



FORKARDT.COM



FLEXC[®] COLLET CHUCK

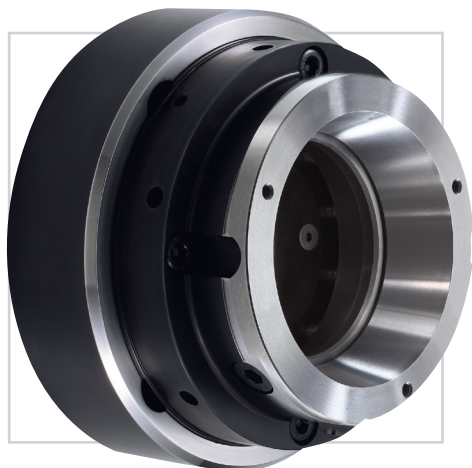
QUICK CHANGE COLLET SYSTEM

CONTENTS

Modular FlexC® clamping system	3
FlexC® design variants	3
Version D - with pull-back function and through hole	3
Version A - with retraction function and workpiece stop	3
Design DL - Compression collet with workpiece stop	3
FlexC® Flexibility & Variability	4
FlexC® Collets	4
Technical Dimensions	5
Version D - with pull-back function and through hole	5
Version A - with retraction function and workpiece stop	5
DL Version - Compression collet with workpiece stop	6
FlexC® Expansion chucks - clamping ranges	6
FlexC® Accessories	7
FlexC® Collet adapter	7
FlexC® Adapter for mandrels	7
FlexC® Adapter for step chuck	8
FlexC® Stationary clamping units	8
FlexC® Ejector Spring-actuated	9
FlexC® Extended stroke & variable speed	9
FlexC® Workpiece stops	9

FORKARDT®

FLEXC® DESIGN VARIANTS



FLEXC® VERSION D

WITH PULL-BACK FUNCTION & THROUGH HOLE

Version D has a retraction function as well as a through hole and is particularly suitable for bar machining. This version does not have a workpiece stop. Collet and chuck changer are each available separately.



FLEXC® VERSION A

WITH RETRACTION FUNCTION & WORKPIECE STOP

Version A has a retraction function as well as an integrated workpiece stop. The collet pulls the workpiece against a fixed-axis stop for length control. You can unclamp workpieces to the required length and adapt them to the workpiece geometry by using a matched workpiece stop. The workpiece stop can be removed for bar work.



FLEXC® VERSION DL

WITH WORKPIECE STOP

The DL version is a pressure collet chuck. It clamps without axial movement of the clamping head. This makes it possible to transfer workpieces from one spindle to the other with an accuracy of 0.013 mm, depending on the machine accuracy. This avoids clamping marks on the workpiece and problems with cutting off the bar when the spindle is retracted.

MODULAR FLEXC® CLAMPING SYSTEM

The modular FlexC® clamping system allows the use of different clamping concepts combined with minimal set-up effort. The change from internal to external clamping takes place in less than 1 minute. The compact design of the collet chucks reduces the interfering contours in the machine and leads to an enlargement of the working area.

FLEXC® FLEXIBILITY & VARIABILITY

FlexC® is an innovative quick-change system. It allows the change from internal to external clamping in less than 1 minute. The modular concept FlexC® allows the use of chuck heads, existing collets (type 5C/16C) and mandrels for internal clamping. By using step chucks, parts with large diameters can be machined.

- 1 FLEXC® COLLET HEADS**
- 2 FLEXC® ADAPTER FOR 5C/16C COLLETS**
- 3 FLEXC® ADAPTER FOR MANDREL**
- 4 FLEXC® ADAPTER FOR STEP CHUCK**



FLEXC® COLLETS

PRODUCTION FROM ONE SOURCE

Forkardt has invested in the latest vulcanizing machines from DESMA, a world leader in injection molding technology. The vulcanization process connects the collet segments into one unit. The vulcanized rubber maintains constant elasticity for repeated opening and closing throughout the life of the collet, this is ideal for a quick change product. The materials used do not become brittle and are resistant to coolants. The ingress of chips into the clamping system is prevented. Test results from Forkardt with repeated cycles of the collets ensure the long service life of the vulcanization.

