MicroCentric

Precision Workholding Solutions

Quick Change Collet Chucks

www.MicroCentric.com

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Commitment to Service

MicroCentric Quick Change Collet Chucks are available from stock and can be adapted to any machine configuration. MicroCentric is not only committed to building the world's finest workholding products, but we also strive to provide our customers with unmatched service and support.

Made in USA

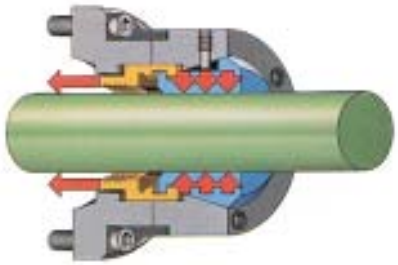
Quick Change Collet System Overview

Change Collets in 15 Seconds

- MicroCentric Collets are collapsed by a changing fixture for quick removal and insertion into the chuck

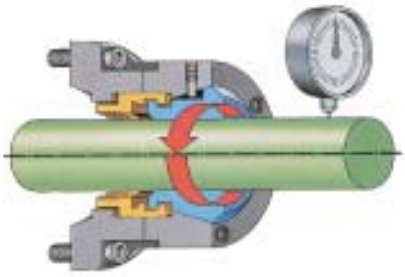
High Clamping Force

- Parallel clamping design generates higher clamping forces than traditional collet and three jaw chucks



.0004" Accuracy

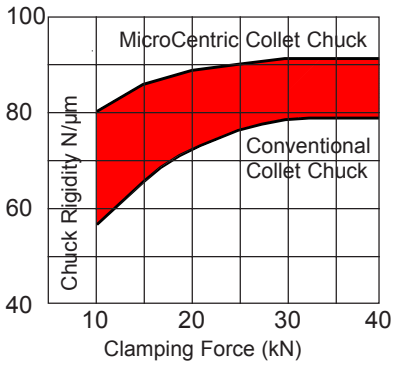
- Runout of the workpiece (not only the tapered seat of the chuck) is guaranteed to be within .0004" (0,010mm) TIR after collet change



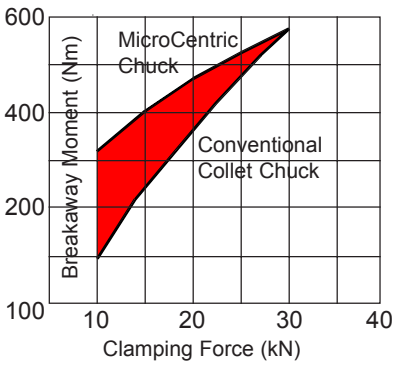
Superior Rigidity

- Shorter overall chuck length
- Workpiece is machined closer to spindle face
- High chuck rigidity improves cutting tool life and allows higher metal removal rates for shorter cycle times

Up to 35% greater rigidity

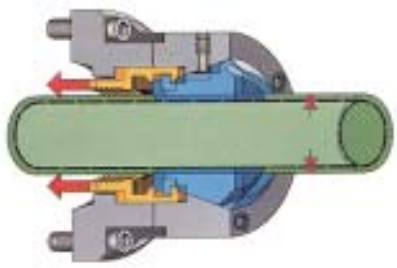


50% higher clamping force



Large Clamp Range

- .040" (1 mm) range on models up to 2-5/8" (65 mm) capacity
- .080" (2 mm) range on larger capacity collets



High Spindle Speeds

- MicroCentric 42 mm and 65 mm collet chucks models are rated to 6,000 rpm
- Models rated to 8,000 rpm are quoted on request

Collets Available From Stock

- MicroCentric stocks an extensive range of inch and metric collets, in round and hex configurations.
- Quick ship collets, that are delivered in 5 days, are offered for special sizes and configurations.

Quick Change Collet Chuck Models

All components of MicroCentric Collet Chucks are made from hardened and precision ground alloy steel for highest accuracy and long term performance. Their modular design makes it possible to adapt MicroCentric chucks to all machine spindle and draw tube configurations.

NB Series - *Pull Back* Design

In the NB series chuck, the collet is coupled directly to the draw tube connector. As the draw tube is actuated, the collet is drawn into the tapered seat, efficiently translating draw tube force into maximum clamping force.

ND Series - *Dead Length* Design

In the ND series models the collet is coupled directly to the chuck body and remains fixed as the tapered seat moves forward when the chuck is actuated. This design keeps the collet in a fixed Z axis position during clamping and imparts no pull back on bar.

NDR Series - *Pull to Close Dead Length* Design

The NDR series collet chuck, is a new patented *Dead Length* design for use with servo stop bar loaders. Similar to the ND series, the collet is coupled to the chuck body, but the chuck is actuated as the draw tube is pulled into machine spindle.

NK Series - *Combination* Design for Bar & Chucking Work

NK series chucks offer the added flexibility of being able to mount end stops inside the chuck body for easy conversion from bar to chucking applications.

NS Series - *Dead Length* Design for Sub Spindles

The NS series is a reduced diameter *Dead Length* design for sub spindles. Similar to ND chucks, the collet is coupled directly to the chuck body and remains fixed as the chuck is actuated. The NS also includes a mounting for stops and ejectors inside the chuck.

NR Series - *Self Contained* Design for Stationary Applications

The NR series is a pneumatic or hydraulically actuated self-contained *Pull Back* design for non-rotating applications. The collet is coupled to the built-in piston and is drawn into the tapered seat as the chuck is actuated. Part stops and ejectors can be mounted inside the chuck body.

CB-NB Collet Chucks - Pull Back Design

In the CB-NB series collet chucks, the collet is coupled directly to the draw tube connector. As the draw tube is actuated, the collet is drawn into the tapered seat of the chuck body, efficiently translating draw tube force into maximum clamping force.

CB-NB Features

- *Pull Back* design maximizes the efficiency of the clamping system by concentrating all forces in the direction of the spindle for highest accuracy and greatest overall rigidity
- Low profile OD and short overall length provides increased tool clearance and maximum utilization of the machine's Z axis
- Radial adjusting screws
- Lubricated for life design requires minimal maintenance
- All components hardened and precision ground for highest accuracy and long life
- Spindle speeds up to 6,000 rpm.

CB-NB Specifications

Chuck Model	CB42-NB	CB65-NB	CB80NB	CB100-NB	CB120-NB	CB140-NB
Collet Model	SK42BZI	SK65BZI	SK80BZI	SK100BZI	SK120BZI	SK140BZI
Through Capacity	1.625"	2.625"	3.250"	3.937"	4.720"	5.510"
	42mm	66mm	82.5mm	100mm	120mm	140mm
Clamping Range	+/- .020"	+/- .020"	+/- .020"	+/- .040"	+/- .040"	+/- .040"
	+/- 0.5mm	+/- 0.5mm	+/- 0.5mm	+/- 1mm	+/- 1mm	+/- 1mm
Draw Tube Stroke	.160"	.160"	.160"	.275"	.275"	.275"
	4mm	4mm	4mm	7mm	7mm	7mm
Max. Draw Bar Force	7,850 lbs	10,095 lbs	11,980 lbs	14,580 lbs	15,310 lbs	16,074 lbs
	3,580 kg	4,590 kg	5,450 kg	6,630 kg	6,960 kg	7,310 kg
Max. Clamping Force	14,130 lbs	18,170 lbs	21,560 lbs	26,240 lbs	27,560 lbs	28,930 lbs
	6,425 kg	8,260 kg	9,820 kg	11,930 kg	12,530 kg	13,150 kg
Max Speed	6,000 rpm	6,000 rpm	5,000 rpm	4,500 rpm	4,000 rpm	4,000 rpm
Net Weight	16.7 lbs	23.9 lbs	35.1 lb	47.9 lbs	72.6 lbs	89.1 lbs
	7.6 kg	10.9 kg	15.9 kg	21.8 kg	33 kg	40.5 kg

Standard Equipment

CB-NB collet chucks include a spindle adapter plate and a blank draw tube connector. Threaded draw tube connectors for specific machine configurations are furnished at no additional charge if draw tube dimensions are provided with your purchase order. See page 24 for spindle and draw tube data sheet.

