RCK 60 Clamping Elements

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RANKIN
COMPONENTS THAT AUTOMATE

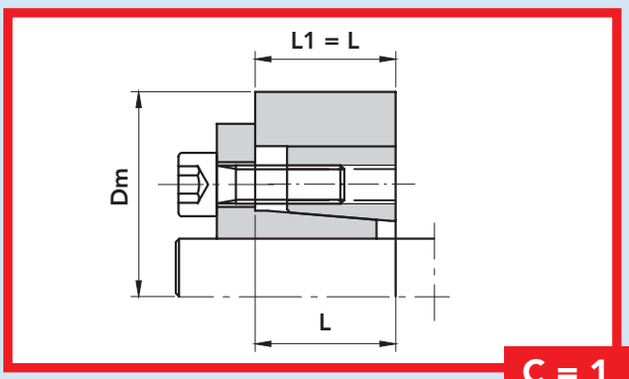
Technical information are provided for informative purpose only and can be subject to change without prior notice

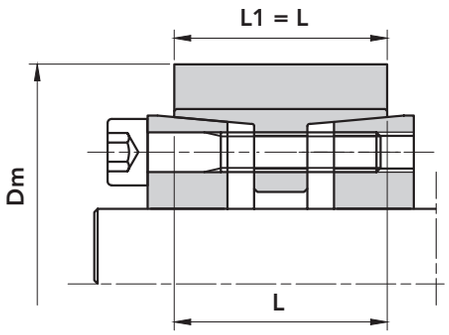
MINIMUM HUB DIAMETER CHECK Dm

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 (Dm), 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:

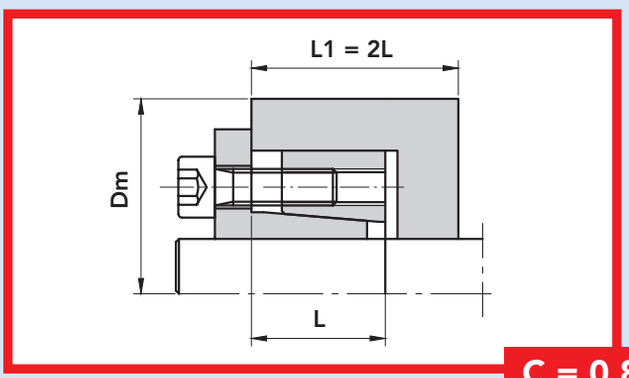
$$Dm \geq D \times \sqrt{\frac{Rs\ 0.2 + (Pm \times C)}{Rs\ 0.2 - (Pm \times C)}}$$

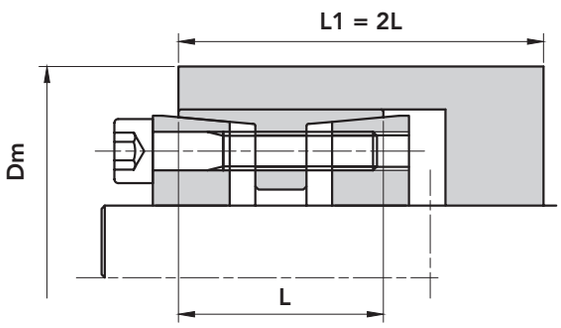
Where:
- **Dm** = Extern diameter of the hub (mm)
- **D** = Extern diameter of the clamping element (mm)
- **Rs 0.2** = Yield point for permanent elongation of 0.2% (N/mm²)
- **Pm** = Specific pressure exercised by the clamping element on the hub (N/mm²)
- **C** = coefficient of the utilization in function of the hub profile (Look at the pictures below)



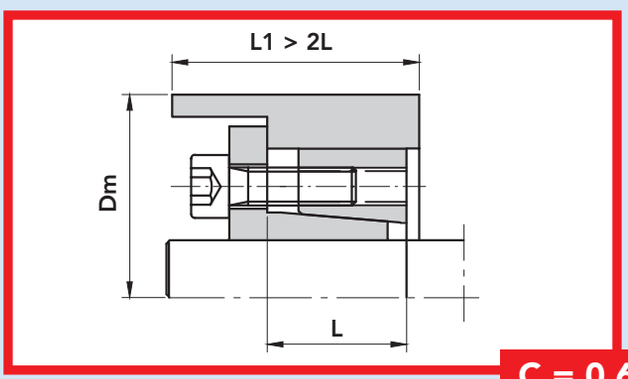


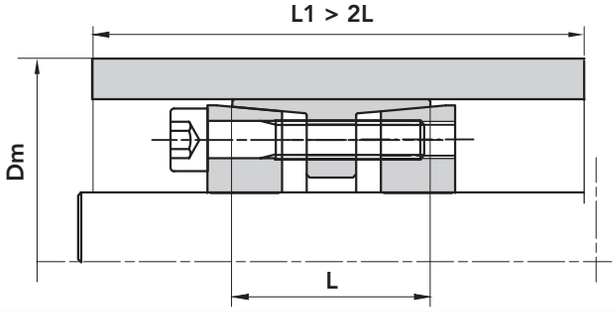
C = 1



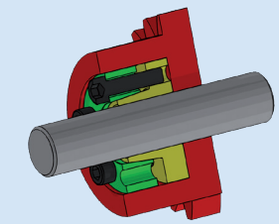


C = 0.8





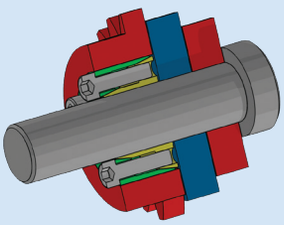
C = 0.6

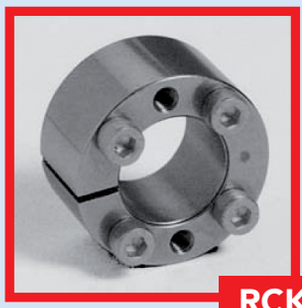


RCK 60

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.

