

RCK 71 Clamping Elements



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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:

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

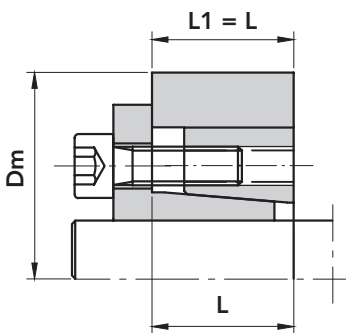
Where: D_m = Extern diameter of the hub (mm)

D = Extern diameter of the clamping element (mm)

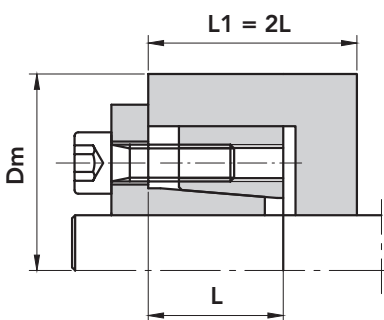
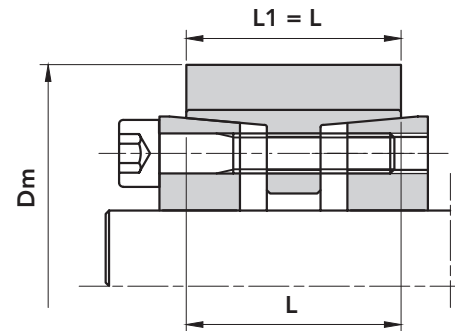
$R_{s 0.2}$ = Yield point for permanent elongation of 0.2% (N/mm²)

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

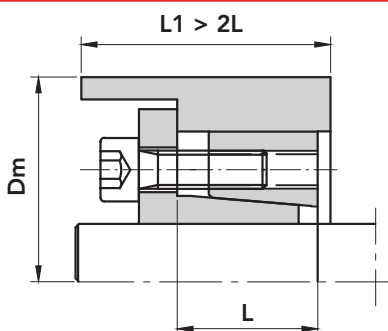
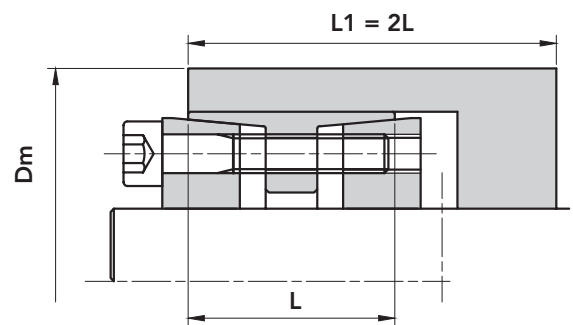
C = coefficient of the utilization in function of the hub profile (Look at the pictures below)



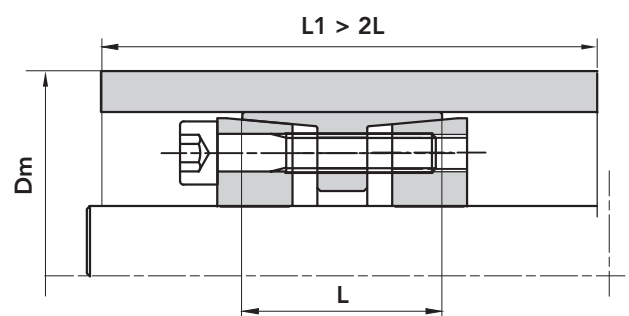
C = 1

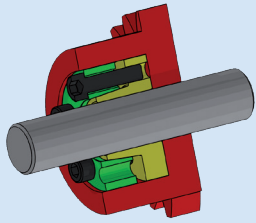


C = 0.8



C = 0.6

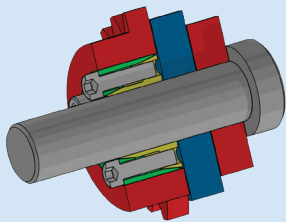




RCK 60

SELF CENTRING RCK 60 TYPE

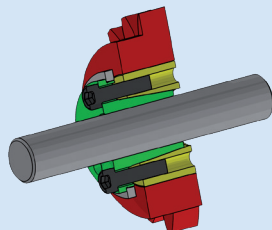
Suitable for assemblies where a medium-high twisting moment is required. It operates in the opposite mode to RCK 13.



RCK 61

SELF CENTRING RCK 61 TYPE

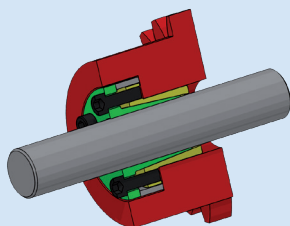
Enables adjacent components to be clamped to the hub thanks to an axial force achieved during the clamping phase. It operates with medium torque values.



