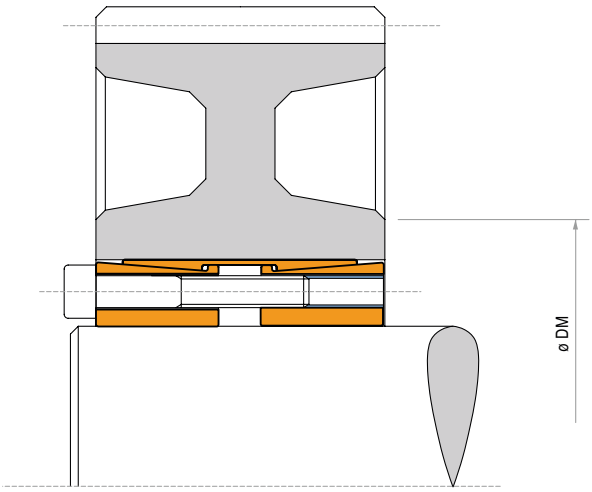
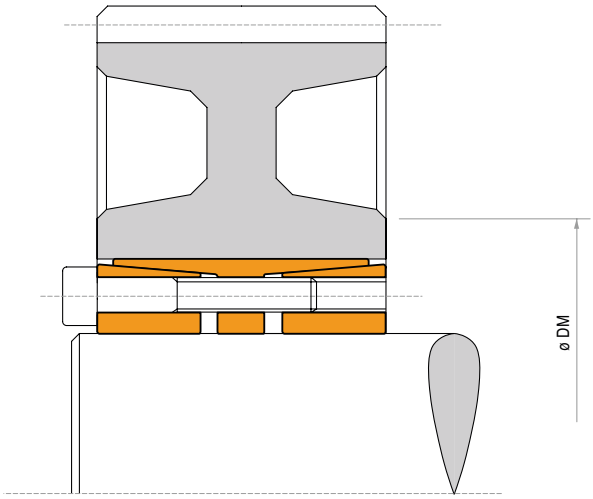
Locking assembly - Self-centering

TLK 450

TLK 451
TLK 452





Characteristics

- Very high torques
- Capacity to withstand bending moments
- Standard sizes

Installation

Carefully clean the hub and shaft contact surfaces and apply a light oil film. Slide the locking assembly into the hub bore and insert the shaft. Tighten gradually and regularly in crossed sequence all screws up to 50% of the M_s value indicated in the table. Repeat the same operation by tightening all screws at the M_s torque indicated in the table.
Starting from the last tightened screw, check, in continuous sequence, that all the screws are tightened at the tightening torque M_s indicated. Repeat this procedure maximum twice. After this control any further operation is needed.
Do not use any oil with **molybdenum bisulphide** or high pressure addittives and not grease. Above substances notably reduce the friction coefficient.

Dismantling

Loosen the clamping screws. Insert the screws into the dismantling threads of the front cone and tighten them gradually in crossed sequence up to 50% of the M_s value indicated in the table. Repeat the same operation by tightening the screws at the tightening torque M_s indicated in the table.
When the front cone is loose, to release the rear cone:
TLK 450: keep tightening the screws and repeat the sequence above.
TLK 451/TLK 452: insert the screws in the middle flange and repeat the same operation of the upper ring.

Tolerances, surface finish

A good surface finish by the machine tool is sufficient.
Maximum allowable surface finish:
Rt max 16 µm (Ra 3 µm - Rz 13 µm)

Maximum permissible tolerances:
h8 for shaft
H8 for hub

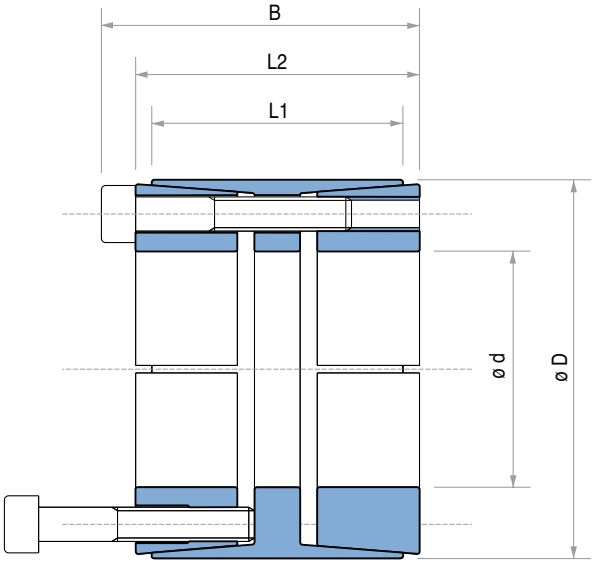
DM hub calculation

For DM calculation see page 46.

