

Sure-Grip® Expanding Collet Systems

Sure-grip expanding collet systems offer internal gripping solutions for thin wall parts, or workpieces with exterior threading...

Expanding collets will handle a variation in size of +.015" to -.001" (+.38 to .025mm) from its specified size – ideal for bar work!

Collets are available from 1/8" up to 4" diameter (3.18 to 101.60 mm) as standard. Hex, square and special-shaped collets are available.



Sure-Grip® Expanding Collet Systems

The Hardinge Sure-Grip expanding collet provides high precision internal gripping solutions. Features include true parallel gripping, instant centering of the part and a wide gripping range of each collet head. Hardinge precision manufacturing process guarantees that the total indicator reading (TIR) of the arbor will be within .0002" (.00508mm). With the expanding collet mounted on the arbor, the TIR of the collet and the arbor will not exceed .0005" (.0127mm). The one-piece spindle arbor construction and the closing mechanism hold the workpiece extremely rigid for better surface finishes and concentricity. Mount directly to the spindle without the use of an adapter.

HQC® Quick-Change Collet Systems

HQC Quick-Change Collet Systems offer the shortest overhang from the spindle with true parallel gripping and flexible grip range for variations in bar stock!



HQC® Quick-Change Collet Systems

The HQC Quick-Change Collet System mount is shorter than collet adaptation chucks and power chucks. Interchangeable quick-change collet heads have a working range of $\pm 1/64$ " (.396mm) for under a 2" (50.8mm) diameter, and $\pm 1/32$ " (.793mm) for a 2" (50.8mm) diameter and over, making them ideal for bar work. True parallel gripping affords high feed rates and spindle speeds.

Replace your 3-Jaw power chuck with the HQC Quick-Change Collet System. The reduction in weight and the unique, efficient design of the HQC system allow you to increase the spindle rpm without any concern for centrifugal forces. Chucking forces are higher than jaw chucks and standard solid collets.



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Spindle Tooling

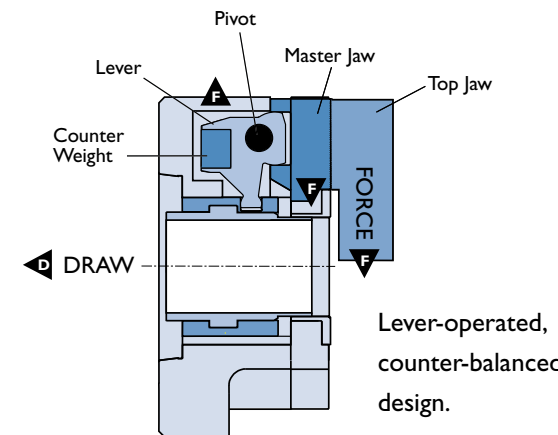
for Hardinge® GS-, TALENT®, SR- and SV-Series Turning Centers



Hardinge Sure-Grip® lever-operated, counter-balanced power chucks.

Sure-Grip® 3-Jaw Power Chucks

Hardinge power chucks are lever operated, counter-centrifugal and dynamically balanced. A counter weight on the back of each master jaw lever takes advantage of centrifugal force to provide superior gripping. This enables you to continually operate your turning center at higher spindle speeds and feed rates with less concern for loss of jaw force normally associated with standard wedge-style chucks. Hardinge designed the Sure-Grip Power Chuck using Finite Element Analysis (FEA) to assure a long lasting, quality gripping device. The Sure-Grip Power Chuck will mount directly to the spindle without the use of an adapter. Quick-Change chucks are available and use a patented top jaw design for jaw changeover in less than one minute. A unique locking system eliminates the possibility of jaws coming off during operation.



Lever-operated, counter-balanced design.

Soft (Aluminum & Steel) Standard, Pie Jaws® and Standard Hard Jaws

Standard-height soft pointed top jaws are included with each Sure-Grip Chuck. Standard-height soft flat, medium-height soft pointed and flat, or hard serrated single-step jaws with 1.5mm x 60° serrations are available. Hardinge also provides replacement jaws for other brands of chucks.



