case with durable foam for maximum storage protection.
- + Includes an inspection certificate with measured dimensions for user reference.

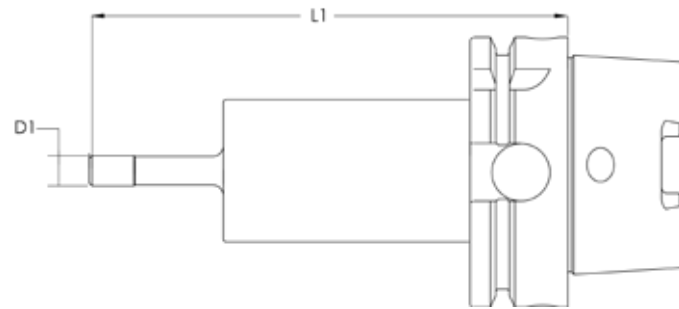
- + Tapers are precision ground to AT3 (or better) for accurate spindle run out reading.

Calibration Kits HSK100A

- Our certified adapters are ready to be used to recalibrate any HSK100A machines. These tools are precision ground for accurate readings to ensure best results. The kit includes a reusable foamed case and a certified ring gage.



(Full Kit Shown)



Measurements are in inches unless noted (mm).

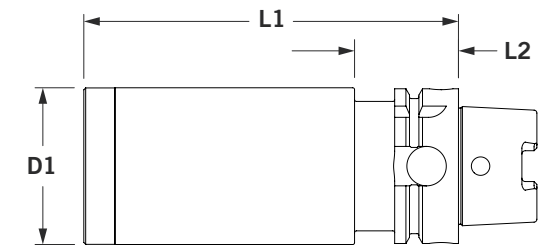
| Calibration Adapter | Part Number | D1 | L1 |
|---------------------|----------------|-------|------|
| | H6A4A0500 | 0.500 | 5.00 |
| | H6A4A0500-KIT1 | 0.500 | 5.00 |



- + Calibrate your table tool probe.
- + Available for CT40, CT50, HSK63A, and HSK100A.
- + Comes with carrying case.
- + Tools are laser marked with certified dimensions for quick setup.
- + Certification and ring gage included.

Blank Bar HSK100A

- Blank bars have a case hardened shank taper and flange. Nose is unhardened for custom milling. Have a tool holder design that doesn't meet any standard holders? Blank bars are perfect for your custom applications. These blanks have a case hardened shank taper and flange. The nose is left unhardened for any creation. You design it. You fabricate it.



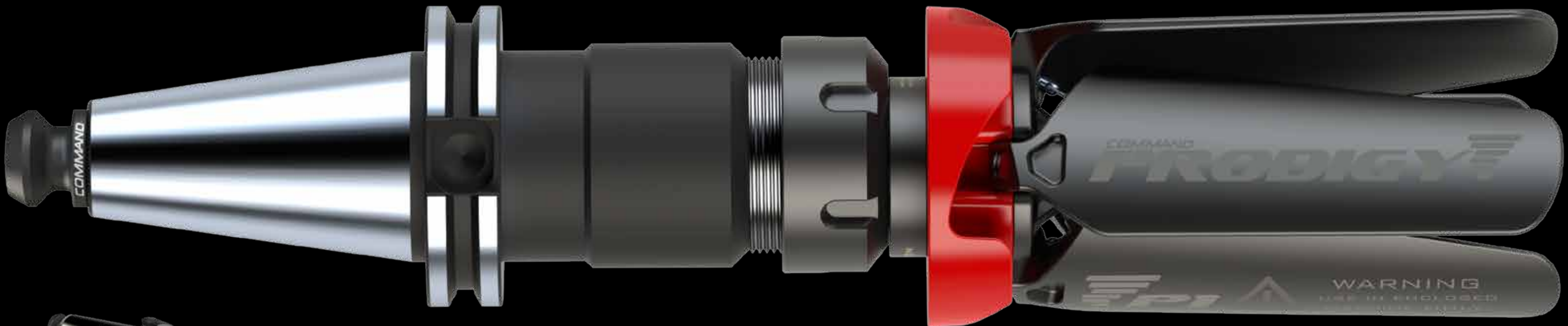
Measurements are in inches unless noted (mm).

| Blank Bar | Part Number | D1 | L1 | L2 |
|-----------|-------------|-------|------|------|
| | H6X3A0006 | 3.875 | 6.00 | 1.78 |



- + Shank taper and flange are case hardened and precision ground. Nose is unhardened 8620 alloy steel machinable for making custom and emergency holders.
- + Precision internal center eases alignment.
- + Nose includes an indicator band for users to reference for accurate machining profiles.

COMMAND
PRODIGY CNC Cleaning Fans



Tool holder
sold separately



NOW AVAILABLE IN TWO SIZES!

Command Tooling Systems

For more information contact us at:
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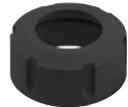
For product details see page 67.

Collet Nuts

► Replacement collet nuts for your collet holders.



Standard



Classic



Shorty



TG100/150 Standard

Measurements are in inches unless noted (mm).

| Standard Collet Nuts | Part Number | Description | Thread | D1 | Maximum Recommended Torque (ft.-lb.) |
|----------------------|-------------|--------------------------|------------|-------|--------------------------------------|
| | XGSN-0011 | ER11 Standard Collet Nut | M13 x 0.75 | 0.630 | 8 |
| | XGSN-0016 | ER16 Standard Collet Nut | M22 x 1.50 | 1.259 | 40 |
| | XGSN-0020 | ER20 Standard Collet Nut | M25 x 1.50 | 1.380 | 60 |
| | XGSN-0025 | ER25 Standard Collet Nut | M32 x 1.50 | 1.640 | 70 |
| | XGSN-0032 | ER32 Standard Collet Nut | M40 x 1.50 | 1.970 | 80 |
| | XGSN-0040 | ER40 Standard Collet Nut | M50 x 1.50 | 2.480 | 72 |

Measurements are in inches unless noted (mm).

| Classic Collet Nuts | Part Number | Description | Thread | D1 | Maximum Recommended Torque (ft.-lb.) |
|---------------------|-------------|-------------------------|------------|-------|--------------------------------------|
| | XCNA-0011 | ER11 Classic Collet Nut | M13 x 0.75 | 0.630 | 8 |
| | XCNA-0016 | ER16 Classic Collet Nut | M22 x 1.50 | 1.085 | 40 |
| | XCNA-0020 | ER20 Classic Collet Nut | M25 x 1.50 | 1.260 | 60 |
| | XCNA-0025 | ER25 Classic Collet Nut | M32 x 1.50 | 1.650 | 70 |
| | XCNA-0032 | ER32 Classic Collet Nut | M40 x 1.50 | 1.880 | 80 |
| | XCNA-0040 | ER40 Classic Collet Nut | M50 x 1.50 | 2.480 | 72 |

Measurements are in inches unless noted (mm).

| Shorty Collet Nuts | Part Number | Description | Thread | D1 | Maximum Recommended Torque (ft.-lb.) |
|--------------------|--------------|------------------------|------------|----|--------------------------------------|
| | XGCN-0032INT | ER32 Shorty Collet Nut | M40 x 1.50 | - | 80 |

Measurements are in inches unless noted (mm).

| TG100/150 Collet Nuts | Part Number | Description | Thread | D1 | (Maximum Recommended Torque (ft.-lb.)) |
|-----------------------|-------------|---------------------------|---------------|-------|--|
| | XCNA-1000 | TG100 Standard Collet Nut | 1 7/8-12 ACME | 2.480 | 60 |
| | XCNA-1500 | TG150 Standard Collet Nut | 2 5/8-12 ACME | 3.470 | 60 |

Collet Nut Wrenches Stop Screws & Collet Extractor Clips

Collet Chuck Wrenches



| Part Number | Description | 1 st Compatible Nut | 2 nd Compatible Nut |
|--------------|----------------------------------|--------------------------------|--------------------------------|
| XCCW-D011 | ER11 Double-Ended Wrench | XGSN-0011 | XCNA-0011 |
| XCCW-D016 | ER16 Double-Ended Wrench | XGSN-0016 | XCNA-0016 |
| XCCW-D020 | ER20 Double-Ended Wrench | XGSN-0020 | XCNA-0020 |
| XCCW-D025 | ER25 Double-Ended Wrench | XGSN-0025 | XCNA-0025 |
| XCCW-P032INT | ER32 Shorty Wrench | XGCN-0032INT | - |
| XCCW-D032 | ER32 Double-Ended Wrench | XGSN-0032 | XCNA-0032 |
| XCCW-0040 | ER40 Standard Collet Nut Wrench | XGSN-0040 | XCNA-0040 |
| XCCW-1000 | TG100 Standard Collet Nut Wrench | XCNA-1000 | - |

