



# **FORKARDT HARDINGE**



## **FlexC® Quick Change Collet System**

# Why buy a FlexC Quick Change collet system?

- 10x the Grip Range of traditional Lathe Collets

<b>+/- .020"</b>	42mm, 52mm, 65mm, 80mm collets
<b>+/- .040"</b>	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



# MADE IN USA WORKHOLDING

FOR REAL AMERICAN QUALITY & PERFORMANCE



# 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 are **COMPATIBLE & 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



## FlexC COLLET SIZES INCLUDE:

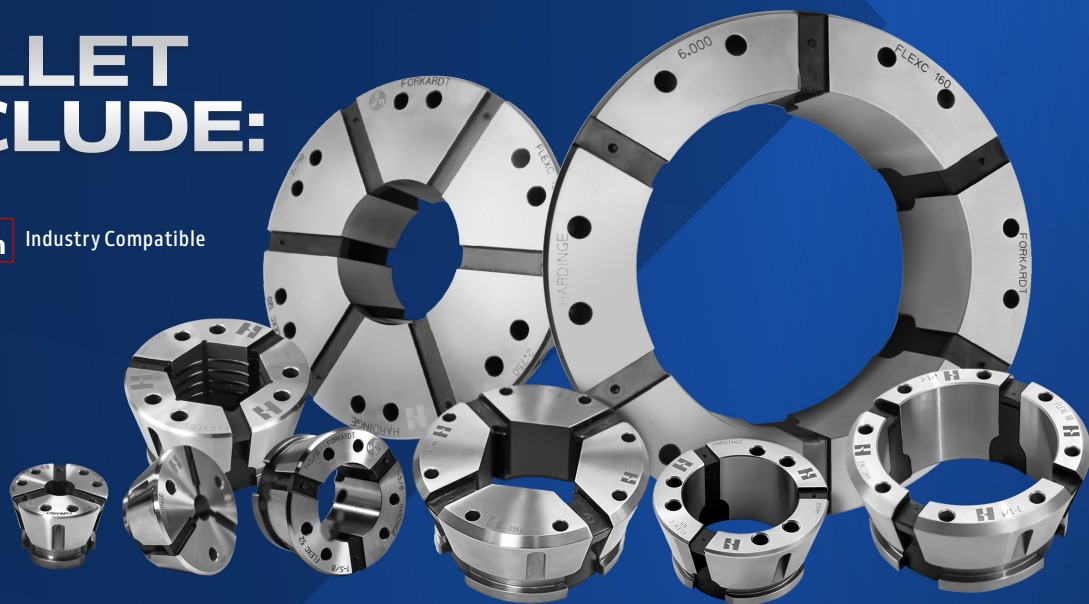
- 32mm
- 42mm
- 52mm
- 65mm
- 80mm

**NEW**

**H80mm**

Industry Compatible

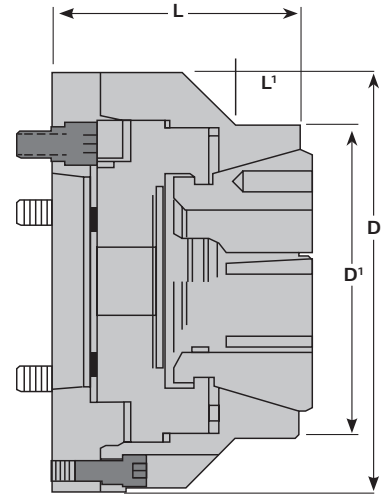
- 100mm
- 120mm
- 140mm
- 160mm



Call or email today! | 484.820.3093 | [Sales@ForkardtHardinge.com](mailto:Sales@ForkardtHardinge.com)

## Style D

Pull-back design with thru-hole



42 & 65mm Systems

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	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.

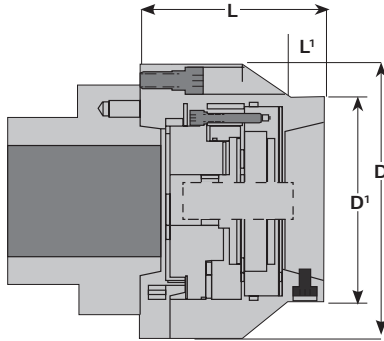
Accomplished Engineers, averaging over 20 years of service to the industry, making that special application easy for you.



