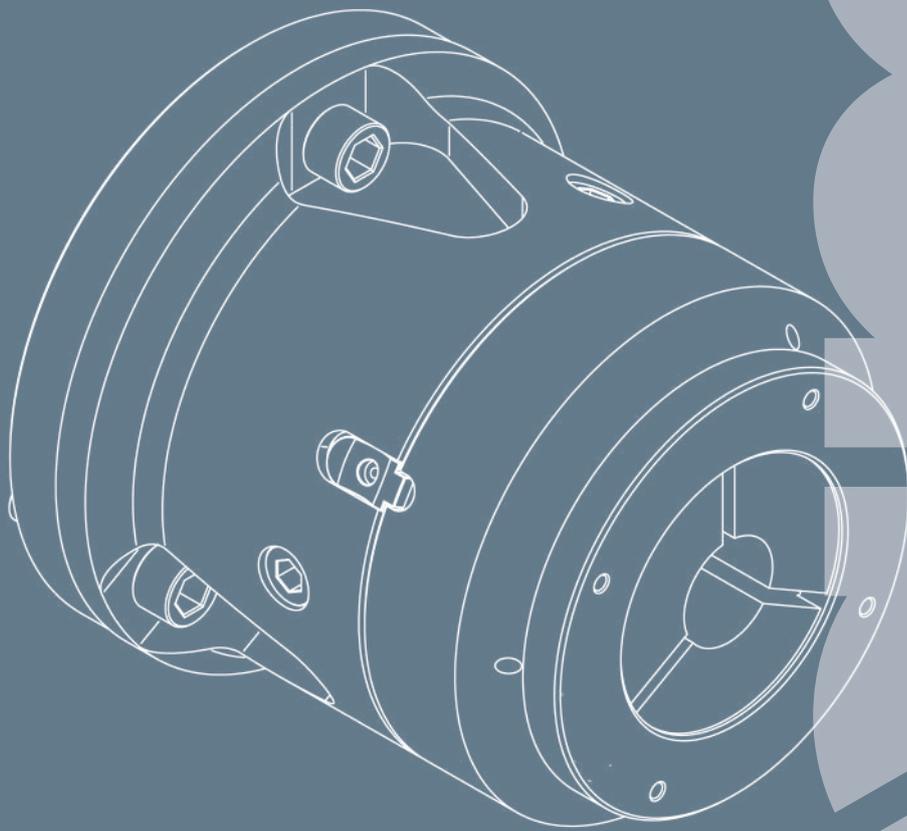


Collet Chucks

QC & C Series



Collet Chuck
QC & C Series

Quick Change Series Power Collet Chuck for Bar Machining

Two Different Systems:

Direct Mount System

- This system mounts directly to the lathe spindle to ensure a consistent mounting without the need for correction.
- Klamp QDCRL collet chucks are suitable for spring, varibore and rubberflex collets increasing its flexibility. Varibore and rubberflex collets allow rough, unfinished bar to be machined in the first operation and spring collets can be used for high accuracy in the second operation.
- Workpiece remains in a fixed position during actuation allowing for precise z-axis positioning. A tapered sleeve is pushed forward, compressing the collet and gripping the workpiece.
- All Klamp collet chucks are case hardened, optimising the rigidity, strength and durability.



Modular System

- As the direct mount system except with interchangeable adaptors enables the collet chuck to be moved from one machine spindle nose to another
- Cost-effective as only additional adaptors and connectors are required when changing different spindle/machine.
- The need for adjustment is minimal, meaning less machine downtime.



Ultra-Fast 10 Second Collet Changes



3 Different Collet Types Available



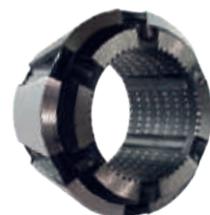
Spring Collets*

Suited for second operation work, collets are size matched according to gripped diameters, enabling you to have a high gripping accuracy. Collets can be supplied as smooth or serrated as required.



Varibore Collets**

Ideal for first operation work as they have a 2-3mm gripping range enabling you to handle rough bar. Supplied either as smooth, serrated or super grip.