Collet Chuck Extension Stop Screws



| Part Number | Description | Thread |
|-------------|------------------------------|---------------|
| XCCS-0720 | Standard ER16 Stop Screw | 7/16-20 LH |
| XCCS-0720-C | Coolant Thru ER16 Stop Screw | 7/16-20 LH |
| XCCS-1415 | Standard ER20 Stop Screw | M14 x 1.50 LH |
| XCCS-1415-C | Coolant Thru ER20 Stop Screw | M14 x 1.50 LH |
| XCCS-1815 | Standard ER25 Stop Screw | M18 x 1.50 LH |
| XCCS-1815-C | Coolant Thru ER25 Stop Screw | M18 x 1.50 LH |
| XCCS-2215 | Standard ER32 Stop Screw | M22 x 1.50 LH |
| XCCS-2215-C | Coolant Thru ER32 Stop Screw | M22 x 1.50 LH |
| XCCS-1816 | Standard ER40 Stop Screw | 1 1/8-16 LH |
| XCCS-1816-C | Coolant Thru ER40 Stop Screw | 1 1/8-16 LH |
| XCCS-2212 | TG100 Standard Length | 1 3/8-12 LH |

Collet Extractor Clip



| Part Number | Description | Compatible Nut | Quantity |
|-------------|----------------------------|----------------|------------|
| XCNA-K016 | ER16 Collet Extractor Clip | XCNA-0016 | Pack of 10 |
| XCNA-K020 | ER20 Collet Extractor Clip | XCNA-0020 | Pack of 10 |
| XCNA-K025 | ER25 Collet Extractor Clip | XCNA-0025 | Pack of 10 |
| XCNA-K032 | ER32 Collet Extractor Clip | XCNA-0032 | Pack of 10 |

Gemini Tool Fixtures for CT40 & CT50

▶ Command Tooling System's NEW tool fixtures revolutionizes the market with just a *click of a button!* Literally change out your tool in seconds. These durable Gemini fixtures are the perfect complement for any work bench. With four modern design options to choose from, the versatility and reliability are endless. Two sizes to choose from; the CT40 tool fixture holds tooling for CT40 and the CT50 holds tooling for CT50. These new innovative products provides you the strength wanted, durability you depend on, and the ease of use needed.

Quick and Easy Lock-in System

- + Fastest and easiest on the market today. Securely locks tool in place. Locks and unlocks in *seconds!*

Made in the U.S.A.

- + Entirely produced and assembled right here in the United States with all domestic materials.

4 Versatile Layouts to Choose From

- + Any of these base plates can be adapted to numerous different functions.

Economical

- + Innovative and affordable for all your machining centers. Great value to the amount of time and effort needed for changing out tooling.

Quality Material

- + Laser cut, corrosion resistant, thick steel base plate. Anodized aluminum ring with stainless steel buttons.

All Replacement Parts Available

- + No need to worry about parts breaking but, if a need be, all specific parts are sold separately.

| Gemini Units for CT40 | | | Gemini Units for CT50 | | |
|-----------------------|--------------|-----------------|-----------------------|--------------|----------------|
| CT40 Part # | Product Code | Dimensions | CT50 Part # | Product Code | Dimensions |
| XHFB-C104 | G1 | 6.0"H x 4.75"W | XHFB-C106 | G1 | 8.0"H x 9.5"W |
| XHFB-C204 | G2 | 6.40"H x 4.75"W | XHFB-C206 | G2 | 9.0"H x 11.0"W |
| XHFB-C304 | G3 | 6.0"H x 4.75"W | XHFB-C306 | G3 | 9.0"H x 10.0"W |
| XHFB-C404 | G4 | 5.5"H x 4.75"W | XHFB-C406 | G4 | 9.0"H x 10.0"W |

| Gemini Replacement Parts | CT40 Part # | CT50 Part # | Description |
|--------------------------|-------------|-------------|---|
| XHFB-K001 | KHFB-K004 | | Ring Kit; Fits: G1, G2, G3, G4 Includes: Full Clamping Unit without Base Plate |
| XHFB-K002 | KHFB-K005 | | Button Kit; Fits: G1, G2, G3, G4 Includes: 2 Buttons, Securing Screws, O-ring |
| XHFB-K003 | KHFB-K006 | | Wedge Kit; Fits: G1, G2, G3, G4 Includes: Wedge, Slider, 2 Springs |
| XHFM-0114 | XHFM-0116 | | G1 Base Plate Only |
| XHFM-0214 | XHFM-0216 | | G2 Base Plate Only |
| XHFM-0314 | XHFM-0316 | | G3 Base Plate Only |
| XHFM-0414 | XHFM-0416 | | G4 Base Plate Only |



Setup Holding Fixtures

▶ Setup holding fixtures have precision machined internal bores that cradle flanges precisely. Vertical or horizontal mount fixtures have an open design for easy access to retention knobs, removable key lock for keyed or unkeyed use, and high torque split clamp with ratchet handle mar-free grip. Bottom mount setup holding fixtures are extra-long to accommodate leaving retention knobs in place and are available in all tapers that fit both BT and CT flanges.



Setup holding fixture mounts either vertically or horizontally.

Bottom mount fixture drilled for two 3/8" diameter hold down socket head cap screws.

Setup Holding Fixtures & Accessories

| Vertical or Horizontal Mount | Part Number | Taper | Key | Replacement Key |
|------------------------------|-------------|--------|-----|-----------------|
| | XFGF-00H4 | HSK63 | - | - |
| | XFGF-00H6 | HSK100 | - | - |

Tool Tags


▶ Reusable tool tags make tool holder labeling quick and easy. Tool tags stay in place by snapping onto the tool holder. Use a grease pencil to write on the tool tag and WD-40® to remove writing for new application.

| Tool Tags | Part Number | For Flange Style |
|-----------|-------------|--|
| | XCTT-0004 | 40 V-Flange & HSK63 - Packaged 20 per bag |
| | XCTT-0006 | 50 V-Flange & HSK100 - Packaged 20 per bag |




Shell Mill Drive Keys

► Replacement drive keys and lock screws for Shell Mill holders.


| Shell Mill Drive Keys | Part Number | Used with |
|---|-------------|---------------------------|
|  | XSDK-0500 | 1/2" Shell Mill Holders |
| | XSDK-0750 | 3/4" Shell Mill Holders |
| | XSDK-1000 | 1" Shell Mill Holders |
| | XSDK-1250 | 1-1/4" Shell Mill Holders |
| | XSDK-1500 | 1-1/2" Shell Mill Holders |
| | XSDK-2000 | 2" Shell Mill Holders |
| | XSDK-2500 | 2-1/2" Shell Mill Holders |


Shell Mill Lock Screws

| Shell Mill Lock Screw | Part Number | Used with |
|---|-------------|---------------------------|
|  | XSAS-0500 | 1/2" Shell Mill Holders |
| | XSAS-0750 | 3/4" Shell Mill Holders |
| | XSAS-1000 | 1" Shell Mill Holders |
| | XSAS-1250 | 1-1/4" Shell Mill Holders |
| | XSAS-1500 | 1-1/2" Shell Mill Holders |
| | XSAS-2000 | 2" Shell Mill Holders |
| | XSAS-2500 | 2-1/2" Shell Mill Holders |

Retention Knob Socket & Torque Wrenches

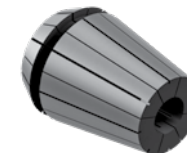
► Retention knob wrenches come with a drive square to adapt to a torque wrench. See retention knob part tables for proper wrench and retention knob torque values on pages 10-11 and 22-23.

| Retention Knob Socket | Part Number | Drive Square | Distance Across Retention Knob Flats |
|---|-------------|--------------|--------------------------------------|
|  | XRKW-0750 | 0.375 | 0.750 |
| | XRKW-1187 | 0.500 | 1.187 |
| | XRKW-1250 | 0.500 | 1.250 |

| Torque Wrenches | Part Number | Drive Square | Torque Range (ft.-lbs.) |
|---|-------------|--------------|-------------------------|
|  | XTQW-0080 | 0.375 | 15-80 |
| | XTQW-0150 | 0.500 | 30-150 |

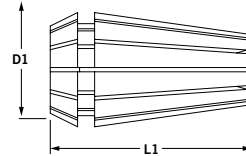
ER11 Standard Collets

► ER standard collets have a 0.0002" T.I.R. with a clamping range of 0.039". ER standard collets are compatible with DR, RD, ESX, AR, and BR collets.

