



FlexC® Quick Change Collet System





Why buy a FlexC Quick Change collet system?

10x the Grip Range of traditional Lathe Collets

+/-.020"

42mm, 52mm, 65mm, 80mm collets

+/-.040"

100mm, 120mm, 140mm, 160mm collets

• Super-Precision accuracy (0.0004" TIR)

- True Parallel Gripping
- Up to 19x faster changeover compared to traditional Lathe Collets or 3 Jaw Chucks
- Lifetime Guarantee on Collet Vulcanization
- Fully interchangeable with competitor models
- Made in Elmira, New York





OUR CHUCK OR A COMPETITOR CHUCK

Our collets will fit any quick-change chuck you have on your machine



Our wide-range of FlexC Collets

OMPATIBLE &
INTERCHANGEABLE
with other manufacturers



100% MADE IN USA



Over **10,000,000** lifecycle tests completed



Run out checks on competitive Quick-Change chucks & collets to ensure BEST-IN-CLASS accuracy



SAVE UP TO 31% over competitor's pricing

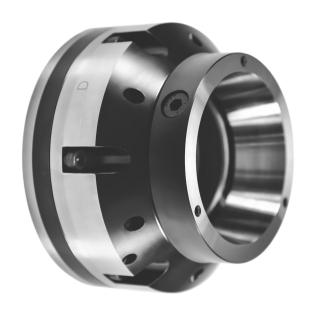


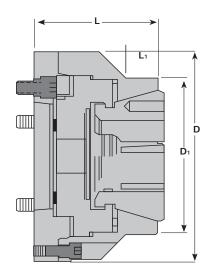




Style D

Pull-back design with thru-hole





42 & 65mm Systems

Size	Spindle Type	Part Number	D ₁ - Diameter	D - Diameter	L ₁ - 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	140mm	V42 140D01700	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	140mm	V65 140D01950	4.736" (120.3)	6.299" (160)	.907" (23.04)	3.788" (96.22)

^{*} Limited to machine capacity. (Millimeters in parentheses)



Same-Day Shipping

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

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



Customer Support

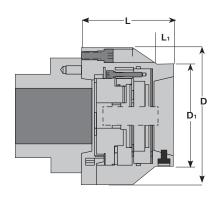
Our fully staffed team of experienced customer service representatives will help you from product identification to shipment.

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 All assemblies include a part stop





Dead Stop Included
V42 5A01011 (M12 X 1.75 Thread)
V65 6DL05836 (1"-20 Thread)
V80 6DL06213 (1"-20 Thread)
H80 0002213 (1"-20 Thread)
V100 00007113 (1"-20 Thread)
V120 00002913 (1"-20 Thread)
V140 00004313 (1"-20 Thread)
V160 00005113 (1"-20 Thread)

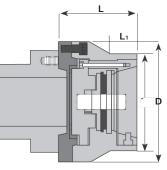
Size	Spindle Type	Part Number	D ₁ - Diameter	D - Diameter	L ₁ - Length	L - Length
42	A2-5	V42 5A01000	4.016" (102)	5.512" (140)	.610" (15.5)	4.764" (121)
42	A2-6	V42 6A01100	4.016" (102)	6.496" (165)	.610" (15.5)	4.764" (121)
42	140mm	V42 140A01600	4.016" (102)	5.906" (150)	.610" (15.5)	4.946" (125.62)
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	140mm	V65 140A02350	4.736" (120.3)	6.299" (160)	.845" (21.46)	4.990" (126.75)
H80*	A2-5	H80 5A02600	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.42)
H80∗ A	2-6	H80 6A02700	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
H80∗ A	2-8	H80 8A02800	5.750" (146.1)	8.250" (209.6)	1.000" (25.4)	5.174" (131.4)
H80 _* 1	40mm	H80 140A07400	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
* H80 In	terchangeable with the R	oyal/Hainbuch brands. Require	es Forkardt Hardinge Change w	rench H08000000WREN		
**08	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)
**08	140mm	V80 140A06720	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
** Legac	y 80 Interchangeable wit	n all other brands.				
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 11A07800	6.750" (171.45)	11.000" (279.4)	1.074" (27.2796)	6.188" (157.1752)
120	A2-6	V120 6A03300	8.250" (209.55)	11.750" (298.45)	.948" (24.0792)	6.875" (174.625)
120	A2-8	V120 8A03400	8.250" (209.55)	11.750" (298.45)	.948" (24.0792)	6.875" (174.625)
120	A2-11	V120 11A03500	8.250" (209.55)	11.750" (298.45)	.948" (24.0792)	7" (177.8)
140	A2-6	V140 6A04700	9.000" (228.6)	11.750" (298.45)	1.021" (25.9334)	6.875" (174.625)
140	A2-8	V140 8A04800	9.000" (228.6)	11.750" (298.45)	1.021" (25.9334)	6.875" (174.625)
140	A2-11	V140 11A04900	9.000" (228.6)	11.750" (298.45)	1.021" (25.9334)	7" (177.8)
160	A2-6	V160 6A05600	10.000" (254)	12.750" (323.85)	1.021" (25.9334)	6.875" (174.625)
160	A2-8	V160 8A05800	10.000" (254)	12.750" (323.85)	1.021" (25.9334)	6.875" (174.625)
160	A2-11	V160 11A06800	10.000" (254)	12.750" (323.85)	1.021" (25.9334)	7" (177.8)