CB-NB Dimensions

Chuck Model	Fig.	Spindle Nose	A	B	C	D	E	F	G	H
CB42-NB/140	1	140mm	3.095"	4.250"	5.700"	-	-	2.050"	4.050"	.354"
			78.6mm	108mm	144.8mm	-	-	52.1mm	102.9mm	9mm
CB42-NB/A5	1	A2-5	3.095"	4.250"	5.700"	-	-	2.450"	4.450"	.354"
			78.6mm	108mm	144.8mm	-	-	62.2mm	113mm	9mm
CB42-NB/A6	2	A2-6	3.095"	4.250"	5.700"	6.480"	1.000"	2.350"	4.350"	.354"
			78.6mm	108mm	144.8mm	164.6mm	25.4mm	59.7mm	110.5mm	9mm
CB65-NB/A5	1	A2-5	3.886"	5.000"	6.480"	-	-	2.800"	4.300"	.354"
			98.7mm	127mm	164.6mm	-	-	71.1mm	109.2mm	9mm
CB65-NB/A6	1	A2-6	3.886"	5.000"	6.480"	-	-	3.350"	4.850"	.354"
			98.7mm	127mm	164.6mm	-	-	85.1mm	123.2mm	9mm
CB65-NB/A8	2	A2-8	3.886"	5.000"	6.480"	8.250"	1.625"	3.630"	5.130"	.354"
			98.7mm	127mm	164.6mm	209.6mm	41.3mm	92.1mm	130.2mm	9mm
CB80-NB/A6	1	A2-6	4.500"	5.875"	7.700"	-	-	2.955"	4.955"	.180"
			114.3mm	149.2mm	195.6mm	-	-	75.1mm	125.9mm	4.6mm
CB80-NB/A8	2	A2-8	4.500"	5.875"	7.700"	9.200"	1.105"	3.210"	5.210"	.180"
			114.3mm	149.2mm	195.6mm	233.7	28.1mm	81.5mm	132.3mm	4.6mm
CB100-NB/A8	1	A2-8	5.704"	7.000"	9.350"	-	-	3.410"	4.810"	.040"
			144.8mm	177.8mm	237.5mm	-	-	86.6mm	122.2mm	1mm
CB100-NB/A11	2	A2-11	5.704"	7.000"	9.350"	10.950"	2.000"	4.250"	5.650"	.040"
			144.8mm	177.8mm	237.5mm	278.1mm	50.8mm	107.9mm	143.5mm	1mm
CB120-NB/A11	1	A2-11	7.087"	8.950"	10.950"	-	-	3.610"	5.860"	.120"
			180mm	227.3mm	278.1mm	-	-	91.7mm	148.8mm	3mm
CB140-NB-A11	1	A2-11	7.700"	9.950"	11.950"	-	-	3.610"	5.860"	.120"
			195.6mm	252.7mm	303.5mm	-	-	91.7mm	148.8mm	3mm

CB-NB chucks with spindle adapters other than those listed above are quoted on request.

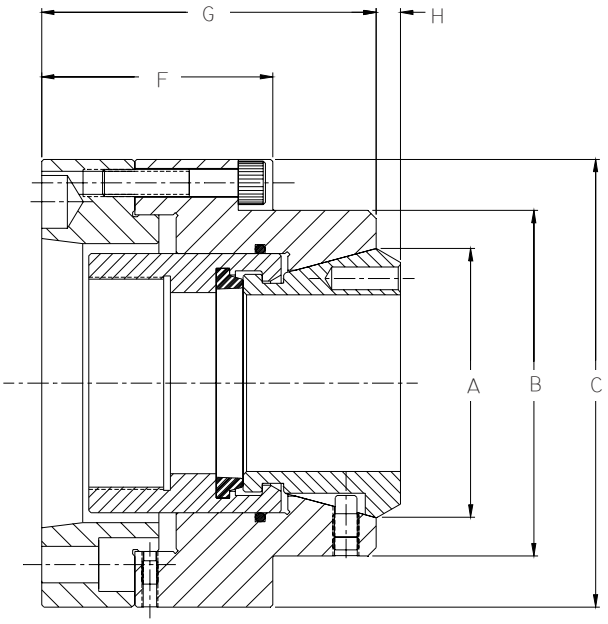


FIGURE 1

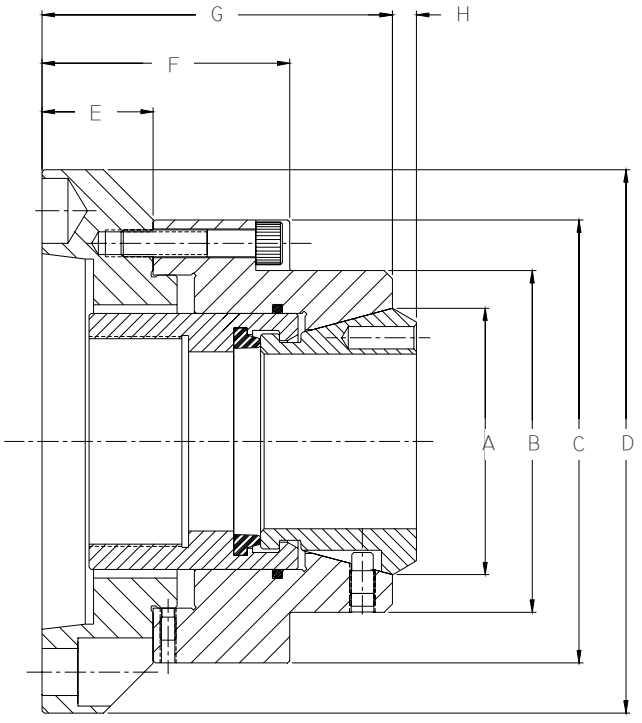


FIGURE 2

CB-ND Collet Chucks - Dead Length Design

In the CB-ND series collet chuck, the collet is coupled to the chuck body and remains stationary as the tapered seat moves forward when the chuck is actuated. This design keeps the collet in a fixed Z axis position during clamping and does not create a pull back effect on the bar stock or workpiece.

CB-ND Features

- *Dead Length* design produces no pull back on the workpiece
- Low profile OD and short overall length provides increased tool clearance and maximum utilization of the machine's Z axis
- Radial adjusting screws
- Lubricated-for-life design requires minimal maintenance
- All components hardened and precision ground for highest accuracy and long life
- Stop plates and stop housings can be mounted inside the chuck body for chucking applications requiring end stops or part ejectors
- Spindle speeds up to 6,000 rpm

CB-ND Specifications

Chuck Model	CB42-ND	CB65-ND	CB80ND	CB100-ND	CB120-ND	CB140-ND
Collet Model	SK42BZI	SK65BZI	SK80BZI	SK100BZI	SK120BZI	SK140BZI
Through Capacity	1.625"	2.625"	3.250"	3.937"	4.720"	5.510"
	42mm	66mm	82.5mm	100mm	120mm	140mm
Clamping Range	+/- .020"	+/- .020"	+/- .020"	+/- .040"	+/- .040"	+/- .040"
	+/- 0.5mm	+/- 0.5mm	+/- 0.5mm	+/- 1mm	+/- 1mm	+/- 1mm
Draw Tube Stroke	.160"	.160"	.160"	.275"	.275"	.275"
	4mm	4mm	4mm	7mm	7mm	7mm
Max. Draw Bar Force	7,850 lbs	10,095 lbs	11,980 lbs	14,580 lbs	15,310 lbs	16,074 lbs
	3,580 kg	4,590 kg	5,450 kg	6,630 kg	6,960 kg	7,310 kg
Max. Clamping Force	14,130 lbs	18,170 lbs	21,560 lbs	26,240 lbs	27,560 lbs	28,930 lbs
	6,425 kg	8,260 kg	9,820 kg	11,930 kg	12,530 kg	13,150 kg
Max Speed	6,000 rpm	6,000 rpm	5,000 rpm	4,500 rpm	4,000 rpm	4,000 rpm
Net Weight	16.7 lbs	23.9 lbs	35.1 lb	47.9 lbs	72.6 lbs	89.1 lbs
	7.6 kg	10.9 kg	15.9 kg	21.8 kg	33 kg	40.5 kg

Standard Equipment

CB-ND collet chucks include a spindle adapter plate and a blank draw tube connector. Threaded draw tube connectors for specific machine configurations are furnished at no additional charge if draw tube dimensions are provided with your purchase order. See page 24 for spindle and draw tube data sheet.

CB-ND Dimensions

Chuck Model	Fig.	Spindle Nose	A	B	C	D	E	F
CB42-ND/140	1	140mm	3.095"	5.700"	-	-	4.214"	.354"
			78.6mm	144.8mm	-	-	107mm	9mm
CB42-ND/A5	1	A2-5	3.095"	5.700"	-	-	4.611"	.354"
			78.6mm	144.8mm	-	-	117.1mm	9mm
CB42-ND/A6	2	A2-6	3.095"	5.700"	6.480"	1.000"	4.511"	.354"
			78.6mm	144.8mm	164.6mm	25.4mm	114.6mm	9mm
CB65-ND/A5	1	A2-5	3.886"	6.480"	-	-	4.780"	.354"
			98.7mm	164.6mm	-	-	121.4mm	9mm
CB65-ND/A6	1	A2-6	3.886"	6.480"	-	-	5.330"	.354"
			98.7mm	164.6mm	-	-	135.4mm	9mm
CB65-ND/A8	2	A2-8	3.886"	6.480"	8.250"	1.625"	5.605"	.354"
			98.7mm	164.6mm	209.6mm	41.3mm	142.4mm	9mm
CB80-ND/A6	1	A2-6	4.500"	7.700"	-	-	4.955"	.180"
			114.3mm	195.6mm	-	-	125.9mm	4.6mm
CB80-ND/A8	2	A2-8	4.500"	7.700"	9.200"	1.105"	5.210"	.180"
			114.3mm	195.6mm	233.7	28.1mm	132.3mm	4.6mm
CB100-ND/A8	1	A2-8	5.704"	9.350"	-	-	6.600"	.040"
			144.8mm	237.5mm	-	-	167.6mm	1mm
CB100-ND/A11	2	A2-11	5.704"	9.350"	10.950"	2.000"	7.440"	.040"
			144.8mm	237.5mm	278.1mm	50.8mm	189mm	1mm
CB120-ND/A11	1	A2-11	7.087"	10.950"	-	-	6.735"	.120"
			180mm	278.1mm	-	-	171.1mm	3mm
CB140-ND-A11	1	A2-11	7.700"	11.950"	-	-	7.140"	.120"
			195.6mm	303.5mm	-	-	181.4mm	3mm

CB-ND chucks with spindle adapters other than those listed above are quoted on request.

