

RCK 95 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:

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

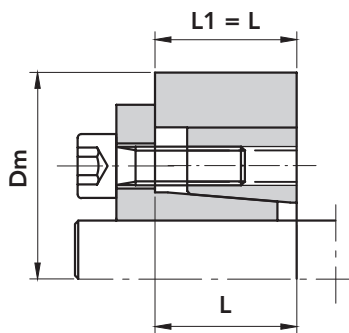
Where: D_m = Extern diameter of the hub (mm)

D = Extern diameter of the clamping element (mm)

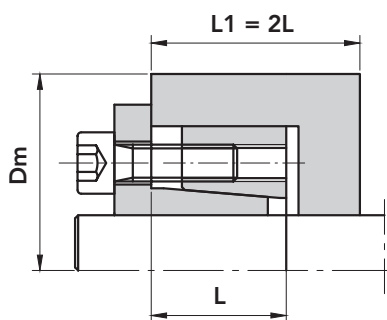
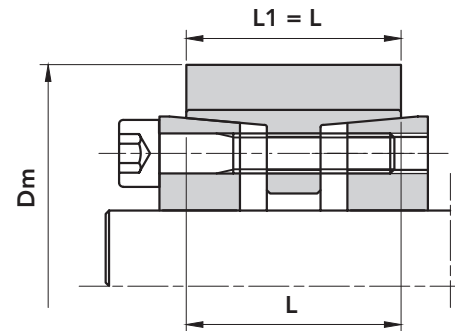
$R_{s\ 0.2}$ = Yield point for permanent elongation of 0.2% (N/mm²)

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

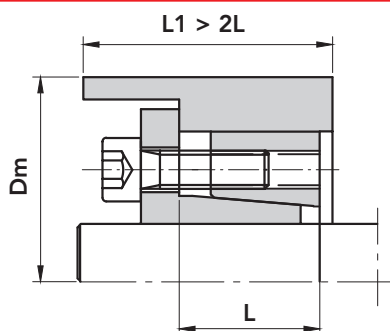
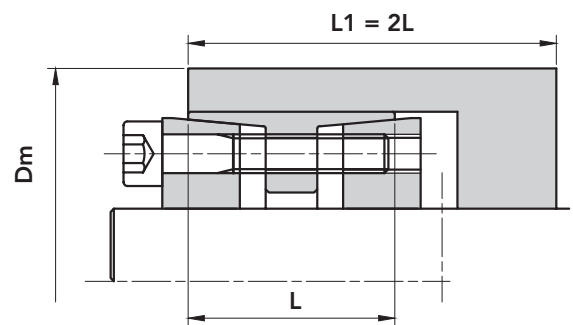
C = coefficient of the utilization in function of the hub profile (Look at the pictures below)



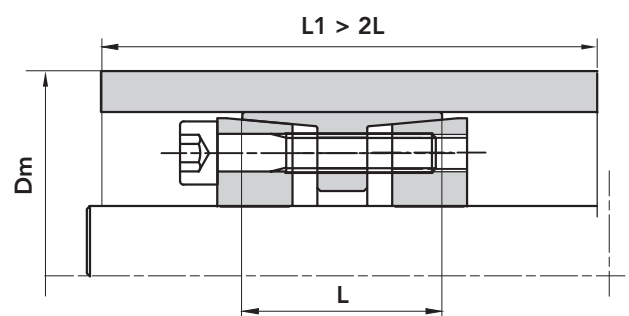
$C = 1$

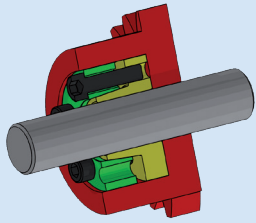


$C = 0.8$



$C = 0.6$

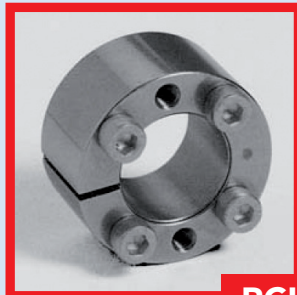
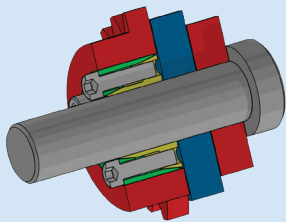




RCK 60

SELF CENTRING RCK 60 TYPE

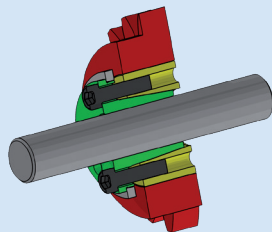
Suitable for assemblies where a medium-high twisting moment is required. It operates in the opposite mode to RCK 13.



RCK 61

SELF CENTRING RCK 61 TYPE

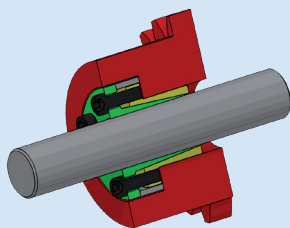
Enables adjacent components to be clamped to the hub thanks to an axial force achieved during the clamping phase. It operates with medium torque values.



RCK 70-71

SELF CENTRING RCK 70-71 TYPE (RCK 71 eventually with spacer)

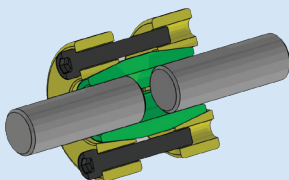
The RCK version is suitable for assemblies where concentricity and orthogonal positioning of the parts is required. The RCK 71 version has the same features as RCK 70 with the addition of a spacer ring to completely avoid possible axial displacements. These components operate with medium- high torque values.



RCK 80

SELF CENTRING RCK 80 TYPE

Suitable for assemblies on hubs with thin walls guarantees both axial and radial positioning precision with medium transmission torque values.



RCK 95

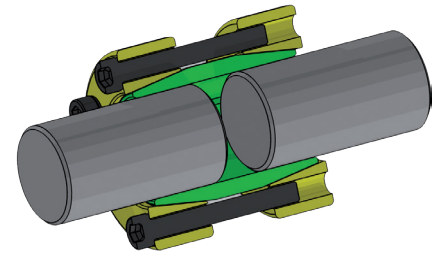
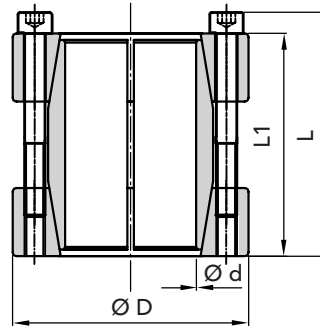
Enables rigid connection between two aligned shafts. It transmits medium-high twisting moments with the advantage of enabling rapid assembly and disassembly



RIGID JOINT

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

$\varnothing h 8$ FOR SHAFT



PART NUMBER	DIMENSIONS				maximum torque Mt Nm	CLAMPING PRESSURE Shaft N/mm ² 2	CLAMPING SCREWS DIN 912 MAT. 12.9			WEIGHT Kg
	Ød	ØD	L1	L			N.	Type	Torque Nm	
06950017	17	50	50	56	200	110	4	M6x40	17	0,51
06950018	18	50	50	56	220	110	4	M6x40	17	0,52
06950019	19	50	50	56	230	110	4	M6x40	17	0,50
06950020	20	50	50	56	240	105	4	M6x40	17	0,50
06950024	24	55	60	66	290	120	4	M6x50	17	0,71
06950025	25	55	60	66	450	110	6	M6x50	17	0,69
06950028	28	60	60	66	510	110	6	M6x50	17	0,81
06950030	30	60	60	66	550	105	6	M6x50	17	0,78
06950032	32	63	60	66	580	90	6	M6x50	17	0,85
06950035	35	75	75	83	790	105	4	M8x60	41	1,48
06950038	38	75	75	83	850	100	4	M8x60	41	1,45
06950040	40	75	75	83	900	95	4	M8x60	41	1,40
06950042	42	78	75	83	950	90	4	M8x60	41	1,50
06950045	45	85	85	93	1520	110	6	M8x70	41	2,03
06950048	48	90	85	93	1620	100	6	M8x70	41	2,24
06950050	50	90	85	93	1690	95	6	M8x70	41	2,18
06950055	55	94	85	93	2470	110	8	M8x70	41	2,29
06950060	60	100	85	93	2710	95	8	M8x70	41	2,52
06950065	65	105	85	93	2930	90	8	M8x70	41	2,69
06950070	70	115	100	110	3770	90	6	M10x80	83	3,94

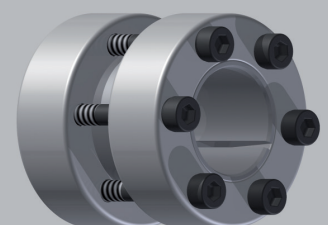
ORDERING EXAMPLE:

The following will be ordered with a shaft having Ød 40 with a torque value less than or equal 900 Nm:

RCK 95 - 40 x 75
Part Number 06950040

CAD drawings available on our site
www.chiaravalli.com

3D simulation available on the website.



Quantity, availability and prices
on B2B Chiaravalli