Style DL

Push-to-close design with a Dead-length® workstop All assemblies include a part stop





Dead Stop Included V42
5DL05411 (M12 X 1.75) V65
6DL05836 (1"-20 assembly) V80
6DL06213 (1"-20 assembly) V120
00002913 (1"-20 Thread) V140
00004313 (1"-20 Thread) V160
00005113 (1"-20 Thread)

Size S	pindle Type	Part Number	D ₁ - Dia.	D - Dia.	L ₁ - 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	140mm	V42 140DL04400	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	140mm	V65 140DL02450	5.404" (137.3)	6.299" (160)	1.292" (32.82)	4.893" (124.3)
H80* A	2-5	H80 5DL02100	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
H80*A	2-6	H80 6DL02200	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
H80∗A	2-8	H80 8DL02500	6.200" (157.5)	8.250" (209.6)	1.584" (40.2)	5.003" (127.08)
H80*	140mm	H80 140DL06900	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
* H80 I	nterchangeable with	the Royal/Hainbuch brands. R	equires Forkardt Hardinge Ch	nange wrench H08000000WR	EN	·
80**	A2-5	V80 5DL06120	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
**08	A2-6	V80 6DL06220	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
80**	A2-8	V80 8DL06320	6.200" (157.5)	8.250" (209.6)	1.584" (40.2)	5.003" (127.08)
80** 14	10mm	V80 140DL06420	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.224" (132.7)
** Lega	cy 80 Interchangeabl	e with all other brands.				
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 11DL07300	7.200" (182.88)	11.000" (279.4)	1.934" (49.13)	6.125" (155.58)
120	A2-6	V120 6DL02900	8.875" (225.425)	11.750" (298.45)	1.959" (49.7586)	6.875" (174.625)
120	A2-8	V120 8DL03100	8.875" (225.425)	11.750" (298.45)	1.959" (49.7586)	6.875" (174.625)
120	A2-11	V120 11DL03200	8.750" (222.25)	11.750" (298.45)	1.959" (49.7586)	7" (177.8)
140	A2-6	V140 6DL04300	9.625" (244.475)	11.750" (298.45)	2.334" (59.2836)	6.875" (174.625)
140	A2-8	V140 8DL04500	9.625" (244.475)	11.750" (298.45)	2.334" (59.2836)	6.875" (174.625)
140 A2	2-11	V140 11DL04600	9.625" (244.475)	11.750" (298.45)	2.334" (59.2836)	7" (177.8)
160	A2-6	V160 6DL05100	10.625" (269.875)	12.750" (323.85)	2.334" (59.2836)	6.875" (174.625)
160	A2-8	V160 8DL05200	10.625" (269.875)	12.750" (323.85)	2.334" (59.2836)	6.875" (174.625)
160	A2-11	V160 11DL05300	10.625" (269.875)	12.750" (323.85)	2.334" (59.2836)	7" (177.8)