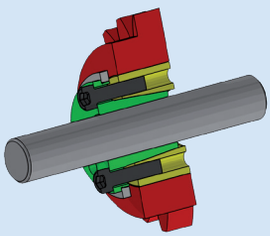




RCK 61

SELF CENTRING RCK 61 TYPE

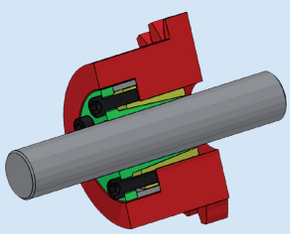
Enables adjacent components to be clamped to the hub thanks to an axial force achieved during the clamping phase.
It operates with medium torque values.



RCK 70·71

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

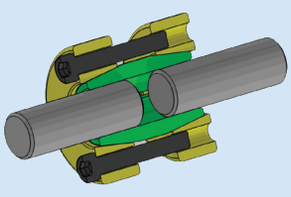
The RCK version is suitable for assemblies where concentricity and orthogonal positioning of the parts is required.
The RCK 71 version has the same features as RCK 70 with the addition of a spacer ring to completely avoid possible axial displacements.
These components operates with medium- high torque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

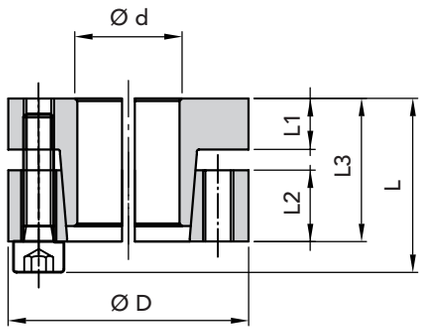
Enables rigid connection between two aligned shafts.
It transmits medium-high twisting moments with the advantage of enabling rapid assembly and disassembly

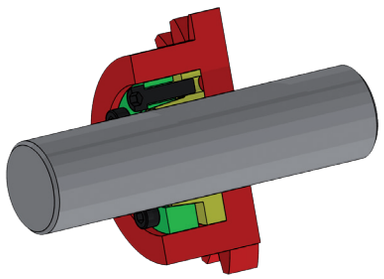
RCK 60 TYPE CLAMPING ELEMENTS

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 Ød	ØD	L1	L2	L3	L	maximum torque Mt Nm	Axial force N.	CLAMPING PRESSURE Shaft N/mm²	Hub N/mm²	CLAMPING SCREWS DIN 912 MAT. 12.9 N.	Type	Torque Nm	EXTRACTION THREAD Type	N.	WEIGHT Kg
06600020	20	47	10	14	28	34	245	29400	210	93	5	M6x25	17	M6	3	0,24
06600022	22	47	10	14	28	34	265	30000	196	93	5	M6x25	17	M6	3	0,23
06600024	24	50	10	14	28	34	370	32300	215	108	6	M6x25	17	M6	3	0,26
06600025	25	50	10	14	28	34	390	33300	210	108	6	M6x25	17	M6	3	0,25
06600030	30	55	10	14	28	34	480	41200	186	98	6	M6x25	17	M6	3	0,29
06600035	35	60	10	14	28	34	735	44100	186	108	8	M6x25	17	M6	4	0,32
06600038	38	65	10	14	28	34	790	46100	206	103	8	M6x25	17	M6	4	0,36
06600040	40	65	10	14	28	34	830	47000	186	103	8	M6x25	17	M6	4	0,34
06600042	42	75	12	18	35	43	1450	66000	225	132	7	M8x30	41	M8	4	0,48
06600045	45	75	12	18	35	43	1560	70000	220	132	7	M8x30	41	M8	4	0,57
06600050	50	80	12	18	35	43	1650	72000	206	127	7	M8x30	41	M8	4	0,60
06600055	55	85	12	18	35	43	2250	80000	210	132	8	M8x30	41	M8	4	0,63
06600060	60	90	12	18	35	43	2450	83000	186	122	8	M8x30	41	M8	4	0,69
06600065	65	95	12	18	35	43	2890	90000	200	132	9	M8x30	41	M8	3	0,73
06600070	70	110	16	24	46	56	4700	130000	220	140	8	M10x40	83	M10	4	1,26

ORDERING EXAMPLE:
The following will be ordered with a shaft having Ød 30 with a torque value less than or equal 480 Nm:
RCK 60 - 30 x 55
Part Number 06600030

CAD drawings available on our site
www.chiaravalli.com

3D simulation available on the website.

Quantity, availability and prices on B2B Chiaravalli