

WORKHOLDING

FlexC® QUICK CHANGE
COLLET SYSTEM

2022 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 $\pm .020"$
- 100MM COLLETS $\pm .040"$
- 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 $\pm .020"$ allowing for part size variation. 42, 65, 80, $\pm .040"$ on 100mm collets



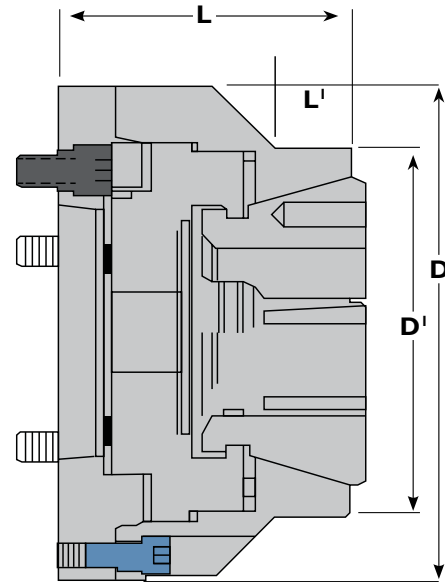
AMERICAN MADE WORKHOLDING

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
42	A2-5	V42 5D00300	4.016" (102)	5.512" (140)	.846" (21.5)	3.543" (90)
42	A2-6	V42 6D00400	4.016" (102)	6.496" (165)	.846" (21.5)	3.543" (90)
42	I40mm	V42 I40D01700	4.016" (102)	5.906" (150)	.846" (21.5)	3.528" (89.62)
65	A2-5	V65 5D00550	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.740" (94.996)
65	A2-6	V65 6D00650	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.740" (94.996)
65	A2-8	V65 8D00750	4.736" (120.3)	8.268" (210)	.907" (23.04)	4.240" (107.7)
65	I40mm	V65 I40D01950	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.788" (96.22)

* 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.



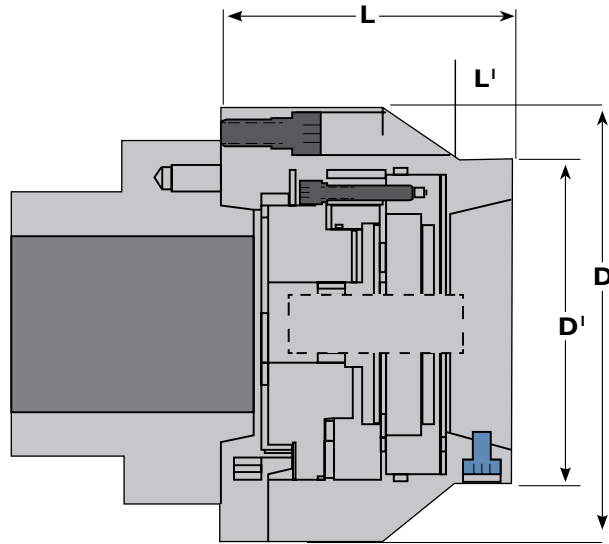
CUSTOMER SUPPORT

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)
V100 00007113

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

Size	Spindle Type	Part Number	D' - Diameter	D - Diameter	L' - Length	L - Length
42	A2-5	V42 5A01000	4.016" (102)	5.512" (140)	.610" (15.5)	4.764" (121)
42	A2-6	V42 6A01100	4.016" (102)	6.496" (165)	.610" (15.5)	4.764" (121)
42	I40mm	V42 I40A01600	4.016" (102)	5.906" (150)	.610" (15.5)	4.946" (125.62)
65	A2-5	V65 5A01250	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.942" (125.53)
65	A2-6	V65 6A01350	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.942" (125.53)
65	A2-8	V65 8A01450	4.736" (120.3)	8.268" (210)	.845" (21.46)	5.442" (138.23)
65	I40mm	V65 I40A02350	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.990" (126.75)
80	A2-5	V80 5A06620	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.42)
80	A2-6	V80 6A06420	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
80	A2-8	V80 8A06520	5.750" (146.1)	8.250" (209.6)	1.000" (25.4)	5.174" (131.4)
80	I40mm	V80 I40A06720	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
100	A2-6	V100 6A07600	6.750" (171.45)	9.625" (244.475)	1.074" (27.2796)	6.188" (157.1752)
100	A2-8	V100 8A07700	6.750" (171.45)	9.625" (244.475)	1.074" (27.2796)	6.188" (157.1752)
100	A2-11	V100 I1A07800	6.750" (171.45)	11.000" (279.4)	1.074" (27.2796)	6.188" (157.1752)

