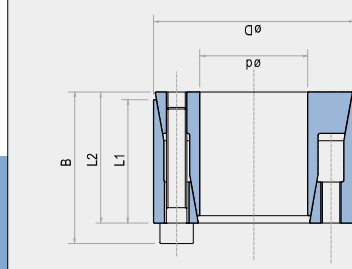


Locking assembly self-centering

TLK 350



TLK 350

Characteristics

- Medium-high torque
- Easy mounting
- Limited installation time
- Few clamping screws

Installation

Carefully clean the hub and shaft contact surfaces and apply a light oil film. Slide the locking assembly into the hub bore, insert the shaft and tighten gradually and regularly in crossed sequence all screws to reach the tightening torque **Ms** as indicated in the table. The values **Mt** and **F ass** indicated in the table are valid only in case of oil installation. Do not use any oil with **molybdenum bisulphide** or high pressure additives and not grease. Above substances notably reduce the friction coefficient.

Dismantling

Loosen the clamping screws. Insert the screws into the dismantling threading and tighten gradually and regularly in crossed sequence until the back cone is released. If the element is to be reused, relubricate both screws and threads.

dD mm	L1 mm	L2 mm	B mm	Torque		Axial Thrust F ass. kN	Surface pressures on		Tightening screws DIN 912	Weight Kg
				Mt Nm	pw.2 N/mm ²		Shaft	hub		
6 x 16	10,5	11	13,5	9	3	184	69	3 x M2,5	12,9 N° x type	1,2
6,35 x 16	10,5	11	13,5	10	3	173	69	3 x M2,5	12,9	0,012
7 x 17	10,5	11	13,5	11	3	157	65	3 x M2,5	12,9	0,013
8 x 18	10,5	11	13,5	12	3	138	61	3 x M2,5	12,9	0,015
9 x 20	12,5	13	15,5	18	4	138	62	4 x M2,5	12,9	0,02
9,55 x 20	12,5	13	15,5	19	4	130	62	4 x M2,5	12,9	0,02
10 x 20	12,5	13	15,5	20	4	124	62	4 x M2,5	12,9	0,019
11 x 22	12,5	13	15,5	22	4	113	56	4 x M2,5	12,9	0,024
12 x 22	12,5	13	15,5	24	4	104	56	4 x M2,5	12,9	0,022
14 x 26	16,5	17	20	42	6	99	53	4 x M3	21	0,039
15 x 28	16,5	17	20	44	6	93	50	4 x M3	21	0,044
16 x 32	16,5	17	21	83	10,4	152	76	4 x M4	4,9	0,067
17 x 35	20,5	21	25	88	10,4	116	56	4 x M4	4,9	0,09
18 x 35	20,5	21	25	93	10,4	109	56	4 x M4	4,9	0,087
19 x 35	20,5	21	25	99	10,4	104	56	4 x M4	4,9	0,083
20 x 38	20,5	21	26	170	17	161	85	4 x M5	10	0,11
22 x 40	20,5	21	26	187	17	146	80	4 x M5	10	0,11
24 x 47	25	26	32	287	24	153	78	4 x M6	17	0,2
25 x 47	25	26	32	299	24	147	78	4 x M6	17	0,19
25,4 x 47	25	26	32	304	24	144	78	4 x M6	17	0,18
28 x 50	25	26	32	503	36	196	110	6 x M6	17	0,22
30 x 55	25	26	32	539	36	183	100	6 x M6	17	0,27
32 x 55	25	26	32	575	36	172	100	6 x M6	17	0,25
35 x 60	30	31	37	838	48	176	102	8 x M6	17	0,36
38 x 65	30	31	37	910	48	162	95	8 x M6	17	0,43
40 x 65	30	31	37	958	48	154	95	8 x M6	17	0,4
42 x 75	35	36	44	1384	66,3	175	98	6 x M8	41	0,67
45 x 75	35	36	44	1493	66,3	163	98	6 x M8	41	0,63
48 x 80	35	36	44	2124	88,5	204	122	8 x M8	41	0,74
50 x 80	35	36	44	2212	88,5	196	122	8 x M8	41	0,7

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

Axial movement

TLK 350: during screws tightening the hub has a slight axial movement with respect to the shaft.