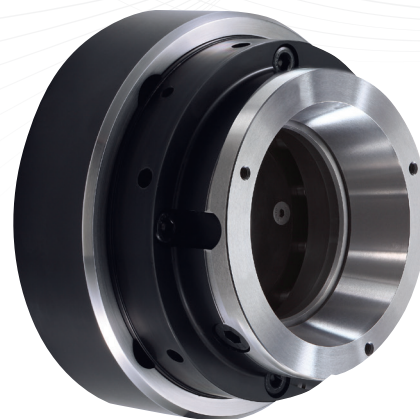
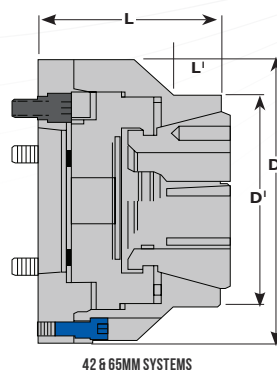
Forkardt specifies a run-out accuracy of 0.005 mm for a clamping head for round sizes.

The expansion chucks are installation compatible with the most common products available on the market (42 / 65 / 100mm).



TECHNICAL DIMENSIONS

VERSION D WITH PULL-BACK FUNCTION & THROUGH HOLE



Version D with pull-back function and through hole

Size	Spindle	Number	DI	D	LI	L
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)

VERSION A WITH RETRACTION FUNCTION & WORKPIECE STOP

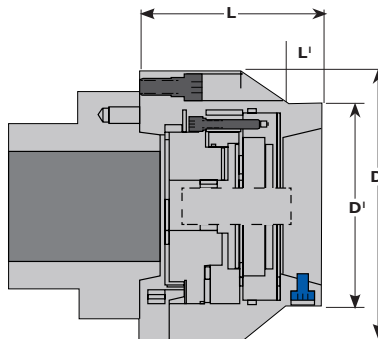
Workpiece stop included
in scope of delivery

V42 5A01011 (M12 X 1.75)

V65 6DL05836 (1"-20 Thread)

V80 6DL06213 (1" -20)

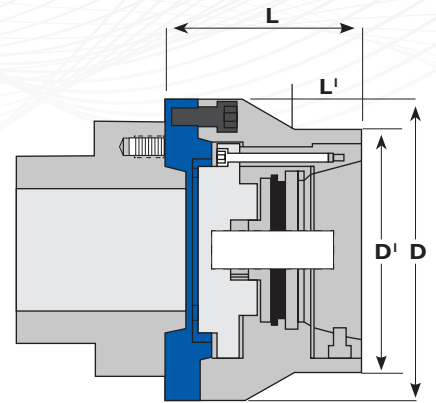
VI00 00007113



Version A - with retraction function and workpiece stop

Size	Spindle	Number	DI	D	LI	L
42	A2-5	V425A01000	102,00	140,00	15,50	121,00
42	A2-6	V426A01100	102,00	165,00	15,50	121,00
42	I40mm	V42I40A01600	102,00	150,00	15,50	125,70
65	A2-5	V655A01250	120,30	160,00	21,50	125,60
65	A2-6	V656A01350	120,30	160,00	21,50	125,60
65	A2-8	V658A01450	120,30	210,00	21,50	138,30
65	I40mm	V65I40A02350	120,30	160,00	21,50	126,80
80	A2-5	V805A06620	146,10	195,60	25,40	131,50
80	A2-6	V806A06420	146,10	195,60	25,40	131,40
80	A2-8	V808A06520	146,10	209,60	25,40	131,40
80	I40mm	V80I40A06720	146,10	195,60	25,40	131,40
100	A2-6	VI006A07600	171,50	244,50	27,30	157,20
100	A2-8	VI008A07700	171,50	244,50	27,30	157,20
100	A2-11	VI0011A07800	171,50	279,40	27,30	157,20