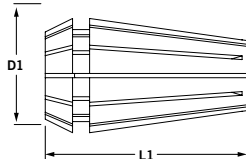


Standard

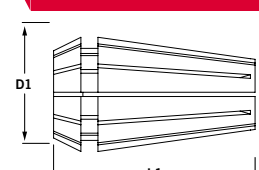
ER11 Standard Collets Inch

| Standard | Part Number | Size Range | Ref. Size Range (mm) | L1 | D1 | Collet Set Part No. |
|--|-------------|---------------|----------------------|-------|-------|---------------------|
|  | ER11-F125 | 0.106 - 0.125 | 2.7 - 3.2 | 0.709 | 0.461 | ER11-03ST |
| | ER11-F187 | 0.168 - 0.187 | 4.3 - 4.8 | 0.709 | 0.461 | ER11-03ST |
| | ER11-F250 | 0.231 - 0.250 | 5.9 - 6.4 | 0.709 | 0.461 | ER11-03ST |
| | ER11-03ST | 0.106 - 0.250 | 2.7 - 6.4 | 0.709 | 0.461 | ER11-03ST |

ER11 Standard Collets Metric

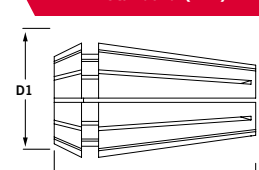
| Standard (mm) | Part Number | Size Range | Ref. Size Range (in) | L1 | D1 | Collet Set Part No. |
|---|-------------|------------|----------------------|-------|-------|---------------------|
|  | ER11-0100 | 0.5 - 1.0 | 0.020 - 0.039 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0150 | 1.0 - 1.5 | 0.020 - 0.039 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0200 | 1.5 - 2.0 | 0.059 - 0.079 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0250 | 2.0 - 2.5 | 0.079 - 0.098 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0300 | 2.5 - 3.0 | 0.098 - 0.118 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0350 | 3.0 - 3.5 | 0.118 - 0.138 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0400 | 3.5 - 4.0 | 0.138 - 0.157 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0450 | 4.0 - 4.5 | 0.157 - 0.177 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0500 | 4.5 - 5.0 | 0.177 - 0.197 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0550 | 5.0 - 5.5 | 0.197 - 0.217 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0600 | 5.5 - 6.0 | 0.217 - 0.236 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0650 | 6.0 - 6.5 | 0.236 - 0.256 | 0.709 | 0.461 | ER11-13ST |
| | ER11-0700 | 6.5 - 7.0 | 0.256 - 0.276 | 0.709 | 0.461 | ER11-13ST |
| | ER11-13ST | 0.5 - 7.0 | 0.020 - 0.276 | 0.709 | 0.461 | ER11-13ST |

ER16 Standard Collets Inch



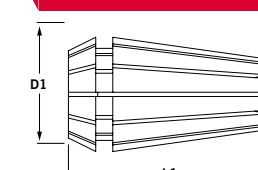
| Standard | Part Number | Size Range | Ref. Size Range (mm) | L1 | D1 | Collet Set Part No. |
|----------|-------------|---------------|----------------------|-------|-------|---------------------|
| | ER16-F062 | 0.043 - 0.062 | 1.1 - 1.6 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F093 | 0.054 - 0.093 | 1.4 - 2.4 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F125 | 0.086 - 0.125 | 2.2 - 3.2 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F156 | 0.117 - 0.156 | 3.0 - 4.0 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F187 | 0.148 - 0.187 | 3.8 - 4.7 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F218 | 0.179 - 0.218 | 4.5 - 5.5 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F250 | 0.211 - 0.250 | 5.4 - 6.4 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F281 | 0.242 - 0.281 | 6.1 - 7.1 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F312 | 0.273 - 0.312 | 6.9 - 7.9 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F343 | 0.304 - 0.343 | 7.7 - 8.7 | 1.083 | 0.679 | ER16-11ST |
| | ER16-F375 | 0.336 - 0.375 | 8.5 - 9.5 | 1.083 | 0.679 | ER16-11ST |
| | ER16-11ST | 0.043 - 0.375 | 1.1 - 9.5 | 1.083 | 0.679 | ER16-11ST |

ER16 Standard Collets Metric



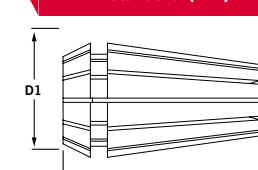
| Standard (mm) | Part Number | Size Range | Ref. Size Range (in) | L1 | D1 | Collet Set Part No. |
|---------------|-------------|------------|----------------------|-------|-------|---------------------|
| | ER16-0100 | 0.5 - 1.0 | 0.020 - 0.039 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0150 | 1.0 - 1.5 | 0.039 - 0.059 | 1.083 | 0.679 | ER16-11ST |
| | ER16-0200 | 1.0 - 2.0 | 0.039 - 0.079 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0250 | 2.0 - 2.5 | 0.079 - 0.098 | 1.083 | 0.679 | ER16-11ST |
| | ER16-0300 | 2.0 - 3.0 | 0.079 - 0.118 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0400 | 3.0 - 4.0 | 0.118 - 0.157 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0500 | 4.0 - 5.0 | 0.157 - 0.197 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0600 | 5.0 - 6.0 | 0.197 - 0.236 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0700 | 6.0 - 7.0 | 0.236 - 0.276 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0800 | 7.0 - 8.0 | 0.276 - 0.315 | 1.083 | 0.679 | ER16-10ST |
| | ER16-0900 | 8.0 - 9.0 | 0.315 - 0.354 | 1.083 | 0.679 | ER16-10ST |
| | ER16-1000 | 9.0 - 10.0 | 0.354 - 0.394 | 1.083 | 0.679 | ER16-10ST |
| | ER16-10ST | 0.5 - 10.0 | 0.020 - 0.394 | 1.083 | 0.679 | ER16-11ST |

ER20 Standard Collets Inch



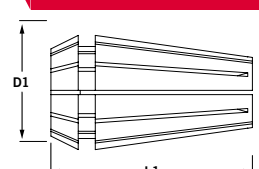
| Standard | Part Number | Size Range | Ref. Size Range (mm) | L1 | D1 | Collet Set Part No. |
|----------|-------------|---------------|----------------------|-------|-------|---------------------|
| | ER20-F062 | 0.043 - 0.062 | 1.1 - 1.6 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F093 | 0.054 - 0.093 | 1.4 - 2.4 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F125 | 0.086 - 0.125 | 2.2 - 3.2 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F156 | 0.117 - 0.156 | 3.0 - 4.0 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F187 | 0.148 - 0.187 | 3.8 - 4.7 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F218 | 0.179 - 0.218 | 4.5 - 5.5 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F250 | 0.211 - 0.250 | 5.4 - 6.4 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F281 | 0.242 - 0.281 | 6.1 - 7.1 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F312 | 0.273 - 0.312 | 6.9 - 7.9 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F343 | 0.304 - 0.343 | 7.7 - 8.7 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F375 | 0.336 - 0.375 | 8.5 - 9.5 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F406 | 0.367 - 0.406 | 9.3 - 10.3 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F437 | 0.398 - 0.437 | 10.1 - 11.1 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F468 | 0.429 - 0.468 | 10.9 - 11.9 | 1.240 | 0.839 | ER20-15ST |
| | ER20-F500 | 0.461 - 0.500 | 11.7 - 12.7 | 1.240 | 0.839 | ER20-15ST |
| | ER20-15ST | 0.043 - 0.500 | 1.1 - 12.7 | 1.240 | 0.839 | ER20-15ST |