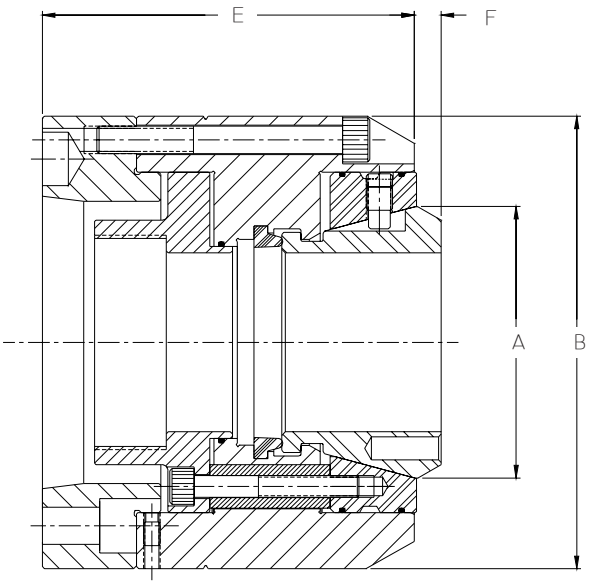


FIGURE 1

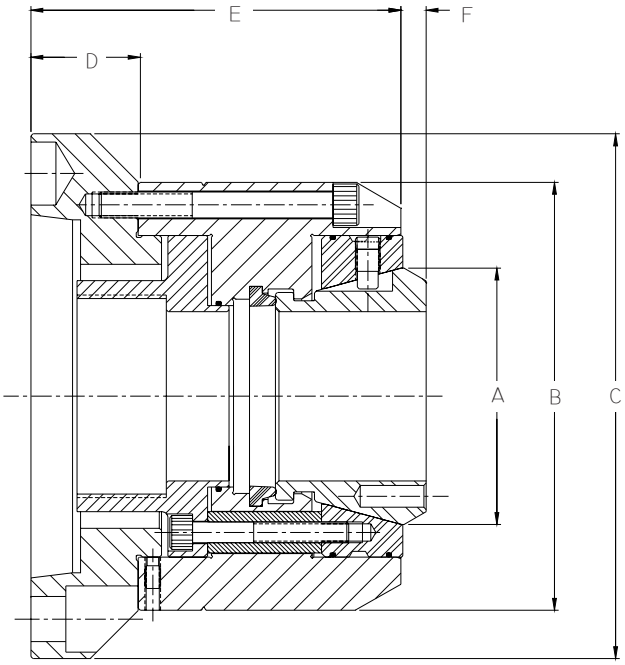


FIGURE 2

CB-NDR Collet Chucks - Pull to Close Dead Length Design for Servo Stop Bar Loaders

The CB-NDR is a new patented *Dead Length* design collet chuck to be used with servo stop bar loaders. The NDR chuck is actuated as the draw tube is pulled into the machine spindle. The collet is coupled to the chuck body and remains stationary as the tapered seat moves forward during clamping. This feature keeps the collet in a fixed Z axis position, and since the draw tube is moving into the spindle, the bar remains positioned against the servo stop.

CB-NDR Features

- *Pull to Close Dead Length* design produces no pull back and will not push the bar off the servo stop
- Radial adjusting screws
- Lubricated-for-life design requires minimal maintenance
- All components hardened and precision ground for highest accuracy and long life
- Spindle speeds up to 5,000 rpm

CB-NDR Specifications

Chuck Model	***CB65-NDR***	***CB80-NDR***
Quick Change Collet Model	SK65BZI	SK80BZI
Max. Through Capacity	2.625"	3.250"
	66 mm	82.5 mm
Clamping Range	+/- .020"	+/- .020"
	+/- 0.5 mm	+/- 0.5 mm
Draw Tube Stroke	.480"	.480"
	12.2 mm	12.2 mm
Max. Draw Bar Force	7,060 lbs	8,404 lbs
	3,210 kg	3,820 kg
Max. Clamping Force	18,170 lbs	21,560 lbs
	8,260 kg	9,820 kg
Max Speed	6,000 rpm	5,000 rpm
Net Weight	37.9 lbs	57.8 lbs
	17.2 kg	26.2 kg

Standard Equipment

CB-NDR chucks include a spindle adapter plate and a blank draw tube connector. Threaded draw tube connectors for specific machine configurations are furnished at no additional charge if draw tube dimensions are provided with purchase order. See page 24 for spindle data sheet.

CB-NDR Dimensions

Chuck Model	Fig.	Spindle Nose	A	B	C	D	E	F
CB65-NDR/140	1	140mm	3.886"	6.480"	-	-	5.978"	.354"
			98.7mm	164.6mm	-	-	151.8mm	9mm
CB65-NDR/A5	1	A2-5	3.886"	6.480"	-	-	6.175"	.354"
			98.7mm	164.6mm	-	-	156.8mm	9mm
CB65-NDR/A6	1	A2-6	3.886"	6.480"	-	-	6.725"	.354"
			98.7mm	164.6mm	-	-	170.8mm	9mm
CB65-NDR/A8	2	A2-8	3.886"	6.480"	8.250"	1.625"	7.005"	.354"
			98.7mm	164.6mm	209.6mm	41.3mm	177.9mm	9mm
CB80-NDR/A6	1	A2-6	4.500"	7.700"	-	-	6.245"	.180"
			114.3mm	195.6mm	-	-	158.6mm	4.6mm
CB80-NDR/A8	2	A2-8	4.500"	7.700"	9.200"	1.105"	6.500"	.180"
			114.3mm	195.6mm	233.7	28.1mm	165.1mm	4.6mm

CB-NDR chucks with spindle adapters other than those listed above are quoted on request.

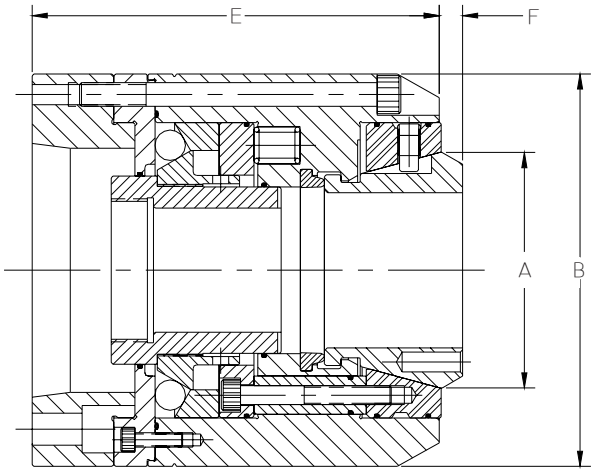


FIGURE 1

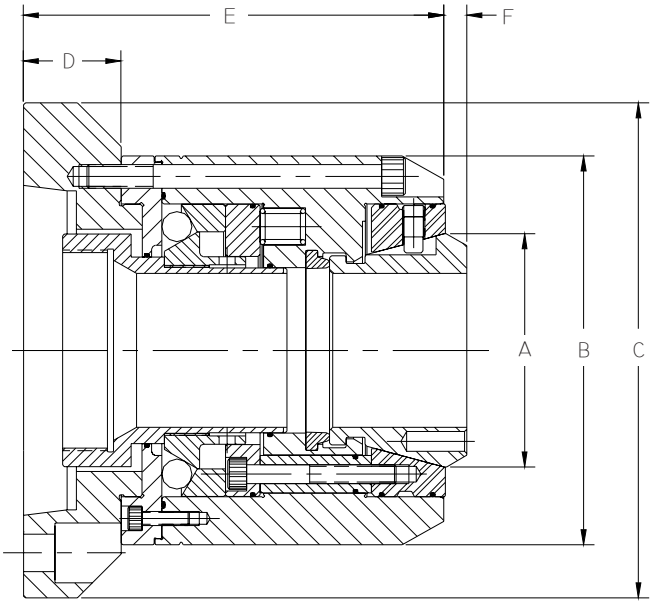


FIGURE 2

CB-NK Collet Chucks - Combination Design

The CB-NK series collet chuck is a *Pull Back* design that offers the added flexibility of being able to mount part stops inside the chuck body for easy conversion from bar to chucking work.