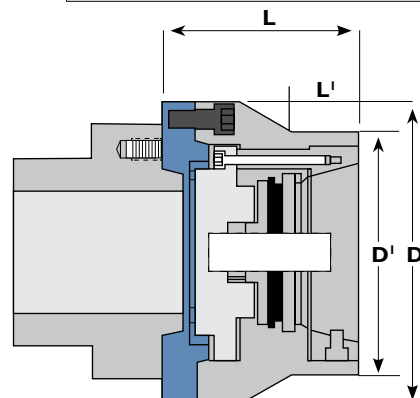
* Limited to machine capacity. (millimeters in parentheses)

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
42	A2-5	V42 5DL05400	—	5.315" (135)	—	4.724" (120)
42	A2-6	V42 6DL05500	5.315" (135)	6.299" (160)	2.953" (75)	4.724" (120)
42	I40mm	V42 I40DL04400	5.315" (135)	5.906 (150)	3.944 (100)	4.724" (120)
65	A2-5	V65 5DL05750	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.845" (123)
65	A2-6	V65 6DL05950	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.845" (123)
65	A2-8	V65 8DL06050	5.404" (137.3)	8.268" (210)	1.292" (32.82)	5.345" (135.8)
65	I40mm	V65 I40DL02450	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.893" (124.3)
80	A2-5	V80 5DL06120	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (132.3)
80	A2-6	V80 6DL06220	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (132.3)
80	A2-8	V80 8DL06320	6.200" (157.5)	8.250" (209.6)	1.584" (40.2)	5.003" (132.3)
80	I40mm	V80 I40DL06420	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.224" (132.7)
100	A2-6	V100 6DL07100	7.200" (182.88)	9.625" (244.48)	1.934" (49.13)	6.125" (155.58)
100	A2-8	V100 8DL07200	7.200" (182.88)	9.625" (244.48)	1.934" (49.13)	6.125" (155.58)
100	A2-11	V100 I1DL07300	7.200" (182.88)	11.000" (279.4)	1.934" (49.13)	6.125" (155.58)

* Limited to machine capacity. (millimeters in parentheses)

EMERGENCY COLLETS

Size	Size / Pilot Hole	Part Number	Boring Ring
42mm	5mm Pilot	C0420000000005	C042000000RING
	15mm Pilot	C0420000000015	
	30mm Pilot	C0420000000030	
65mm	8mm Pilot	C0650000000008	C065000000RING
	20mm Pilot	C0650000000020	
	40mm Pilot	C0650000000040	
80mm	12mm Pilot	C0800000000012	C080000000RING
	25mm Pilot	C0800000000025	
	40mm Pilot	C0800000000040	
100mm	16mm Pilot	C1000000000016	C100000000RING
	30mm Pilot	C1000000000030	
	45mm Pilot	C1000000000045	
	60mm Pilot	C1000000000060	
	75mm Pilot	C1000000000075	



[C100000000RING](#)

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	⬡ Hexagon Smooth/ Serrated	■ Square Smooth
42mm	fractional	$7/32$ to $15/8$ "	$5/16$ to $13/8$ "	$5/16$ to $19/64$ "
	metric	5 to 42mm	8 to 36	8 to 29
65mm	fractional	$1/4$ to $23/16$ "	$5/16$ to $21/8$ "	$5/16$ to $13/16$ "
	metric	5 to 65mm	8 to 56	8 to 46
80mm	fractional	$15/32$ to $31/4$ "	$15/32$ to $23/4$ "	$15/32$ to $21/4$ "
	metric	12 to 82.5mm	12 to 69.9	12 to 57.2
100mm	fractional	$5/8$ " to 4"	$5/8$ " to 3-3/8"	$5/8$ " to 2-3/4"
	metric	16 to 100mm	16 to 85mm	16 to 69mm

