



COLLET CHUCK SERIES



COLLET CHUCK

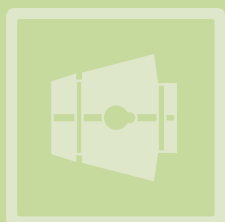




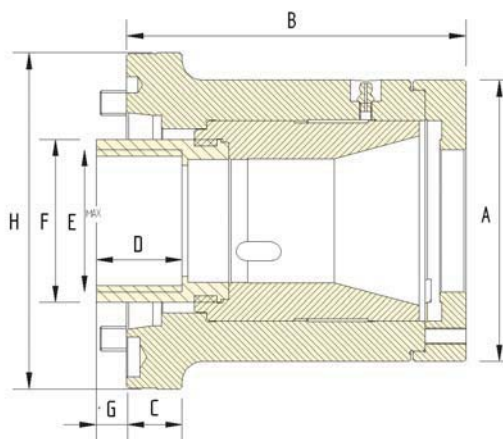
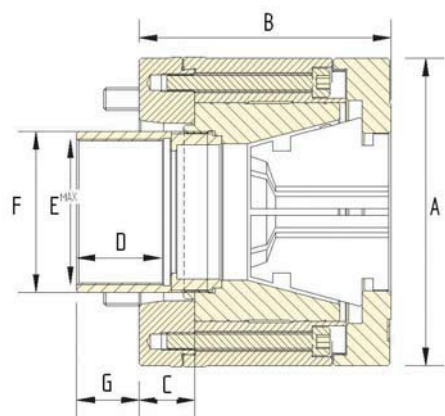
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CRS Short Series Power Collet Chucks

- Ultra Compact chuck design for first operation.
- Ideally suited for use with barfeeders.
- Short length maximises lathe work envelope.
- Bolt on Cap.
- Uses Varibore bore type collets only. CRS36 also accepts 171E spring collets.
- Large capacity in small diameter and short length.

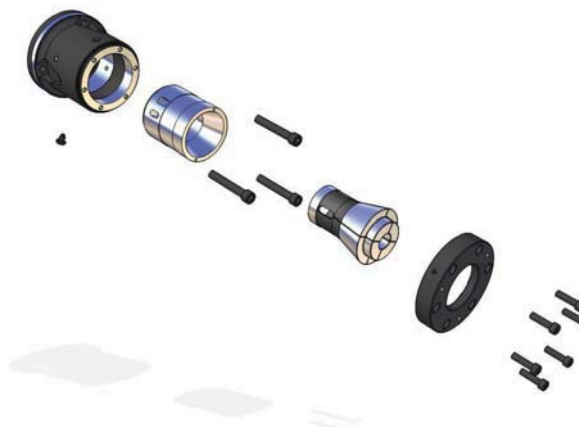
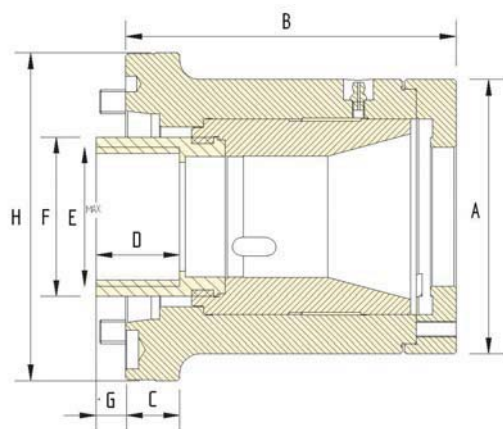


SPECIFICATIONS		CRS 36	CRS 54A5	CRS54A6	CRS60A5	CRS 66	CRS 66A6-S	CRS 66A8
Gripping Range	Max mm	35	54	54	60	66	66	66
	Min mm	4	3	3	4	4	4	4
Collet Increment	mm	2	3	3	2	3	3	3
Sleeve Stroke	mm	7	10	10	7	10	10	10
Max Input Force	kN	18	30	30	30	38	38	38
Max Gripping Force	kN	36	60	60	60	84	84	84
Max Speed (rpm)	min ⁻¹	7000	6300	6300	6300	4500	4500	4500
Net Weight	kg	8	11	11	11	19	24	18
Matching Cylinder		S1036	S1552/75	S1552/75	S1552/75	S1875	S1875	S1875
Collet Ref	Varibore	D-671	D-120	D-120	D-677	D-285	D-285	D-285
	Spring	D171E	-	-	-	-	-	-