ER20 Standard Collets Metric



| Standard (mm) | Part Number | Size Range | Ref. Size Range (in) | L1 | D1 | Collet Set Part No. |
|---------------|-------------|-------------|----------------------|-------|-------|---------------------|
| | ER20-0150 | 1.0 - 1.5 | 0.039 - 0.059 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0200 | 1.0 - 2.0 | 0.039 - 0.079 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0250 | 2.0 - 2.5 | 0.079 - 0.098 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0300 | 2.0 - 3.0 | 0.079 - 0.118 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0400 | 3.0 - 4.0 | 0.118 - 0.157 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0500 | 4.0 - 5.0 | 0.157 - 0.197 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0600 | 5.0 - 6.0 | 0.197 - 0.236 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0700 | 6.0 - 7.0 | 0.236 - 0.276 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0800 | 7.0 - 8.0 | 0.276 - 0.315 | 1.240 | 0.839 | ER20-12ST |
| | ER20-0900 | 8.0 - 9.0 | 0.315 - 0.354 | 1.240 | 0.839 | ER20-12ST |
| | ER20-1000 | 9.0 - 10.0 | 0.354 - 0.394 | 1.240 | 0.839 | ER20-12ST |
| | ER20-1100 | 10.0 - 11.0 | 0.394 - 0.433 | 1.240 | 0.839 | ER20-12ST |
| | ER20-1200 | 11.0 - 12.0 | 0.433 - 0.472 | 1.240 | 0.839 | ER20-12ST |
| | ER20-1300 | 12.0 - 13.0 | 0.472 - 0.512 | 1.240 | 0.839 | ER20-12ST |
| | ER20-12ST | 1.0 - 13.0 | 0.039 - 0.512 | 1.240 | 0.839 | ER20-12ST |

ER25 Standard Collets Inch



| Standard | Part Number | Size Range | Ref. Size Range (mm) | L1 | D1 | Collet Set Part No. |
|----------|-------------|---------------|----------------------|-------|-------|---------------------|
| | ER25-F125 | 0.086 - 0.125 | 2.2 - 3.2 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F187 | 0.148 - 0.187 | 3.8 - 4.7 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F250 | 0.211 - 0.250 | 5.4 - 6.4 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F312 | 0.273 - 0.312 | 6.9 - 7.9 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F375 | 0.336 - 0.375 | 8.5 - 9.5 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F437 | 0.398 - 0.437 | 10.1 - 11.1 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F500 | 0.461 - 0.500 | 11.7 - 12.7 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F562 | 0.523 - 0.562 | 13.3 - 14.3 | 1.339 | 1.035 | ER25-09ST |
| | ER25-F625 | 0.586 - 0.625 | 14.9 - 15.9 | 1.339 | 1.035 | ER25-09ST |
| | ER25-09ST | 0.086 - 0.625 | 2.2 - 15.9 | 1.339 | 1.035 | ER25-09ST |

ER32 Standard Collets Inch



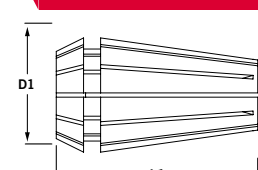
| Standard | Part Number | Size Range | Ref. Size Range (mm) | L1 | D1 | Collet Set Part No. |
|----------|-------------|---------------|----------------------|-------|-------|---------------------|
| | ER32-F125 | 0.086 - 0.125 | 2.2 - 3.2 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F187 | 0.148 - 0.187 | 3.8 - 4.7 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F250 | 0.211 - 0.250 | 5.4 - 6.4 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F312 | 0.273 - 0.312 | 6.9 - 7.9 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F375 | 0.336 - 0.375 | 8.5 - 9.5 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F437 | 0.398 - 0.437 | 10.1 - 11.1 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F500 | 0.461 - 0.500 | 11.7 - 12.7 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F562 | 0.523 - 0.562 | 13.3 - 14.3 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F625 | 0.586 - 0.625 | 14.9 - 15.9 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F687 | 0.648 - 0.687 | 16.5 - 17.4 | 1.575 | 1.313 | ER32-11ST |
| | ER32-F750 | 0.711 - 0.750 | 18.0 - 19.0 | 1.575 | 1.313 | ER32-11ST |
| | ER32-11ST | 0.086 - 0.750 | 2.2 - 19.0 | 1.575 | 1.313 | ER32-11ST |

ER25 Standard Collets Metric



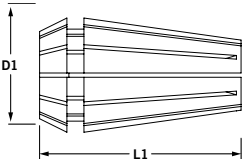
| Standard (mm) | Part Number | Size Range | Ref. Size Range (in) | L1 | D1 | Collet Set Part No. |
|---------------|-------------|-------------|----------------------|-------|-------|---------------------|
| | ER25-0150 | 1.0 - 1.5 | 0.039 - 0.059 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0200 | 1.0 - 2.0 | 0.039 - 0.079 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0250 | 2.0 - 2.5 | 0.079 - 0.098 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0300 | 2.0 - 3.0 | 0.079 - 0.118 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0400 | 3.0 - 4.0 | 0.118 - 0.157 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0500 | 4.0 - 5.0 | 0.157 - 0.197 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0600 | 5.0 - 6.0 | 0.197 - 0.236 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0700 | 6.0 - 7.0 | 0.236 - 0.276 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0800 | 7.0 - 8.0 | 0.276 - 0.315 | 1.339 | 1.035 | ER25-15ST |
| | ER25-0900 | 8.0 - 9.0 | 0.315 - 0.354 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1000 | 9.0 - 10.0 | 0.354 - 0.394 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1100 | 10.0 - 11.0 | 0.394 - 0.433 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1200 | 11.0 - 12.0 | 0.433 - 0.472 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1300 | 12.0 - 13.0 | 0.472 - 0.512 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1400 | 13.0 - 14.0 | 0.512 - 0.551 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1500 | 14.0 - 15.0 | 0.551 - 0.591 | 1.339 | 1.035 | ER25-15ST |
| | ER25-1600 | 15.0 - 16.0 | 0.591 - 0.630 | 1.339 | 1.035 | ER25-15ST |
| | ER25-15ST | 1.0 - 16.0 | 0.039 - 0.630 | 1.339 | 1.035 | ER25-15ST |

ER32 Standard Collets Metric

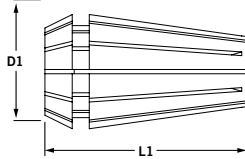


| Standard (mm) | Part Number | Size Range | Ref. Size Range (in) | L1 | D1 | Collet Set Part No. |
|---------------|-------------|-------------|----------------------|-------|-------|---------------------|
| | ER32-0300 | 2.0 - 3.0 | 0.079 - 0.118 | 1.575 | 1.313 | ER32-18ST |
| | ER32-0400 | 3.0 - 4.0 | 0.118 - 0.157 | 1.575 | 1.313 | ER32-18ST |
| | ER32-0500 | 4.0 - 5.0 | 0.157 - 0.197 | 1.575 | 1.313 | ER32-18ST |
| | ER32-0600 | 5.0 - 6.0 | 0.197 - 0.236 | 1.575 | 1.313 | ER32-18ST |
| | ER32-0700 | 6.0 - 7.0 | 0.236 - 0.276 | 1.575 | 1.313 | ER32-18ST |
| | ER32-0800 | 7.0 - 8.0 | 0.276 - 0.315 | 1.575 | 1.313 | ER32-18ST |
| | ER32-0900 | 8.0 - 9.0 | 0.315 - 0.354 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1000 | 9.0 - 10.0 | 0.354 - 0.394 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1100 | 10.0 - 11.0 | 0.394 - 0.433 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1200 | 11.0 - 12.0 | 0.433 - 0.472 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1300 | 12.0 - 13.0 | 0.472 - 0.512 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1400 | 13.0 - 14.0 | 0.512 - 0.551 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1500 | 14.0 - 15.0 | 0.551 - 0.591 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1600 | 15.0 - 16.0 | 0.591 - 0.630 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1700 | 16.0 - 17.0 | 0.630 - 0.669 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1800 | 17.0 - 18.0 | 0.669 - 0.709 | 1.575 | 1.313 | ER32-18ST |
| | ER32-1900 | 18.0 - 19.0 | 0.709 - 0.748 | 1.575 | 1.313 | ER32-18ST |
| | ER32-2000 | 19.0 - 20.0 | 0.748 - 0.787 | 1.575 | 1.313 | ER32-18ST |
| | ER32-18ST | 2.0 - 20.0 | 0.079 - 0.787 | 1.575 | 1.313 | ER32-18ST |

