

WORKHOLDING

FlexC® QUICK CHANGE
COLLET SYSTEM

2021 Edition



AMERICAN MADE
WORKHOLDING

 **HARDINGE®**

WORKHOLDING

FlexC® QUICK CHANGE COLLET CHUCKS

WHY BUY A HARDINGE FlexC® QUICK-CHANGE COLLET SYSTEM?

- 10x THE GRIP RANGE OF STANDARD COLLETS +/- .020"
- 100MM COLLETS +/- .040"
- 2x AS ACCURATE (.0004 TIR)
- TRUE PARALLEL GRIPPING
- UP TO 19x FASTER CHANGEOVER COMPARED TO STANDARD COLLETS OR 3 JAW CHUCKS
- LIFETIME GUARANTEE ON COLLET VULCANIZATION
- FULLY INTERCHANGEABLE WITH COMPETITOR MODELS (42, 65, & 100MM)



FlexC® DESIGN UPGRADES

ULTIMATE FLEXIBILITY

Capable of accepting Hardinge Quick Change Adapters. (see page 8)

COMPACT DESIGN

Compact design allows for optimal tool clearances and maximum machining workspace.

BETTER PART FINISH

Collet chucks allow for higher RPMs than traditional 3-jaw chucks.

QUALITY ASSURANCE

Manufactured and assembled in the USA with top grade materials and inspection processes.

ACCURACY IMPROVEMENTS

.0002" TIR on the closing angle of the chuck.

10x THE GRIP RANGE

Grip range of +/- .020" allowing for part size variation. 42, 65, 80, +/- .040" on 100mm collets



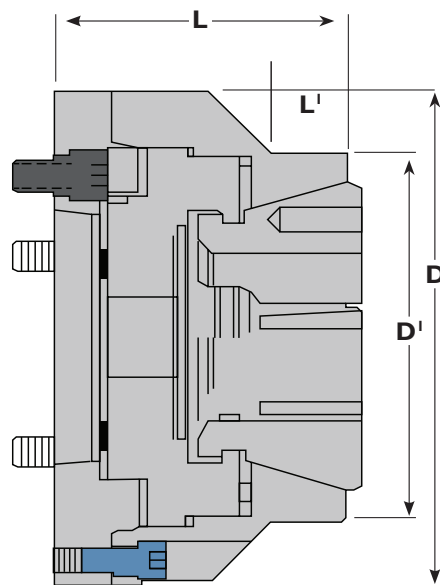
AMERICAN MADE WORKHOLDING

FOR REAL AMERICAN QUALITY & PERFORMANCE



STYLE D

PULL-BACK WITH THRU-HOLE



42 & 65MM SYSTEMS

42MM & 65MM* STYLE D SPINDLE MOUNT CHUCK

Size	Spindle Type	Part Number	D' - Diameter	D - Diameter	L' - Length	L - Length	Price
42	A2-5	V42 5D00300	4.016" (102)	5.512" (140)	.846" (21.5)	3.543" (90)	\$2,000
42	A2-6	V42 6D00400	4.016" (102)	6.496" (165)	.846" (21.5)	3.543" (90)	\$2,000
42	I40mm	V42 I40D01700	4.016" (102)	5.906" (150)	.846" (21.5)	3.528" (89.62)	\$2,000
65	A2-5	V65 5D00550	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.740" (94.996)	\$2,300
65	A2-6	V65 6D00650	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.740" (94.996)	\$2,300
65	A2-8	V65 8D00750	4.736" (120.3)	8.268" (210)	.907" (23.04)	4.240" (107.7)	\$2,300
65	I40mm	V65 I40D01950	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.788" (96.22)	\$2,300

* Limited to machine capacity. (millimeters in parentheses)



SAME-DAY SHIPPING

Hardinge holds to a strict 95% same day ship rate for all standard Workholding products. Serving our customer requests quickly is our goal.

Hardinge stocks more than 15,000 Workholding SKUs in our in-house inventory. We ship every day, all day, to serve our customers.