DIMENSIONS	CRS 36	CRS 54A5	CRS 54A6	CRS 60A5	CRS 66	CRS 66A6-S	CRS 66A8
Mount	115 x 5	A2-5	A2-6	A2-5	220 x 5	A2-6	A2-8
A	105	138	138	138	150	165	140
B	125	113	129	107.5	140	131	140
C	23	25	41	25	30	N/A	30
D	18	38	38	38	30	66	66
E Max	M50 x 1.5	M65 x 1.5	M65 x 1.5	M65 x 1.5	M80 x 2	M80 x 2	M80 x 2
F	58	72	72	72	90	90	90
G Max	-6	28	12	28	21	29.5	21
G Min	-14	18	2	21	11	19.5	11
H	135	138	166	139	230	166	210

**CRL Long Series Power Collet Chucks**

- Fixed length for all second operations.
- Compact design – minimum overhang.
- Interchangeable on spindle with Kitagawa series B200 chucks.
- High concentric accuracy
- Supplied complete with blank connector for threading to suit drawtube.
- All parts made of alloy steel hardened and precision ground.



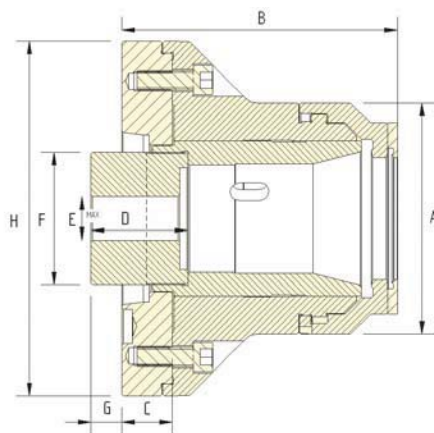
SPECIFICATIONS		CRL42	CRL42A5	CRL42A6	CRL54A6	CRL60	CRL60A6	CRL60A8
Gripping Range	Max mm	42	42	42	54	60	60	60
	Min mm	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Collet Increment	mm	3	3	3	3	3	3	3
Sleeve Stroke	mm	7	7	7	10	7	7	7
Max Input Force	kN	25	25	25	30	30	30	30
Max Gripping Force	kN	55	55	55	60	60	60	60
Max Speed (r.p.m.)	min ⁻¹	7100	7100	7100	6300	6300	6300	6300
Net Weight	kg	10	9.5	10.7	15	15.2	15	18.5
Matching Cylinder		S1246	S1246	S1246	S1552/75	S1552/75	S1552/75	S1552/75
Collet Ref		D-673	D-673	D-673		D-677	D-677	D-677
	Varibore	DIN6343	DIN6343	DIN6343	D-120	DIN6343	DIN6343	DIN6343
	Spring	173E 4728	173E 4728	173E 4728	D-853	D185 4291	D185 4291	D185 4291

DIMENSIONS	CRL42	CRL42A5	CRL42A6	CRL54A6	CRL60	CRL60A6	CRL60A8
Mount	140 x 5	A2-5	A2-6	A2-6	170 x 5	A2-6	A2-8
A	110	110	110	138	138	138	138
B	133	143	145	160	148	160	156
C	20	20	33	27	24	27	36
D	30	30	30	25	30	30	30
E	M55 x 1.5	M55 x 1.5	M55 x 1.5	M70 x 1.5	M70 x 1.5	M70 x 1.5	M70 x 1.5
F	62	62	62	80	80	80	80
G Max	11	1	-1	-2	10	-2	2
G Min	4	-6	-8	-9	3	-9	-5
H	160	135	165	165	190	165	210



Quick Change Series Power Collet Chucks

- Quick Change chuck design for first or second operation.
- Ideally suited for use with barfeeders.
- Fixed Length collet – no part movement.
- Quick change cap with safety catch.
- Uses Varibore, spring and master collets.
- Exceptional accuracy in small package.