# Style A

## Pull-back design with a Dead-length® workstop

All assemblies include a part stop



### Dead Stop Included

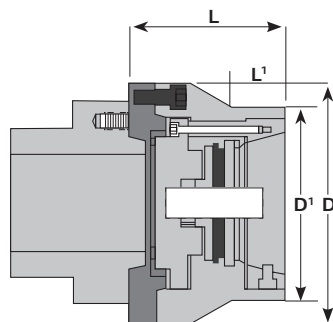
V42 5A01011 (M12 X 1.75 Thread)
V65 6DL05836 (1"-20 Thread)
V80 6DL06213 (1"-20 Thread)
H80 0002213 (1"-20 Thread)
V100 00007113 (1"-20 Thread)
V120 00002913 (1"-20 Thread)
V140 00004313 (1"-20 Thread)
V160 00005113 (1"-20 Thread)

Size	Spindle Type	Part Number	D' - 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	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)
<b>NEW</b> H80*	A2-5	H80 5A02600	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.42)
<b>NEW</b> H80*	A2-6	H80 6A02700	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
<b>NEW</b> H80*	A2-8	H80 8A02800	5.750" (146.1)	8.250" (209.6)	1.000" (25.4)	5.174" (131.4)
<b>NEW</b> H80*	140mm	H80 140A07400	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
* H80 Interchangeable with the Royal/Hainbuch brands. Requires Forkardt Hardinge Change wrench H080000000WREN						
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**	140mm	V80 140A06720	5.750" (146.1)	7.700" (195.6)	1.000" (25.4)	5.174" (131.4)
** Legacy 80 Interchangeable with 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	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	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)
<b>NEW</b> H80°	A2-5	H80 5DL02100	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
<b>NEW</b> H80°	A2-6	H80 6DL02200	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
<b>NEW</b> H80°	A2-8	H80 8DL02500	6.200" (157.5)	8.250" (209.6)	1.584" (40.2)	5.003" (127.08)
<b>NEW</b> H80°	140mm	H80 140DL06900	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
* H80 Interchangeable with the Royal/Hainbuch brands. Requires Forkardt Hardinge Change wrench H080000000VWREN						
80**	A2-5	V80 5DL06120	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.003" (127.08)
80**	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**	140mm	V80 140DL06420	6.200" (157.5)	7.700" (195.6)	1.584" (40.2)	5.224" (132.7)
** Legacy 80 Interchangeable 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	A2-11	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.



**NEW**

Size	Base Part Number	 Round Smooth/ Serrated	 Hex Smooth/ Serrated	 Square Smooth
32	C032	5/32" - 1 1/4"	9/32" - 1 1/16"	9/32" - 7/8"
		4mm - 32mm	7mm - 27mm	7mm - 22.5mm
42	C042	7/32" - 1 5/8"	5/16" - 1 3/8"	5/16" - 1 1/4"
		5mm - 42mm	8mm - 36mm	8mm - 29mm
52	C052	5/32" - 2 3/4"	9/32" - 1 9/16"	9/32" - 1 7/8"
		4mm - 52mm	7mm - 45mm	7mm - 36mm
65	C065	1/4" - 2 3/16"	5/16" - 2 1/8"	5/16" - 1 13/16"
		5mm - 65mm	8mm - 56mm	8mm - 46mm
H80*	H080	7/32" - 3 1/8"	5/16" - 2 11/32"	5/16" - 2 3/16"
		5mm - 80mm	8mm - 68mm	8mm - 56mm
* H80 Interchangeable with the Royal/Hainbuch brands. Requires Forkardt Hardinge Change wrench				
80**	C080	1 5/32" - 3 1/4"	1 5/32" - 2 3/4"	1 5/32" - 2 1/4"
		12mm - 82.5mm	12mm - 69.9mm	12mm - 57.2mm
** Legacy 80 Interchangeable with all other brands.				
100	C100	5/8" - 4"	5/8" - 3 3/8"	5/8" - 2 3/4"
		16mm - 100mm	16mm - 86mm	16mm - 70mm
120	C120	1" - 4 23/32"	1" - 4 3/32"	1" - 3 11/32"
		25mm - 120mm	25mm - 103.9mm	25mm - 84.8mm
140	C140	1" - 5 1/2"	1" - 4 3/4"	1" - 3 7/8"
		25mm - 140mm	25mm - 121mm	25mm - 99mm
160	C160	1 1/16" - 6 5/16"	1 1/16" - 5 59/64"	1 1/16" - 4 17/32"
		27mm - 160mm	27mm - 137mm	27mm - 115.4mm

## Emergency Collets

Size	Size / Pilot Hole	Part Number	Boring Ring
32	5mm	C0320000000005	C032000000RING
	16mm	C0320000000016	
42	5mm Pilot	C0420000000005	C042000000RING
	15mm Pilot	C0420000000015	
	30mm Pilot	C0420000000030	
52	5mm	C0520000000005	C052000000RING
	20mm	C0520000000020	
	35mm	C0520000000035	
65	8mm Pilot	C0650000000008	C065000000RING
	20mm Pilot	C0650000000020	
	40mm Pilot	C0650000000040	
H80*	8mm Pilot	H0800000000008	H0800000000RING
	20mm Pilot	H0800000000020	
	40mm Pilot	H0800000000040	
* H80 Interchangeable with the Royal/Hainbuch brands. Requires Forkardt Hardinge Change wrench			
80**	12mm Pilot	C0800000000012	C080000000RING
	25mm Pilot	C0800000000025	
	40mm Pilot	C0800000000040	
** Legacy 80 Interchangeable with all other brands			

**NEW**



FlexC 100 Emergency Collet Head



FlexC 100 Boring Ring

100	16mm Pilot	C1000000000016	C100000000RING
	30mm Pilot	C1000000000030	
	45mm Pilot	C1000000000045	
	60mm Pilot	C1000000000060	
	75mm Pilot	C1000000000075	
120	25mm Pilot	C1200000000025	C120000000RING
140	25mm Pilot	C1400000000025	C140000000RING
160	27mm Pilot	C1600000000027	C160000000RING

# 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.

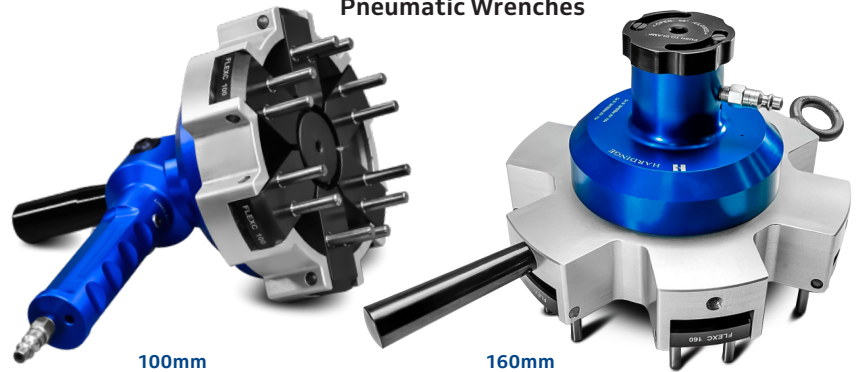
Size	Part Number	Wrench Type
32	C032000000WREN	Manual
42	C042000000WREN	Manual
52	C052000000WREN	Manual
65	C065000000WREN	Manual
<b>NEW</b> H80*	H080000000WREN	Manual
80**	C080000000WREN	Manual
100	C10000AIRWRENCH	Pneumatic
120	C12000AIRWRENCH	Pneumatic
140	C14000AIRWRENCH	Pneumatic
160	C16000AIRWRENCH	Pneumatic

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

### Manual Wrenches

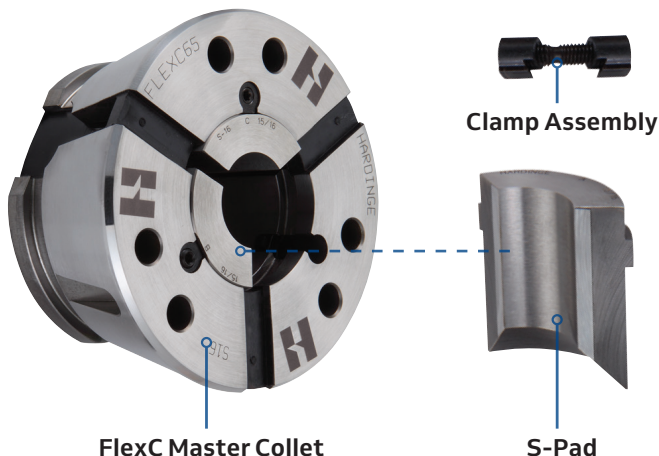


### Pneumatic Wrenches



## 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	76190000000000
B Wrench	76370000000000
S22 and S30	Part Number
C Clamp Assembly	76270000000000
C Wrench	76390000000000

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

Part Number	Round Capacity, Min-Max	S-Pad Type
5607-	1/8" (3.17) - 1 1/8" (41.28)	S16
5609-	1/8" (3.17) - 2" (50.80)	S20
5611-	1/8" (3.17) - 2 1/4" (57.15)	S22
5613-	1/8" (3.17) - 2 3/8" (66.68)	S26
5615-	1/8" (3.17) - 3" (76.20)	S30



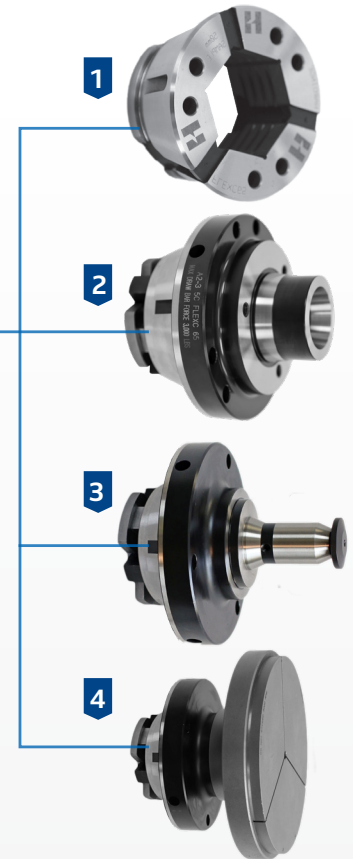
# GET THE MOST OUT OF YOUR INVESTMENT

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 1 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

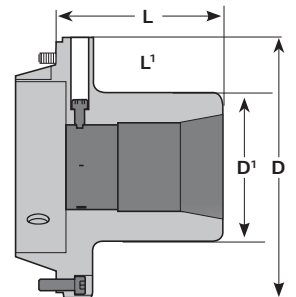
Note: Adapters are not Thru hole compatible



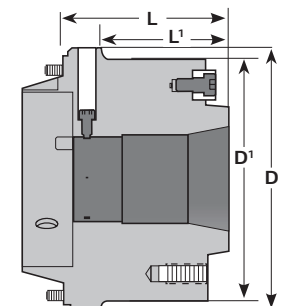
## Collet Adapters

### 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!



V80 16C01020S  
V65 5C01010S

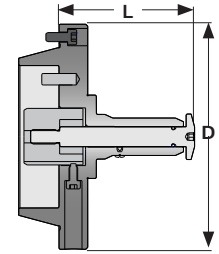


V80 16C01010S  
used with 16C Step chucks

Item	Part Number	D <sup>1</sup> -Diameter	D-Diameter	L <sup>1</sup> -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 our Sure-Grip expanding system in our FlexC 65 & 80 products! Sure-Grip Expanding Collet Systems offer solutions to difficult machining problems where ID gripping is required. Sure-Grip collets have  $\pm .015$ " expansion range and .0002" TIR.