RCK 70-71

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

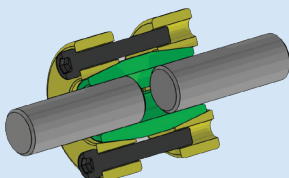
The RCK version is suitable for assemblies where concentricity and orthogonal positioning of the parts is required. The RCK 71 version has the same features as RCK 70 with the addition of a spacer ring to completely avoid possible axial displacements. These components operate with medium- high torque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

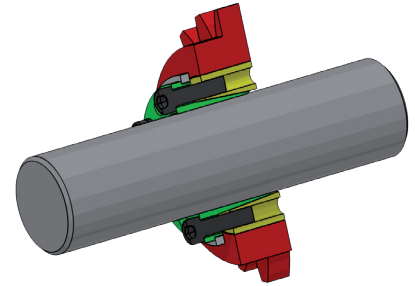
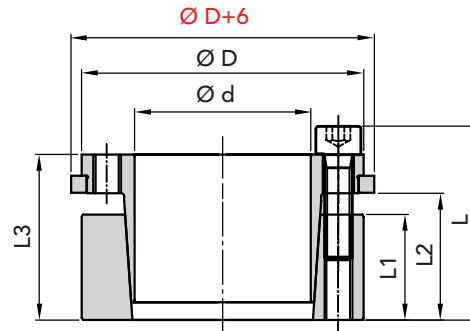


SELF CENTRING

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

Ø h 8 FOR SHAFT

Ø H 8 FOR HUB



PART NUMBER	DIMENSIONS						maximum torque Mt Nm	CLAMPING PRESSURE		CLAMPING SCREWS DIN 912 MAT. 12.9			EXTRACTION THREAD		WEIGHT Kg
	Ød	ØD	L1	L2	L3	L		Shaft N/mm ²	Hub N/mm ²	N.	Type	Torque Nm	Type	N.	
06710019	19	47	26	31	39	45	300	228	98	4	M6x25	17	M6	2	0,45
06710020	20	47	26	31	39	45	320	231	98	4	M6x25	17	M6	2	0,46
06710022	22	47	26	31	39	45	370	211	99	4	M6x25	17	M6	2	0,50
06710024	24	50	26	31	39	45	430	220	110	6	M6x25	17	M6	3	0,50
06710025	25	50	26	31	39	45	480	226	113	6	M6x25	17	M6	3	0,50
06710028	28	55	26	31	39	45	590	207	108	6	M6x25	17	M6	3	0,60
06710030	30	55	26	31	39	45	650	226	121	6	M6x25	17	M6	3	0,60
06710032	32	60	26	31	39	45	800	201	117	8	M6x25	17	M6	4	0,70
06710035	35	60	26	31	39	45	860	206	121	8	M6x25	17	M6	4	0,60
06710038	38	65	26	31	39	45	1030	201	124	8	M6x25	17	M6	4	0,80
06710040	40	65	26	31	39	45	1130	239	146	8	M6x25	17	M6	4	0,60
06710042	42	75	30	36	47	55	1930	221	138	6	M8x30	41	M8	3	1,20
06710045	45	75	30	36	47	55	1950	221	138	6	M8x30	41	M8	3	1,10
06710048	48	80	30	36	47	55	2180	226	145	6	M8x30	41	M8	3	1,30
06710050	50	80	30	36	47	55	2210	226	146	6	M8x30	41	M8	3	1,10
06710055	55	85	30	36	47	55	2730	226	146	8	M8x30	41	M8	4	1,20
06710060	60	90	30	36	47	55	2910	201	134	8	M8x30	41	M8	4	1,30
06710065	65	95	30	36	47	55	3570	211	145	8	M8x30	41	M8	4	1,40
06710070	70	110	40	46	57	67	5830	226	145	8	M10x35	83	M10	4	2,50
06710075	75	115	40	46	62	72	6330	221	151	8	M10x35	83	M10	4	2,60
06710080	80	120	40	46	62	72	6840	202	142	8	M10x35	83	M10	4	2,80
06710085	85	125	40	46	62	72	8160	221	161	10	M10x35	83	M10	4	2,80
06710090	90	130	40	46	62	72	8670	201	146	10	M10x35	83	M10	4	3,00
06710095	95	135	40	46	62	72	10200	191	141	10	M10x35	83	M10	4	3,00
06710100	100	145	46	52	77	89	13600	201	151	8	M12x45	145	M12	4	5,50
06710110	110	155	46	52	77	89	14870	201	182	8	M12x45	145	M12	4	4,80
06710120	120	165	46	52	77	89	19460	221	162	10	M12x45	145	M12	4	5,50
06710130	130	180	46	52	77	89	20820	202	146	12	M12x45	145	M12	4	6,00
06710140	140	190	51	59	84	90	25410	192	141	8	M14x45	230	M14	4	7,50
06710150	150	200	51	59	84	90	30720	202	152	10	M14x45	230	M14	5	7,70
06710160	160	210	51	59	84	90	33150	202	152	10	M14x45	230	M14	5	8,00
06710170	170	225	51	59	84	90	34000	161	121	12	M14x45	230	M14	6	9,80
06710180	180	235	51	59	84	90	34250	157	122	12	M14x45	230	M14	6	9,80

ORDERING EXAMPLE:

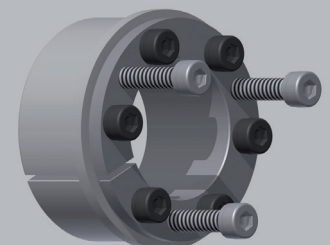
The following will be ordered with a shaft having Ød 30 with a torque value less than or equal 650 Nm:

RCK 71 - 30 x 55

Part Number 06710030

CAD drawings available on our site
www.chiaravalli.com

3D simulation available on the website.



Quantity, availability and prices
on B2B Chiaravalli