CB-NK Features

- *Pull Back* design maximizes the efficiency of the clamping system by concentrating all forces in the direction of the spindle for highest accuracy and greatest overall rigidity
- Low profile OD and short overall length provides increased tool clearance and maximum utilization of the machine's Z axis
- Radial adjusting screws
- Lubricated-for-life design requires minimal maintenance
- All components hardened and precision ground for highest accuracy and long life
- Removable stop plates and stop housings can be mounted inside the chuck body for chucking applications requiring end stops or part ejectors
- Spindle speeds up to 6,000 rpm

CB-NK Specifications

Chuck Model	CB42-NK	CB65-NK	CB100-NK	CB120-NK	CB140-NK
Collet Model	SK42BZI	SK65BZI	SK100BZI	SK120BZI	SK140BZI
Through Capacity	1.420"	2.245"	3.670"	4.140"	4.920"
	36mm	57mm	93.2mm	105mm	125mm
Clamping Range	+/- .020"	+/- .020"	+/- .040"	+/- .040"	+/- .040"
	+/- 0.5mm	+/- 0.5mm	+/- 1mm	+/- 1mm	+/- 1mm
Draw Tube Stroke	.160"	.160"	.275"	.275"	.275"
	4mm	4mm	7mm	7mm	7mm
Max. Draw Bar Force	7,850 lbs	10,095 lbs	14,580 lbs	15,310 lbs	16,074 lbs
	3,580 kg	4,590 kg	6,630 kg	6,960 kg	7,310 kg
Max. Clamping Force	14,130 lbs	18,170 lbs	26,240 lbs	27,560 lbs	28,930 lbs
	6,425 kg	8,260 kg	11,930 kg	12,530 kg	13,150 kg
Max Speed	6,000 rpm	6,000 rpm	4,500 rpm	4,000 rpm	4,000 rpm
Net Weight	16.7 lbs	23.9 lbs	47.9 lbs	72.6 lbs	89.1 lbs
	7.6 kg	10.9 kg	21.8 kg	33 kg	40.5 kg

Standard Equipment

Each CB-NK collet chuck includes a removable stop plate, spindle adapter plate, and a blank draw tube connector. Threaded draw tube connectors for specific machine configurations are furnished at no additional charge if draw tube dimensions are provided with your purchase order. See page 24 for spindle and draw tube data sheet.

CB-NK Dimensions

Chuck Model	Fig.	Spindle Nose	A	B	C	D	E	F	G	H
CB42-NK/140	1	140mm	3.095"	4.750"	5.700"	-	-	3.880"	4.700"	.354"
			78.6mm	120.7mm	144.8mm	-	-	98.6mm	119.4mm	9mm
CB42-NK/A5	1	A2-5	3.095"	4.750"	5.700"	-	-	4.280"	5.100"	.354"
			78.6mm	120.7mm	144.8mm	-	-	108.7mm	129.5mm	9mm
CB42-NK/A6	2	A2-6	3.095"	4.750"	5.700"	6.480"	1.000"	4.180"	5.000"	.354"
			78.6mm	120.7mm	144.8mm	164.6mm	25.4mm	106.2mm	127mm	9mm
CB65-NK/A5	1	A2-5	3.886"	4.700"	6.480"	-	-	4.485"	5.375"	.354"
			98.7mm	119.4mm	164.6mm	-	-	113.9mm	136.5mm	9mm
CB65-NK/A6	1	A2-6	3.886"	4.700"	6.480"	-	-	5.035"	5.925"	.354"
			98.7mm	119.4mm	164.6mm	-	-	127.9mm	150.5mm	9mm
CB65-NK/A8	2	A2-8	3.886"	4.700"	6.480"	8.250"	1.625"	5.310"	6.200"	.354"
			98.7mm	119.4mm	164.6mm	209.6mm	41.3mm	134.9mm	157.5mm	9mm
CB100-NK/A6	1	A2-8	5.704"	7.000"	9.350"	-	-	4.755"	6.790"	.040"
			144.8mm	177.8mm	237.5mm	-	-	120.8mm	172.5mm	1mm
CB100-NK/A8	1	A2-8	5.704"	7.000"	9.350"	-	-	4.855"	6.890"	.040"
			144.8mm	177.8mm	237.5mm	-	-	123.3mm	175.0mm	1mm
CB100-NK/A11	2	A2-11	5.704"	7.000"	9.350"	10.950"	2.000"	5.695"	7.730"	.040"
			144.8mm	177.8mm	237.5mm	278.1mm	50.8mm	144.7mm	196.3mm	1mm
CB120-NK/A11	1	A2-11	7.087"	8.500"	10.950"	-	-	5.525"	6.750"	.120"
			180mm	215.9mm	278.1mm	-	-	140.3mm	171.5mm	3mm
CB140-NK-A11	1	A2-11	7.700"	9.500"	11.950"	-	-	5.725"	6.950"	.120"
			195.6mm	241.3mm	303.5mm	-	-	145.4mm	176.5mm	3mm

CB-K chucks with spindle adapters other than those listed above are quoted on request.

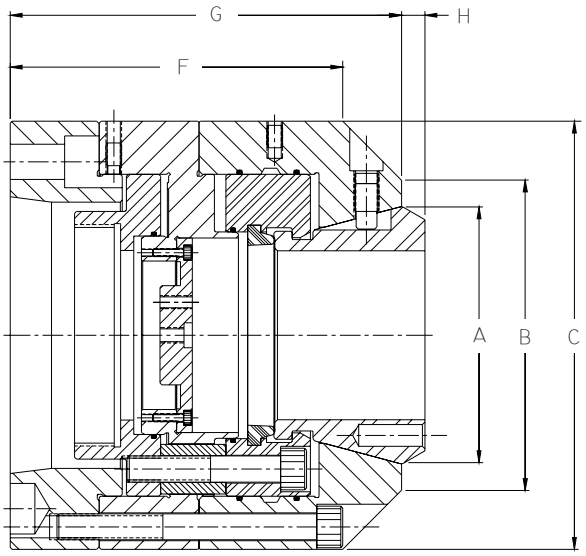


FIGURE 1

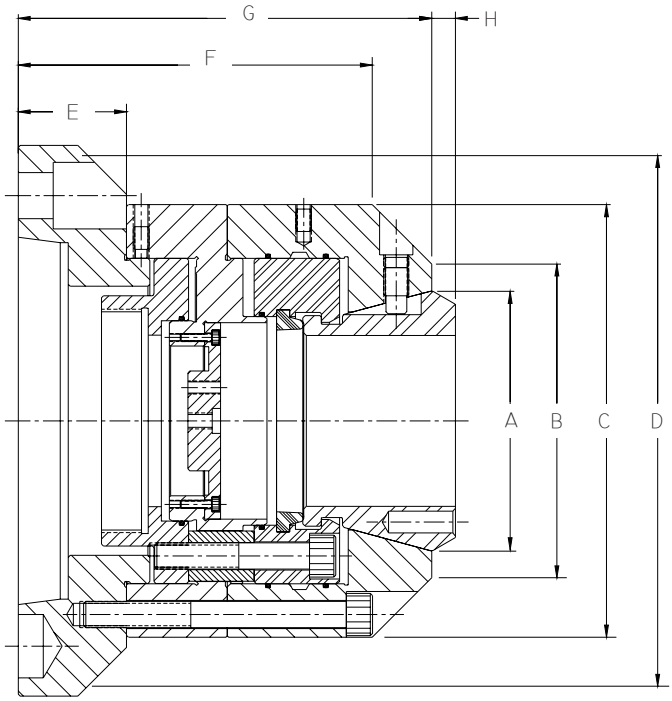


FIGURE 2

CB-NS Collet Chucks - Sub Spindle Design

The NS series is a reduced diameter *Dead Length* design for sub spindles. Similar to ND chucks, the collet is coupled directly to the chuck body and remains fixed as the chuck is actuated. NS chucks also include a provision for mounting stops and ejectors inside the chuck body.

CB-NS Features

- Small OD for maximum tool clearance on sub spindles.
- *Dead Length* design produces no pull back on the workpiece.
- Lubricated-for-life design requires minimal maintenance.
- All components hardened and precision ground for highest accuracy and long life.
- Stop plates and stop housings can be mounted inside the chuck body for applications requiring end stops or ejectors
- Spindle speeds up to 6,000 rpm

CB-NS Specifications

Chuck Model	CB42-NS	CB65-NS
Collet Model	SK42BZI	SK65BZI
Through Capacity	1.625"	2.625"
	42mm	66mm
Clamping Range	+/- .020"	+/- .020"
	+/- 0.5mm	+/- 0.5mm
Draw Tube Stroke	.160"	.160"
	4mm	4mm
Max. Draw Bar Force	7,850 lbs	10,095 lbs
	3,580 kg	4,590 kg
Max. Clamping Force	14,130 lbs	18,170 lbs
	6,425 kg	8,260 kg
Max Speed	6,000 rpm	6,000 rpm
Net Weight	16.7 lbs	23.9 lbs
	7.6 kg	10.9 kg

Standard Equipment

CB-NS collet chucks include a spindle adapter plate and a blank draw tube connector. Threaded draw tube connectors for specific machine configurations are furnished at no additional charge if draw tube dimensions are provided with your purchase order. See page 24 for spindle and draw tube data sheet.

CB-NS Dimensions

Chuck Model	Fig.	Spindle Nose	A	B	C	D	E	F	G	H
CB42-NS/110	1	110mm	3.095"	4.625"	4.950"	-	-	1.280"	4.050"	.354"
			78.6mm	117.5mm	125.7mm	-	-	32.5mm	102.9mm	9mm
CB42-NS/140	1	140mm	3.095"	4.625"	4.950"	5.950"	.750"	1.510"	4.030"	.354"
			78.6mm	117.5mm	125.7mm	151.1mm	19mm	38.4mm	102.4mm	9mm
CB42-NS/A4	1	A2-4	3.095"	4.625"	4.950"	-	-	1.530"	4.050"	.354"
			78.6mm	117.5mm	125.7mm	-	-	38.9mm	102.9mm	9mm
CB42-NS/A5	2	A2-5	3.095"	4.625"	4.950"	5.250"	.780"	1.510"	4.030"	.354"
			78.6mm	117.5mm	125.7mm	164.6mm	19.8mm	38.4mm	102.4mm	9mm
CB65-NS/140	1	140mm	3.886"	5.500"	6.250"	-	-	1.588"	4.538"	.354"
			98.7mm	139.7mm	158.7mm	-	-	40.3mm	115.3mm	9mm
CB65-NS/A5	2	A2-5	3.886"	5.500"	6.250"	-	-	1.790"	4.740"	.354"
			98.7mm	139.7mm	158.7mm	-	-	45.3mm	120.3mm	9mm
CB65-NS/A6	2	A2-6	3.886"	5.500"	6.250"	6.480"	.875"	1.790"	4.740"	.354"
			98.7mm	139.7mm	158.7mm	164.6mm	22.2mm	45.3mm	120.3mm	9mm

CB-NS chucks with spindle adapters other than those listed above are quoted on request.