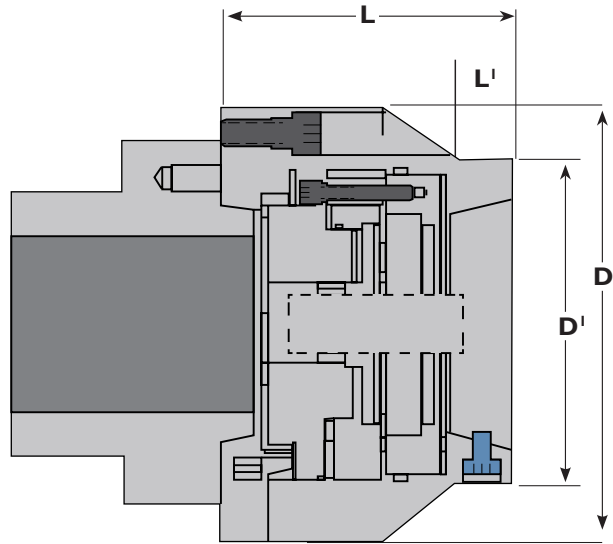
CUSTOMER SUPPORT

Our fully staffed team of experienced customer service representatives will help you from product identification to shipment.

Accomplished Engineers, averaging over 20 years of service to the industry, making that special application easy for you.

STYLE A

PULL-BACK DESIGN WITH A DEAD-LENGTH® WORKSTOP



42 & 65MM SYSTEMS



Dead Stop Included
V42 5A01011 (M12 X 1.75)
V65 6DL05836 (1"-20 Thread)
V80 6DL06213 (1" - 20)
VI00 00007113

42, 65, 80, 100MM* STYLE A SPINDLE MOUNT CHUCK

Size	Spindle Type	Part Number	D' - Diameter	D - Diameter	L' - Length	L - Length	Price
42	A2-5	V42 5A01000	4.016" (102)	5.512" (140)	.610" (15.5)	4.764" (121)	\$3,100
42	A2-6	V42 6A01100	4.016" (102)	6.496" (165)	.610" (15.5)	4.764" (121)	\$3,100
42	I40mm	V42 I40A01600	4.016" (102)	5.906" (150)	.610" (15.5)	4.946" (125.62)	\$3,100
65	A2-5	V65 5A01250	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.942" (125.53)	\$3,600
65	A2-6	V65 6A01350	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.942" (125.53)	\$3,600
65	A2-8	V65 8A01450	4.736" (120.3)	8.268" (210)	.845" (21.46)	5.442" (138.23)	\$3,600
65	I40mm	V65 I40A02350	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.990" (126.75)	\$3,600
80	A2-5	V80 5A06620	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.42)	\$3,800
80	A2-6	V80 6A06420	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)	\$3,800
80	A2-8	V80 8A06520	5.750" (146.1)	8.250" (209.6)	1.000" (25.4)	5.174" (131.4)	\$3,800
80	I40mm	V80 I40A06720	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)	\$3,800
100	A2-6	VI00 6A07600	6.750" (171.45)	9.625" (244.475)	1.074" (27.2796)	6.188" (157.1752)	\$4,600
100	A2-8	VI00 8A07700	6.750" (171.45)	9.625" (244.475)	1.074" (27.2796)	6.188" (157.1752)	\$4,600
100	A2-11	VI00 11A07800	6.750" (171.45)	11.000" (279.4)	1.074" (27.2796)	6.188" (157.1752)	\$5,000

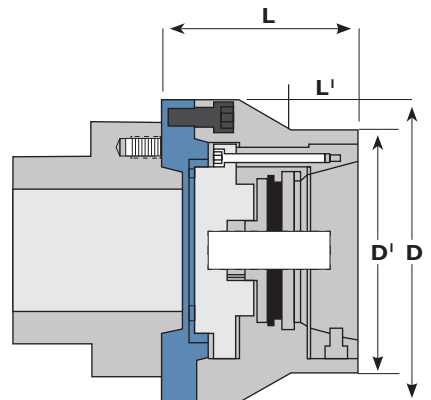
* Limited to machine capacity. (millimeters in parentheses)

STYLE DL

PUSH-TO-CLOSE DESIGN WITH A DEAD-LENGTH® WORKSTOP



Dead Stop Included
V42 5DL05411 (M12 X 1.75)
V65 6DL05836 (1" - 20 assembly)
V80 6DL06213 (1" - 20 assembly)