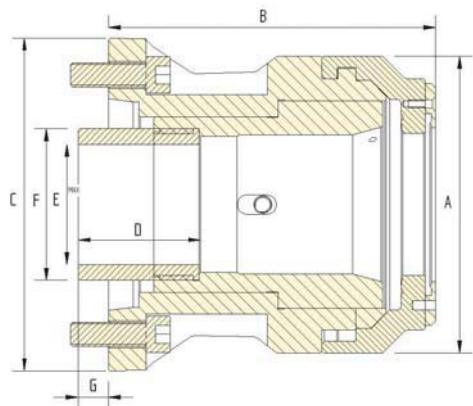
SPECIFICATIONS		QCRL 42(I)	QCRL 42	QCRL 54	QCRL 60
		Inch	Din	Inch	Din
Gripping Range - Round	Max mm	42	42	54	60
	Min mm	1.6	4	1.6	4
Collet Increment	mm	3	2	3	2
Sleeve Stroke	mm	7	7	7	7
Max Input Force	kN	25	25	30	30
Max Gripping Force	kN	55	55	60	60
Max Speed (r.p.m.)	min ⁻¹	7100	7100	6300	6300
Net Weight	kg	13.5	13.5	29	29
Matching Cylinder		S1246	S1246	S1552/75	S1552/75
Collet Ref	Varibore	D-850	D-673	D-120	D-677
	Spring	D-286	D173E	D-853	D185E

DIMENSIONS	QCRL 42(I)/QCRL 42			QCRL 54				QCRL 60			
Mount	140 x 6	A5	A6	170 x 6	A5	A6	A8	170	A5	A6	A8
A	113			143				143			
B	149	143	143	181	190	175	175	177	186	171	171
C	31.5	25	25	36.5	45	36.5	36.5	36.5	46.5	36.5	36.5
D	60			60				60			
E Max	M58 x 1.5			M75 x 1.5				M75 x 1.5			
F	65			82				82			
G Max	17	23	23	15	25	21	21	14	5	21	21
G Min	10	16	16	5	15	11	11	7	-2	14	14
H	165	165	165	220	220	220	220	220	220	220	220

QCRL54 and 60 models can be supplied with additional 42 mm Inch and Din collet reduction sleeves and caps.
See Accessory page for details and part numbers.

**Quick Change Series Power Collet Chucks**

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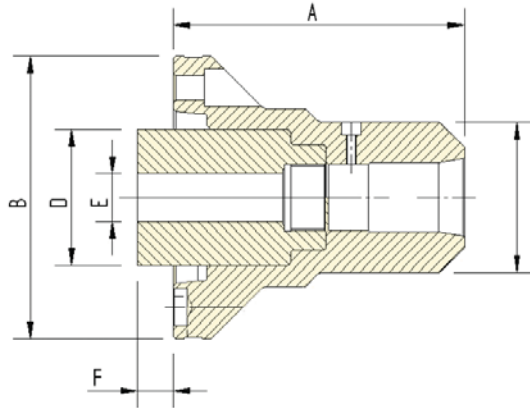


SPECIFICATIONS		QCRS 66 Inch	QCRS 80 Inch	QCRL 80 DIN
Gripping Range - Round	Max mm	66	80	80
	Min mm	3	12	12
Collet Increment	mm	3	3	3
Sleeve Stroke	mm	10	11	11
Max Input Force	kN	38	45	45
Max Gripping Force	kN	84	78	78
Max Speed (r.p.m)	min ⁻¹	4500	4500	4500
Net Weight	kg	24	29	37
Matching Cylinder		S1875	S2091	S2091
Collet Ref	Varibore	D-285	D-175	D-660
	Spring	-	-	D-193 E

DIMENSIONS	QCRS 66		QCRS 80	QCRL 80
Mount	220 x 6	A8	A8	A8
A	162		196	196
B	158	151	171	217
C	230	220	220	220
D	80		80	80
E Max	M90 x 2		M90 x 2	M90 x 2
F	100		100	100
G Max	19	25	20	40
G Min	9	15	8	28

**Pull Back Series Power Collet Chucks**

- Pull Back design for first operation.
- Suitable for 5C & 16C collets.
- Ejectors available.
- Compact design for improved tool access.