FlexC Collets

Our 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	Base Part Number	Round Smooth/ Serrated	Hex Smooth/ Serrated	Square Smooth
32	C032	5/32" - 11/4""	9/32" - 11/16"	9/32" - 7/8"
32	C032	4mm - 32mm	7mm - 27mm	7mm - 22.5mm
42	6042	7/32" - 15/8"	5/16" - 13/8"	5/16" - 19/64"
42	C042	5mm - 42mm	8mm - 36mm	8mm - 29mm
F2	6053	5/32" - 23/64"	9/32" - 149/64"	9/32" - 127/64"
52	C052	4mm - 52mm	7mm - 45mm	7mm - 36mm
	6045	1/4"- 29/16"	5/16" - 21/8"	5/16" - 113/16"
65	C065	5mm - 65mm	8mm - 56mm	8mm - 46mm
1.100	H080	7/32" - 31/8"	5/16" - 221/36 "	5/16" - 23/16"
H80∗		5mm - 80mm	8mm - 68mm	8mm - 56mm
* H80 In	terchangeable with	the Royal/Hainbuch brands. Requ	ires Forkardt Hardinge Change v	vrench
80**	C080	15/32" - 31/4"	15/32" - 23/4"	15/32" - 21/4"
00**		12mm - 82.5mm	12mm - 69.9mm	12mm - 57.2mm
** Legac	y 80 Interchangeable	e with all other brands.		
100	C100	5/8" - 4"	5/8"- 33/8"	5/8" - 23/4"
100	C100	16mm - 100mm	16mm - 86mm	16mm - 70mm
420	C120	1" - 423/32"	1" - 43/32"	1" - 311/32 "
120	C120	25mm - 120mm	25mm - 103.9mm	25mm - 84.8mm
4.40	64.40	1" - 51/2"	1" - 43/4"	1" - 37/8"
140	C140	25mm - 140mm	25mm - 121mm	25mm - 99mm
440	6440	11/16" - 65/16"	11/16" - 559/64"	11/16" - 417/32"
160	C160	27mm - 160mm	27mm - 137mm	27mm - 115.4mm



Emergency Collets

3 3 3 3						
Size S	izq di Bilot	Part Number	Boring Ring			
32	5mm	C0320000000005	C032000000RING			
32	16mm	C032000000016	C03200000KING			
	5mm Pilot	C0420000000005				
42	15mm Pilot	C042000000015	C042000000RING			
	30mm Pilot	C0420000000030				
	5mm	C0520000000005				
52	20mm	C0520000000020	C052000000RING			
	35mm	C052000000035				
	8mm Pilot	C0650000000008				
65	20mm Pilot	C0650000000020	C065000000RING			
	40mm Pilot	C0650000000040				
	8mm Pilot	H080000000008				
H80∗	20mm Pilot	H0800000000020	H0800000000RING			
	40mm Pilot	H080000000040				
* H80 Interchangeable with the Royal/Hainbuch brands. Requires Forkardt Hardinge Change wrench						
C0800	00 02000 0Pli2bt					
80∗∗	25mm Pilot	C0800000000025	C080000000RING			
	40mm Pilot	C0800000000040				
** Lega	cy 80 Interchangeable v	vith all other brands.				



FlexC 100 Emergency Collet Head

FlexC100 Boring Ring

	16mm Pilot	C100000000016	
	30mm Pilot	C1000000000030	
100 45	mm Pilot	C1000000000045	C100000000RING
	60mm Pilot	C1000000000060	
	75mm Pilot	C1000000000075	
120 25	mm Pilot	C1200000000025	C12000000RING
140	25mm Pilot	C1400000000025	C14000000RING
160	27mm Pilot	C1600000000027	C160000000RING

NEW



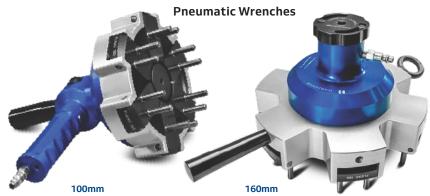
Accessories

Changing Wrenches

Change collets in seconds. Pins on the changing wrench insert into the corresponding holes in the face of the collet. The wrench compresses the collet for quick and easy removal and replacement.

	Size	Part Number	Wrench Type
	32	C032000000WREN	Manual
	42	C042000000WREN	Manual
	52	C052000000WREN	Manual
	65	C065000000WREN	Manual
NEW	H80∗	H080000000WREN	Manual
	80**	C08000000WREN	Manual
	100	C10000AIRWRENCH	Pneumatic
	120	C12000AIRWRENCH	Pneumatic
	140	C14000AIRWRENCH	Pneumatic
	160	C16000AIRWRENCH	Pneumatic

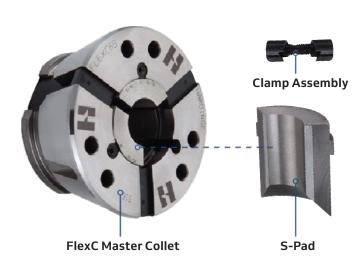




^{*} H80 Interchangeable with the Royal/Hainbuch brands. Requires Forkardt Hardinge Change wrench H080000000WREN ** Legacy 80 Interchangeable with all other brands.

