

RCK 55 Clamping Elements



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RANKIN 
COMPONENTS THAT AUTOMATE



MINIMUM HUB DIAMETER CHECK D_m

After choosing the clamping element type with the required characteristics it is necessary to make a check on the minimum extern diameter of the hub (D_m), which has to resist to the solicitations caused by the high pressures developed by the clamping element. The check is purely static and concerns just solicitations caused by the clamping element:

$$D_m \geq D \times \sqrt{\frac{R_{s 0.2} + (P_m \times C)}{R_{s 0.2} - (P_m \times C)}}$$

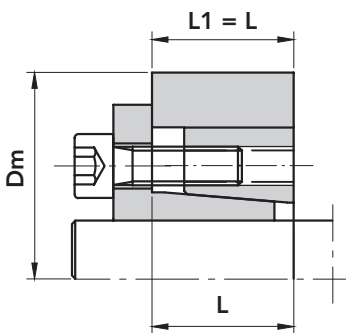
Where: D_m = Extern diameter of the hub (mm)

D = Extern diameter of the clamping element (mm)

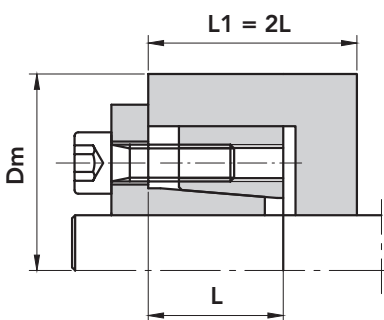
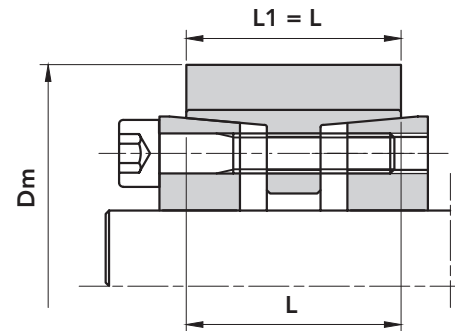
$R_{s 0.2}$ = Yield point for permanent elongation of 0.2% (N/mm²)

P_m = Specific pressure exercised by the clamping element on the hub (N/mm²)

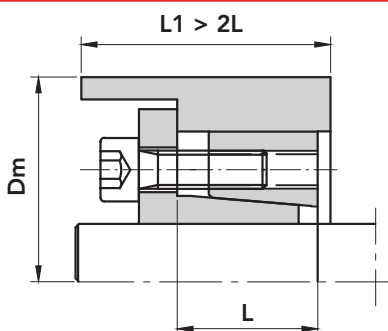
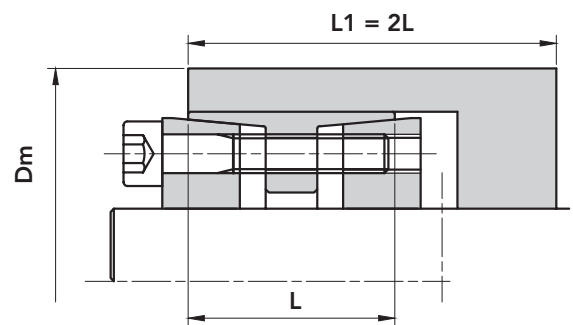
C = coefficient of the utilization in function of the hub profile (Look at the pictures below)



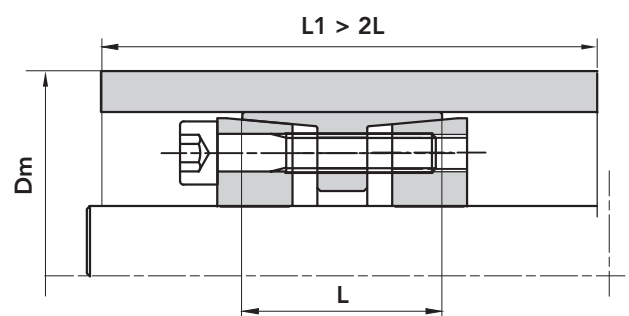
C = 1

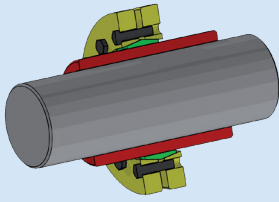


C = 0.8

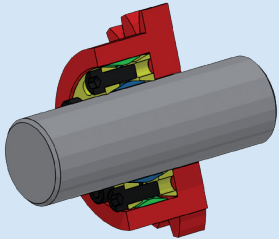


C = 0.6

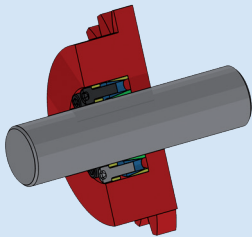


**RCK 19****SELF CENTRING RCK 19 TYPE**

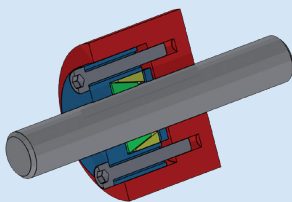
Suitable for hollow shafts, it operates by compressing the hollow shafts on the solid shafts enabling transmission of medium high twisting moments to be achieved.