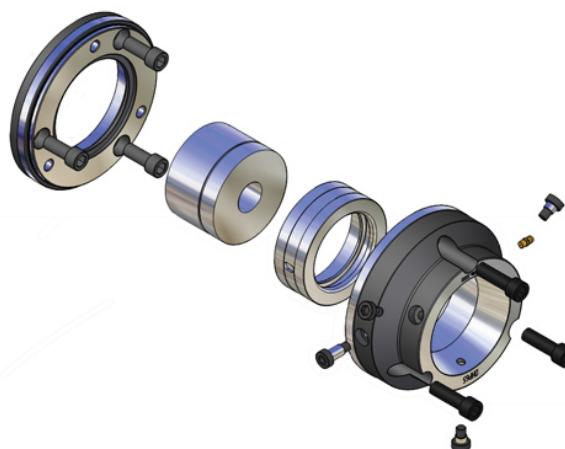
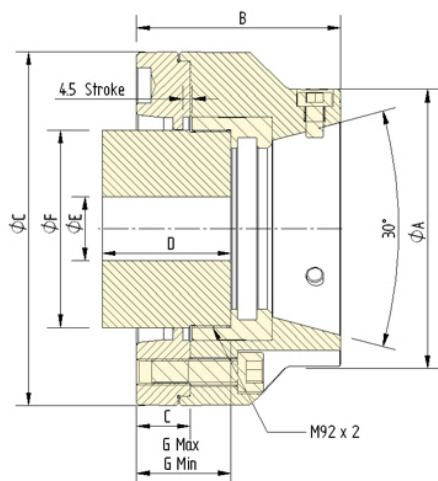


SPECIFICATIONS		DEL 5C	DEL 16C
Capacity	mm	0.5 - 27	0.5 - 42
Pull Back Ratio		1:3	1:3
Max Drawbar Pull	kN	20	24
Max Speed (r.p.m)	min ¹	6000	6000
Net Weight	kg	7, 11	6, 8
Collet Ref		5C	16C

DIMENSIONS	DEL 5C		DEL 16C	
Mount	A5	A6	A5	A6
A	138	148	152	160
B	135	165	135	165
C	72	72	85	85
D	65	83	65	83
E Max	M58 x 1.5	M75 x 2	M58 x 1.5	M75 x 2
F Min	17	17	17	9

**Pull Back Series Power Collet Chucks**

- Pull back chuck for first operation.
- Compact design and high accuracy.
- Optional collet changing device.
- Compatible with quick change collet clamping heads.



SPECIFICATIONS		DHP52-A5	DHP52-A6	DHP52-A8	DHP65-A5	DHP65-A6	DHP65-A8
Gripping Range - Round	Max mm	52	52	52	65	65	65
	Min mm	4	4	4	4	4	4
Collet Increment	mm	0.5	0.5	0.5	0.5	0.5	0.5
Sleeve Stroke	mm	4.5	4.5	4.5	4.5	4.5	4.5
Max Input Force	kN	40	40	40	45	45	45
Max Gripping Force	kN	94	94	94	105	105	105
Max Speed (r.p.m)	min ⁻¹	6500	6500	6500	6000	6000	6000
Net Weight	kg	9	9	11	9	9	11
Matching Cylinder		S1552	S1552	S1552	S1875	S1875	S1875
Collet / Clamping Head		DC-52	DC-52	DC-52	DC-65	DC-65	DC-65

DIMENSIONS	DHP52-A5	DHP52-A6	DHP52-A8	DHP65-A5	DHP65-A6	DHP65-A8
Mount	A2-5	A2-6	A2-8	A2-5	A2-6	A2-8
A	120	120	120	130	130	130
B	89	89	109	95	95	115
C	165	165	210	165	165	210
D	60	60	60	60	60	60
E Max	M70x2	M85x2	M85x2	M70x2	M85x2	M85x2
F	79	92	92	79	92	92
G Max	44	44	64	44	44	64
G Min	39.5	39.5	59.5	39.5	39.5	59.5



Varibore Collets



- Inch Varibore collets have a gripping range of 1/8" on diameter and feature a plain Bore.
- Metric Round DIN Varibore have a gripping range of 2mm on diameter and feature collets feature Spiral gripping surface (above 8mm).
- Metric Hex & Square DIN Varibore collets use a gripping range of 2m and feature Annular gripping surface (above 8mm).
- Optional Heavy duty collets available for black bar (may cause marking) can be used for operations involving very heavy machining.