Master Collet & Pads

Utilize your existing supply of S pads with this innovative FlexC master collet. There are no set screws or clamps to be damaged or loosened. When a part is machined, the working forces are against the rear shoulder of the pad which is located against the rear shoulder of the groove in the master collet.



S16, S20 and S26	Part Number	
B Clamp Assembly	7619000000000	
B Wrench	7637000000000	
S22 and S30	Part Number	
S22 and S30 C Clamp Assembly	Part Number 76270000000000	

Size M	Size Master Collet Part Number		
	C0650S16MASTER	S16	
65 C0	650S20MASTER	S20	
	C0650S22MASTER	S22	
80	C0800S26MASTER	S26	
80	C0800S30MASTER	S30	

Part Number	Round Capacity, Min-Max	S-Pad Type
5607-	1/8" (3.17) - 15/8" (41.28)	S16
5609-	1/8" (3.17) - 2" (50.80)	S20
5611-	1/8" (3.17) - 21/4" (57.15)	S22
5613-	1/8" (3.17) - 25/8" (66.68)	S26
5615-	1/8" (3.17) - 3" (76.20)	\$30



GET THE MOST OUT OF YOUR

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 1 setup you can use:

- FlexC Quick Change Collets
- 5C/16C Collet Adapter
- **Sure-Grip Expanding Collets**
- 5C/16C Step Chucks & Closers

Note: Adapters are not Thru hole compatible



Collet Adapters

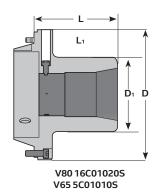
5C/16C Collet Adapters

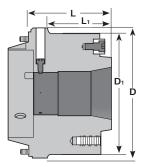
5C/16C Spindle tooling has been an industry standard for over 100 years. Customers can now utilize their 5C/16C spindle tooling in our FlexC 65 & 80 system for applications that are ideally suited for these style collets. Examples include extended nose, small hole, special shapes, Internal Gripping and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





Item	Part Number	D ₁ -Diameter	D-Diameter	L ₁ -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)





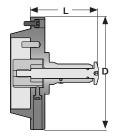
V80 16C01010S used with 16C Step chucks



Standard Sure-Grip® Expanding Adapters

You can now utilize our Sure-Grip expanding system in our Flex C 65 & 80 products! 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.





Sure-Grip Expanding Collet

Size	Part Number*	Grip Range	D - Diameter	L - Length	Collet	Work Stop
65	V65 2001000	1/2" - 3/4"	4.891" (124.23)	2.087" (53.01)	18350019-	18750000000200
65	V65 2501000	3/4" - 1"	4.891" (124.23)	2.483" (63.07)	18610019-	18750000000250
65	V65 3001000	1" - 1 1/2"	4.891" (124.23)	2.947" (74.85)	18370019-	1875000000300
65	V65 4001000	1 1/2" - 2 1/4"	5.25" (133.35)	3.536" (89.81)	18390019-	18550000000400
65	V65 5001000	2 1/4" - 3"	5.25" (133.35)	4.274" (108.56)	18410019-	18550000000500
65	V65 6001000	3" - 4"	5.25" (133.35)	4.337" (110.16)	18430019-	18550000000600
80	V80 3001000	1" - 1 1/2"	5.68" (144.47)	3.198" (81.23)	18370019-	18550000000300
80	V80 4001000	1 1/2" - 2 1/4"	5.68" (144.47)	3.629" (92.17)	18380019-	18550000000400
80	V80 5001000	2 1/4" - 3"	5.68" (144.47)	4.368" (110.95)	18410019-	18550000000500
80	V80 6001000	3" - 4"	5.68" (144.47)	4.430" (112.52)	18430019-	18550000000600

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

Standard 5C/16C Step Chucks & A2-3/A2-5 Closer

Regular Depth

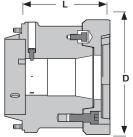
Size	Part Number **	Closure Size	D - Diameter	L-Length
65	V65 235C2RD	2"	3.625" (92.08)	3.0623" (77.8)
65	V65 235C3RD	3"	3.75" (95.25)	3.0623" (77.8)
65	V65 235C4RD	4"	4.75" (120.65)	3.0623" (77.8)
65	V65 235C5RD	5"	5.75" (146.05)	3.0623" (77.8)
65	V65 235C6RD	6"	6.75" (171.45)	3.0623" (77.8)
80	16 0002682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