**RCK 40****NOT SELF CENTRING RCK 40 TYPE**

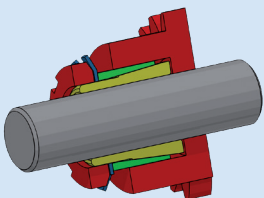
Suitable for general applications, it is not self centring and therefore requires a centring band to ensure perfect concentricity. It operates with medium- high torque values.

**RCK 45****NOT SELF CENTRING RCK 45 TYPE**

Suitable for applications where medium-low twisting moments are required with, easy rapid assembly and disassembly operation. Not self centring.

**RCK 50****NOT SELF CENTRING RCK 50 TYPE**

Comprising two tapered rings, must always be mounted with a tightening flange. It operates with low torque values; it isn't self centring.

**RCK 55****SELF CENTRING RCK 55 TYPE**

Suitable for assemblies where limited overall dimensions and times are required. It operates with medium-low torque values.

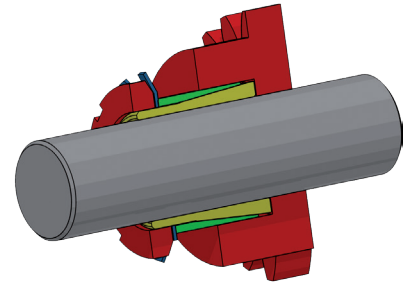
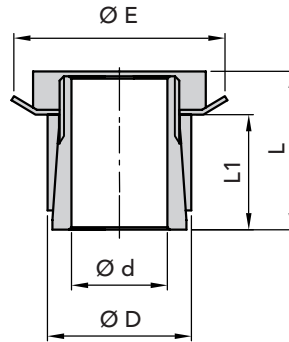


SELF CENTRING

THE RECOMMENDED MACHINING TOLERANCES FOR THE PRESSURE SURFACES ARE AS FOLLOWS:

$\varnothing h 8$ FOR SHAFT

$\varnothing H 8$ FOR HUB



PART NUMBER	DIMENSIONS					maximum torque Mt Nm	CLAMPING PRESSURE		FERRULE			SECURITY WASHER	WEIGHT Kg
	Ød	ØD	ØE	L1	L		Shaft N/mm ²	Hub N/mm ²	Type	Thread	Tightening torque Nm	Type	
06550014	14	25	32	23	31	65	80	45	KM4	M20x1	95	MB4	0,10
06550015	15	25	32	23	31	70	80	45	KM4	M20x1	95	MB4	0,11
06550018	18	30	38	24	33	100	75	45	KM5	M25x1,5	160	MB5	0,13
06550019	19	30	38	24	33	105	75	45	KM5	M25x1,5	160	MB5	0,13
06550020	20	30	38	24	33	112	70	45	KM5	M25x1,5	160	MB5	0,15
06550024	24	35	45	29	38	178	65	45	KM6	M30x1,5	220	MB6	0,17
06550025	25	35	45	29	38	185	60	45	KM6	M30x1,5	220	MB6	0,17
06550028	28	40	52	34	44	250	55	40	KM7	M35x1,5	340	MB7	0,28
06550030	30	40	52	34	44	270	50	40	KM7	M35x1,5	340	MB7	0,26
06550035	35	45	58	34	45	390	55	45	KM8	M40x1,5	480	MB8	0,26
06550040	40	50	65	35	46	520	55	45	KM9	M45x1,5	680	MB9	0,33
06550045	45	55	70	35	47	680	60	50	KM10	M50x1,5	870	MB10	0,45
06550050	50	60	75	36	48	880	60	50	KM11	M55x2	970	MB11	0,66
06550055	55	65	80	36	48	1030	60	50	KM12	M60x2	970	MB12	0,72
06550060	60	70	85	36	50	1360	65	55	KM13	M65x2	1300	MB13	0,80

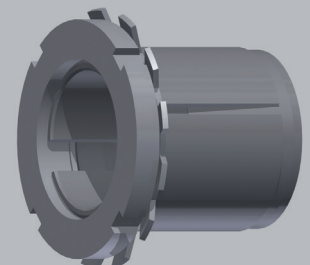
ORDERING EXAMPLE:

The following will be ordered with a shaft having $\varnothing d$ 30 with a torque value less than or equal 270 Nm:

RCK 55 - 30 x 40
Part Number 06550030

CAD drawings available on our site
www.chiaravalli.com

3D simulation available on the website.



Quantity, availability and prices
on B2B Chiaravalli