Chuck	Type	Capacity mm			Dimensions mm		
		Round	Hex	Square	Length	Diameter	Taper
CRS36	D-671 DIN	4-34	4-28	4-24	38	56.5	14.75°
QCRL42I	D-850	1.6-44.5	1.6-38.1	1.6-31.8	51.8	70.1	15°
QCRL42	D-673 DIN	4-42	4-36	4-30	39	61.5	14.75°
CRS54, QCRL54	D-120	1.6-53.9	3.2-50.8	3.2-41.3	62.7	88	15°
QCRL60	D-677 DIN	4-60	4-52	4-42	45	85.5	14.75°
CRS66, QCRL66	D-285	3.2-66.6	3.2-57.1	3.2-44.4	73.2	99.3	15°
QCRS80	D-175	12.7-80	12.7-66.7	12.7-54	80	120	15°
QCRL80	D-660	12-80	12-68	12-56	48	108.5	14.75°

Spring Collets



- Spring collets used primarily for second operation work, where marking of the component is to be avoided, or where necessary to grip a short portion of the component.
- Collet bore diameters are dedicated.
- Emergency collets are supplied where fast turn around, small batch quantities are machined.



Chuck	Type	Capacity mm			Dimensions mm		
		Round	Hex	Square	Length	Diameter	Taper
CRS36	D171E	36	30	26	94	55.3	14.75°
QCRL42I	D-286	38.5	33	29	95.25	68.25	15°
QCRL42	D173E	42	38	30	94	60	14.75°
QCRL54	D-853	51	44	36	125.4	88.1	15°
QCRL60	D185E	60	52	42	110	84	14.75°
QCRL80	D-193E	80	69	56	130	170	15°

5C, 16C



- Collet bore diameters are dedicated.
- Emergency Collets (soft face and pilot bore) are available upon request.



Type	Range	Capacity mm			Dimensions mm		
	Plainbore	Round	Hex	Square	Length	Diameter	Taper
5C	1 -27.0mm	27	22.3	19	83.4	37.3	10°
16C	1.5 -42.5mm	42	34.9	30.2	110.5	57.5	10°

**Reduction Sleeve and Cap**

- Optional reduction sleeve and Cap allow a variety of collet types to be used in same chuck body.
- Precision manufactured and matched to chuck body to guarantee accuracy.
- Standard models are Q-RSC6042 and RSC6042 allowing DIN 42 Collets to be used in 60mm Chucks.
- Alternate reduction options are available to order.

Standard and Custom Collet Chuck Adaptors

- Chuck Adaptors available to all spindle mount types.
- Extra Wide Chuck Adaptors allow small chucks to be assembled to large Spindles.
- QCRL Chuck Range allow back body to be interchanged for different spindle mounts.

Drawtube Connectors and Ejectors

- Drawtube Connectors are precision machined to allow collet chucks to be connected to a wide range of lathe types.
- All Chucks include blank connector as standard.
- Custom Part Ejector Ejectors and Fixed Length Stops are available to order.