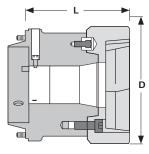
Size	Part Number **	Closure Size	D - Diameter	L - Length
65	V65 235C2ED	2"	3.625" (92.08)	3.813" (96.85)
65	V65 235C3ED	3"	4.25" (107.95)	3.813" (96.85)
65	V65 235C4ED	4"	5.25" (133.35)	3.813" (96.85)
65	V65 235C5ED	5"	6.25" (158.75)	3.813" (96.85)
65	V65 235C6ED	6"	7.25" (184.15)	3.813" (96.85)
80	16 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 5C01010S or V80 16C01010S for use.





A2-5 16C Adapter with 4 Closer



A2-5 16C Adapter with 4 ED Closer



Spring Part Ejectors

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.

Chuck Model	Part Number
42A	1057000000042A
42DL	105700000042DL
65A & DL	327300000065DL
80A & DL	327300000080DL





Variable Speed Part Ejectors with Part Stop

The 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!

Chuck Model	Stroke Length	Part Number
65A & DL	2.5" - Short	JLS000200065DL
65A & DL	4.4" - Long	JL 000100065DL
80A & DL	2.5" - Short	JLS000200080DL
80A & DL	4.4" - Long	JL 000100080DL
100A & DL	2.5" - Short	JLS0002000100

A = Pull back w/ dead length 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.

	Chuck Model Part Number	
	42A	V42 5A01011
	42DL	V42 5DL05411
	65A & DL	V65 6DL05836
NEW	H80A & DL	H80 00002213
	80A & DL	V80 6DL06213
	100A & DL	V100 00007113
	120A & DL	V120 00002913
	140A & DL	V140 00004313
	160A & DL	V160 00005113

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





FlexC Installation Rings

FlexC installation rings are designed to hold onto your 100, 120, 140 or 160mm chuck when mounting to the spindle. This provides an ergonomic cradle allowing the user to rotate the chuck for easy alignment of the mounting bolts. The installation ring is secured to the FlexC chuck with three 10M bolts. After securing the chuck to the spindle the Installation Ring and bolts must be removed

Size	Part Number	Compatible Chucks
100	V100 00007115	100A, 100DL
120/140	V120 00002915	120A, 120DL, 140A, 140DL
160	V160 00005115	160A, 160DL



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.

Size	Part Number	Actuation
65	7799000065MHYD	Manual
80	7799000080MHYD	Manual
42	77990000420020	Hydraulic
65	77990000650020	Hydraulic
80	77990000800020	Hydraulic
100	77990001000020	Hydraulic





Custom FlexC Solutions

With over 130 years of manufacturing experience, Forkardt Hardinge is your destination for Custom Application Solutions. Introducing FlexC custom solutions to remedy your productivity inefficiencies or simply to find an answer for those pesky, non-standard parts. Over the next several pages you'll see examples of FlexC custom solutions that may remedy your related problems. Our experienced Design and Applications Engineers will work closely with you to solve your individual needs while working within you parameters.

Call to discuss your solutions on the following applications or any special requests:

- FlexC Collet special shapes & serrations
- Eccentric order holes
- Stepped holes
- Air/Coolant Blast
- Automation **Applications**
- Milling **Applications**



Custom FlexC Collets

Our custom FlexC collets are some of the most innovative designs on the market. Our in-house engineering team has completed over 250,000 unique collet designs. Applications include off center eccentric order holes, non-marking, special shapes, custom serrations, synchronized collets, stepped single and multi-stepped hole.





FlexC Automation Applications

Air/Coolant Blast Applications

Key Features

- Internal work stops available with single port which can be machined to size by customer.
- Our engineers can design versions for more complex solutions
- Standard design is for 12mm air tube, but our team can customize for various port sizes

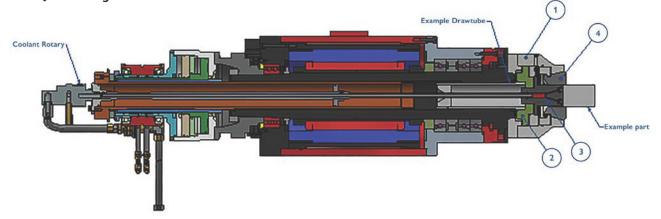
Air or Coolant blast are useful options for automated machining operations. For example it can be used to clean chips out of the part and chuck after each cycle, ensuring the locator and chuck are free of chips to accept the next part.