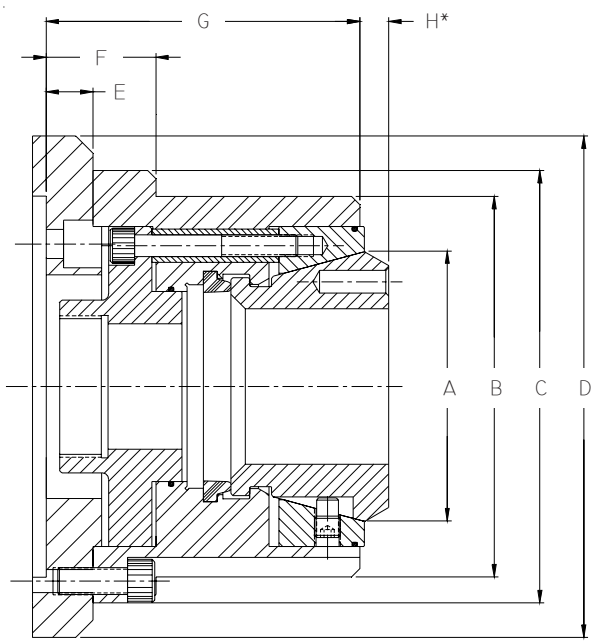


FIGURE 1

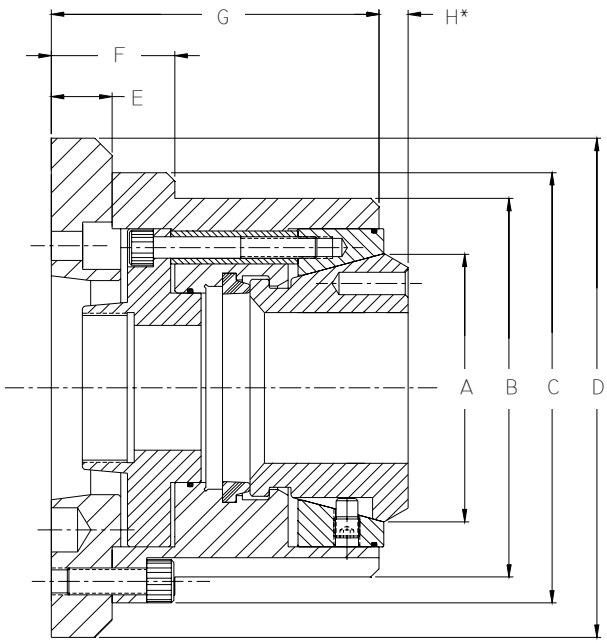


FIGURE 2

* WHEN THE CLAMPING LENGTH IS UNDER .500" (12.7MM), A REDUCED NOSE COLLET MUST BE USED.

CB-NR Collet Chucks - Stationary Design

The NR series is a pneumatic or hydraulically actuated self-contained *Pull Back* design for stationary applications. The collet is coupled to the built-in piston and is drawn into the tapered seat as the chuck is actuated. Part stops and ejectors can be mounted inside the chuck body.

CB-NR Features

- Self-contained design with built-in cylinder can be hydraulic or pneumatically operated
- *Pull Back* design maximizes the efficiency of the clamping system by concentrating the chucking force in the direction of the machine table, in addition to drawing the workpiece against the part stop
- Lubricated-for-life design requires minimal maintenance
- All components hardened and precision ground for highest accuracy and long life.

CB-NR Specifications

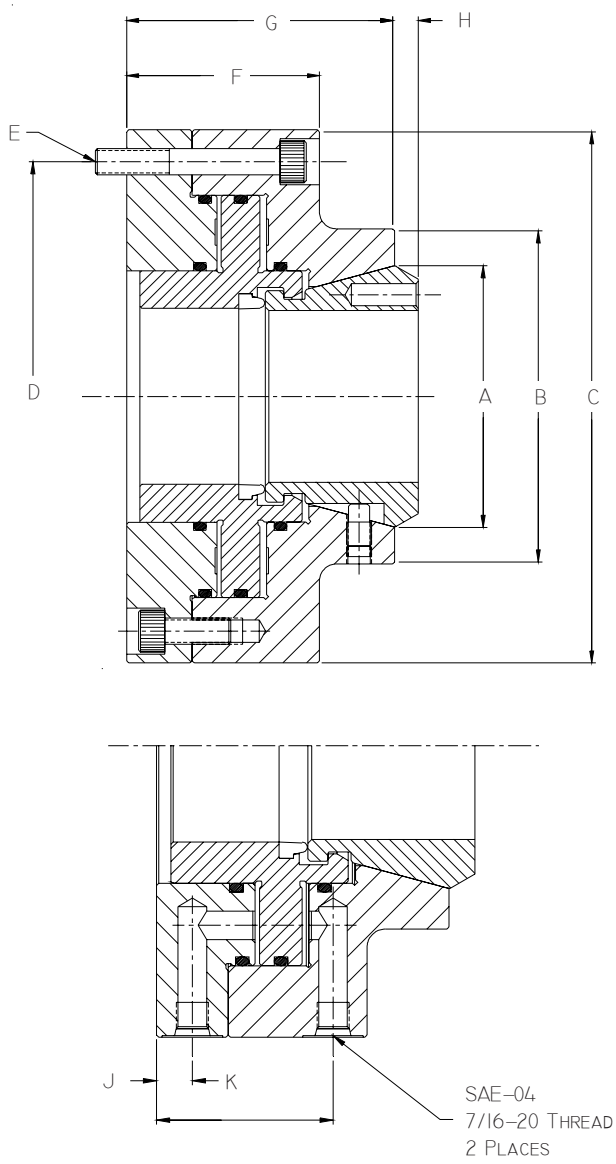
Chuck Model	***CB42-NR***	***CB65-NR***	***CB100-NR***
Collet Model	SK42BZI	SK65BZI	SK100BZI
Through Capacity	1.625"	2.625"	3.937"
	42mm	66mm	100mm
Clamping Range	+/- .020"	+/- .020"	+/- .040"
	+/- 0.5mm	+/- 0.5mm	+/- 1mm
Piston Stroke	.160"	.160"	.275"
	4mm	4mm	7mm
Max. Hydraulic Force	500 psi	500 psi	500 psi
	3,5 MPa	3.5 MPa	3.5 MPa
Max. Clamping Force	9,420 lbs	12,115 lbs	17,500 lbs
	4,280 kg	5,510 kg	7,950 kg
Net Weight	18.6 lbs	27.5 lbs	54.6 lbs
	8.5 kg	12.5 kg	24.8 kg

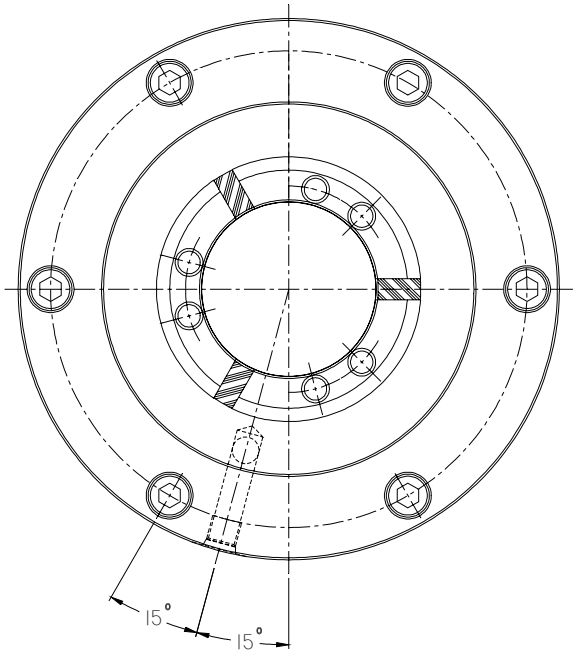
Non-rotating dead length designs are quoted on request.
CB120-NR & CB140-NR models are also quoted on request.

CB-NR Dimensions

Chuck Model	A	B	C	D	E	F	G	H	J	K
CB42-NR	3.095"	4.25"	6.95"	6.34"	M8	2.58"	3.45"	.354"	.49"	2.08"
	79 mm	108 mm	177 mm	161 mm	M8	66 mm	88 mm	9mm	12.4mm	53 mm
CB65-NR	3.886"	5.00"	7.95"	7.00"	M10	2.88"	4.00"	.354"	.49"	2.41"
	98.7 mm	127 mm	202 mm	178 mm	M10	73 mm	102 mm	9 mm	12.4mm	61 mm
CB100-NR	5.700"	7.50"	9.95"	8.86"	M12	4.35"	6.00"	.043"	.75"	3.50"
	145 mm	191 mm	253 mm	225 mm	M12	110 mm	152 mm	1 mm	19.0mm	88.9mm

Mounting plates for CB-NR collet chucks are quoted on request.