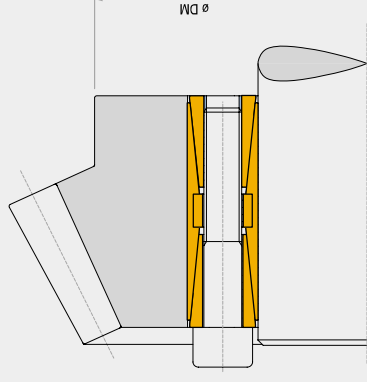
DM hub calculation

The pressure **Pn** in the hub can be compared to the inside pressure on a thick hollow cylinder.

For DM calculation see page 38.

Locking assemblies self-centering patented

TLK 400 • TLK 401



TLK 400 • TLK 401

Characteristics

- Very high torques
- Capacity to withstand bending moments
- Even pressures distribution
- No shaft-hub axial movement

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 **Ms** value indicated in the table. Repeat the same operation by tightening the screws at the tightening torque **Ms** indicated in the table. When the front cone is loose, to release the rear cone, insert the screws in the middle ring, and repeat the same operation of the upper ring.

Tolerances, surface finish

A good surface finish by 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

Axial movement

During screws tightening the hub has no axial movement with respect to the shaft.

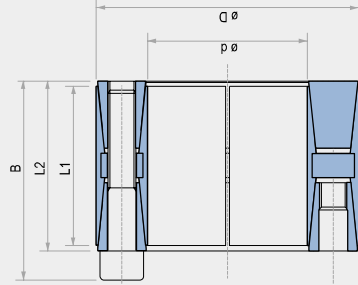
DM hub calculation

For DM hub calculation see page 38.

ATTENTION: In case of reuse of the TLK400 or TLK401 check that the position of the dismantling threads of the front cone and middle ring are like in new pieces.

Locking assembly self-centering patented

TLK 400



TLK 400

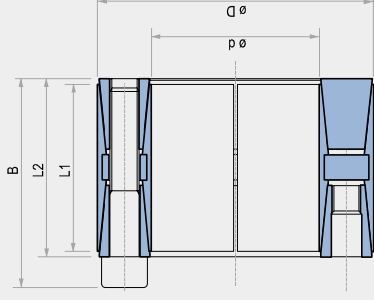
dD mm	L1 mm	L2 mm	B mm	Tightening screws DIN 912 N° x type	Tightening Torque Ms Nm	Torque Mt Nm	Axial Thrust F ass. kN	Surface pressures on		Weight kg
								Shaft pw N/mm ²	Hub pn N/mm ²	
45 x 75	56	64	72	8 x M8	41	3460	155	165	100	1.3
48 x 80	56	64	72	8 x M8	41	3680	155	150	95	1.5
50 x 80	56	64	72	8 x M8	41	3820	155	147	95	1.4
55 x 85	56	64	72	8 x M8	41	4260	155	135	85	1.5
60 x 90	56	64	72	10 x M8	41	5820	190	155	100	1.5
65 x 95	56	64	72	10 x M8	41	6270	190	140	95	1.6
70 x 110	70	78	88	10 x M10	83	10730	305	170	105	3
75 x 115	70	78	88	10 x M10	83	11540	305	155	100	3.1
80 x 120	70	78	88	12 x M10	83	14700	369	175	115	3.5
85 x 125	70	78	88	12 x M10	83	15700	369	165	110	3.5
90 x 130	70	78	88	12 x M10	83	16610	370	157	106	3.8
95 x 135	70	78	88	12 x M10	83	17530	370	150	102	4
100 x 145	90	100	112	12 x M12	145	26900	538	160	110	6
110 x 155	90	100	112	12 x M12	145	29530	538	143	102	6.2
120 x 165	90	100	112	14 x M12	145	37610	628	154	112	6.8
130 x 180	104	116	130	12 x M14	230	48000	738	143	106	9.8
140 x 190	104	116	130	14 x M14	230	60290	861	160	117	10.2
150 x 200	104	116	130	16 x M14	230	73800	965	165	125	10.9
160 x 210	104	116	130	16 x M14	230	78770	983	155	118	11.5
170 x 225	134	146	162	14 x M16	355	101730	1197	140	108	17.2
180 x 235	134	146	162	16 x M16	355	123200	1369	150	115	18
190 x 250	134	146	162	16 x M16	355	129880	1368	141	110	21.5
200 x 260	134	146	162	16 x M16	355	136840	1368	137	104	22
220 x 285	134	146	162	20 x M16	355	188000	1710	155	120	25
240 x 305	134	146	162	22 x M16	355	225000	1880	155	120	27
260 x 325	134	146	162	22 x M16	355	244000	1880	155	115	30
280 x 355	165	177	197	20 x M20	690	373000	2670	145	120	46
300 x 375	165	177	197	22 x M20	690	440000	2930	155	125	50
320 x 405	165	177	197	22 x M20	690	470000	2930	145	115	60
340 x 425	165	177	197	24 x M20	690	544000	3200	150	120	65
360 x 455	190	202	224	22 x M22	930	658000	3650	140	110	89
380 x 475	190	202	224	26 x M22	930	821000	4320	160	130	93
400 x 495	190	202	224	26 x M22	930	864000	4320	150	120	98