Rubberflex Collets***

The same accuracy specification as spring collets. Elastic rubber-metal vulcanization allows a clamping range of +/- 1mm to the nominal diameter.

Quick Change Series Power Collet Chuck for Bar Machining

Bar Seals Prevent Swarf & Coolant Ingress



Remove bar seal from housing



Mark the diameter you require



Cut out the diameter



Reassemble and proceed

Adjustable Collet Mounted Workstop for Spring Collets



- Easy to use, installation time – less than one minute
- Available for D173E (Part No: **WS-D173E**) and D185E (Part No: **WS-D185E**) spring collet types
- Suitable for round, square and hexagon spring collets
- No deformation of collet shank
- No influence on clamping characteristics of collet or collet chuck



Insert collet work stopper



Lock stopper housing in position



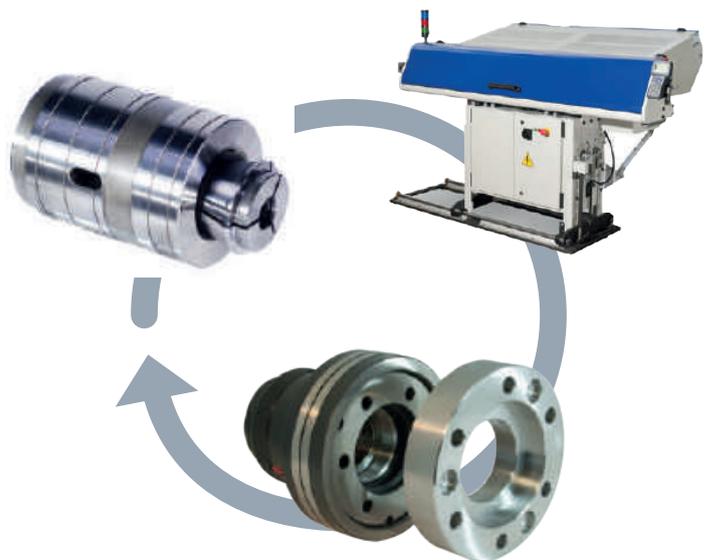
Adjust stopper shaft position



Lock stopper shaft and install

Application Advantages

- Klamp collet chucks are designed to work with bar loaders and bar feeders by not interfering with the actions of the bar feeder or loader.
- All types of QCRL42, QCRL60 & QCRL80 have interchangeable match ground reduction sleeves to allow you to use a wider range of collets on one chuck.
- Wide adaptor plates for all models available upon request.
- Clamping/unclamping of chuck during spindle rotation is possible.
- Less deformation of thin-walled components during clamping.
- High operating reliability due to a minimum number of parts.
- High axial positioning accuracy of the components by means of push type collet system.

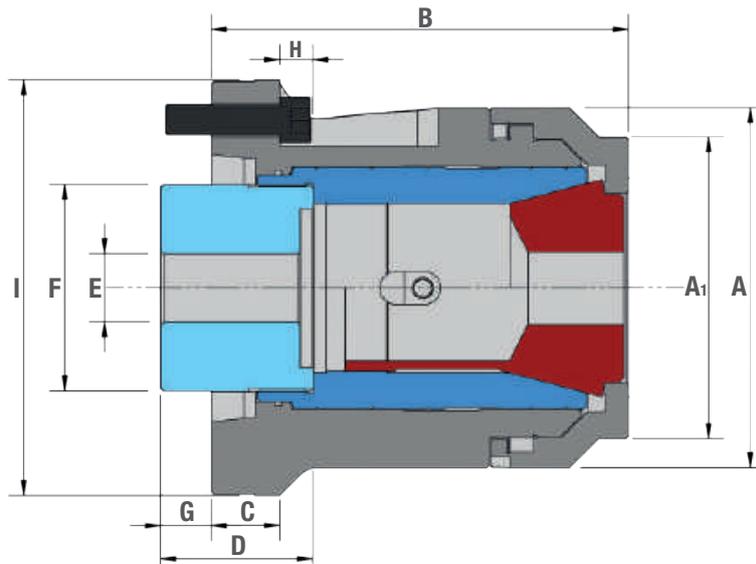


* See pages 14-18 for more Spring Collet information.

** See pages 22-23 for more Varibore Collet information.

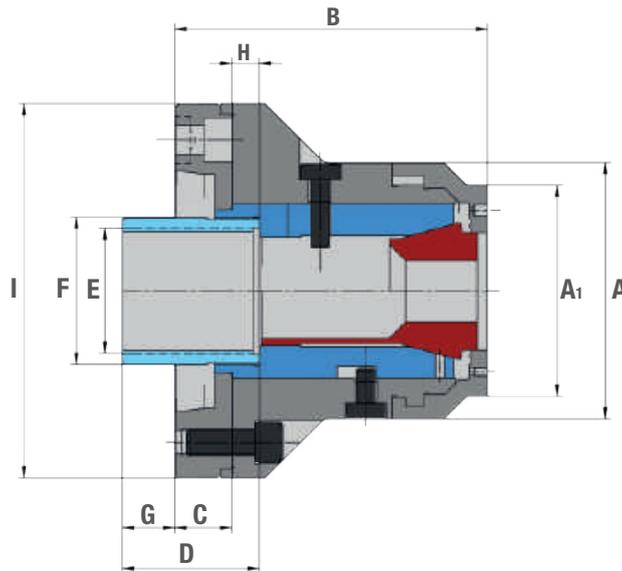
*** DRFC673 Rubber-flex collets are only suitable for the CRL42 Collet chuck and are available in smooth and full grip versions (smooth version is only available for 11mm diameters and smaller). DRFC677 Rubber-flex collets are only suitable for the CRL60 Collet chuck and are available in smooth and full grip versions (smooth version is only available for 61mm diameters and larger). See pages 24-25 for more information.

Quick Change Series Power Collet Chuck for Bar Machining



KLAMP Type	QDCRL42 DIN	QDCRL60 DIN	QCRS66 Inch		QCRS80 Inch		QCRL80 DIN		
Mounting	A5	A6	Z220	A8	Z220	A8	Z220	A8	
Part Number	QDCRL42A5	QDCRL60A6	QCRS66	QCRS66A8	QCRS80	QCRS80A8	QCRL80	QCRL80A8	
Spring Collet Type	D-173E	D-185E	-	-	-	-	D-193E		
Spring Collet Gripping Range	Minimum	2	3	-	-	-	12		
	Maximum	42	60	-	-	-	80		
Spring Collet Increments	0.5	0.5	-	-	-	-	0.5		
Varibore Collet Type	D-673	D-677	D-285		D-175		D-660		
Varibore Collet Gripping Range	Minimum	4	4	3	12		12		
	Maximum	42	60	66	80		80		
Varibore Collet Increments	2	2	3	3	3		3		
Rubberflex Collet Type	DRFC-673	DRFC-677	-	-	-	-	-		
Rubberflex Collet Gripping Range	Minimum	7*	19*	-	-	-	-		
	Maximum	45*	65*	-	-	-	-		
Rubberflex Collet Increments	2	2	-	-	-	-	-		
A	113	143	162		196		196		
A1	93	120	136		166		166		
B	136	164.5	146		164.5	162	216	209	
C	N / A	N / A	N / A		N / A		N / A		
D	60	60	80		80		80		
E Maximum	M58 x 2.0	M75 x 2.0	M90 x 2.0		M90 x 2.0		M90 x 2.0		
F	65	82	100		100		100		
G Maximum	23	20	5	25	37	20	33	16	
G Minimum	16	13	-5	15	25	8	25	8	
H	N / A	N / A	N / A		N / A		N / A		
I	135		230	220	230	220	230	220	
Sleeve stroke	7	7	10		12		8		
Max. input force	kN	25	30	38	45		45		
Max. Gripping Force	kN	55	60	84	78		78		
Max. Speed	min-1	7100	6300	4500	4500		4500		
Net Weight	kg	10	17	23.3	21.5	28.3	28.5	37	36
Matching Kitagawa Cylinders	S1246 SS1246	S1552 S1875	S1552 S1875		S2091 SS1881		S2091 SS1881		

Quick Change Series Power Collet Chuck for Bar Machining



KLAMP Type	Q-CRL42 DIN			Q-CRL54 Inch				Q-CRL60 DIN				
	Z140	A5	A6	Z170	A5	A6	A8	Z170	A5	A6	A8	
Part Number	QCRL42	QCRL42A5	QCRL42A6	QCRL54	QCRL54A5	QCRL54A6	QCRL54A8	QCRL60	QCRL60A5	QCRL60A6	QCRL60A8	
Spring Collet Type	D173E			D853				D185E				
Spring Collet Gripping Range	Minimum	2			1.6				3			
	Maximum	42			54				60			
Spring collet increments	0.5			0.5				0.5				
Varibore Collet Type	D673			D-120				D-677				
Varibore Collet Gripping Range	Minimum	4			3				4			
	Maximum	42			53.9				60			
Varibore Collet Increments	2			3				2				
Rubberflex Collet Type	DRFC673			-				DRFC677				
Rubberflex Collet Gripping Range	Minimum	7			-				19*			
	Maximum	45			-				65*			
Rubberflex Collet Increments	2			-				2				
A	113			143				143				
A1	93			118				118				
B	137			175	184	169	169	171	180	165	165	
C	25			31.5	46.5	31.5	31.5	31.5	46.5	31.5	31.5	
D	60			60				60				
E Maximum	M58 x 1.5			M75 x 1.5				M75 x 1.5				
F	65			82				82				
G Maximum	17	23	23	15	25	21	21	14	-22	21	21	
G Minimum	10	16	16	5	15	11	11	7	-15	14	14	
H	12			8.3				8.3				
I	165			220				220				
Sleeve stroke	7			10				7				
Max. input force	kN	25			30				30			
Max. Gripping Force	kN	55			60				60			
Max. Speed	min ⁻¹	7100			6300				6300			
Net Weight	kg	14.5	14	13.5	28.3	32	28.3	26.3	28.3	32	28.3	26.3
Matching Kitagawa Cylinders	S1246 SS1246			S1552 S1875				S1552 S1875				

Short Series Power Collet Chuck for Bar Machining

Short Body/Wide Range

Varibore & rubber-flex collets allow for a compact body design maximising the lathe work envelope. Gripping capacities of the series range from 3 mm to 66mm

High Speed

Direct mount design ensures high concentricity suitable for higher speed operations.

First Operation Collet Chuck

Klamp CRS collet chucks are suitable for collets which have a large gripping range. Allowing the collet chuck to handle very rough and unfinished bar, preparing it for a high accuracy second operation.

Fixed Length Collet

Workpiece remains in a fixed position during actuation, allowing for precise z-axis positioning. A tapered sleeve is pushed forward, compressing the collet and gripping the workpiece.

Problem Free Installation

Klamp collet chucks are provided with mounting bolts and an optional custom-machined drawtube connector, allowing you to start using the Klamp collet chuck straight out of the box.

Quick & Easy Mounting

Klamp collet chucks mount directly to the lathe spindle or use a precision adaptor plate to ensure a consistent mounting without the need for correction. The precision fit of the Klamp collet chuck enhances the rigidity of the overall system. The need for adjustment is minimal, meaning less machine downtime.

Long service life

All Klamp collet chucks are case hardened, optimising the rigidity, strength and durability.



Designed for Bar Pushers/ Barfeeders



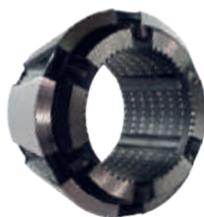
Fixed-length Klamp collet chucks are designed to work with bar loaders and bar feeders by not interfering with the process of the bar feeder action.

2 Different Collet Types Available



Varibore Collets**

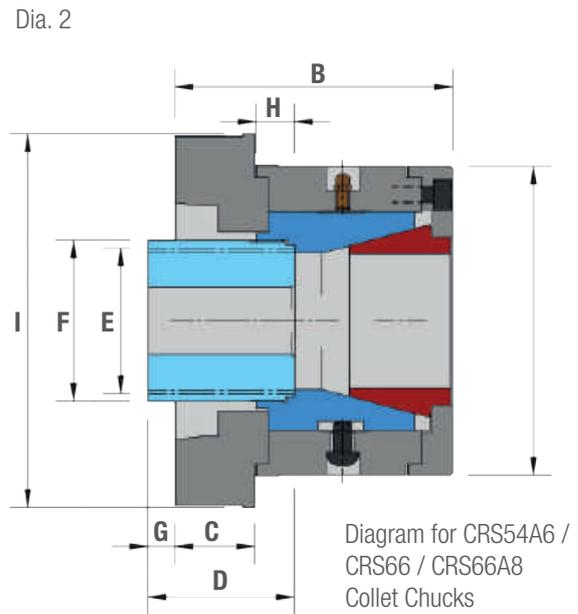
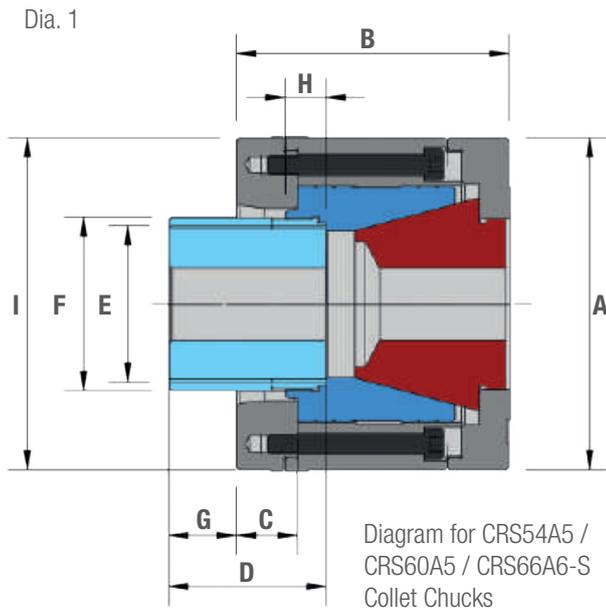
Ideal for first operation work as they have a 2-3mm gripping range enabling you to handle rough bar. Supplied either as smooth, serrated or super grip.



Rubberflex Collets***

The same accuracy specification as spring collets. Elastic rubber-metal vulcanization allows a clamping range of +/- 1mm to the nominal diameter.

Short Series Power Collet Chuck for Bar Machining



KLAMP Type		CRS54		CRS60	CRS66		
Mounting		A5	A6	A5	Z220	A6	A8
Part number		CRS54A5	CRS54A6	CRS60A5	CRS66	CRS66A6-S	CRS66A8
Varibore Collet Type		D-120		D-677	D-285		
Varibore Collet Gripping range*	Minimum	3		4	3.2		
	Maximum	53.9		60	66.6		
Varibore Collet Increments		3		2	3		
Rubberflex Collet Type		-		DRFC677	-		
Rubberflex Collet Gripping Range**	Minimum	-		19*	-		
	Maximum	-		65*	-		
Rubberflex Collet Increments		-		2	-		
A		138		138	150	165	150
B		113	127.4	107.5	134	131	140
C		25	41	25	24	N/A	30
D		65		65	80		
E Maximum		M65 x 1.5		M65 x 1.5	M80 x 2.0		
F		72		72	90		
G Maximum		28	12	28	27	29.5	21
G Minimum		18	2	21	17	19.5	11
H		17		17	24		
I		N/A	167	N/A	230	N/A	210
Sleeve stroke		10		7	10		
Max. input force	kN	30		30	38		
Max. Gripping Force	kN	60		60	84		
Max. Speed	min ⁻¹	6300		6300	4500		
Net Weight	kg	11	12.5	11	19		18
Matching Kitagawa Cylinders		S1552		S1552	S1875		

* See pages 22-23 for more Varibore Collet information

** DRFC677 Rubber-flex collets are only suitable for the CRS60 Collet chuck and are available in smooth and full grip versions (smooth version is only available for 61 mm diameters and larger).

Long Series Power Collet Chuck for Bar Machining

Long Body/Wide Range

High accuracy spring collets require a longer body design but Klamp collet chuck design ensures that all external dimensions have been optimised to provide maximum tool clearance. Gripping capacities of the series range from 1.6mm to 80mm

High Speed

Direct mount design ensures high concentricity suitable for higher speed operations.

First & Second Operation Collet Chuck

Klamp CRL collet chucks are suitable for spring, varibore and rubberflex collets increasing its flexibility. Varibore and rubberflex collets allow rough, unfinished bar to be machined in the first operation and spring collets can be used for high accuracy in the second operation.

Fixed Length Collet

Workpiece remains in a fixed position during actuation allowing for precise z-axis positioning. A tapered sleeve is pushed forward, compressing the collet and gripping the workpiece.

Problem Free Installation

Klamp collet chucks are provided with mounting bolts and an optional custom machined drawtube connector allowing you to start using the Klamp collet chuck straight out of the box.

Adjustable Collets Mounted Workstop for Spring Collets



- Easy to use, installation time – less than one minute
- Available for D173E (Part No: **WS-D173E**) and D185E (Part No: **WS-D185E**) spring collet types
- Suitable for round, square and hexagon spring collets
- No deformation of collet shank
- No influence on clamping characteristics of collet or collet chuck

3 Different Collet Types Available



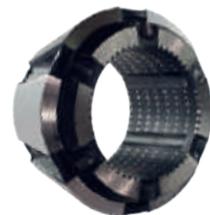
Spring Collets*

Suited for second operation work, collets are size matched according to gripped diameters, enabling you to have a high gripping accuracy. Collets can be supplied as smooth or serrated as required.



Varibore Collets**

Ideal for first operation work as they have a 2-3mm gripping range enabling you to handle rough bar. Supplied either as smooth, serrated or super grip.



Rubberflex Collets***

The same accuracy specification as spring collets. Elastic rubber-metal vulcanization allows a clamping range of +/- 1mm to the nominal diameter.



Quick & Easy Mounting

Klamp collet chucks mount directly to the lathe spindle or use a precision adaptor plate to ensure a consistent mounting without the need for correction. The precision fit of the Klamp collet chuck enhances the rigidity of the overall system. The need for adjustment is minimal, meaning less machine downtime.

Long service life

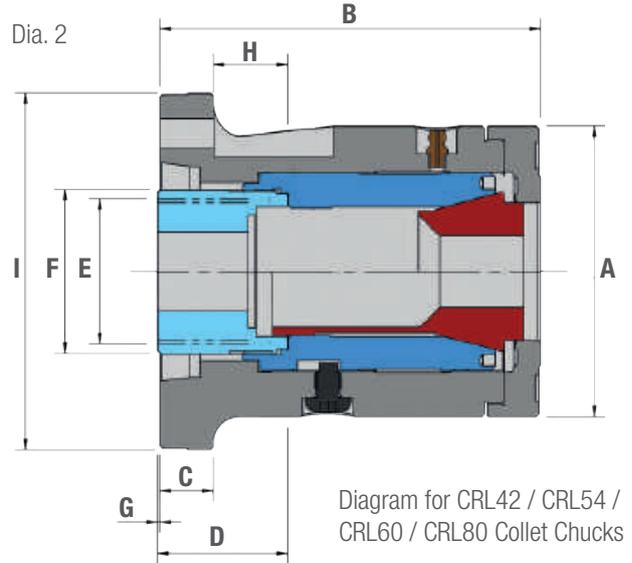
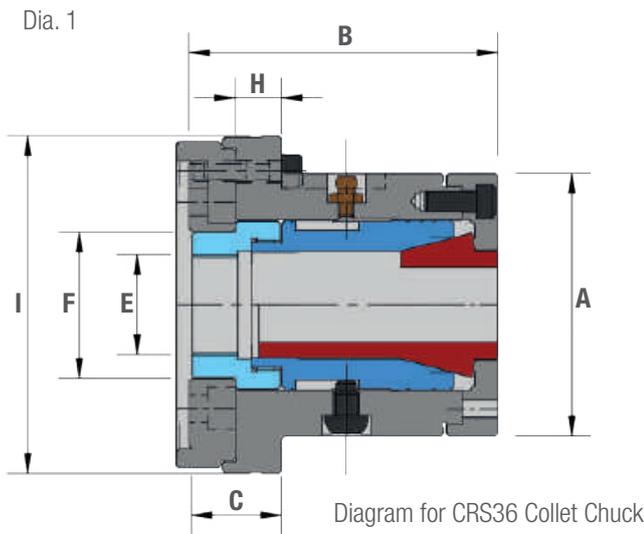
All Klamp collet chucks are case hardened, optimising the rigidity, strength and durability.

Designed for Bar Pushers/ Barfeeders

Fixed-length Klamp collet chucks are designed to work with bar loaders and bar feeders by not interfering with the process of the bar feeder action.



Long Series Power Collet Chuck for Bar Machining



KLAMP Type		CRS36	CRL42		CRL54	CRL60			CRL80		
Mounting		Z115	Z140	A5	A6	A6	Z170	A6	A8	Z220	A8
Part Number		CRS36	CRL42	CRL42A5	CRL42A6	CRL54A6	CRL60	CRL60A6	CRL60A8	CRL80	CRL80A8
Spring Collet Type		D171E	D173E		D853	D185E			D193E		
Spring Collet Gripping Range *	Minimum	1.6	2		2	3			12		
	Maximum	36	42		54	60			80		
Spring Collet Increments		0.5	0.5		0.5	0.5			0.5		
Varibore Collet Type		D671	D673		D120	D677			D660		
Varibore Collet Gripping range**	Minimum	4	4		4	4			12		
	Maximum	36	42		53.9	60			80		
Varibore Collet Increments		2	2		3	2			3		
Rubberflex Collet Type		-	DRFC673		-	DRFC677			-		
Rubberflex Collet Gripping Range***	Minimum	-	7*		-	19*			-		
	Maximum	-	43*		-	65*			-		
Rubberflex Collet Increments		-	2		-	2			-		
A		105	110		138	138			190		
B		125	128	143	145	166	143	160	156	170	176
C		18	20	20	30	27	24	27	36	19	25
D		35	49		48	48			63		
E Maximum		M50 x 1.5	M55 x 1.5		M70 x 1.5	M70 x 1.5			M90 x 2.0		
F		58	62		80	80			100		
G Maximum		-1	16	1	-1	-2	15	-2	2	48	42
		-8	9	-6	-8	-12	8	-9	-5	36	30
G Minimum		-8	9	-6	-8	-12	8	-9	-5	36	30
		-8	9	-6	-8	-12	8	-9	-5	36	30
H		18	18	28	19	23	14	23	9	13	13
I		135	160	135	165	165	190	165	210	230	220
Sleeve stroke		7	7		10	7			12		
Max. input force	kN	18	25		30	30			45		
Max. Gripping Force	kN	36	55		60	60			78		
Max. Speed	min ⁻¹	7000	7100		6300	6300			4500		
Net Weight	kg	8	9	9.5	11	16	15.2	16	19	30	30
Matching Kitagawa Cylinders		S1036	S1246		S1552	S1552/S1875			S2091		

* See pages 14-18 for more Spring Collet information.

** See pages 22-23 for more Varibore Collet information.

*** DRFC673 Rubber-flex collets are only suitable for the CRL42 Collet chuck and are available in smooth and full grip versions (smooth version is only available for 11mm diameters and smaller). DRFC677 Rubber-flex collets are only suitable for the CRL60 Collet chuck and are available in smooth and full grip versions (smooth version is only available for 61mm diameters and larger). See pages 24-25 for more information.