Collet Changing Fixtures

MicroCentric Collets can be changed in 15 seconds. A changing fixture is used to couple and uncouple the collet from the chuck. Pins in the pivoting jaws of the changing fixture are inserted into the holes on the face of the collet. When the changing fixture is actuated, the rear of the collet is collapsed and can now be installed or removed from the chuck.

Changing Fixture Configurations

CP Pneumatic Fixture

The CP fixture is the fastest and easiest way to change MicroCentric Collets

CM Manual Fixture

The CM manual fixture is an efficient way to change MicroCentric Collets

CH Hydraulic Fixture

CH hydraulic fixtures are used to change SK120BZI & SK140BZI collets

Changing Fixture Models

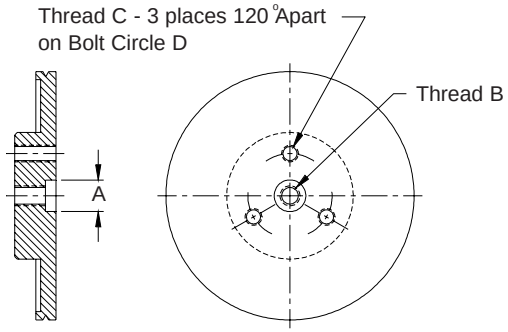
Changing Fixture	Type	Collet Model
CP42	Pneumatic	SK42BZI
CM42	Manual	SK42BZI
CP65	Pneumatic	SK65BZI
CM65	Manual	SK65BZI
CP80	Pneumatic	SK80BZI
CM80	Manual	SK80BZI
CP100	Pneumatic	SK100BZI
CH120	Hydraulic	SK120BZI
CH140	Hydraulic	SK140BZI
EN162	Hydraulic Pump*	

* The EN162 Hydraulic Pump is an air driven unit used to actuate the CH series changing fixtures

Collet Chuck Accessories

Stop Plates

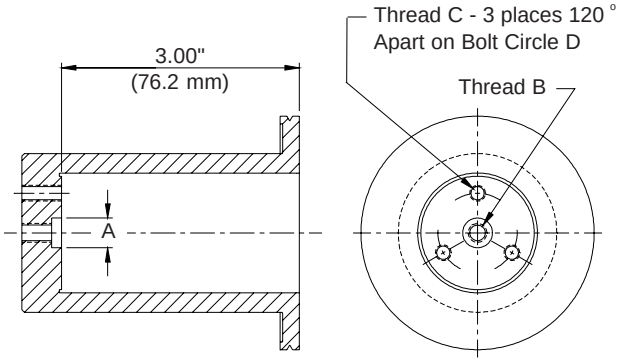
Model	Chuck	A	B	C	D
SP-42/D	CB42-ND&NS	.375	M6	M5	1.000"
		9.5mm			25.4mm
SP-42/K	CB42-NK	.375	M6	M5	1.000"
		9.5mm			25.4mm
SP-65/D	CB65-ND&NS	.375	M6	M5	1.000"
		9.5mm			25.4mm
SP-65/K	CB65-NK	.375	M6	M5	1.000"
		9.5mm			25.4mm
SP-100/D	CB100-ND	.600	M10	M8	1.500"
		15.2mm			38.1mm
SP-100/K	CB100-NK	.600	M10	M8	1.500"
		15.2mm			38.1mm



Stop plates are made from hardened and ground alloy steel.

Stop Housings

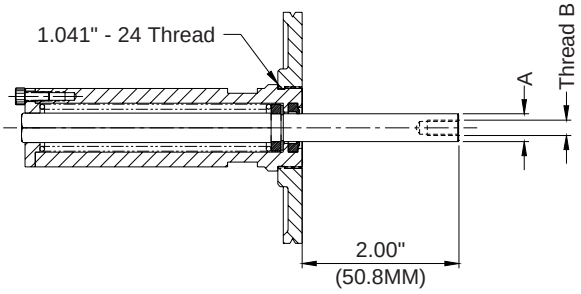
Model	Chuck	A	B	C	D
SH-42/D	CB42-ND&NS	.375	M6	M5	1.000"
		9.5mm			25.4mm
SH-42/K	CB42-NK	.375	M6	M5	1.000"
		9.5mm			25.4mm
SH-65/D	CB65-ND&NS	.375	M6	M5	1.000"
		9.5mm			25.4mm
SH-65/K	CB65-NK	.375	M6	M5	1.000"
		9.5mm			25.4mm
SH-100/D	CB100-ND	.600	M10	M8	1.500"
		15.2mm		38.1mm	
SH-100/K	CB100-NK	.600	M10	M8	1.500"
		15.2mm		38.1mm	



Stop housings are made from hardened and ground alloy steel. Stop housings deeper than 3.00" (76.2 mm) are quoted on request.

Ejector Assemblies

Model	Chuck	A	B
AW-42/D	CB42-ND&NS	.375	M5
		51mm	9.5mm
AW-42/K	CB42-NK	.375	M5
		51mm	9.5mm
AW-65/D	CB65-ND&NS	.375	M5
		51mm	9.5mm
AW-65/K	CB65-NK	.375	M5
		51mm	9.5mm



Ejector assemblies are made from hardened and ground alloy steel, and include an adapter plate. Ejector assemblies with larger stroke and adapter plates that position the ejector deeper into the chuck are quoted on request.

MicroCentric Quick Change Collets

One Piece Vulcanized Design

MicroCentric Quick Change Collets are hardened and precision ground segments held together by vulcanized rubber. The vulcanized design produces a seal that prevents chips and sludge from accumulating inside the collet chuck. MicroCentric's one piece vulcanized design is also more accurate and easier to handle than quick change collets held together with replaceable rubber inserts. And MicroCentric collets always stay intact in the chuck and during change over.

Vulcanized Rubber is Guaranteed for Life

MicroCentric's vulcanizing technology produces a permanent bond between rubber and metal. If the bond ever separates during the life of the collet, the collet will be revulcanized free of charge.

Collet Configurations

SK Standard Collet

Recommended for bar and most chucking application

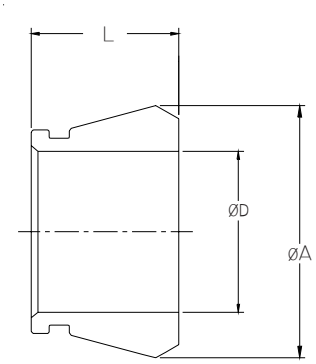
SG Reduced Nose

Recommended for chucking applications, when the clamping length is under .500" (12.7mm)

SW Machinable Collet

Can be machined to special bore diameters or other special configurations

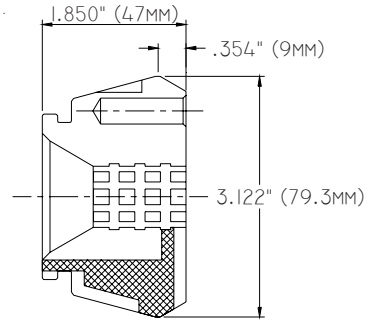
Collet Models & Capacities



Model	No. of Segments	ød max.	øA	L	Range
SK42BZI	3	1.625"	3.122"	1.850"	+/- .020
		42mm	79.3mm	47mm	+/- 0.5mm
SK65BZI	3	2.625"	3.917"	2.284"	+/- .020"
		66mm	99.5mm	58mm	+/- 0.5mm
SK80BZI	4	3.250"	4.500"	2.085"	+/- .020"
		82.5mm	114.3mm	58mm	+/- 0.5mm
SK100BZI	6	3.937"	5.689"	2.323"	+/- .040"
		100mm	144.5mm	59mm	+/- 1.0mm
SK120BZI	6	4.724"	7.087"	2.402"	+/- .040"
		120mm	180mm	61mm	+/- 1.0mm
SK140BZI	6	5.512"	7.700"	2.480"	+/- .040"
		140mm	195.6mm	63mm	+/- 1.0mm

1-5/8" (42mm) Capacity Collet

SK42BZI Quick Change Collets

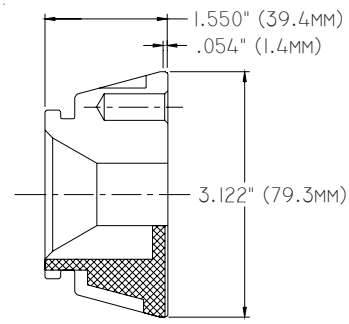


Configuration		Accuracy	Range
● **Round**	RSR (Serrated)*	.0004"	.312 - 1.625"
		.01mm	8 - 42mm
	RSM (Smooth)*	.0004"	.187 - 1.625"
		.01mm	5 - 42mm
⬢ **Hex**	HEX (Smooth)*	.001"	.187 - 1.406"
		.025mm	5 - 36mm
■ **Square**	SQR (Smooth)	.001"	.250 - 1.125"
		.025mm	6 - 29mm

* available from stock in 1/32" and 1mm increments

Ultra Accuracy collets with maximum runout of .0002" (.005mm) TIR for RSM, and .0005" (.001mm) TIR for HEX and SQR quoted upon request