For larger diameter or inch series please contact us.

NOTE: It is possible to reduce the screws tightening torque down to 60% of the values indicated in the above table; as a result Mt, F ass, Pw, Pn are reduced proportionally.

Locking assemblies self-centering patented

TLK 401 • TLK 401.0



TLK 401 • TLK 401.0

dD mm	L1 mm	L2 mm	B mm	Tightening screws DIN 912 N° x type	Tightening Torque Ms Nm	Torque Mt Nm	Axial Force F ass. kN	Surface pressures on		Weight TLK 401.0 kg
								Shaft pw N/mm ²	Hub pn N/mm ²	
70 x 110	50	58	68	8 x M10	49	5100	145	112	71	83
75 x 115	50	58	68	8 x M10	49	5420	145	103	68	83
80 x 120	50	58	68	8 x M10	49	5820	145	97	65	83
85 x 125	50	58	68	10 x M10	49	7700	182	114	77	83
90 x 130	50	58	68	10 x M10	49	8100	182	107	74	83
95 x 135	50	58	68	10 x M10	49	8600	182	102	72	83
100 x 145	60	70	80	10 x M10	49	9100	182	80	55	83
110 x 155	60	70	80	10 x M10	49	10000	182	75	52	83
120 x 165	60	70	80	12 x M10	49	13100	216	80	59	83
130 x 180	68	80	92	12 x M12	86	20700	319	95	69	145
140 x 190	68	80	92	12 x M12	86	22300	319	89	66	145
150 x 200	68	80	92	12 x M12	86	23900	319	83	62	145
160 x 210	68	80	92	14 x M12	86	29800	372	90	69	145
170 x 225	75	87	99	16 x M12	86	36200	426	89	67	145
180 x 235	75	87	99	16 x M12	86	38300	426	84	64	145
190 x 250	88	100	112	18 x M12	86	45500	479	76	58	145
200 x 260	88	100	112	18 x M12	86	47900	479	72	56	145
220 x 285	98	110	124	14 x M14	135	56200	511	63	49	230
240 x 305	98	110	124	18 x M14	135	78800	657	74	58	230
260 x 325	98	110	124	20 x M14	135	94900	730	76	61	230
280 x 355	120	132	148	20 x M16	210	142000	1015	80	63	355
300 x 375	120	132	148	24 x M16	210	182000	1218	89	72	355
320 x 405	135	147	163	24 x M16	210	194000	1218	75	60	355
340 x 425	135	147	163	24 x M16	210	207000	1218	71	57	355

For larger diameter or inch series please contact us.