DL VERSION WITH COMPRESSION COLLET WITH WORKPIECE STOP



Workpiece stop included in
scope of delivery

V425DL05411

V656DL05836

V806DL06213

DL version - Compression collet with workpiece stop

Size	Spindle	Number	DI	D	LI	L
42	A2-5	V425DL05400	0,00	135,00	—	120,00
42	A2-6	V426DL05500	135	160	75	120
42	I40mm	V42140DL04400	135,00	150,00	100,00	120,00
65	A2-5	V655DL05750	137,3	160	36,8	123
65	A2-6	V656DL05950	137,30	160,00	36,80	123,00
65	A2-8	V658DL06050	137,3	210	36,8	135,8
65	I40mm	V65140DL02450	137,30	160,00	36,80	124,30
80	A2-5	V805DL06120	157,5	195,6	40,2	132,3
80	A2-6	V806DL06220	157,50	195,60	40,20	132,30
80	A2-8	V808DL06320	157,5	209,6	40,2	132,3
80	I40mm	V80140DL06420	157,50	195,60	40,20	132,70
100	A2-6	VI006DL07100	182,88	244,48	49,13	155,58
100	A2-8	VI008DL07200	182,88	244,48	49,13	155,58
100	A2-11	VI0011DL07300	182,88	279,4	49,13	155,58

FLEXC® EXPANSION CHUCKS CLAMPING RANGES

Collets with standard dimensions are available from stock. Semi-finished products are available for applications with intermediate sizes. These are machined according to customer requirements. Collets with special shapes of the clamping geometry and for special applications are designed by our design department depending on the order.

Size	Round	6-kant	Square
42	5-42	SW 8 -32	8 - 29
65	5 - 65	SW 8 - 56	8 - 46
80	12 - 82,5	SW 12 - 70	12 - 57
100	16 - 100	SW 16 -85	16 -69



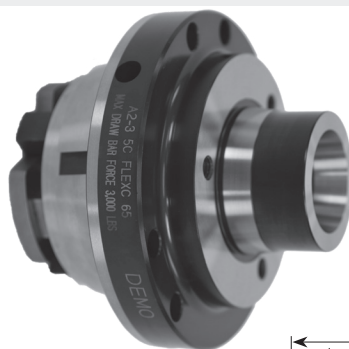
FLEXC® ACCESSORIES

The FlexC® expansion chucks are complemented by an extensive range of accessories and, thanks to their flexibility, enable set-up times to be reduced, thus increasing machine availability.

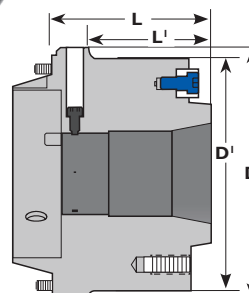


FLEXC® COLLET ADAPTER

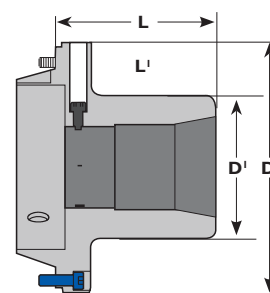
The use of the FlexC® collet adapter allows to use already existing collets of type 5C/I6C. The use of extended collets as well as special profiles is possible.



Collet Holder					
Size	DI - Ø	D - Ø	LI - Length	L - Length	Part number
5C Adapter	50,4	124,2	31,75	65,1	V65 5C01010S
I6C Adapter Flange design	82,6	144,5	71,4	92,1	V80 I6C01020S
I6C A2-5 Collet holder	133,4	144,5	71,4	92,1	V80 I6C01010S



V80 16C01010S
USED WITH 16C STEP CHUCKS



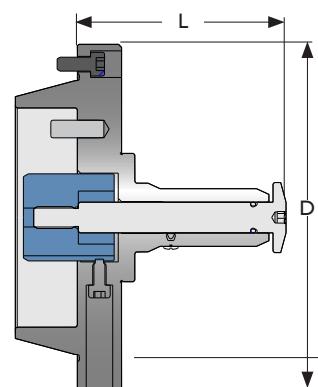
V80 16C01020
V65 5C01010

FLEXC® ADAPTER FOR MANDRELS

For processes with internal clamping, the FlexC® adapter for clamping arbors is available. The use of these mandrels in conjunction with clamping sleeves is particularly suitable for applications with high demands on concentricity.