80MM SYSTEMS

42, 65, 80, 100MM* STYLE DL SPINDLE MOUNT CHUCK

Size	Spindle Type	Part Number	D' - Dia.	D - Dia.	L' - Length	L - Length	Price
42	A2-5	V42 5DL05400	—	5.315" (135)	—	4.724" (120)	\$3,400
42	A2-6	V42 6DL05500	5.315" (135)	6.299" (160)	2.953" (75)	4.724" (120)	\$3,400
42	I40mm	V42 140DL04400	5.315" (135)	5.906 (150)	3.944 (100)	4.724" (120)	\$3,400
65	A2-5	V65 5DL05750	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.845" (123)	\$3,800
65	A2-6	V65 6DL05950	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.845" (123)	\$3,800
65	A2-8	V65 8DL06050	5.404" (137.3)	8.268" (210)	1.292" (32.82)	5.345" (135.8)	\$3,800
65	I40mm	V65 140DL02450	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.893" (124.3)	\$3,800
80	A2-5	V80 5DL06120	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (132.3)	\$4,400
80	A2-6	V80 6DL06220	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (132.3)	\$4,400
80	A2-8	V80 8DL06320	6.200" (157.5)	8.250" (209.6)	1.584" (40.2)	5.003" (132.3)	\$4,400
80	I40mm	V80 140DL06420	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.224" (132.7)	\$4,400
100	A2-6	VI00 6DL07100	7.200" (182.88)	9.625" (244.48)	1.934" (49.13)	6.125" (155.58)	\$6,400
100	A2-8	VI00 8DL07200	7.200" (182.88)	9.625" (244.48)	1.934" (49.13)	6.125" (155.58)	\$6,400
100	A2-11	VI00 11DL07300	7.200" (182.88)	11.000" (279.4)	1.934" (49.13)	6.125" (155.58)	\$7,600

* Limited to machine capacity. (millimeters in parentheses)

EMERGENCY COLLETS

Size	Size / Pilot Hole	Part Number	Price	Boring Ring	Price
42mm	5mm Pilot	C0420000000005	\$231	C042000000RING	\$175
	15mm Pilot	C0420000000015			
	30mm Pilot	C0420000000030			
65mm	8mm Pilot	C0650000000008	\$287	C065000000RING	\$225
	20mm Pilot	C0650000000020			
	40mm Pilot	C0650000000040			
80mm	12mm Pilot	C0800000000012	\$400	C080000000RING	\$425
	25mm Pilot	C0800000000025			
	40mm Pilot	C0800000000040			
100mm	16mm Pilot	C1000000000016	\$690	C100000000RING	\$500
	30mm Pilot	C1000000000030			
	45mm Pilot	C1000000000045			
	60mm Pilot	C1000000000060			
	75mm Pilot	C1000000000075			



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FLEXC[®] COLLETS

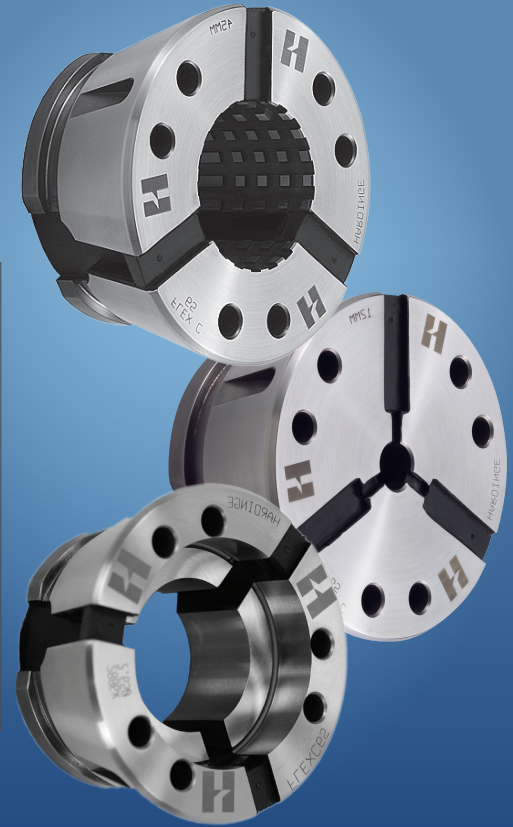
**LIFETIME GUARANTEE
ON COLLET VULCANIZATION**

FAST DELIVERY

Hardinge stocks an extensive inventory of finished collets for all common sizes. Semi-Finished inventory is also available allowing for decimal sized collets to be delivered in 5 days or less.