ER40 Standard Collets Inch

| Standard | Part Number | Size Range | Ref. Size Range (mm) | L1 | D1 | Collet Set Part No. |
|---|-------------|---------------|----------------------|-------|-------|---------------------|
|  | ER40-F125 | 0.086 - 0.125 | 2.2 - 3.2 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F187 | 0.148 - 0.187 | 3.8 - 4.7 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F250 | 0.211 - 0.250 | 5.4 - 6.4 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F312 | 0.273 - 0.312 | 6.9 - 7.9 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F375 | 0.336 - 0.375 | 8.5 - 9.5 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F437 | 0.398 - 0.437 | 10.1 - 11.1 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F500 | 0.461 - 0.500 | 11.7 - 12.7 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F562 | 0.523 - 0.562 | 13.3 - 14.3 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F625 | 0.586 - 0.625 | 14.9 - 15.9 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F687 | 0.648 - 0.687 | 16.5 - 17.4 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F750 | 0.711 - 0.750 | 18.0 - 19.0 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F812 | 0.774 - 0.812 | 19.7 - 20.6 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F875 | 0.836 - 0.875 | 21.2 - 22.2 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F937 | 0.899 - 0.937 | 22.8 - 23.8 | 1.811 | 1.614 | ER40-15ST |
| | ER40-F100 | 0.961 - 1.000 | 24.4 - 25.4 | 1.811 | 1.614 | ER40-15ST |
| | ER40-15ST | 0.961 - 1.000 | 2.2 - 25.4 | 1.811 | 1.614 | ER40-15ST |

ER40 Standard Collets Metric

| Standard (mm) | Part Number | Size Range | Ref. Size Range (in) | L1 | D1 | Collet Set Part No. |
|---|-------------|-------------|----------------------|-------|-------|---------------------|
|  | ER40-0400 | 3.0 - 4.0 | 0.118 - 0.157 | 1.811 | 1.614 | ER40-23ST |
| | ER40-0500 | 4.0 - 5.0 | 0.157 - 0.197 | 1.811 | 1.614 | ER40-23ST |
| | ER40-0600 | 5.0 - 6.0 | 0.197 - 0.236 | 1.811 | 1.614 | ER40-23ST |
| | ER40-0700 | 6.0 - 7.0 | 0.236 - 0.276 | 1.811 | 1.614 | ER40-23ST |
| | ER40-0800 | 7.0 - 8.0 | 0.276 - 0.315 | 1.811 | 1.614 | ER40-23ST |
| | ER40-0900 | 8.0 - 9.0 | 0.315 - 0.354 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1000 | 9.0 - 10.0 | 0.354 - 0.394 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1100 | 10.0 - 11.0 | 0.394 - 0.433 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1200 | 11.0 - 12.0 | 0.433 - 0.472 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1300 | 12.0 - 13.0 | 0.472 - 0.512 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1400 | 13.0 - 14.0 | 0.512 - 0.551 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1500 | 14.0 - 15.0 | 0.551 - 0.591 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1600 | 15.0 - 16.0 | 0.591 - 0.630 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1700 | 16.0 - 17.0 | 0.630 - 0.669 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1800 | 17.0 - 18.0 | 0.669 - 0.709 | 1.811 | 1.614 | ER40-23ST |
| | ER40-1900 | 18.0 - 19.0 | 0.709 - 0.748 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2000 | 19.0 - 20.0 | 0.748 - 0.787 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2100 | 20.0 - 21.0 | 0.787 - 0.827 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2200 | 21.0 - 22.0 | 0.827 - 0.866 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2300 | 22.0 - 23.0 | 0.866 - 0.906 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2400 | 23.0 - 24.0 | 0.906 - 0.945 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2500 | 24.0 - 25.0 | 0.945 - 0.984 | 1.811 | 1.614 | ER40-23ST |
| | ER40-2600 | 25.0 - 26.0 | 0.984 - 1.023 | 1.811 | 1.614 | ER40-23ST |
| | ER40-23ST | 3.0 - 26.0 | 0.118 - 1.023 | 1.811 | 1.614 | ER40-23ST |

TG100 Comflex® Collets

► For use with TG100 Comflex® collet chucks, collet nuts, and wrenches. TG100 Comflex® collets have a 0.0004" T.I.R. and a clamping range of 1/64".



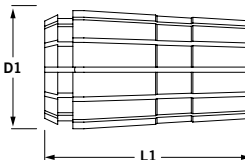
Standard



Sealed

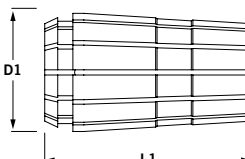
TG100 Comflex® Standard Collets

Measurements are in inches unless noted (mm).

| TG100 Standard | Part Number | Description | Size Range | L1 | D1 |
|---|-------------|--------------------------|---------------|-------|-------|
|  | TG10-0125 | Comflex® Standard Collet | 0.109 - 0.125 | 2.375 | 1.379 |
| | TG10-0187 | Comflex® Standard Collet | 0.172 - 0.187 | 2.375 | 1.379 |
| | TG10-0203 | Comflex® Standard Collet | 0.188 - 0.203 | 2.375 | 1.379 |
| | TG10-0250 | Comflex® Standard Collet | 0.234 - 0.250 | 2.375 | 1.379 |
| | TG10-0265 | Comflex® Standard Collet | 0.250 - 0.265 | 2.375 | 1.379 |
| | TG10-0312 | Comflex® Standard Collet | 0.297 - 0.312 | 2.375 | 1.379 |
| | TG10-0375 | Comflex® Standard Collet | 0.359 - 0.375 | 2.375 | 1.379 |
| | TG10-0406 | Comflex® Standard Collet | 0.391 - 0.406 | 2.375 | 1.379 |
| | TG10-0437 | Comflex® Standard Collet | 0.422 - 0.437 | 2.375 | 1.379 |
| | TG10-0500 | Comflex® Standard Collet | 0.484 - 0.500 | 2.375 | 1.379 |
| | TG10-0562 | Comflex® Standard Collet | 0.547 - 0.562 | 2.375 | 1.379 |
| | TG10-0593 | Comflex® Standard Collet | 0.578 - 0.593 | 2.375 | 1.379 |
| | TG10-0625 | Comflex® Standard Collet | 0.609 - 0.625 | 2.375 | 1.379 |
| | TG10-0656 | Comflex® Standard Collet | 0.641 - 0.656 | 2.375 | 1.379 |
| | TG10-0687 | Comflex® Standard Collet | 0.672 - 0.687 | 2.375 | 1.379 |
| | TG10-0718 | Comflex® Standard Collet | 0.703 - 0.718 | 2.375 | 1.379 |
| | TG10-0750 | Comflex® Standard Collet | 0.734 - 0.750 | 2.375 | 1.379 |
| | TG10-0765 | Comflex® Standard Collet | 0.750 - 0.765 | 2.375 | 1.379 |
| | TG10-0796 | Comflex® Standard Collet | 0.781 - 0.796 | 2.375 | 1.379 |
| | TG10-0875 | Comflex® Standard Collet | 0.859 - 0.875 | 2.375 | 1.379 |
| | TG10-1000 | Comflex® Standard Collet | 0.984 - 1.000 | 2.375 | 1.379 |

TG100 Comflex® Sealed Collets

Measurements are in inches unless noted (mm).

| TG100 Sealed | Part Number | Description | Size Range | L1 | D1 |
|---|-------------|------------------------|------------|-------|-------|
|  | TG10-0234S | Comflex® Sealed Collet | 0.234 | 2.375 | 1.379 |
| | TG10-0312S | Comflex® Sealed Collet | 0.312 | 2.375 | 1.379 |
| | TG10-0375S | Comflex® Sealed Collet | 0.375 | 2.375 | 1.379 |
| | TG10-0390S | Comflex® Sealed Collet | 0.390 | 2.375 | 1.379 |
| | TG10-0484S | Comflex® Sealed Collet | 0.484 | 2.375 | 1.379 |
| | TG10-0500S | Comflex® Sealed Collet | 0.500 | 2.375 | 1.379 |
| | TG10-0562S | Comflex® Sealed Collet | 0.562 | 2.375 | 1.379 |
| | TG10-0625S | Comflex® Sealed Collet | 0.625 | 2.375 | 1.379 |
| | TG10-0750S | Comflex® Sealed Collet | 0.750 | 2.375 | 1.379 |
| | TG10-1000S | Comflex® Sealed Collet | 1.000 | 2.375 | 1.379 |

TG150 Comflex® Collets

► For use with TG150 Comflex® collet chucks, collet nuts, and wrenches. TG150 Comflex® collets have a 0.0004" T.I.R. and a clamping range of 1/64".