Clamping mandrel receptacle				
Size	Designation	Clamping range	D	L
80	V80 300I000	25,4 - 38,1	144,47	81,23
80	V80 400I000	38,1 - 57,15	144,47	92,17
80	V80 500I000	57,15 - 76,2	144,47	110,95
80	V80 600I000	76,2 - 101,6	144,47	112,52
65	V65 200I000	12,7 - 19,05	124,23	53,01
65	V65 250I000	19,05 - 25,4	124,23	63,07
65	V65 300I000	25,4 - 38,1	124,23	74,85
65	V65 400I000	38,1 - 57,15	133,35	89,81
65	V65 500I000	57,15 - 76,2	133,35	108,56
65	V65 600I000	76,2 - 101,6	133,35	110,16



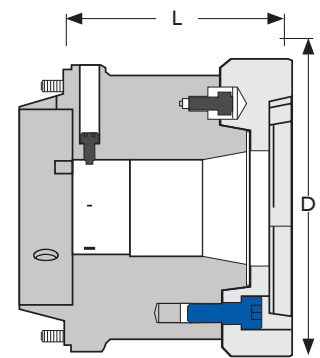
SURE-GRIP EXPANDING COLLET

FLEXC® ADAPTER FOR STEP CHUCK

For the machining of components with a clamping diameter of up to 150mm in combination with the FlexC® chucks, the adapter for step chucks has been developed. This option is suitable for machining preformed components or already machined parts. Thin-walled workpieces are only slightly deformed by the comprehensive clamping.

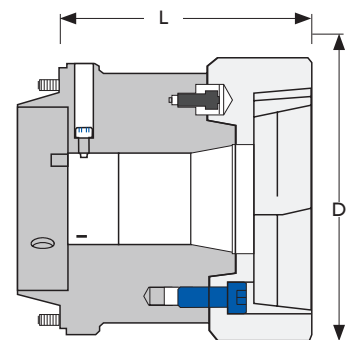


Steps Chuck Standard Depth			
Size	Designation	D	L
65	V65 235C2RD	92,08	77,8
65	V65 235C3RD	95,25	77,8
65	V65 235C4RD	120,65	77,8
65	V65 235C5RD	146,05	77,8
65	V65 235C6RD	171,45	77,8
80	I6-2682RD	139,7	114,3
80	I6-2683RD	139,7	114,3
80	I6-2684RD	147,23	114,3
80	I6-2685RD	147,23	114,3
80	I6-2686RD	147,23	114,3



**A2-5 16C ADAPTER
WITH 4 CLOSER**

Step Chuck Special Depth			
Size	Designation	D	L
65	V65 235C2ED	92,08	96,85
65	V65 235C3ED	107,95	96,85
65	V65 235C4ED	133,35	96,85
65	V65 235C5ED	158,75	96,85
65	V65 235C6ED	184,15	96,85
80	I6-2682-OC	139,7	133,35
80	I6-2683-OC	139,7	133,35
80	I6-2684-OC	149,23	133,35
80	I6-2685-OC	158,75	133,35
80	I6-2686-OC	184,15	133,35



**A2-5 16C ADAPTER
WITH 4 ED CLOSER**

FLEXC® STATIONARY CLAMPING UNITS

FlexC® stationary clamping units were developed for use on machining centers. The clamping units are available with manual and hydraulic actuation. The flexibility and features of the FlexC® clamping units, as well as the available FlexC® options, are equally available for the stationary clamping units.



Clamping mandrel receptacle		
Size	Designation	Actuation
65	77990000650010	HYDRAULISCH
45	77990000420010	HYDRAULISCH
65	7799000065MHYD	MANUELL
80	7799000080MHYD	MANUELL

FLEXC® EJECTOR SPRING-ACTUATED

For ejecting the workpieces to be machined onto a discharge device. The ejector is spring-operated and has a limited stroke and a preset ejection speed.

Clamping mandrel receptacle	
Parts Number	Chuck
I057000000042A	42A
I057000000042DL	42DL
3273000000065DL	65
I0570000000065A	65A
3273000000080DL	80
3273000000080A	80A



FLEXC® EXTENDED STROKE & VARIABLE SPEED

Ejector with extended stroke and variable ejection speed for flexible and optimum parts handling.

FlexC® Extended stroke & variable speed	
Parts Number	Chuck
JL000I00065DL	65
JL000I00065A	65A
JL000I00080DL	80
JL000I00080A	80A
JLI0000I100	100



FLEXC® WORKPIECE STOPS

Workpiece stops for precise axial alignment of workpieces in the FlexC® chuck. The easy-to-mount workpiece stops can be flexibly adjusted to the required depth.

Workpiece stops	
Parts Number	Chuck
V425A01011	42A
V425DL05411	42DL
V656DL05836	65DL
V656A01211	65A
V806DL06213	80DL
V806A06408	80A
VI007113	100A



FORKARDT®

CLAMPING TECHNOLOGY WORLDWIDE

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