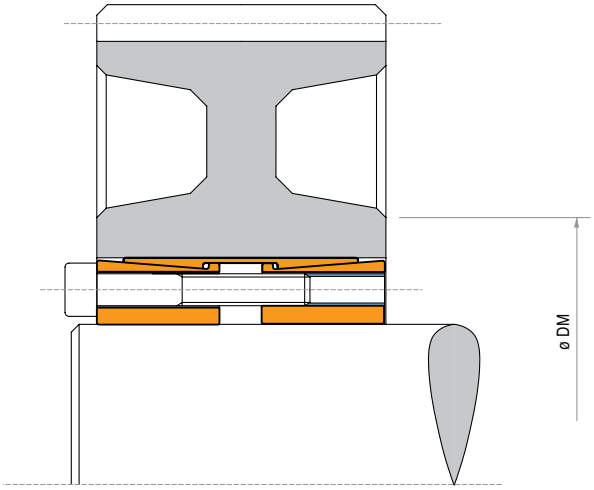
Tollok™ Locking Assemblies

TLK 450-SELF-CENTERING



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 $\mathbf{M_s}$ value indicated in the table. Repeat the same operation by tightening all screws at the $\mathbf{M_s}$ 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 $\mathbf{M_s}$ 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 $\mathbf{M_s}$ value indicated in the table. Repeat the same operation by tightening the screws at the tightening torque $\mathbf{M_s}$ 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.

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

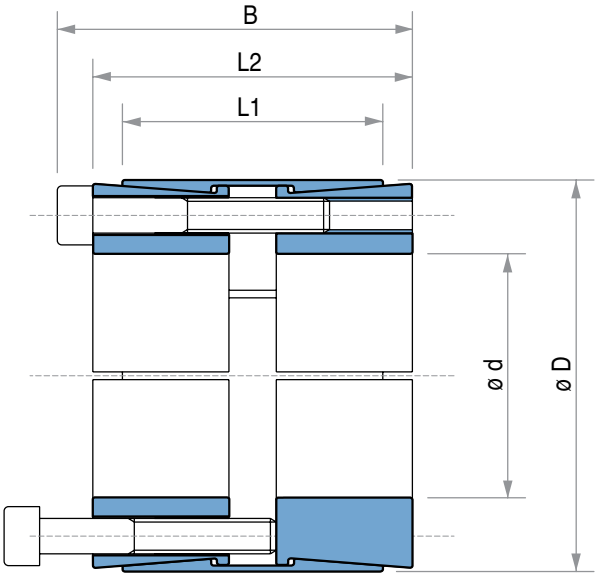
H8 for hub

DM hub calculation

For DM calculation see page 30.

Tollok™ Locking Assemblies

TLK 450–SELF-CENTERING



TLK 450 DIMENSIONS

Dimensions				Tightening screws		Torque	Axial force	Surface pressures on		Weight
				DIN912 12.9	Tightening torque			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	Kg
* **25 x 50**	**39**	**45**	**51**	**8 x M6**	**17**	**950**	**76**	**245**	**122**	**0,5**
28 x 55	39	45	51	8 x M6	17	1070	76	219	111	0,6
* **30 x 55**	**39**	**45**	**51**	**8 x M6**	**17**	**1150**	**76**	**204**	**111**	**0,6**
* **35 x 60**	**39**	**45**	**51**	**8 x M6**	**17**	**1340**	**76**	**175**	**102**	**0,7**
38 x 65	39	45	51	8 x M6	17	1450	76	161	94	0,7
* **40 x 65**	**39**	**45**	**51**	**8 x M6**	**17**	**1530**	**76**	**153**	**94**	**0,7**
42 x 75	56	64	72	8 x M8	41	2970	141	188	105	1,0
* **45 x 75**	**56**	**64**	**72**	**8 x M8**	**41**	**3150**	**141**	**175**	**105**	**0,9**
48 x 80	56	64	72	8 x M8	41	4000	166	164	98	1,4
* **50 x 80**	**56**	**64**	**72**	**8 x M8**	**41**	**4150**	**166**	**158**	**98**	**1,3**
* **55 x 85**	**56**	**64**	**72**	**8 x M8**	**41**	**4550**	**166**	**143**	**93**	**1,5**
* **60 x 90**	**56**	**64**	**72**	**10 x M8**	**41**	**6200**	**207**	**164**	**109**	**1,6**
* **65 x 95**	**56**	**64**	**72**	**10 x M8**	**41**	**6750**	**207**	**152**	**104**	**1,8**
* **70 x 110**	**70**	**78**	**88**	**10 x M10**	**83**	**11550**	**330**	**179**	**114**	**3,0**
* **75 x 115**	**70**	**78**	**88**	**10 x M10**	**83**	**12350**	**330**	**167**	**109**	**3,3**
* **80 x 120**	**70**	**78**	**88**	**12 x M10**	**83**	**15800**	**396**	**188**	**125**	**3,5**
* **85 x 125**	**70**	**78**	**88**	**12 x M10**	**83**	**16800**	**396**	**177**	**120**	**3,7**
* **90 x 130**	**70**	**78**	**88**	**12 x M10**	**83**	**17800**	**396**	**167**	**115**	**3,8**
* **95 x 135**	**70**	**78**	**88**	**12 x M10**	**83**	**18800**	**396**	**158**	**111**	**5,0**
* **100 x 145**	**90**	**100**	**112**	**12 x M12**	**145**	**28800**	**576**	**170**	**117**	**6,0**
* **110 x 155**	**90**	**100**	**112**	**12 x M12**	**145**	**31700**	**576**	**155**	**110**	**6,2**
* **120 x 165**	**90**	**100**	**112**	**14 x M12**	**145**	**40300**	**673**	**165**	**120**	**7,2**
* **130 x 180**	**104**	**116**	**130**	**12 x M14**	**230**	**51400**	**791**	**155**	**112**	**10,0**
* **140 x 190**	**104**	**116**	**130**	**14 x M14**	**230**	**64600**	**923**	**168**	**124**	**10,2**
* **150 x 200**	**104**	**116**	**130**	**16 x M14**	**230**	**79100**	**1055**	**179**	**135**	**10,8**
160 x 210	104	116	130	16 x M14	230	84400	1055	168	128	11,5
170 x 225	134	146	162	14 x M16	355	109000	1283	149	113	17,0
180 x 235	134	146	162	16 x M16	355	132000	1466	161	124	18,5
190 x 250	134	146	162	16 x M16	355	139000	1466	153	116	21,5
200 x 260	134	146	162	16 x M16	355	146500	1466	145	112	22,0
220 x 285	134	146	162	20 x M16	355	201500	1833	165	127	25,0
240 x 305	134	146	162	22 x M16	355	242000	2017	166	131	27,0
260 x 325	134	146	162	22 x M16	355	262000	2017	154	123	30,0
280 x 355	165	177	197	20 x M20	690	400000	2862	164	130	46,0
300 x 375	165	177	197	22 x M20	690	472000	3148	169	135	50,0
320 x 405	165	177	197	22 x M20	690	503500	3148	158	125	60,0
340 x 425	165	177	197	24 x M20	690	583500	3434	162	130	65,0

* New standard.
NOTE: it is possible to reduce the screws tightening torque down to 60% of the values indicated in above table; as a result M_t, F_{ass}, P_w, P_n are reduced proportionally.