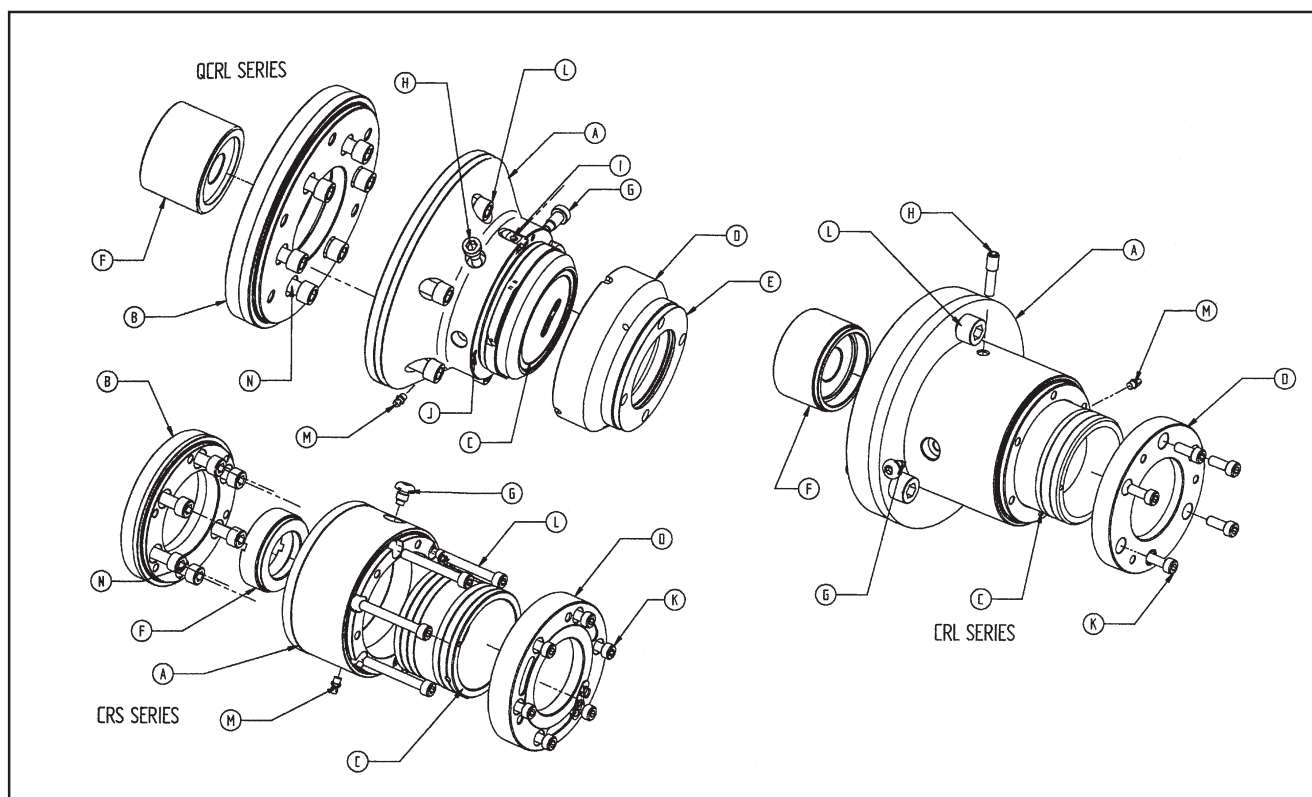
Bar Seals

- Reduces coolant and chip ingress into chuck / collet.
- Bar Seal should be prepared to suit bar stock diameter.
- Compatible with QCRL Range only. Bar Seal and Retaining Cap supplied as standard with QCRL Chuck Range.