Sure-Grip Expanding Collet

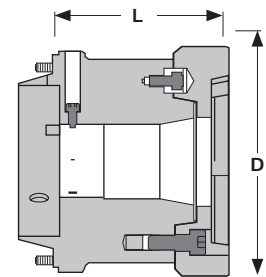
Size	Part Number*	Grip Range	D - Diameter	L - Length	Collet	Work Stop
65	V65 2001000	½" - ¾"	4.891" (124.23)	2.087" (53.01)	18350019-	18750000000200
65	V65 2501000	¾" - 1"	4.891" (124.23)	2.483" (63.07)	18610019-	18750000000250
65	V65 3001000	1" - 1 ½"	4.891" (124.23)	2.947" (74.85)	18370019-	18750000000300
65	V65 4001000	1 ½" - 2 ¼"	5.25" (133.35)	3.536" (89.81)	18390019-	18550000000400
65	V65 5001000	2 ¼" - 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 ½"	5.68" (144.47)	3.198" (81.23)	18370019-	18550000000300
80	V80 4001000	1 ½" - 2 ¼"	5.68" (144.47)	3.629" (92.17)	18380019-	18550000000400
80	V80 5001000	2 ¼" - 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

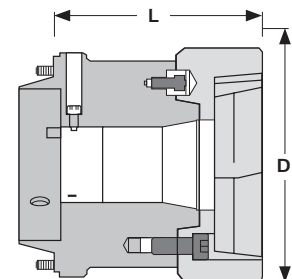
Size	Part Number **	Closure Size	D - Diameter	L - Length
65	V65 235C2RD	2"	3.625" (92.08)	3.0623" (77.8)
65	V65 235C3RD	3"	3.75" (95.25)	3.0623" (77.8)
65	V65 235C4RD	4"	4.75" (120.65)	3.0623" (77.8)
65	V65 235C5RD	5"	5.75" (146.05)	3.0623" (77.8)
65	V65 235C6RD	6"	6.75" (171.45)	3.0623" (77.8)
80	16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



A2-5 16C Adapter  
with 4 Closer

### 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)



A2-5 16C Adapter  
with 4 ED Closer

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



## 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	1057000000042DL
65A & DL	3273000000065DL
80A & DL	3273000000080DL

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



## 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
<b>NEW</b> 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 your 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

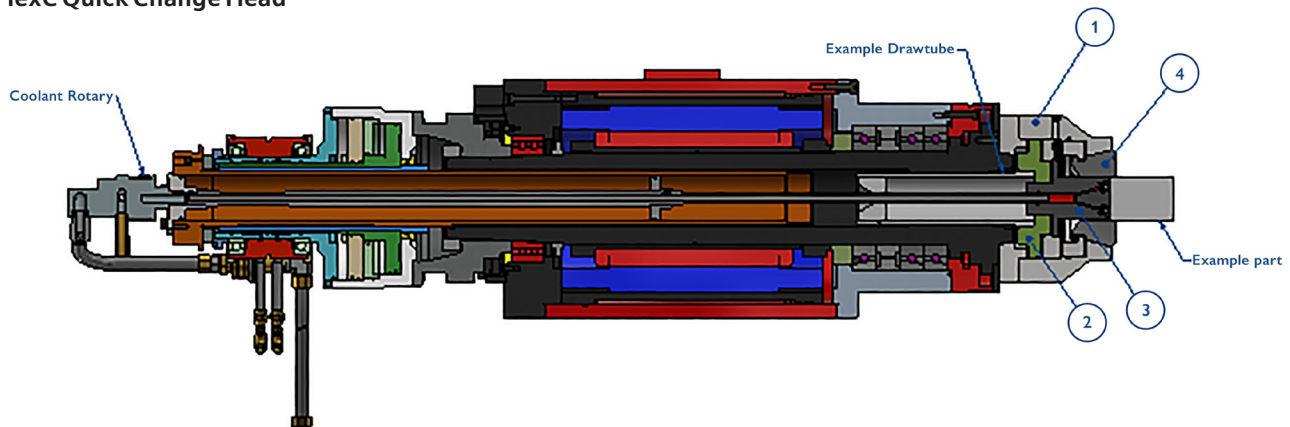
Air or Coolant blast are useful options for automated machining operations. For example it can be used to clean chips out of the part and chuck after each cycle, ensuring the locator and chuck are free of chips to accept the next part.

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

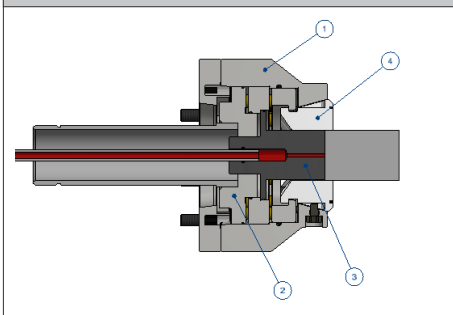
We offer internal part stop accessories for all sizes of FlexC chucks. The standard type is a multi-ported part stop, for providing multiple jets of air or coolant to clean out the chuck. Combined with the associated "Kit" that includes the rotating union and feed tube this system can be easily set up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

### FlexC Coolant/Blast Air Components

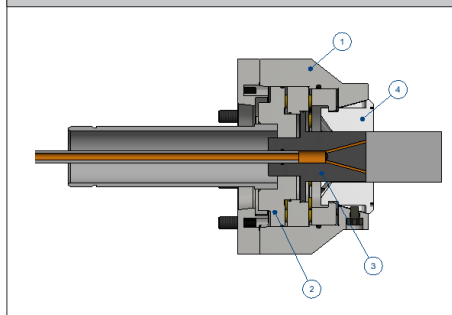
1. FlexC "A" & "DL" Style Chuck (A2-5, A2-6, A2-8, A2-11)
2. FlexC DrawBar Adapter
3. FlexC Part Stop for Air Sensing
4. FlexC Quick Change Head