ATTENTION: In case of reuse of the TLK 451 check that the position of the dismantling threads of the front cone and middle flange are like in new pieces.

Locking assembly - Self-centering

TLK 451
TLK 451.0



TLK 451 - TLK 451.0 DIMENSIONS

Dimensions				Tightening screws	TLK 451					TLK 451.0					Weight
				DIN912 12.9	Tightening torque	Torque	Axial force	Surface pressures on		Tightening torque	Torque	Axial force	Surface pressures on		TLK 451 TLK 451.0
								Shaft	Hub				Shaft	Hub	
d x D mm	L1 mm	L2 mm	B mm	N° x Type	M_s Nm	M_t Nm	F_{ax} KN	p_w N/mm²	p_n N/mm²	M_s Nm	M_t Nm	F_{ax} KN	p_w N/mm²	p_n N/mm²	Kg
70 x 110	50	60	70	8xM10	49	4180	120	113	64	83	7090	203	192	109	2,3
80 x 120	50	60	70	10xM10	49	5980	150	124	73	83	10130	253	210	124	2,5
90 x 130	50	60	70	11xM10	49	7400	165	121	75	83	12540	279	205	126	2,7
100 x 145	60	70	82	10xM12	86	10930	219	121	74	145	18440	369	204	125	4,1
110 x 155	60	70	82	10xM12	86	12000	219	110	69	145	20200	369	185	117	4,4
120 x 165	60	70	82	11xM12	86	14400	241	111	72	145	24300	406	187	121	4,8
130 x 180	65	79	91	14xM12	86	19900	306	118	77	145	33500	516	199	129	6,3
140 x 190	65	79	91	15xM12	86	22900	328	117	78	145	38700	553	198	131	6,6
150 x 200	65	79	91	15xM12	86	24600	328	110	74	145	41400	553	185	124	7,8
160 x 210	65	79	91	16xM12	86	28000	350	110	75	145	47200	590	185	126	7,4
170 x 225	78	92	106	15xM14	135	37800	446	109	74	230	64500	759	185	126	10,7
180 x 235	78	92	106	15xM14	135	40100	446	103	71	230	68300	759	175	121	11,3
190 x 250	88	102	116	16xM14	135	45100	475	90	62	230	76900	810	153	106	14,6
200 x 260	88	102	116	18xM14	135	53400	535	96	67	230	91100	911	163	115	15,3
220 x 285	96	108	124	15xM16	210	68600	624	94	66	355	116000	1055	159	112	20,2
240 x 305	96	108	124	20xM16	210	99800	832	115	82	355	168800	1407	194	139	21,8
260 x 325	96	108	124	20xM16	210	108000	832	106	77	355	182000	1407	179	130	23,4
280 x 355	96	110	130	15xM20	410	137000	979	122	85	690	230000	1647	205	143	30,0
300 x 375	96	110	130	16xM20	410	156000	1044	121	86	690	263000	1757	204	145	31,2
320 x 405	124	136	156	20xM20	410	208000	1305	104	75	690	351000	2196	175	126	48,0
340 x 425	124	136	156	20xM20	410	221000	1305	98	71	690	373000	2196	165	120	51,0
360 x 455	140	155	177	20xM22	550	291000	1617	101	73	930	492000	2734	171	124	69,0
380 x 475	140	155	177	20xM22	550	307000	1617	96	70	930	519000	2734	162	118	73,0
400 x 495	140	155	177	22xM22	550	355000	1778	100	74	930	601000	3007	169	125	76,0
420 x 515	140	155	177	24xM22	550	407000	1940	104	77	930	688000	3280	176	131	80,0
440 x 535	140	155	177	24xM22	550	426000	1940	99	75	930	721000	3280	168	126	81,0
460 x 555	140	155	177	24xM22	550	446000	1940	95	72	930	754000	3280	160	122	85,0
480 x 575	140	155	177	25xM22	550	485000	2021	95	72	930	820000	3417	160	122	88,0
500 x 595	140	155	177	25xM22	550	505000	2021	91	70	930	854000	3417	154	118	91,0
520 x 615	140	155	177	28xM22	550	588000	2263	98	76	930	995000	3827	165	128	95,0
540 x 635	140	155	177	28xM22	550	611000	2263	94	73	930	1033000	3827	159	124	98,0
560 x 655	140	155	177	30xM22	550	679000	2425	97	76	930	1148000	4101	165	129	101,0
580 x 675	140	155	177	30xM22	550	703000	2425	94	74	930	1189000	4101	159	125	104,0
600 x 695	140	155	177	30xM22	550	727000	2425	91	72	930	1230000	4101	154	121	108,0

For larger diameter or inch series please contact us.