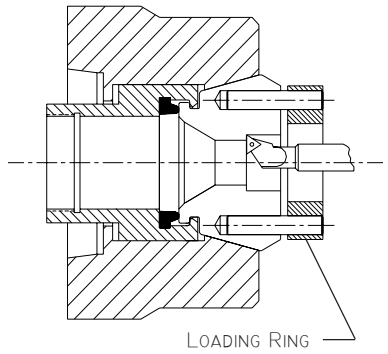
SG42BZI Reduced Nose Collets



Configuration		Accuracy	Range
● **Round**	RSM (Smooth)*	.0004"	.187 - 1.625"
		.01mm	5 - 42mm
⬢ **Hex**	HEX (Smooth)*	.001"	.187 - 1.406"
		.025mm	5 - 36mm
■ **Square**	SQR (Smooth)	.001"	.250 - 1.125"
		.025mm	6 - 29mm

Ultra Accuracy collets with maximum runout of .0002" (.005mm) TIR for RSM, and .0005" (.001mm) TIR for HEX and SQR quoted upon request

SW42BZI Machinable Collets & AR42 Loading Rings

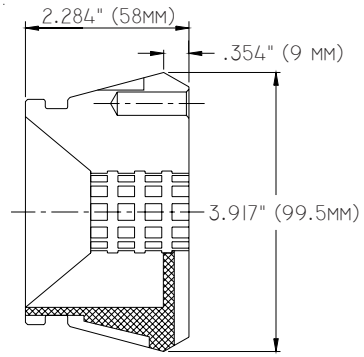


Item	Description	Bore Size
SW42BZI	Machinable Collet	.312" (8mm)
AR42	Loading Ring	

The SW42BZI collet is case hardened to Rc 38-42 and can be bored out directly in the collet chuck to the diameter or configuration required. The AR42 loading ring is used to preload the collet during machining.

2-5/8" (65mm) Capacity Collet

SK65BZI Quick Change Collets

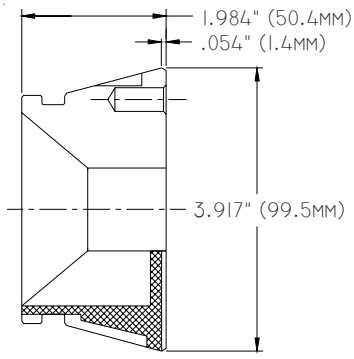


Configuration		Accuracy	Range
● ***Round***	RSR (Serrated)*	.0004"	.375 - 2.562"
		.01mm	9 - 65mm
	RSM (Smooth)*	.0004"	.187- 2.625"
		.01mm	5 - 66mm
⬢ ***Hex***	HEX (Smooth)*	.001"	.250 - 2.250"
		.025mm	6 - 57mm
■ ***Square***	SQR (Smooth)	.001"	.250 - 1.750"
		.025mm	6 - 44mm

* available from stock in 1/32" and 1mm increments

Ultra Accuracy collets with maximum runout of .0002" (.005mm) TIR for RSM, and .0005" (.001mm) TIR for HEX and SQR quoted upon request

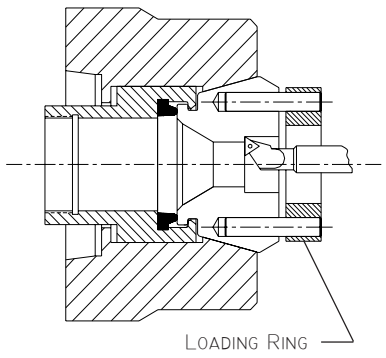
SG65BZI Reduced Nose Collets



Configuration		Accuracy	Range
● ***Round***	RSM (Smooth)*	.0004"	.187 - 2.625"
		.01mm	5 - 66mm
⬢ ***Hex***	HEX (Smooth)*	.001"	.250 - 2.250"
		.025mm	6 - 57mm
■ ***Square***	SQR (Smooth)	.001"	.250 - 1.750"
		.025mm	6 - 44mm

Ultra Accuracy collets with maximum runout of .0002" (.005mm) TIR for RSM, and .0005" (.001mm) TIR for HEX and SQR quoted upon request

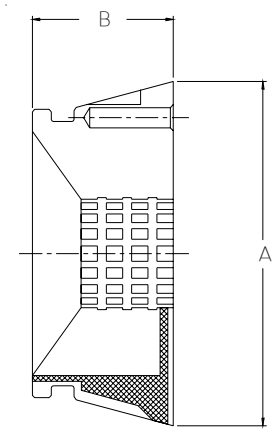
SW65BZI Machinable Collets & AR65 Loading Rings



Item	Description	Bore Size
SW65BZI	Machinable Collet	.312" (8mm)
AR65	Loading Ring	

The SW65BZI collet is case hardened to Rc 38-42 and can be bored out directly in the collet chuck to the diameter or configuration required. The AR65 loading ring is used to preload the collet during machining.

Large Capacity Collets

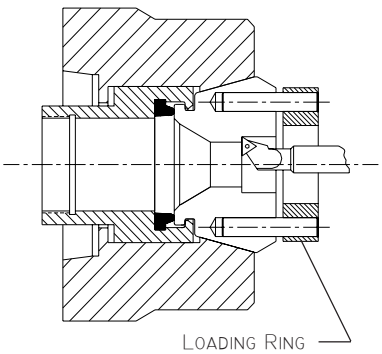


Collet Dimensions

Collet	A	B
SK80BZI	4.500"	2.085"
	114.3mm	52.9mm
SK100BZI	5.689"	2.323"
	144.5mm	59mm
SK120BZI	7.087"	2.402"
	180mm	61mm
SK140BZI	7.700"	2.480"
	195.6mm	63mm

Configuration		Accuracy	Range
SK80BZI			
● ***Round***	RSR (serrated)	.0004"	.750 - 3.250"
		.01mm	19 - 82.5mm
	RSM (smooth)	.0004"	.500 - 3.250"
		.01mm	12 - 82.5mm
⬢ ***Hex***	HEX (smooth)	.001"	.500 - 2.750"
		.025mm	12 - 71mm
■ ***Square***	SQR (smooth)	.001"	.500 - 2.250"
		.025mm	12 - 58mm
SK100BZI			
● ***Round***	RSR (serrated)	.0008"	1.000 - 3.937"
		.02mm	25 - 100mm
	RSM (smooth)	.0008"	1.000 - 3.937"
		.02mm	25 -100mm
⬢ ***Hex***	HEX (smooth)	.0015"	1.250 - 3.375"
		.038mm	31 - 86mm
■ ***Square***	SQR (smooth)	.0015"	1.250 - 2.750"
		.038mm	31 - 70mm
SK120BZI			
● ***Round***	RSR (serrated)	.0008"	1.000 - 4.718"
		.02mm	25 -120mm
	RSM (smooth)	.0008"	1.000 - 4.718"
		.02mm	25 - 120mm
⬢ ***Hex***	HEX (smooth)	.0015"	1.250 - 4.062"
		.038mm	31 - 103mm
■ ***Square***	SQR (smooth)	.0015"	1.250 - 3.343"
		.038mm	31 - 85mm
SK140BZI			
● ***Round***	RSR (serrated)	.0008"	1.000 - 5.500"
		.02mm	25 - 140mm
	RSM (smooth)	.0008"	1.000 - 5.500"
		.02mm	25 -140mm
⬢ ***Hex***	HEX (smooth)	.0015"	1.250 - 4.750"
		.038mm	31 - 121mm
■ ***Square***	SQR (smooth)	.0015"	1.250 - 3.906"
		.038mm	31 - 99mm

Machinable Collets & Loading Rings



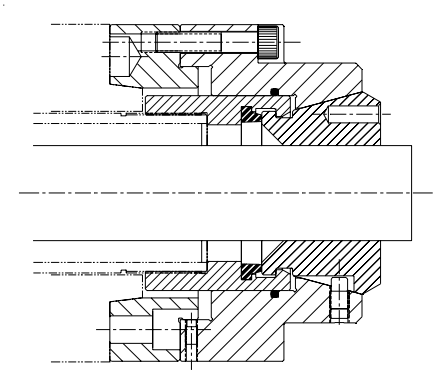
Item	Description	Bore Size
SW80BZI	Machinable Collet	.750" (19mm)
AR80	Loading Ring	
SW100BZI	Machinable Collet	1.000" (25.4mm)
AR100	Loading Ring	
SW120BZI	Machinable Collet	1.500" (38.1mm)
AR120	Loading Ring	
SW140BZI	Machinable Collet	1.500" (38.1mm)
AR140	Loading Ring	

SW series collets are case hardened to Rc 38-42 and can be bored out directly in the collet chuck to the diameter or configuration required. A plug or loading ring is used to preload the collet during machining.