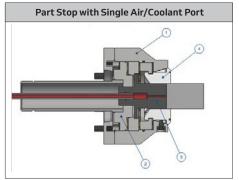
Alternately, this feature may be used to provide additional coolant to the cutting area when boring ID bores.

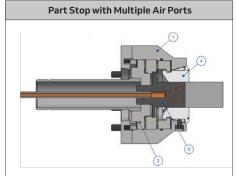
We offer internal part stop accessories for all sizes of FlexC chucks. The standard type is a multi-ported part stop, for providing multiple jets of air or coolant to clean out the chuck. Combined with the associated "Kit" that includes the rotating union and feed tube this system can be easily set up on your machine spindle.

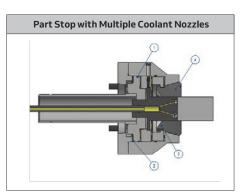
FlexC Coolant/Blast Air Components

- 1. FlexC "A" & "DL" Style Chuck (A2-5, A2-6, A2-8, A2-11)
- 2. FlexC DrawBar Adapter
- 3. FlexC Part Stop for Air Sensing
- 4. FlexC Quick Change Head









CALL US TODAY FOR A QUOTE: 02476 993153

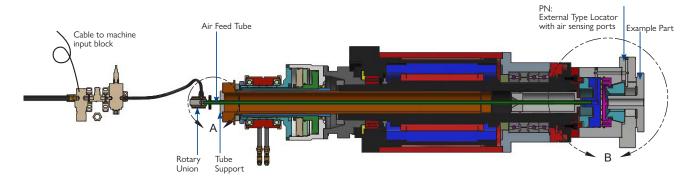


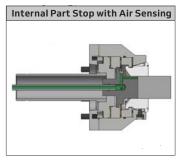
Presence Sensing via Low Pressure Air

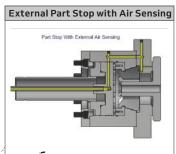
Key Features

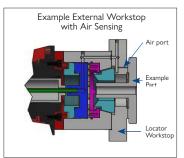
- Internal air sensing work stops available with single port which can be machined to size by customer
- External air sensing work stops available which can be custom machined by customer
- Our engineers can design special air sensing work stops for more complex solutions

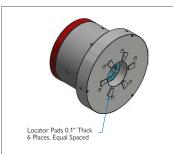
Part presence sensing via low pressure air (a.k.a. 'air sensing') is highly useful in automated part loading/unloading machining operations to ensure the part is properly loaded and square to the work stop before a signal is sent from the air catch sensor to the machine control indicating it is OK to begin the machining cycle. This prevents the machine cycle from starting with a potentially mis-loaded part, preventing the production of scrap pieces or worse, machine crashes which can damage tooling or the machine itself.





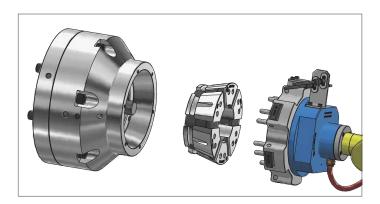


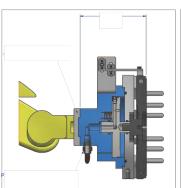


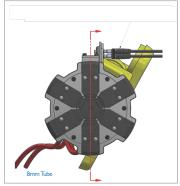


Automatic Clamping Head Change Over

This unique application allows you to autonomously exchange collet heads in a machine without an operator present. We can adapt this wrench to your current robotic arm or implement an entire new system.



















For over a century, Forkardt & Hardinge have been at the forefront of precision workholding solutions. Our legacy of excellence continues to set the industry standard, ensuring that your machining operations are as efficient and accurate as possible. We help you achieve the tightest tolerances and the highest quality parts that stand up to the rigors of your toughest machining tasks. Whether you need collets, chucks, rotary tables, or custom workholding solutions, our Workholding offers a comprehensive range of products to meet your specific needs. Our industry-leading innovation is driven by our research and development to bring you the latest advancements in workholding technology that is trusted by small and large machining professionals worldwide.



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