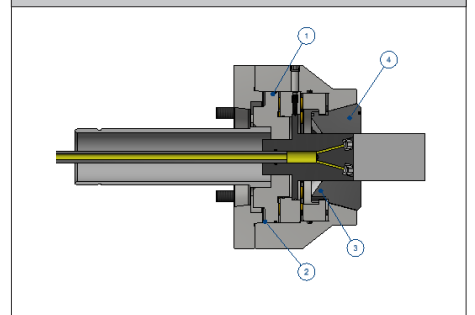
Part Stop with Single Air/Coolant Port



Part Stop with Multiple Air Ports



Part Stop with Multiple Coolant Nozzles



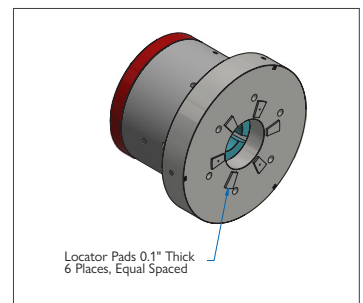
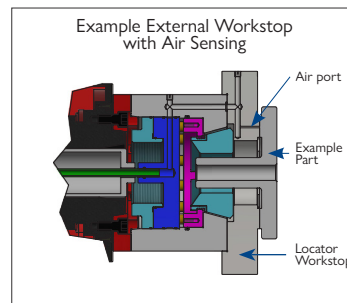
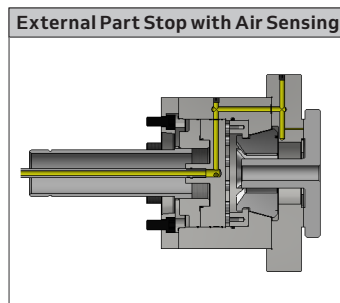
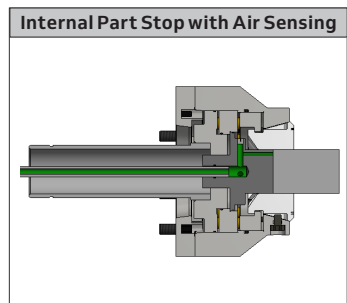
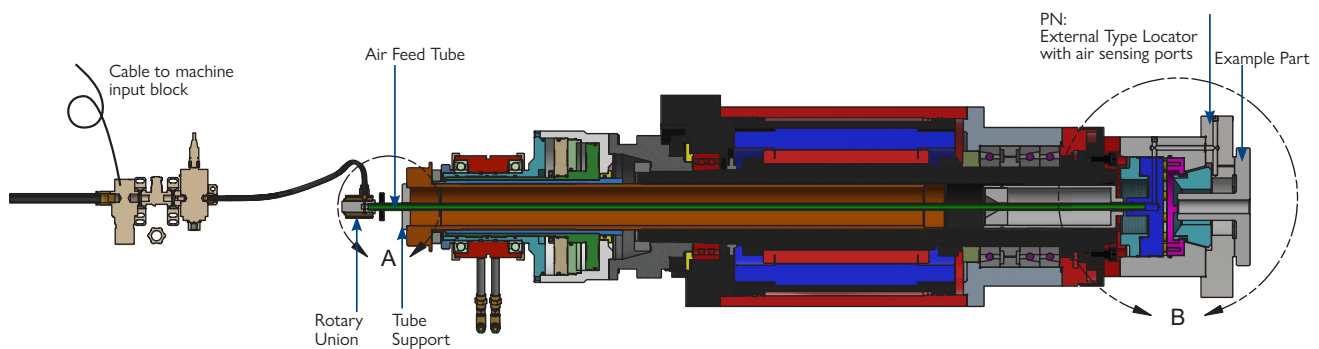
**CALL US TODAY FOR A QUOTE: 833-791-9681**

## Presence Sensing via Low Pressure Air

### Key Features

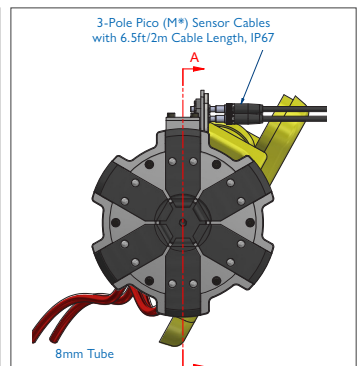
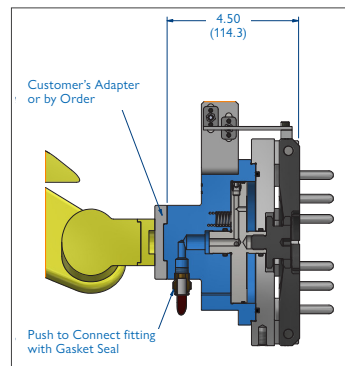
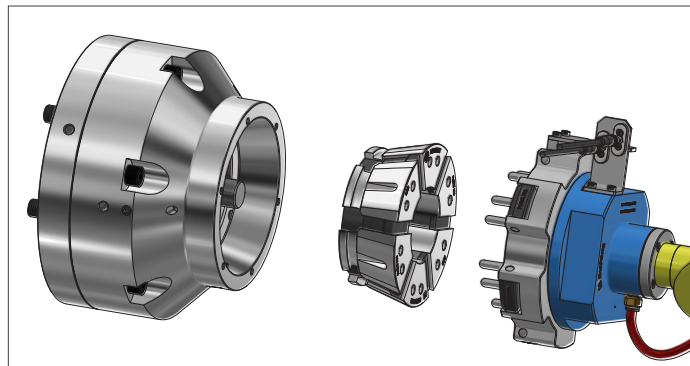
- Internal air sensing work stops available with single port which can be machined to size by customer
- External air sensing work stops available which can be custom machined by customer
- Our engineers can design special air sensing work stops for more complex solutions

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.



- ✓ **Over 230 years of combined workholding experience**
- ✓ **Over 200,000 SKUs**
- ✓ **100% Made in USA**
- ✓ **95% Same-day delivery for all standard items in stock**
- ✓ **Less than 1% return rate for defective items**



**FORKARDT  
HARDINGE**

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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