Standard

TG150 Comflex® Standard Collets

Measurements are in inches unless noted (mm).

| TG150 Standard | Part Number | Description | Size Range | L1 | D1 |
|----------------|-------------|--------------------------|---------------|-------|-------|
| | TG15-1250 | Comflex® Standard Collet | 1.234 - 1.250 | 3.000 | 2.001 |
| | TG15-1500 | Comflex® Standard Collet | 1.484 - 1.500 | 3.000 | 2.001 |

DA10 Double Angle Collets

► DA double angle collets have a collapse range of 0.0156" and are made from high-carbon steel.



Double Angle

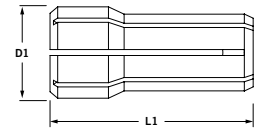
DA10 Double Angle Collets

Measurements are in inches unless noted (mm).

| DA10 | Part Number | Description | Size Range | L1 | D1 |
|-----------|----------------------------------|---------------------|---------------|-------|-------|
| | DA10-0125 | Double Angle Collet | 0.109 - 0.125 | 1.000 | 0.375 |
| | DA10-0140 | Double Angle Collet | 0.125 - 0.140 | 1.000 | 0.375 |
| | DA10-0156 | Double Angle Collet | 0.140 - 0.156 | 1.000 | 0.375 |
| | DA10-0171 | Double Angle Collet | 0.156 - 0.171 | 1.000 | 0.375 |
| | DA10-0187 | Double Angle Collet | 0.171 - 0.187 | 1.000 | 0.375 |
| | DA10-0203 | Double Angle Collet | 0.187 - 0.203 | 1.000 | 0.375 |
| | DA10-0218 | Double Angle Collet | 0.203 - 0.218 | 1.000 | 0.375 |
| | DA10-0234 | Double Angle Collet | 0.218 - 0.234 | 1.000 | 0.375 |
| | DA10-0250 | Double Angle Collet | 0.234 - 0.250 | 1.000 | 0.375 |
| | DA10-0265 | Double Angle Collet | 0.250 - 0.265 | 1.000 | 0.375 |
| | DA10-0281 | Double Angle Collet | 0.265 - 0.281 | 1.000 | 0.375 |
| | DA10-0296 | Double Angle Collet | 0.281 - 0.296 | 1.000 | 0.375 |
| | DA10-0312 | Double Angle Collet | 0.296 - 0.312 | 1.000 | 0.375 |
| | DA10-0328 | Double Angle Collet | 0.312 - 0.328 | 1.000 | 0.375 |
| | DA10-0343 | Double Angle Collet | 0.328 - 0.343 | 1.000 | 0.375 |
| | DA10-0359 | Double Angle Collet | 0.343 - 0.359 | 1.000 | 0.375 |
| | DA10-0375 | Double Angle Collet | 0.359 - 0.375 | 1.000 | 0.375 |
| | DA10-0390 | Double Angle Collet | 0.375 - 0.390 | 1.000 | 0.375 |
| | DA10-0406 | Double Angle Collet | 0.390 - 0.406 | 1.000 | 0.375 |
| | DA10-0421 | Double Angle Collet | 0.406 - 0.421 | 1.000 | 0.375 |
| | DA10-0437 | Double Angle Collet | 0.421 - 0.437 | 1.000 | 0.375 |
| | DA10-0453 | Double Angle Collet | 0.437 - 0.453 | 1.000 | 0.375 |
| | DA10-0468 | Double Angle Collet | 0.453 - 0.468 | 1.000 | 0.375 |
| | DA10-0484 | Double Angle Collet | 0.468 - 0.484 | 1.000 | 0.375 |
| | DA10-0500 | Double Angle Collet | 0.484 - 0.500 | 1.000 | 0.375 |
| | DA10-0515 | Double Angle Collet | 0.500 - 0.515 | 1.000 | 0.375 |
| | DA10-0531 | Double Angle Collet | 0.515 - 0.531 | 1.000 | 0.375 |
| | DA10-0546 | Double Angle Collet | 0.531 - 0.546 | 1.000 | 0.375 |
| | DA10-0562 | Double Angle Collet | 0.546 - 0.562 | 1.000 | 0.375 |
| DA10-29ST | 29-Piece Double Angle Collet Set | 0.109 - 0.562 | 1.000 | 0.375 | |

DA18 Double Angle Collets

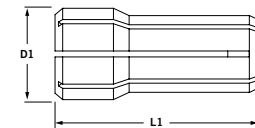
Measurements are in inches unless noted (mm).



| DA18 | Part Number | Description | Size Range | L1 | D1 |
|------|-------------|----------------------------------|---------------|-------|-------|
| | DA18-0187 | Double Angle Collet | 0.172 - 0.187 | 1.188 | 1.531 |
| | DA18-0250 | Double Angle Collet | 0.234 - 0.250 | 1.188 | 1.531 |
| | DA18-0265 | Double Angle Collet | 0.250 - 0.265 | 1.188 | 1.531 |
| | DA18-0281 | Double Angle Collet | 0.265 - 0.281 | 1.188 | 1.531 |
| | DA18-0296 | Double Angle Collet | 0.281 - 0.296 | 1.188 | 1.531 |
| | DA18-0312 | Double Angle Collet | 0.296 - 0.312 | 1.188 | 1.531 |
| | DA18-0328 | Double Angle Collet | 0.312 - 0.328 | 1.188 | 1.531 |
| | DA18-0343 | Double Angle Collet | 0.328 - 0.343 | 1.188 | 1.531 |
| | DA18-0359 | Double Angle Collet | 0.343 - 0.359 | 1.188 | 1.531 |
| | DA18-0375 | Double Angle Collet | 0.359 - 0.375 | 1.188 | 1.531 |
| | DA18-0390 | Double Angle Collet | 0.375 - 0.390 | 1.188 | 1.531 |
| | DA18-0406 | Double Angle Collet | 0.390 - 0.406 | 1.188 | 1.531 |
| | DA18-0421 | Double Angle Collet | 0.406 - 0.421 | 1.188 | 1.531 |
| | DA18-0437 | Double Angle Collet | 0.421 - 0.437 | 1.188 | 1.531 |
| | DA18-0453 | Double Angle Collet | 0.437 - 0.453 | 1.188 | 1.531 |
| | DA18-0468 | Double Angle Collet | 0.453 - 0.468 | 1.188 | 1.531 |
| | DA18-0484 | Double Angle Collet | 0.468 - 0.484 | 1.188 | 1.531 |
| | DA18-0500 | Double Angle Collet | 0.484 - 0.500 | 1.188 | 1.531 |
| | DA18-0515 | Double Angle Collet | 0.500 - 0.515 | 1.188 | 1.531 |
| | DA18-0531 | Double Angle Collet | 0.515 - 0.531 | 1.188 | 1.531 |
| | DA18-0546 | Double Angle Collet | 0.531 - 0.546 | 1.188 | 1.531 |
| | DA18-0562 | Double Angle Collet | 0.546 - 0.562 | 1.188 | 1.531 |
| | DA18-0578 | Double Angle Collet | 0.562 - 0.578 | 1.188 | 1.531 |
| | DA18-0593 | Double Angle Collet | 0.578 - 0.593 | 1.188 | 1.531 |
| | DA18-0609 | Double Angle Collet | 0.593 - 0.609 | 1.188 | 1.531 |
| | DA18-0625 | Double Angle Collet | 0.609 - 0.625 | 1.188 | 1.531 |
| | DA18-0640 | Double Angle Collet | 0.625 - 0.640 | 1.188 | 1.531 |
| | DA18-0656 | Double Angle Collet | 0.640 - 0.656 | 1.188 | 1.531 |
| | DA18-0671 | Double Angle Collet | 0.656 - 0.671 | 1.188 | 1.531 |
| | DA18-0687 | Double Angle Collet | 0.671 - 0.687 | 1.188 | 1.531 |
| | DA18-0703 | Double Angle Collet | 0.687 - 0.703 | 1.188 | 1.531 |
| | DA18-0718 | Double Angle Collet | 0.703 - 0.718 | 1.188 | 1.531 |
| | DA18-0734 | Double Angle Collet | 0.718 - 0.734 | 1.188 | 1.531 |
| | DA18-0750 | Double Angle Collet | 0.734 - 0.750 | 1.188 | 1.531 |
| | DA18-33ST | 33-Piece Double Angle Collet Set | 0.234 - 0.750 | 1.188 | 1.531 |

DA20 Double Angle Collets

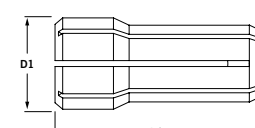
Measurements are in inches unless noted (mm).



| DA20 | Part Number | Description | Size Range | L1 | D1 |
|------|-------------|----------------------------------|---------------|-------|-------|
| | DA20-0062 | Double Angle Collet | 0.046 - 0.062 | 1.438 | 0.769 |
| | DA20-0078 | Double Angle Collet | 0.062 - 0.078 | 1.438 | 0.769 |
| | DA20-0093 | Double Angle Collet | 0.078 - 0.093 | 1.438 | 0.769 |
| | DA20-0109 | Double Angle Collet | 0.093 - 0.109 | 1.438 | 0.769 |
| | DA20-0125 | Double Angle Collet | 0.109 - 0.125 | 1.438 | 0.769 |
| | DA20-0140 | Double Angle Collet | 0.125 - 0.140 | 1.438 | 0.769 |
| | DA20-0156 | Double Angle Collet | 0.140 - 0.156 | 1.438 | 0.769 |
| | DA20-0171 | Double Angle Collet | 0.156 - 0.171 | 1.438 | 0.769 |
| | DA20-0187 | Double Angle Collet | 0.171 - 0.187 | 1.438 | 0.769 |
| | DA20-0203 | Double Angle Collet | 0.187 - 0.203 | 1.438 | 0.769 |
| | DA20-0218 | Double Angle Collet | 0.203 - 0.218 | 1.438 | 0.769 |
| | DA20-0234 | Double Angle Collet | 0.218 - 0.234 | 1.438 | 0.769 |
| | DA20-0250 | Double Angle Collet | 0.234 - 0.250 | 1.438 | 0.769 |
| | DA20-0265 | Double Angle Collet | 0.250 - 0.265 | 1.438 | 0.769 |
| | DA20-0281 | Double Angle Collet | 0.265 - 0.281 | 1.438 | 0.769 |
| | DA20-0296 | Double Angle Collet | 0.281 - 0.296 | 1.438 | 0.769 |
| | DA20-0312 | Double Angle Collet | 0.296 - 0.312 | 1.438 | 0.769 |
| | DA20-0328 | Double Angle Collet | 0.312 - 0.328 | 1.438 | 0.769 |
| | DA20-0343 | Double Angle Collet | 0.328 - 0.343 | 1.438 | 0.769 |
| | DA20-0359 | Double Angle Collet | 0.343 - 0.359 | 1.438 | 0.769 |
| | DA20-0375 | Double Angle Collet | 0.359 - 0.375 | 1.438 | 0.769 |
| | DA20-21ST | 21-Piece Double Angle Collet Set | 0.046 - 0.375 | 1.438 | 0.769 |

DA30 Double Angle Collets

Measurements are in inches unless noted (mm).



| DA30 | Part Number | Description | Size Range | L1 | D1 |
|------|-------------|----------------------------------|---------------|-------|-------|
| | DA30-0046 | Double Angle Collet | 0.031 - 0.046 | 1.625 | 1.035 |
| | DA30-0062 | Double Angle Collet | 0.046 - 0.062 | 1.625 | 1.035 |
| | DA30-0078 | Double Angle Collet | 0.062 - 0.078 | 1.625 | 1.035 |
| | DA30-0093 | Double Angle Collet | 0.078 - 0.093 | 1.625 | 1.035 |
| | DA30-0109 | Double Angle Collet | 0.093 - 0.109 | 1.625 | 1.035 |
| | DA30-0125 | Double Angle Collet | 0.109 - 0.125 | 1.625 | 1.035 |
| | DA30-0140 | Double Angle Collet | 0.125 - 0.140 | 1.625 | 1.035 |
| | DA30-0156 | Double Angle Collet | 0.140 - 0.156 | 1.625 | 1.035 |
| | DA30-0171 | Double Angle Collet | 0.156 - 0.171 | 1.625 | 1.035 |
| | DA30-0187 | Double Angle Collet | 0.171 - 0.187 | 1.625 | 1.035 |
| | DA30-0203 | Double Angle Collet | 0.187 - 0.203 | 1.625 | 1.035 |
| | DA30-0218 | Double Angle Collet | 0.203 - 0.218 | 1.625 | 1.035 |
| | DA30-0234 | Double Angle Collet | 0.218 - 0.234 | 1.625 | 1.035 |
| | DA30-0250 | Double Angle Collet | 0.234 - 0.250 | 1.625 | 1.035 |
| | DA30-14ST | 14-Piece Double Angle Collet Set | 0.031 - 0.250 | 1.625 | 1.035 |

Double Angle Collet Extensions

- ▶ Command's double angle collet extensions offer four different types to fit all tooling needs. Each type offers a unique low-profile nose diameter making it easier to solve clearance problems.



Measurements are in inches unless noted (mm).

| Double Angle Collet Extensions | Part Number | Description | D1 | D2 | L1 | L2 |
|--------------------------------|-------------|------------------------------------|------|------|------|-----|
| | DACE-0030 | DA30 Double Angle Collet Extension | 0.50 | 0.55 | 6.79 | 5.3 |
| | DACE-0020 | DA20 Double Angle Collet Extension | 0.75 | 0.83 | 7.23 | 5.3 |
| | DACE-0010 | DA10 Double Angle Collet Extension | 1.00 | 1.06 | 7.47 | 5.5 |
| | DACE-0018 | DA18 Double Angle Collet Extension | 1.25 | 1.44 | 7.37 | 5.5 |

Replacement Collet Nut



Measurements are in inches unless noted (mm).

| Double Angle Collet Extensions | Part Number | Description | D1 | D2 |
|--------------------------------|-------------|--|-------|-------|
| | DACN-0030 | DA30 Double Angle Replacement Nose piece | 0.560 | 0.500 |
| | DACN-0020 | DA20 Double Angle Replacement Nose piece | 0.860 | 0.750 |
| | DACN-0010 | DA10 Double Angle Replacement Nose piece | 1.060 | 0.875 |
| | DACN-0018 | DA18 Double Angle Replacement Nose piece | 1.440 | 1.250 |

ER Collet Extensions Inch

- ▶ Extend the reach of your current tool holders with collet extensions.



Measurements are in inches unless noted (mm).

| ER Collet Extensions | Part Number | Description | D1 | D2 | L1 | L2 |
|----------------------|-------------|-----------------------------|------|------|------|------|
| | ERCE-0011 | ER11 Collet Chuck Extension | 0.50 | 0.62 | 6.60 | 5.80 |
| | ERCE-0016 | ER16 Collet Chuck Extension | 0.75 | 1.26 | 7.00 | 5.90 |
| | ERCE-0020 | ER20 Collet Chuck Extension | 1.00 | 1.38 | 7.00 | 5.80 |
| | ERCE-0025 | ER25 Collet Chuck Extension | 1.00 | 1.64 | 7.50 | 5.50 |
| | ERCE-0032 | ER32 Collet Chuck Extension | 1.25 | 1.97 | 7.50 | 5.50 |
| | ERCE-0040 | ER40 Collet Chuck Extension | 1.25 | 2.48 | 6.00 | 3.50 |

ThermoLock® Extensions

- ▶ ThermoLock® extensions are ideal for small diameter tools. Extensions expand tool holder cutter range and extend tools for difficult to reach areas.