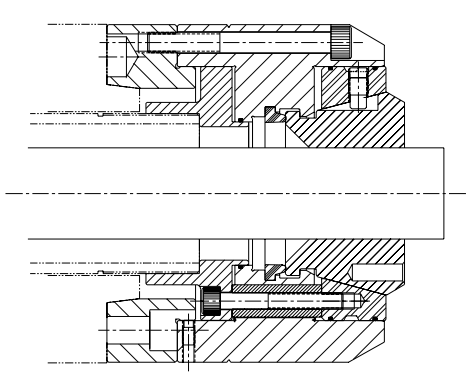
Quick Change Collet Chuck Applications

Bar Work Applications:

Pull Back Chuck

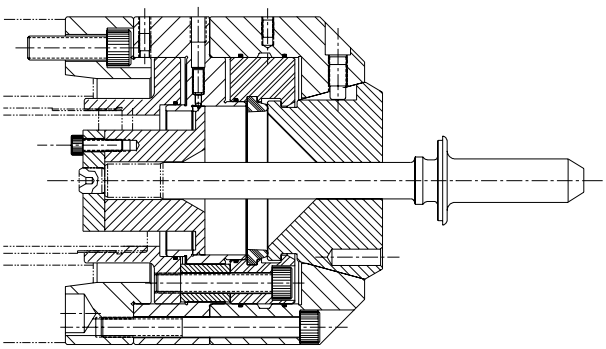


Dead Length Chuck

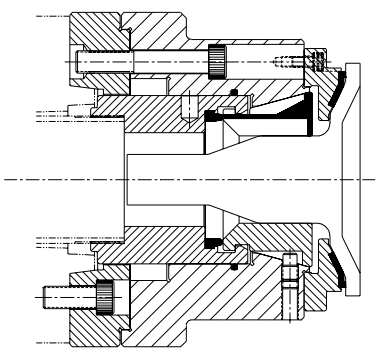


Chucking Work Applications:

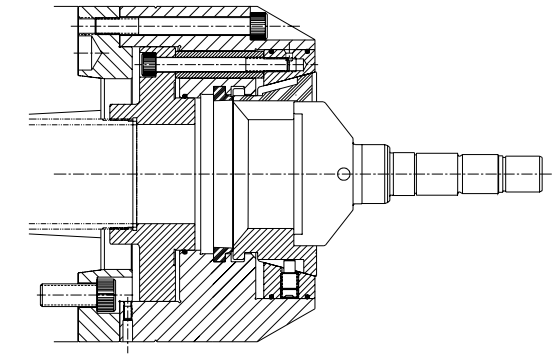
Pull Back Chuck with internal part stop



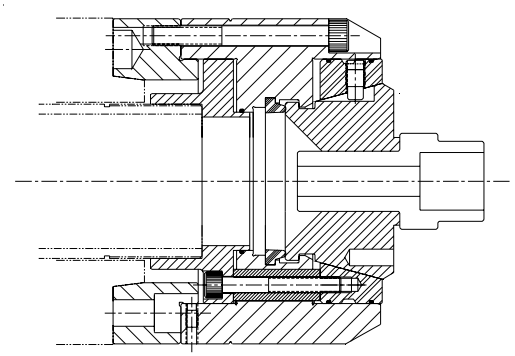
Pull Back Chuck with external part stop



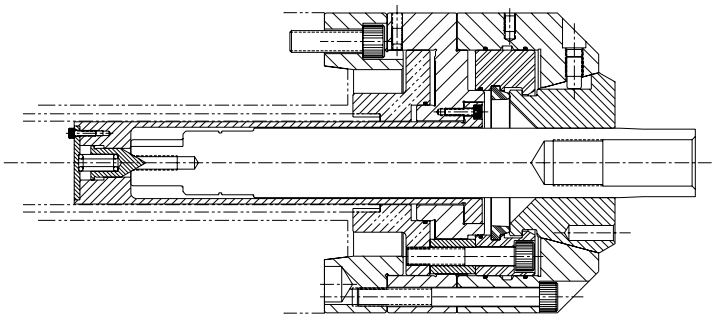
Dead Length Chuck with locating face inside collet to stop workpiece



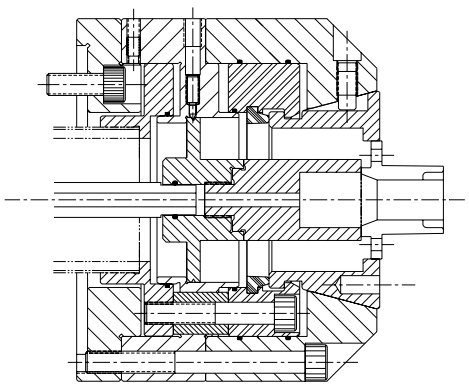
Dead Length Chuck with face of collet used to end stop workpiece



Pull Back Chuck with spring loaded center to locate and support workpiece inside draw tube

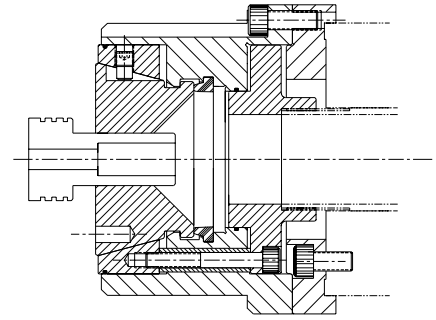


Pull Back Chuck with internal part stop and coolant flush through spindle to evacuate chips

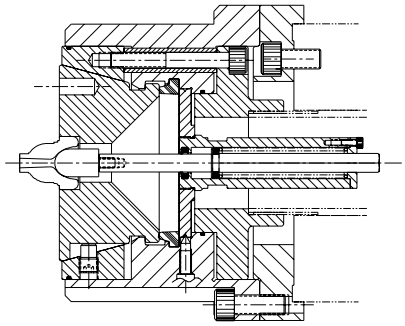


Sub Spindle Applications:

Low Profile Dead Length Chuck clamping workpiece picked off by sub spindle

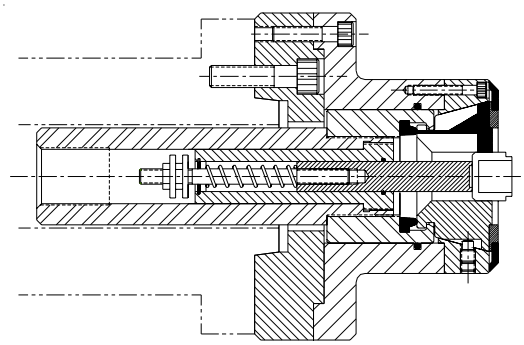


Low Profile Dead Length Chuck with spring ejector mounted in chuck body



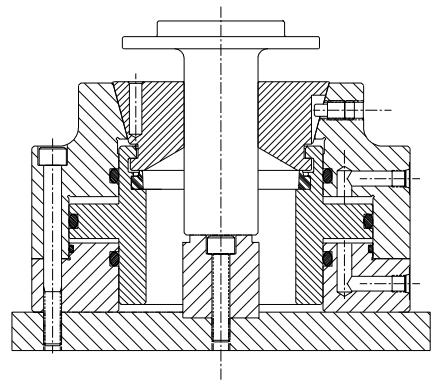
ID Grinding Application:

Pull Back Chuck with special lip seal collet that keeps ID of chuck free of grinding swarf



Drilling Application:

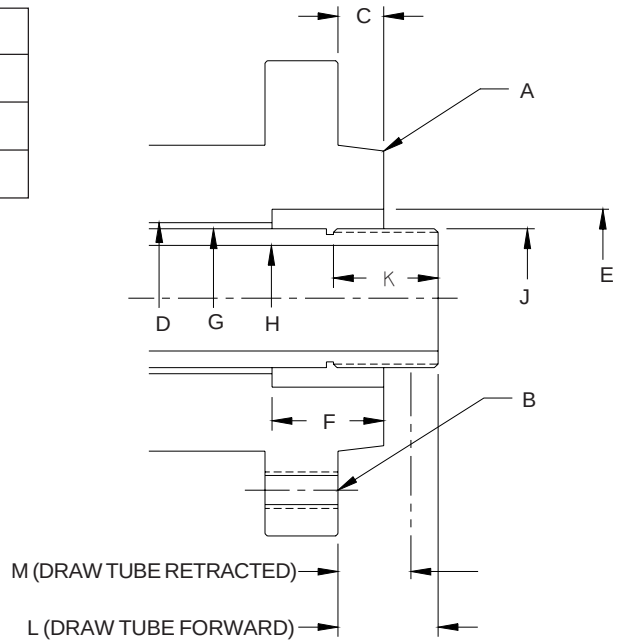
Self Contained - Non Rotating Chuck with internal part stop mounted to machine table



Spindle & Draw Tube Data Sheet

Company	
Chuck Model	
Date	
Ref. No.	

Contact us at ***1-800-573-1139*** if you have any questions about completing this data sheet.



Machine Make			
Machine Model			
Machine Serial No.			
A* taper size			
B mounting thread			
C length of pilot			
D through hole diameter			
E ID counterbore or taper (if any)			
F depth of counterbore (if any)			
G OD of draw tube	H ID of draw tube		
J thread data	thread diameter		
	thread pitch		
	☐ right hand	☐ left hand	
	☐ OD thread	☐ ID thread	
K length of thread			
L** forward position			
M retracted position			

* For machines with a straight spindle pilot a detail drawing of the spindle must be submitted

** Positive (+) indicates draw tube is in front of the spindle face (as shown)
Negative (-) indicates draw tube is behind the spindle face

MicroCentric

MicroCentric Corp • 25 So. Terminal Drive, Plainview, NY 11803 • USA
Tel: 516-349-7220 • Fax: 516-349-9354 • e-mail: sales@MicroCentric.com

1-800-573-1139

www.MicroCentric.com

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