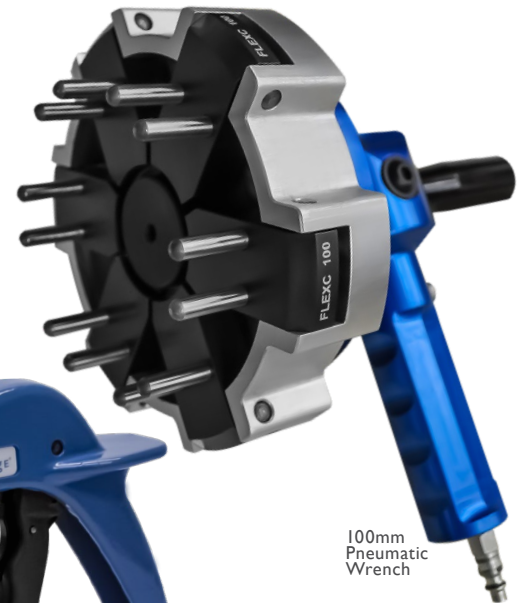


QUALITY

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
42mm	C 420000WREN
65mm	C 650000WREN
80mm	C 800000WREN
100mm	C 10000AIRWRENCH

MANUAL WRENCH 42, 65, 80MM



80mm Wrench

GET THE MOST OUT OF YOUR INVESTMENT

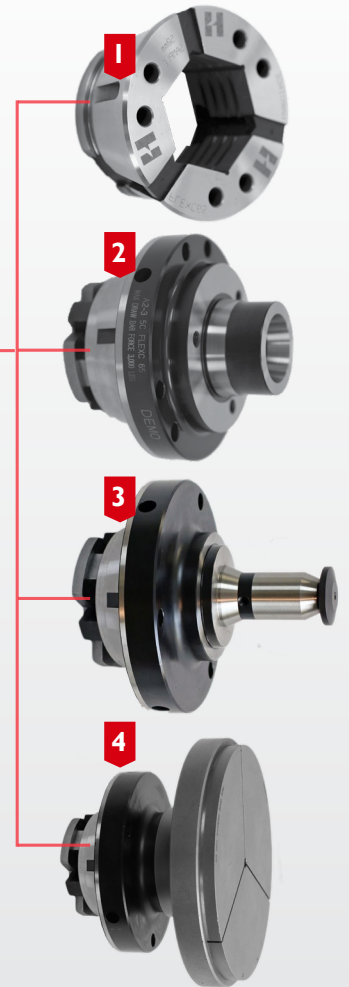
FlexC 65 & 80 Adapters are ideal for shops looking for ultimate flexibility! Now in one setup a customer can use multiple workholding options, eliminating costly and time consuming changeovers!

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**

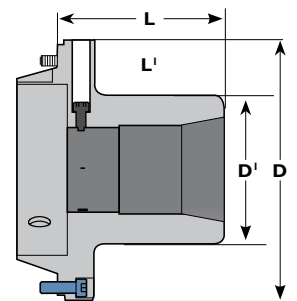
Note: Adapters are not Thru hole compatible

ULTIMATE QUICK-CHANGE FLEXIBILITY

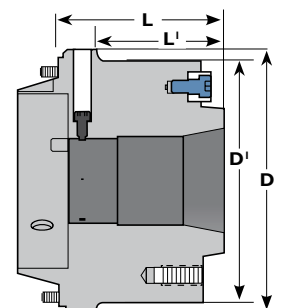


5C/16C COLLET ADAPTERS

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

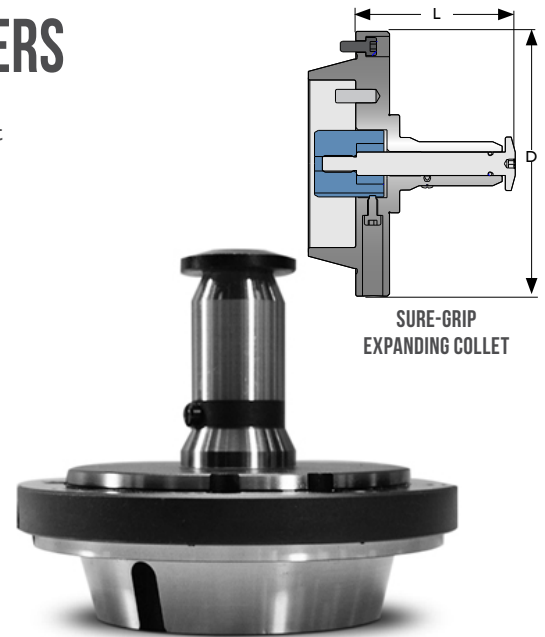
Item	Part Number	D' -Diameter	D-Diameter	L'-Length	L-Length
5C Collet Adapter	V65 5C01010S	1.984" (50.39)	4.891" (124.23)	1.25" (31.75)	2.5625" (65.09)
16C Plain Nose Collet Adapter	V80 16C01020S	3.25" (82.55)	5.688" (144.47)	2.812" (71.42)	3.625" (92.07)
16C A2-5 Collet Adapter	V80 16C01010S	5.25" (133.36)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

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
65	V65 2001000	1/2" to 3/4"	4.891" (124.23)	2.087" (53.01)
65	V65 2501000	3/4" to 1"	4.891" (124.23)	2.483" (63.07)
65	V65 3001000	1" to 1 1/2"	4.891" (124.23)	2.947" (74.85)
65	V65 4001000	1 1/2" to 2 1/4"	5.25" (133.35)	3.536" (89.81)
65	V65 5001000	2 1/4" to 3"	5.25" (133.35)	4.274" (108.56)
65	V65 6001000	3" to 4"	5.25" (133.35)	4.337" (110.16)
80	V80 3001000	1" to 1 1/2"	5.68" (144.47)	3.198" (81.23)
80	V80 4001000	1 1/2" to 2 1/4"	5.68" (144.47)	3.629" (92.17)
80	V80 5001000	2 1/4" to 3"	5.68" (144.47)	4.368" (110.95)
80	V80 6001000	3" to 4"	5.68" (144.47)	4.430" (112.52)

* 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.

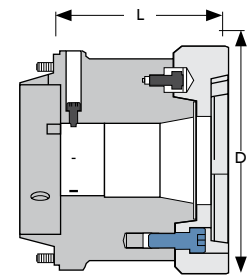
REGULAR DEPTH

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

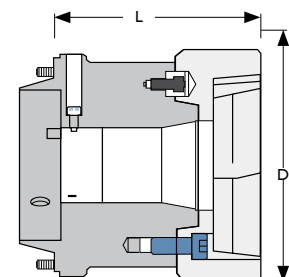
EXTRA DEPTH

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

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



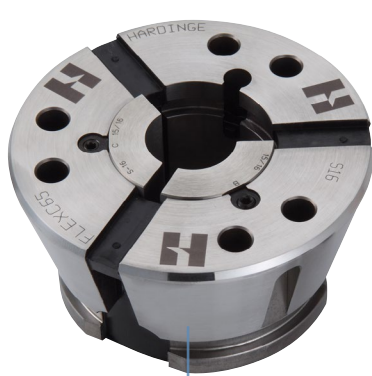
A2-5 16C ADAPTER
WITH 4 CLOSER



A2-5 16C ADAPTER
WITH 4 ED CLOSER

FLEXC[®] ACCESSORIES

MASTER COLLET & PADS



FlexC MASTER COLLET



CLAMP ASSEMBLY

S-PAD

	Part Number
S16, S20 and S26	
B Clamp Assembly	76190000000000
B wrench	76370000000000
S22 and S30	
C Clamp Assembly	76270000000000
C wrench	76390000000000

Size	Master Collet Part Number	S-Pad Type
65mm	C0650S16MASTER	S16
	C0650S20MASTER	S20
	C0650S22MASTER	S22
80mm	C0800S26MASTER	S26
	C0800S30MASTER	S30

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.

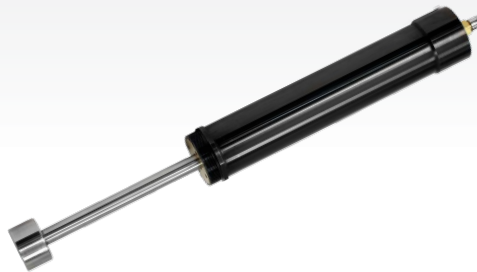


Part Number	Chuck Model
1057000000042A	42A
1057000000042DL	42DL
3273000000065DL	65A & DL
3273000000080DL	80A & DL

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

VARIABLE SPEED PART EJECTORS WITH PART STOP

The Hardinge JL-Series Variable Speed Part Ejector is used when maximum stroke and flexibility is needed. These part ejectors will give you either 2.5" (Short) or 4.4" (Long) 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	Stroke Length
JLS000200065DL	65A & DL	2.5" - Short
JL 000100065DL	65A & DL	4.4" - Long
JLS000200080DL	80A & DL	2.5" - Short
JL 000100080DL	80A & DL	4.4" - Long
JLS0002000100	100A & DL	2.5" - Short

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

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
V42 5A01011	42A
V42 5DL05411	42DL
V65 6DL05836	65A & DL
V80 6DL06213	80A & DL
V100 00007113	100A & DL

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

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.

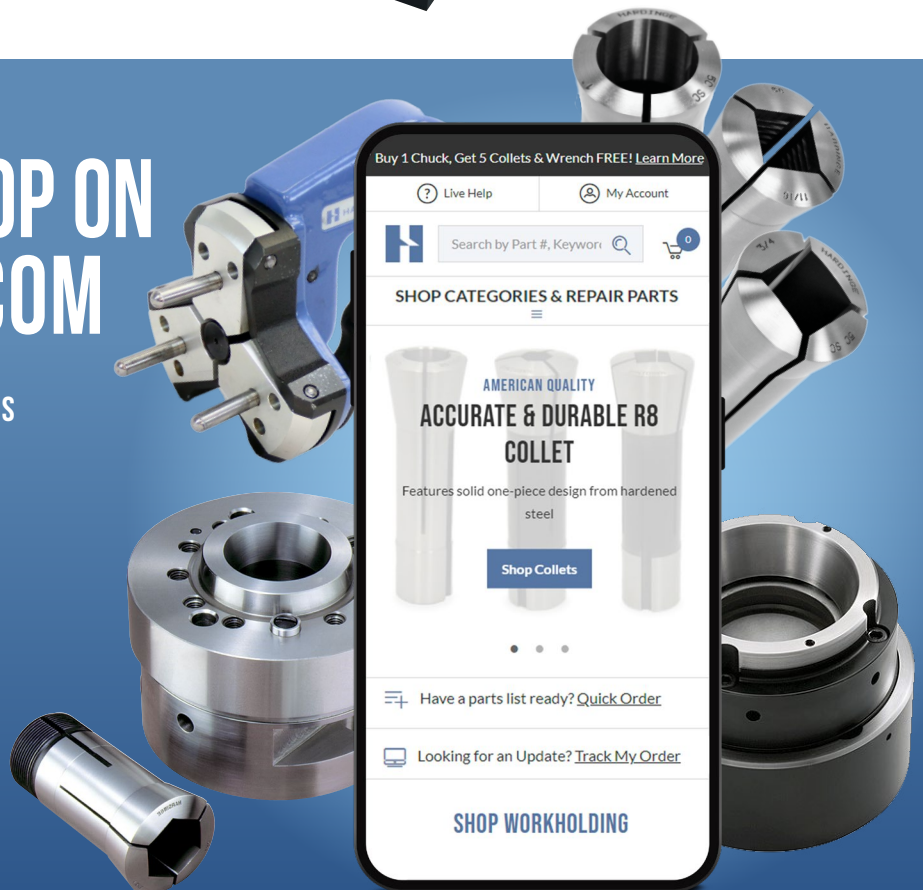
Collet Type	Part Number	Accuation
65	77990000650010	HYDRAULIC
42	77990000420010	HYDRAULIC
65	7799000065MHYD	MANUAL
80	7799000080MHYD	MANUAL



