

Clamping Elements Type RCK 50



These shaft clamping elements consist of just two conical rings which require the minimum of radial space, so providing compact assemblies, and enabling use within small hub diameters. The design offers the maximum versatility of design, but does require the customer to provide their own thrust ring assembly. Whilst only providing low torque transmission per unit they can be combined (up to 4 units) to increase torque capacity. When fully clamped these units provide excellent gastight sealing. Many designs of thrust rings are possible and sketches to the left are two typical designs. These units do not self centre, so require external means of centring the hub.

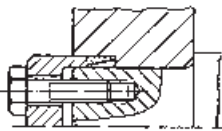
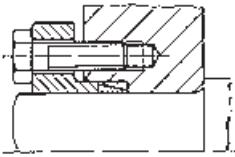
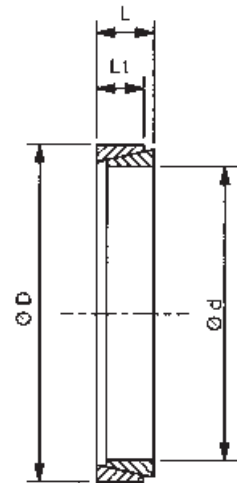
Recommended tolerances for full torque transmission are:-

Up to 38mm shaft Ø:-	Shaft	h6
	Hub	H7
40mm and above shaft Ø:-	Shaft	h8
	Hub	H8

Clamping surfaces to be finished to $Rz \leq 15 \mu\text{m}$.

Factor for combining elements in one assembly.

Number of Elements	Torque Capacity
2	1.55M Nm
3	1.86M Nm
4	2.03M Nm



Dimensions

Part No. †	Dimensions mm				Torque Cap. M Nm	Axial Force F kN	Surface Pressure		Axial Force necessary to clamp kN	Approx. Weight gms	Min. Hub Dia* mm		
	d	D	L	L ₁			Shaft Ps N/mm ²	Hub Ph N/mm ²			Assy Type A	Assy Type B	Assy Type C
RCK50-6x9	6	9	4.5	3.7	2.4	0.8	115	75	3.8	1.2	11.5	10.9	10.4
RCK50-7x10	7	10	4.5	3.7	3.0	0.9	105	70	3.9	1.4	12.5	12.0	11.5
RCK50-8x11	8	11	4.5	3.7	4.7	1.2	120	90	5.3	1.5	14.7	13.9	13.1
RCK50-9x12	9	12	4.5	3.7	7.9	1.8	140	105	15.6	1.7	16.9	15.8	14.7
RCK50-10x13	10	13	4.5	3.7	9.5	1.9	135	105	15.6	1.8	18.3	17.1	15.9
RCK50-12x15	12	15	4.5	3.7	11.4	1.9	115	90	15.6	2.2	20.1	18.9	17.8
RCK50-13x16	13	16	4.5	3.7	13.1	2.0	110	90	15.6	2.3	21.4	20.2	19.0
RCK50-14x18	14	18	6.3	5.3	22.3	3.2	115	90	25.4	4.9	24.1	22.7	21.4
RCK50-15x19	15	19	6.3	5.3	24.3	3.2	110	85	25.4	5.3	25.0	23.6	22.4
RCK50-16x20	16	20	6.3	5.3	27.3	3.4	105	85	25.4	5.5	26.3	24.9	23.5
RCK50-17x21	17	21	6.3	5.3	29.8	3.5	105	85	25.4	5.8	27.6	26.1	24.7
RCK50-18x22	18	22	6.3	5.3	32.4	3.6	100	80	25.4	6.1	28.5	27.1	25.6
RCK50-19x24	19	24	6.3	5.3	49.0	5.2	140	110	36.0	7.8	34.4	31.9	29.6
RCK50-20x25	20	25	6.3	5.3	53.0	5.3	135	105	36.0	8.2	35.2	32.8	30.6
RCK50-22x26	22	26	6.3	5.3	66.0	6.0	135	115	36.0	7.3	37.9	35.0	32.4
RCK50-24x28	24	28	6.3	5.3	73.0	6.1	130	110	36.0	8.0	40.1	37.2	34.6
RCK50-25x30	25	30	6.3	5.3	72.0	5.8	115	95	36.0	10.1	40.8	38.3	36.0
RCK50-28x32	28	32	6.3	5.3	86.0	6.1	115	100	36.0	9.2	44.3	41.4	38.7
RCK50-30x35	30	35	6.3	5.3	91.0	6.1	100	85	36.0	12.0	46.0	43.5	41.2
RCK50-32x36	32	36	6.3	5.3	131.0	8.2	130	115	45.0	10.0	52.5	48.4	44.9
RCK50-35x40	35	40	7	6.0	171.0	9.8	125	110	54.0	17.0	57.3	53.1	49.4
RCK50-36x42	36	42	7	6.0	169.0	9.4	115	100	54.0	20.0	58.1	54.3	50.8
RCK50-38x44	38	44	7	6.0	181.0	9.5	110	95	54.0	21.0	59.8	56.1	52.7
RCK50-40x45	40	45	8	6.6	231.0	11.6	115	105	66.0	23.0	63.3	58.9	55.0
RCK50-42x48	42	48	8	6.6	235.0	11.2	110	95	66.0	28.0	65.2	61.2	57.5
RCK50-45x52	45	52	10	8.6	390.0	19.0	116	105	110.0	42.0	73.2	68.1	63.5
RCK50-48x55	48	55	10	8.6	572.0	23.8	155	135	132.0	45.0	86.3	78.2	71.3
RCK50-50x57	50	57	10	8.6	602.0	24.1	150	130	132.0	47.0	87.8	79.9	73.1
RCK50-55x62	55	62	10	8.6	670.0	24.4	140	125	132.0	50.0	93.7	85.7	78.8
RCK50-56x64	56	64	12	10.4	790.0	28.2	130	115	158.0	67.0	93.3	86.1	79.7
RCK50-60x68	60	68	12	10.4	860.0	28.7	125	110	158.0	72.0	97.4	90.2	83.9
RCK50-63x71	63	71	12	10.4	945.0	30.0	125	110	160.0	76.0	101.6	94.2	87.6
RCK50-65x73	65	73	12	10.4	1000	30.8	125	110	160	78	104.5	96.9	90.0
RCK50-70x79	70	79	14	12.2	1300	37.1	125	110	200	110	113.1	104.8	97.4
RCK50-71x80	71	80	14	12.2	1340	37.7	125	110	200	114	114.5	106.1	98.7
RCK50-75x84	75	84	14	12.2	1500	40.0	125	110	220	118	120.2	111.4	103.6
RCK50-80x91	80	91	17	14.8	2100	52.5	125	110	300	187	130.3	120.7	112.2

*Minimum outside diameter of hubs manufactured in medium carbon steels with yield strength $\geq 320 \text{ N/mm}^2$.

For hub types, and other materials, refer to page 3.

For assembly and disassembly instructions refer to page 24.

† Clamping Rings for shafts up to 200mm diameter are available to order.

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