Sure-Grip® 3-Jaw Power Chuck Part Numbers

Machine Models	GS150, SV150, TALENT 6/45,	GS200, SV200, TALENT 8/52	GS200/66 TALENT 8/66	GS250 TALENT 10/78	SR150	SR200	SR250
Spindle Style	A2-5	A2-6	A2-6	A2-8	A2-6	A2-6	A2-8
Chuck Diameter	6"/150mm	8"/200mm	8"/200mm	10"/250mm	6.65"/169mm	8.96"/227mm	10.5"/266mm
Part Number	SC-2300306-A25T	SC-2200308-A26T	SC-2300308-A26T	SC-2200310-A28T	SC-2000306-A6SR	SC-2300308-A6SR	SC-2300310-A8SR
Part Number (Quick-Change)	SC-2370306-A25T	SC-2270308-A26T	SC-2370308-A26T	SC-2270310-A28T	SC-2070306-A6SR	SC-2370308-A6SR	SC-2370310-A8SR



Take your Hardinge turning center to the limit with flexible workholding options...



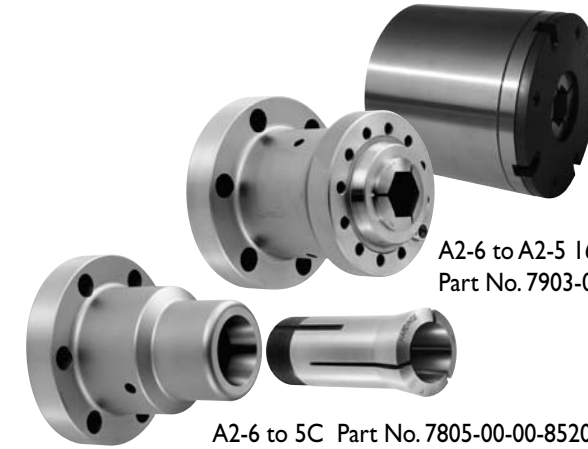
Add Collet Adaptation Chucks to your workbench to increase your machines's capability and productivity. Adapt to collets, master collets, or step chucks for high precision and accuracy when required.

Collet Adaptation Chucks

Hardinge manufactures several models of Collet Chucks for increased capability, productivity and control when comparing to a jaw chuck. Collet Chucks weigh less than jaw chucks, offering faster job setup, acceleration and deceleration. Higher spindle speeds can be achieved for reduced cycle times. Collets offer improved part concentricity over jaw chucks and eliminate any time spent on boring jaws. Master collets and pads can be used for fast changeover.

Collet Adaptation Part Numbers (see brochure 2352 for detailed specifications)

Machine Model Spindle Style	GS150, TALENT 6/45, SV150 A2-5	GS200, TALENT 8/52, SV200 A2-6	GS200/66, TALENT 8/66 A2-6	GS250, TALENT 10/78 A2-8
Adapt to 5C	7803-00-00-645000	7805-00-00-852000	7805-00-00-866000	—
Adapt to 16C	7817-00-00-645000	7819-00-00-852000	7819-00-00-866000	—
Adapt to 3J	7811-00-00-645000	7813-00-00-852000	7813-00-00-866000	—
Adapt to S20 (masters)	—	7837-00-00-852200	—	—
Adapt to S26 (masters)	—	—	7850-00-00-866000	—
Adapt to S30 (masters)	—	—	—	7850-00-90-107800
Adapt to A2-5 16C	7833-00-00-64500	7903-00-00-852000	7903-00-00-866000	—
Adapt to B42	7842-00-00-64500	—	—	—
Adapt to B60	—	7860-00-00-852000	7860-00-00-866000	—



A2-6 to B60
Part No. 7860-00-00-852000

A2-6 to A2-5 16C
Part No. 7903-00-00-852000

A2-6 to 5C Part No. 7805-00-00-852000



A2-6 to S20
Part No. 7837-00-00-852200

5C, 16C and 3J Collets

Hardinge hardened and ground collets are inspected and measured in a Hardinge Super-Precision® spindle. Collets are available in fractional round, hex and square sizes, round metric, as well as round serrated fractional and metric sizes. Adjustable, machinable collet stops can be used for accurate part positioning.

Step Chucks and Closers**

Step Chucks and closers are used to accurately hold larger diameter parts and are available to use in the A2-5 16C collet chucks.

Emergency Collets

Emergency collets have a soft face with a pilot hole for customer drilling, boring and stepping out to the exact size required. An optional extended nose permits larger, deeper counterbores when required, and tool clearance for extended work.

Dead-Length® Systems

Maintain part length control by using Hardinge Dead-Length Systems. Choose from dead-length collet assemblies, thru-hole collets, step chucks and spider-stop step chucks.

Style "S" Master Collets & Pads

Pads can be changed much quicker than solid collets can. Pads cost less and use less storage space when compared to a standard solid collet. Choose from hardened and ground, semi-hard and emergency pads.

5C, 16C and 3J Collet Capacities (reference machine compatibility above)

COLLET STYLE	5C	16C	3J
Collet (maximum capacities)			
Round-Smooth & serrated	1 1/16" / 26.99	1 5/8" / 41.28	1 3/4" / 44.45
Hex-Smooth	29/32" / 23.02	1 13/32" / 35.72	1 17/32" / 38.89
Square-Smooth	3/4" / 19.05	1 9/64" / 28.97	1 1/4" / 31.75
Collet Stops	Solid, Long, Ejector, Universal	Solid, Long, Ejector, —	Solid, Long, Ejector —
Emergency Collet (pilot hole size)	1/4", 1/16", 1/8", none	1/4", 1/16", 1/8", none	1/4" and 1/16"
Extended-Nose Collet (extension length)	1 1/2" / 38.10	—	—
Extended-Nose Emergency Collet (exten. length)	1/2" & 1" / 12.70 & 25.40	1/2" & 1" / 12.70 & 25.40	1/2" & 1" / 12.70 & 25.40
Step Chucks & Closers - Emergency Style *			
Regular-Depth Emergency (max. dia. {depth})	—	2"-6" {1/2"} 50.80-152.40 {12.70}	2"-6" {5/8"} 50.80-152.40 {15.88}
Extra-Depth Emergency (max. dia. {depth})	—	2" - 6" {1 1/4"} 50.80-152.40 {31.75}	—
Dead-Length Control - Emergency Style *			
Collet style (max. thru diameter bore)	55/64" / 21.83	1 13/32" / 35.72	—
Thru-hole Collet (max. round capacity)	3/4" / 19.05	1 3/16" / 30.16	—
Step Chuck (max. diameter bore)	2" / 50.80	2 3/4" / 69.85	—
Spider-Stop Step Chuck (max. diameter bore)	—	3", 4" / 76.20, 101.60	—

* also available hardened and ground

Dimensions shown in inch / millimeter

Other Workholding Capacities

Machine Model Spindle Style:	GS150, TALENT® 6/45, SV150 A2-5	GS200, TALENT 8/52, SV200 A2-6	GS200/66, TALENT 8/66 A2-6	GS250, TALENT 10/78 A2-8
Master Collets & Pads-Style "S"	—	S20	S26	S30
Round (maximum capacity)	—	2" / 50.80	2 5/8" / 66.68	3" / 76.20
B-Style Collets (maximum capacities)	B42	B60	B60	—
Round-Smooth & serrated	1 5/8" / 41.27	2 3/8" / 60.33	2 3/8" / 60.33	—
Hex-Smooth	1 13/32" / 35.71	2 3/64" / 51.99	2 3/64" / 51.99	—
Square-Smooth	1 9/64" / 28.97	1 43/64" / 42.47	1 43/64" / 42.47	—
Round Emergency (pilot hole)	1/4" / 6.35	1/4" / 6.35	1/4" / 6.35	—
Fixtures - Spindle-Mount Style **	8 7/8" / 225.42	—	—	—
Mounts Direct to Spindle:				
HQC® Quick-Change Collets (max. capacities)	HQC-42	HQC-65	HQC-65	HQC-65
Round-Smooth & serrated	1 3/4" / 44.45	2.559" / 65.00	2.559" / 65.00	2.559" / 65.00
Hex-Smooth	1 1/2" / 38.10	2 3/32" / 54.77	2 3/32" / 54.77	2 3/32" / 54.77
Square-Smooth	1 1/4" / 31.75	1 3/4" / 44.45	1 3/4" / 44.45	1 3/4" / 44.45
Sure-Grip® Expanding Collet Systems	100-600	300-600	300-600	300-600
Spindle-Mount Style (working range)	1/8" - 4" / 3.17 - 101.60	1" - 4" / 25.40 - 101.60	1" - 4" / 25.40 - 101.60	1" - 4" / 25.40 - 101.60
Sure-Grip® 3-Jaw Power Chucks (diameter)	6" / 150	8" / 200	8" / 200	10" / 250

** for use on spindle-to-spindle adapters

Dimensions shown in inch / millimeter