CUSTOM MANUFACTURING

Hardinge's custom engineering department can design and manufacture special FlexC collets for any application. Special applications include stepped holes, special shapes, off-center and more.



Size	Rated Capacity	Round Smooth/Serrated	Price	Hexagon Smooth/Serrated	Price	Square Smooth	Price
42mm	fractional	$7/32$ to $15/8$ "	\$242	$5/16$ to $13/8$ "	\$350	$5/16$ to $19/64$ "	\$350
	metric	5 to 42mm		8 to 36		8 to 29	
65mm	fractional	$1/4$ to $29/16$ "	\$297	$5/16$ to $21/8$ "	\$425	$5/16$ to $13/16$ "	\$425
	metric	5 to 65mm		8 to 56		8 to 46	
80mm	fractional	$15/32$ to $31/4$ "	\$414	$15/32$ to $23/4$ "	\$545	$15/32$ to $21/4$ "	\$545
	metric	12 to 82.5mm		12 to 69.9		12 to 57.2	
100mm	fractional	$5/8$ " to 4"	\$650	$5/8$ " to $3-3/8$ "	\$850	$5/8$ " to $2-3/4$ "	\$850
	metric	16 to 100mm		16 to 85mm		16 to 69mm	

QUALITY

Hardinge guarantees a collet head concentricity of .0002" (.005mm) TIR for round sizes after the segments are joined in the vulcanization process. Hardinge test results from repeated cycles of collet actuation assure long life of the Hardinge vulcanization process.



42mm Wrench



100mm
Pneumatic
Wrench

CHANGING WRENCH

FlexC Size	Changing Wrench	Price
42mm	C 4200000WREN	\$495
65mm	C 6500000WREN	\$495
80mm	C 8000000WREN	\$550
100mm	C 10000AIRWRENCH	\$2,000

MANUAL WRENCH 42, 65, 80MM



80mm Wrench

GET THE MOST OUT OF YOUR INVESTMENT

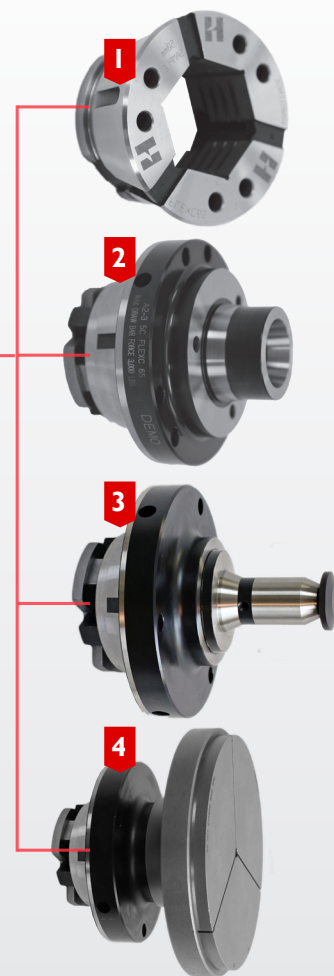
FlexC 65 & 80 Adapters are ideal for shops looking for ultimate flexibility! Now in one setup a customer can use multiple workholding options, eliminating costly and time consuming changeovers!

In one setup you can use:

- 1 FLEXC QUICK CHANGE COLLETS**
- 2 5C/16C COLLET ADAPTER**
- 3 SURE-GRIP EXPANDING COLLETS**
- 4 5C/16C STEP CHUCKS & CLOSERS**

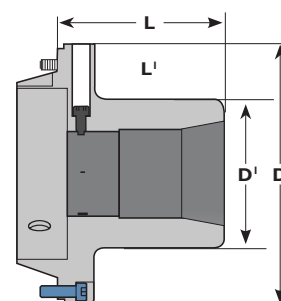
Note: Adapters are not Thru hole compatible

ULTIMATE QUICK-CHANGE FLEXIBILITY

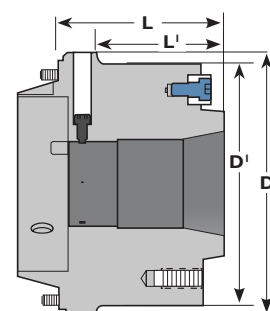


5C/16C COLLET ADAPTERS

Hardinge's 5C/16C Spindle tooling has been an industry standard for over 100 years. Customers can now utilize their 5C/16C spindle tooling in our FlexC 65 & 80 system for applications that are ideally suited for these style collets. Examples include extended nose, small hole, special shapes, Internal Gripping and more!



V80 16C01020
V65 5C01010



V80 16C01010
USED WITH 16C STEP CHUCKS

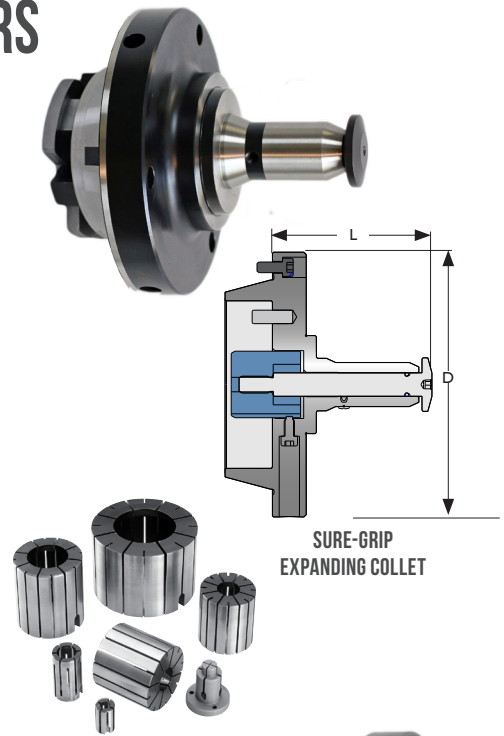
Item	Part Number	D' -Diameter	D-Diameter	L'-Length	L-Length	Price
5C Collet Adapter	V65 5C01010S	1.984" (50.39)	4.891" (124.23)	1.25" (31.75)	2.5625" (65.09)	\$1,600
16C Plain Nose Collet Adapter	V80 16C01020S	3.25" (82.55)	5.688" (144.47)	2.812" (71.42)	3.625" (92.07)	\$2,000
16C A2-5 Collet Adapter	V80 16C01010S	5.25" (133.36)	5.688" (144.47)	2.812" (71.42)	3.625" (92.07)	\$2,200

STANDARD SURE-GRIP EXPANDING ADAPTERS

You can now utilize Hardinge's Sure-Grip expanding system in our FlexC 65 & 80 products! Hardinge® Sure-Grip® Expanding Collet Systems offer solutions to difficult machining problems where ID gripping is required. Sure-Grip collets have +.015" expansion range and .0002" TIR.

Size	Part Number*	Grip Range	D - Diameter	L - Length	Price
65	V65 2001000	1/2" to 3/4"	4.891" (124.23)	2.087" (53.01)	\$600
65	V65 2501000	3/4" to 1"	4.891" (124.23)	2.483" (63.07)	\$625
65	V65 3001000	1" to 1 1/2"	4.891" (124.23)	2.947" (74.85)	\$750
65	V65 4001000	1 1/2" to 2 1/4"	5.25" (133.35)	3.536" (89.81)	\$845
65	V65 5001000	2 1/4" to 3"	5.25" (133.35)	4.274" (108.56)	\$875
65	V65 6001000	3" to 4"	5.25" (133.35)	4.337" (110.16)	\$915
80	V80 3001000	1" to 1 1/2"	5.68" (144.47)	3.198" (81.23)	\$650
80	V80 4001000	1 1/2" to 2 1/4"	5.68" (144.47)	3.629" (92.17)	\$675
80	V80 5001000	2 1/4" to 3"	5.68" (144.47)	4.368" (110.95)	\$700
80	V80 6001000	3" to 4"	5.68" (144.47)	4.430" (112.52)	\$725

* Requires part number V65 5C01000 or V80 16C01000 for use.



STANDARD 5C/16C STEP CHUCKS & A2-5 CLOSERS

Don't limit your machine setup to the capacity of the FlexC 65 & 80. With our 5C/16C adapter, customers can now use Hardinge's Step Chucks and Closers allowing for part sizes of up to 6". Castings, moldings, stampings and machined parts are held rigidly and accurately. Tubing can be held without crushing or distorting. Accurate gripping, the same as with collets, is yours when you use regular and extra depth capacity step chucks for holding larger diameters.

REGULAR DEPTH

Size	Part Number **	Closure Size	D - Diameter	L - Length	Price
65	V65 235C2RD	2"	3.625" (92.08)	3.0623" (77.8)	\$260
65	V65 235C3RD	3"	3.75" (95.25)	3.0623" (77.8)	\$280
65	V65 235C4RD	4"	4.75" (120.65)	3.0623" (77.8)	\$300
65	V65 235C5RD	5"	5.75" (146.05)	3.0623" (77.8)	\$350
65	V65 235C6RD	6"	6.75" (171.45)	3.0623" (77.8)	\$390
80	16 0002682	2"	5.50" (139.7)	4.50" (114.3)	\$260
80	16 0002683	3"	5.50" (139.7)	4.50" (114.3)	\$280
80	16 0002684	4"	5.795" (147.23)	4.50" (114.3)	\$300
80	16 0002685	5"	5.795" (147.23)	4.50" (114.3)	\$350
80	16 0002686	6"	5.795" (147.23)	4.50" (114.3)	\$390

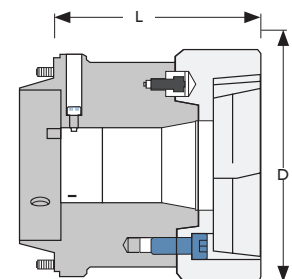
EXTRA DEPTH

Size	Part Number **	Closure Size	D - Diameter	L - Length	Price
65	V65 235C2ED	2"	3.625" (92.08)	3.813" (96.85)	\$290
65	V65 235C3ED	3"	4.25" (107.95)	3.813" (96.85)	\$310
65	V65 235C4ED	4"	5.25" (133.35)	3.813" (96.85)	\$330
65	V65 235C5ED	5"	6.25" (158.75)	3.813" (96.85)	\$380
65	V65 235C6ED	6"	7.25" (184.15)	3.813" (96.85)	\$420
80	16 0002682OC	2"	5.50" (139.7)	5.25" (133.35)	\$290
80	16 0002683OC	3"	5.50" (139.7)	5.25" (133.35)	\$310
80	16 0002684OC	4"	5.875" (149.23)	5.25" (133.35)	\$330
80	16 0002685OC	5"	6.25" (158.75)	5.25" (133.35)	\$380
80	16 0002686OC	6"	7.25" (184.15)	5.25" (133.35)	\$420

** Requires part number V65 5C01010, V65 5C01010S, V80 16C01010, or V80 16C01010S for use.



A2-5 16C ADAPTER
WITH 4 CLOSER



A2-5 16C ADAPTER
WITH 4 ED CLOSER

FLEXC[®] ACCESSORIES

MASTER COLLET & PADS



	Part Number	Price
S16, S20 and S26		
B Clamp assy	76190000000000	\$9.00
B wrench	76370000000000	\$2.00
S22 and S30		
C Clamp assy	76270000000000	\$9.00
C wrench	76390000000000	\$9.00

Size	Part Number	Price	"S" Pad*	Round Smooth	Round Serrated	Hexagon Smooth	Square	Emergency	Semi-Hard
65mm	C0650S16MASTER	\$275	S16	\$59.50	\$63.00	\$73.50	\$73.50	\$53.50	\$56.50
	C0650S20MASTER	\$297	S20	\$79.00	\$83.00	\$102.50	\$102.50	\$74.00	\$76.00
	C0650S22MASTER	\$320	S22	\$87.00	\$91.50	\$118.00	\$118.00	\$81.00	\$84.00
80mm	C0800S26MASTER	\$414	S26	\$97.50	\$102.00	\$130.00	\$130.00	\$90.50	\$94.50
	C0800S30MASTER	\$437	S30	\$131.50	\$144.50	\$163.00	\$163.00	\$125.00	\$128.00

EJECTORS

HARDINGE SPRING PART EJECTORS

Hardinge's standard spring ejectors are used to push a part into the parts catcher or conveyor when finished. These standard spring ejectors have a limited amount of stroke and apply consistent force, regardless of part size.

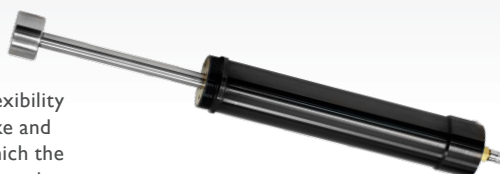


Part Number	Chuck Model	Price
I057000000042A	42A	\$150
I057000000042DL	42DL	\$250
3273000000065DL	65DL	\$300
I0570000000065A	65A	\$150
3273000000080DL	80DL	\$350
3273000000080A	80A	\$350

A= Pull back w/stop; DL= Dead Length

LONG STROKE, VARIABLE SPEED PART EJECTOR

The Hardinge JL-Series Variable Speed Part Ejector is used when maximum stroke and flexibility is needed. This part ejector has 4.4" of stroke and allows users to adjust the rate of speed at which the ejection rod will push the part out, making sure the part is ejected exactly how you want every time!



Part Number	Chuck Model	Price
JL 000100065DL	65DL	\$1,200
JL 000100065A	65A	\$1,200
JL 000100080DL	80DL	\$1,200
JL 000100080A	80A	\$1,200
JL 00010000100	100	\$1,200

FLEXC PART STOPS

A part stop is used to accurately locate z-axis positioning of slug work within a collet. These easy to install stops are adjustable for desired part length. The rigid design of these part stops allows peace of mind knowing that your part length will remain consistent part to part.



Part Number	Chuck Model	Price
V42 5A01011	42A	\$150
V42 5DL05411	42DL	\$195
V65 6DL05836	65DL	\$175
V65 6A01211	65A	\$218
V80 6DL06213	80DL	\$200
V80 6A06408	80A	\$225
V100 00007113	100A & DL	\$215

FlexC[®] COLLET BLOCKS

FlexC Collet Blocks are ideal for either horizontal or vertical machining center applications. The manual hydraulic collet block was added for 5th axis applications. The pullback design maintains a threaded thru hole base to accept a work stop. Maximum working pressure of 65 PSI provides the same superior clamping force to insure part rigidity. The versatility to use 5C/16C collets, step chucks with closers and ID mandrels is an added bonus.

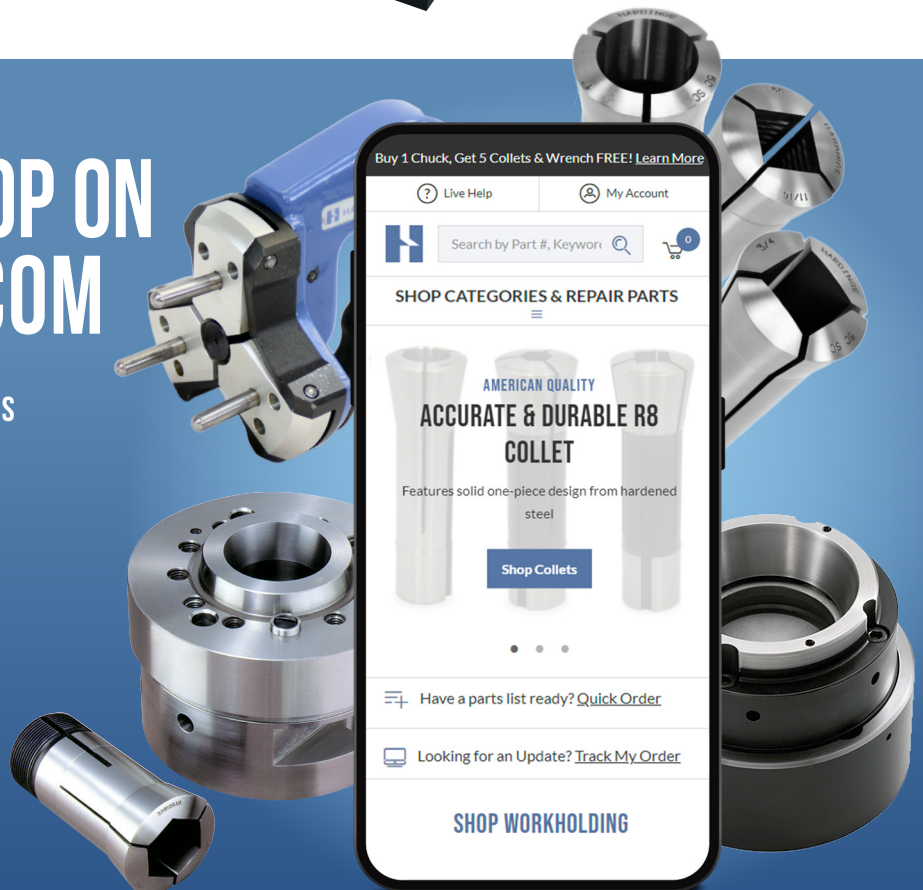
Collet Type	Part Number	Accuation	Price
65	77990000650010	HYDRAULIC	\$3,844
42	77990000420010	HYDRAULIC	\$3,793
65	7799000065MHYD	MANUAL	\$2,809
80	7799000080MHYD	MANUAL	\$3,120



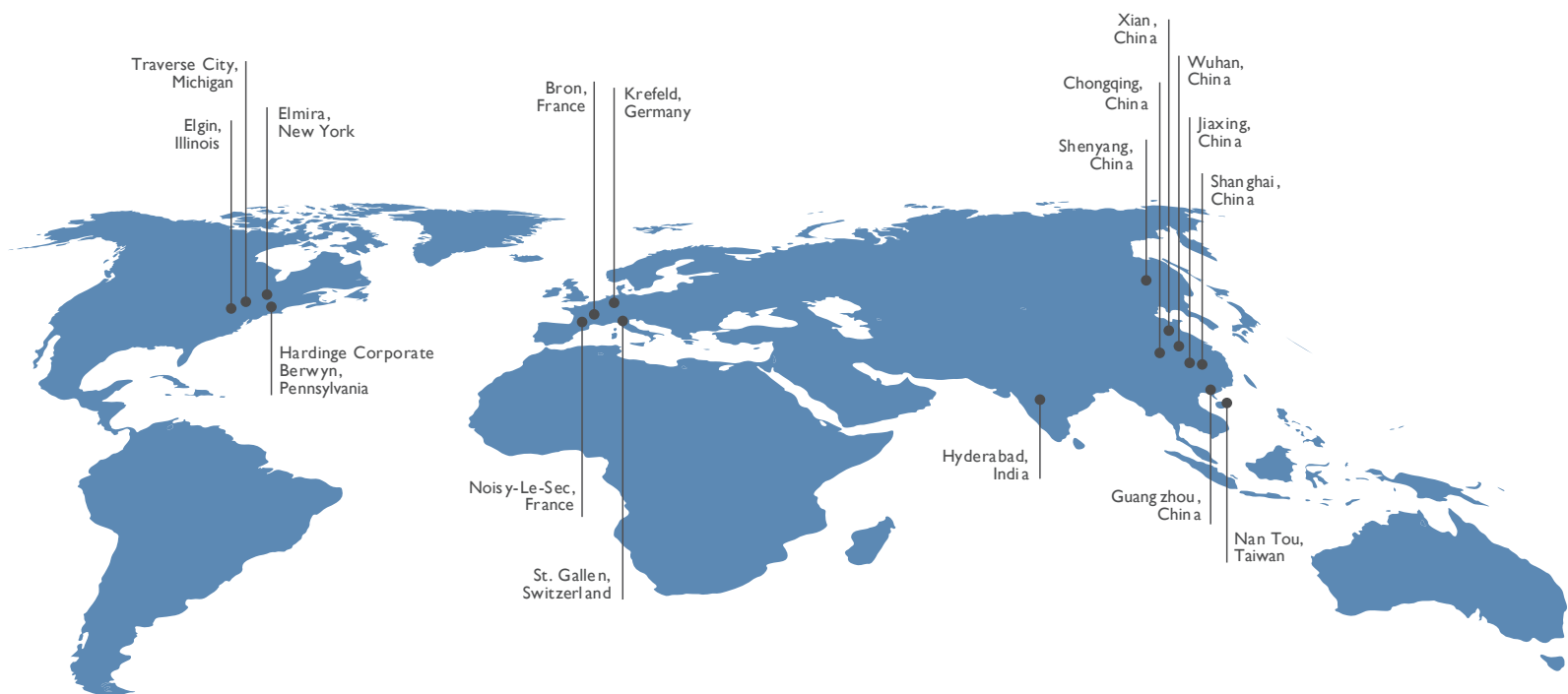
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Hardinge is a leading international provider of advanced metal-cutting solutions. We provide a full spectrum of highly reliable CNC turning, milling, and grinding machines as well as technologically advanced workholding accessories.

The diverse products we offer enable us to support a variety of market applications in industries including aerospace, agricultural, automotive, construction, consumer products, defense, energy, medical, technology, transportation and more.

We've developed a strong global presence with manufacturing operations in North America, Europe, and Asia. We apply our engineering and applications expertise to provide your company with the right machine tool solution and support every time.

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