ThermoLock® 4.5" Extensions Inch

| ThermoLock® Extensions | Part Number | D1 | D2 | D3 | L1 | L2 | Angle |
|------------------------|-------------|-------|------|------|-----|------|-------|
| | SSL4-0802 | 0.125 | 0.31 | 0.50 | 6.3 | 1.18 | 4.5 |
| | SSL4-0803 | 0.187 | 0.31 | 0.50 | 6.3 | 1.18 | 4.5 |
| | SSL4-1002 | 0.125 | 0.39 | 0.63 | 6.3 | 1.47 | 4.5 |
| | SSL4-1003 | 0.187 | 0.39 | 0.63 | 6.3 | 1.47 | 4.5 |
| | SSL4-1004 | 0.250 | 0.39 | 0.63 | 6.3 | 1.47 | 4.5 |
| | SSL4-1204 | 0.250 | 0.55 | 0.75 | 6.3 | 1.26 | 4.5 |
| | SSL4-1206 | 0.375 | 0.55 | 0.08 | 6.3 | 1.26 | 4.5 |
| | SSL4-1606 | 0.375 | 0.79 | 1.00 | 6.3 | 1.35 | 4.5 |
| | SSL4-1608 | 0.500 | 0.79 | 1.00 | 6.3 | 1.35 | 4.5 |
| | SSL4-1610 | 0.625 | 0.87 | 1.00 | 6.3 | 0.85 | 4.5 |
| | SSL4-2006 | 0.375 | 0.94 | 1.25 | 6.3 | 1.94 | 4.5 |
| | SSL4-2008 | 0.500 | 0.94 | 1.25 | 6.3 | 1.94 | 4.5 |
| | SSL4-2010 | 0.625 | 1.06 | 1.25 | 6.3 | 1.19 | 4.5 |

ThermoLock® 4.5" Extensions Metric

| ThermoLock® Extensions | Part Number | D1 | D2 | D3 | L1 | L2 | Angle |
|------------------------|-------------|------|------|------|-------|--------|-------|
| | SSL4-1203M | 3mm | 8mm | 12mm | 160mm | 25.4mm | 4.5 |
| | SSL4-1204M | 4mm | 8mm | 12mm | 160mm | 25.4mm | 4.5 |
| | SSL4-1604M | 4mm | 10mm | 16mm | 160mm | 38.1mm | 4.5 |
| | SSL4-1605M | 5mm | 10mm | 16mm | 160mm | 38.1mm | 4.5 |
| | SSL4-1606M | 6mm | 10mm | 16mm | 160mm | 38.1mm | 4.5 |
| | SSL4-2006M | 6mm | 14mm | 20mm | 160mm | 38.1mm | 4.5 |
| | SSL4-2008M | 8mm | 14mm | 20mm | 160mm | 38.1mm | 4.5 |
| | SSL4-2508M | 8mm | 19mm | 25mm | 160mm | 38.1mm | 4.5 |
| | SSL4-2510M | 10mm | 20mm | 25mm | 160mm | 31.8mm | 4.5 |
| | SSL4-2512M | 12mm | 20mm | 25mm | 160mm | 31.8mm | 4.5 |
| | SSL4-2514M | 14mm | 20mm | 25mm | 160mm | 31.8mm | 4.5 |
| | SSL4-2516M | 16mm | 22mm | 25mm | 160mm | 19.1mm | 4.5 |

Prodigy P1 & P2 CNC Cleaning Fans

▶ Command's Prodigy CNC cleaning fans are the perfect complimentary tools for all CNC users, both big and small, short run or production. Prodigy cleaning fans have been engineered to provide you the best results possible when it comes to removing machined material chips, coolant, and other debris from your workpiece or fixture. The Prodigy cleaning fans have a cylindrical shank that can be mounted into your collet chuck or endmill holder. Once your new Prodigy fan is installed into your tool holder and mounted in the machine spindle, use your machine control to do the cleaning unattended between machining cycles—eliminating chip accumulation without compromising labor and machine time.

Steel Shank

- + The mounting cylindrical shank is made out of high quality U.S. 4140 steel.

Durable Fan Blades

- + All fan blades are manufactured utilizing glass fiber reinforced nylon for durability and abrasion resistance.

Easy Replacement

- + Prodigy cleaning fans are designed for easy disassembly—allowing quick replacement.

Through Coolant

- + Through coolant capable, wash your part prior fan use.

Economical

- + Innovative and affordable automatic cleaning solution for all your CNC machining centers.

Weldon-Flat

- + The shank is manufactured with a Weldon-Flat which allows the utilization of an endmill holder.



| Prodigy Fans | Product Code | Part Number | D1 | D2 | Ø WITH OPEN BLADES | L1 |
|--------------|--------------|-------------|---------|--------|--------------------|--------------|
| | P1 | FS04-0254 | 0.750** | 2.66" | 10.0" (254mm) | 5.5" (142mm) |
| | P1 | FSM4-0254 | 20mm* | 67.7mm | 10.0" (254mm) | 5.5" (142mm) |
| | P2 | FS04-0160 | 0.750** | 2.66" | 6.3" (160mm) | 2.5" (64mm) |
| | P2 | FSM4-0160 | 20mm* | 67.7mm | 6.3" (160mm) | 2.5" (64mm) |

*Additional shank sizes available on request.

| Prodigy Replacement Parts | PART NUMBER | DESCRIPTION | PRODUCT KIT |
|---------------------------|-------------|-----------------------------------|-------------|
| | FKIT-0001 | P1 Blade Kit**; 1-piece | P1 |
| | FKIT-0002 | P1 Blade Kit**; 4-pieces | P1 |
| | FKIT-0003 | Hardware Assembly Kit; Inch Fan | P1/P2 |
| | FKIT-0004 | Plastic Hub Kit | P1/P2 |
| | FKIT-0005 | Hardware Assembly Kit; Metric Fan | P1/P2 |
| | FKIT-0006 | P2 Blade Kit**; 1-piece | P2 |
| | FKIT-0007 | P2 Blade Kit**; 4-pieces | P2 |

**Replacement Blade Kits comes with spring holding pin and positioning pin preassembled.



Blade Kits:
FKIT-0001 & FKIT-0002
(1-fan blade shown)



Blade Kits:
FKIT-0006 & FKIT-0007
(1-fan blade shown)



Plastic Hub Kit:
FKIT-0004
(Includes: 1-black nose hub,
1-red base hub)



Hardware Assembly Kits:
FKIT-0003 & FKIT-0005
(Includes: 1-hook washer, 1-step washer,
1-lock-nut, 4-springs)

Zero Master Edge Finder

▶ The Zero Master Edge Finder helps increase productivity by eliminating calculation errors and minimizing costly down time.



Quick And Easy To Use

1. Clamp into machine spindle (or electrode head).
2. Adjust T.I.R. to zero.
3. The digital readout indicates the distance between the spindle axis and workpiece edge.

Zero Master Edge Finder

1. Increases productivity by eliminating calculation errors.
2. Can be used on any milling machine.
3. Also for use on EDM machines (with insulated probe).
4. Measures X, Y, or Z-axis.
5. Locates workpiece edges (from spindle center) or workpiece length.
6. Easy-to-read digital display in inch units.
7. Splash-proof, dust-proof unit can be stored in the machine tool carousel; ready for use.
8. Battery operated (3V Lithium) for up to 3,000 hours continuous operation.
9. Extended probe displacement range helps prevent damage.

| Zero Master Edge Finder | Part Number | Description |
|-------------------------|-------------|---------------------------------|
| | XWEF-0001 | Command Zero Master Edge Finder |

| Zero Master Replacement Parts | Part Number | Description |
|-------------------------------|-------------|-----------------------------------|
| | XWEF-0001-5 | Replacement Probe 1.0" Length Tip |
| | XWEF-0001-6 | Optional Probe 2.6" Length Tip |



Shell Mill Replacement Keys & Lock Screws

Shell Mill Replacement Keys & Lock Screws





PROUDLY MADE IN THE U.S.A.



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