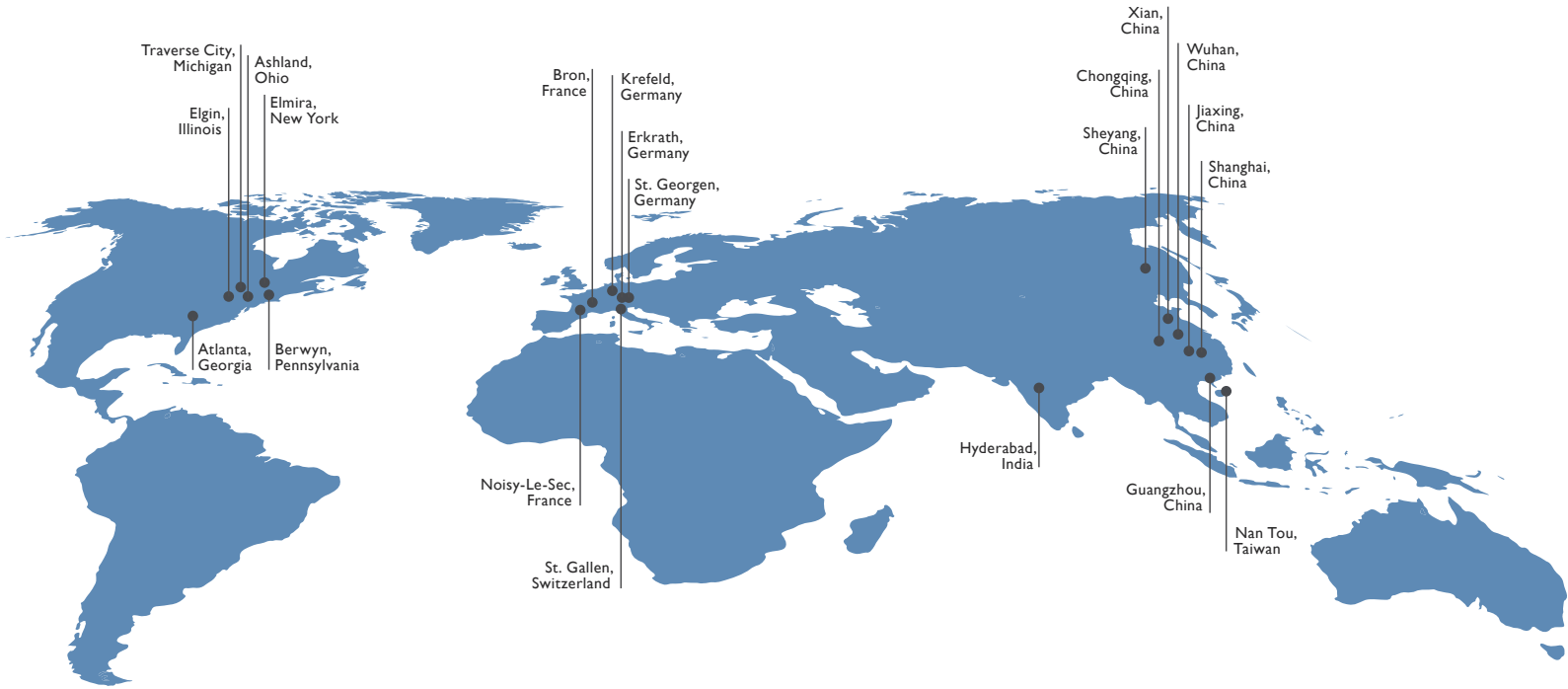
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HARDINGE WORLDWIDE



Hardinge is a leading international provider of advanced metal-cutting solutions. We provide a full spectrum of highly reliable CNC turning, milling, grinding, and honing 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. Hardinge applies its engineering and applications expertise to provide your company with the right machine tool solution and support every time.

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