Parts List

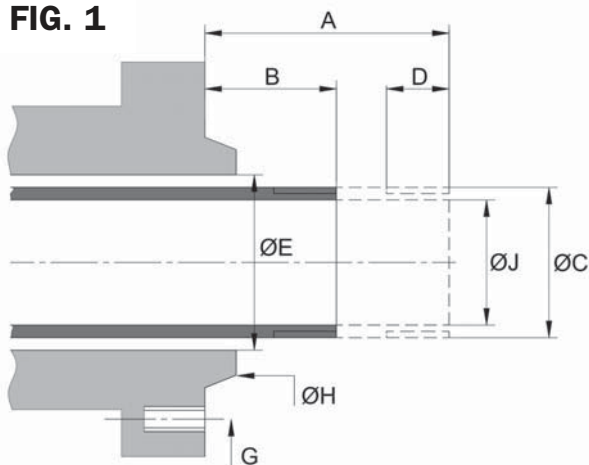
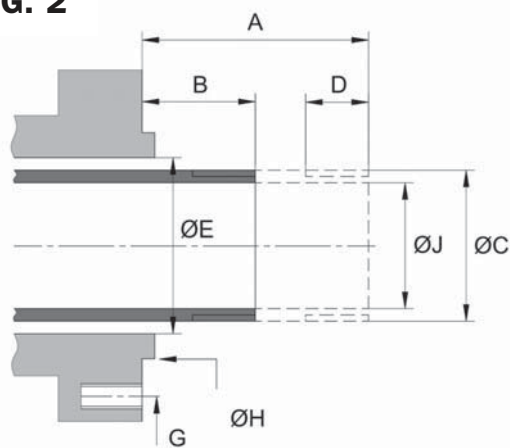
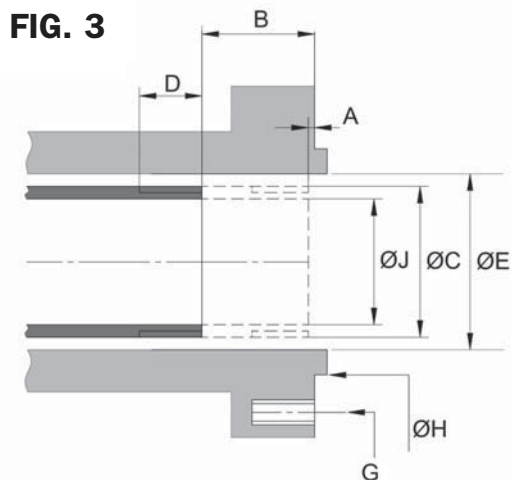
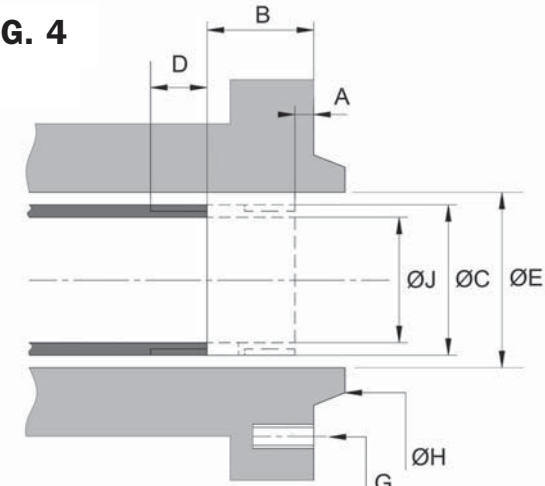
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|---------------------|-------------------------------------|-------------------------------|
| a) Chuck Body | f) Semi Finished Drawtube Connector | k) Front Cap Retaining Screws |
| b) Back Body | g) Anti Rotation Screws | l) Chuck Mounting Bolts |
| c) Operating Sleeve | h) Backstop Retaining Screws | m) Grease Nipple |
| d) Front Cap | i) Quick Change Safety Catch | |
| e) Bar Seal Cap | j) Spring Plunger for Cap Removal | |



**Drawtube Connector / Machine Spindle Information**

Machine Make		Chuck Make		Cylinder Make	
Model		Model		Model	
Year		Serial Number		Serial Number	

Please send along with your company details to your local distributor

FIG. 1**FIG. 2****FIG. 3****FIG. 4**

A) FORWARD POSITION OF
(DRAWTUBE FROM SPINDLE FACE)

B) BACKWARD POSITION OF
(DRAWTUBE FROM SPINDLE FACE)

C) THREAD DIAMETER FORM &
PITCH. STATE IF R/H OR L/H
& EXTERNAL OR INTERNAL

D) OPERATIVE LENGTH OF FULL THREAD

E) SPINDLE BORE DIAMETER.
STATE IF TAPER

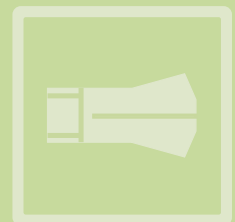
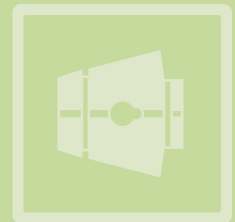
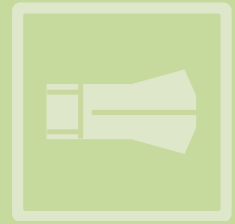
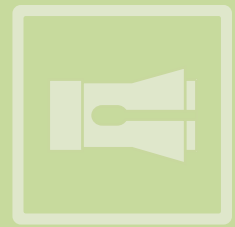
F) FIXING DETAILS. THREAD SIZE =
P.C.D. = QTY =

SPACING =

G) AMERICAN SPINDLE MOUNT –
STATE TYPE

H) STRAIGHT SPINDLE MOUNT
STATE DIAMETER

I) DRAWTUBE INTERNAL DIAMETER



Manufactured in Scotland by:

Dunbeath Engineering Ltd
Market Place
Dunbeath
Caithness KW6 6EJ
UK

Distributed by:

Supplied by: