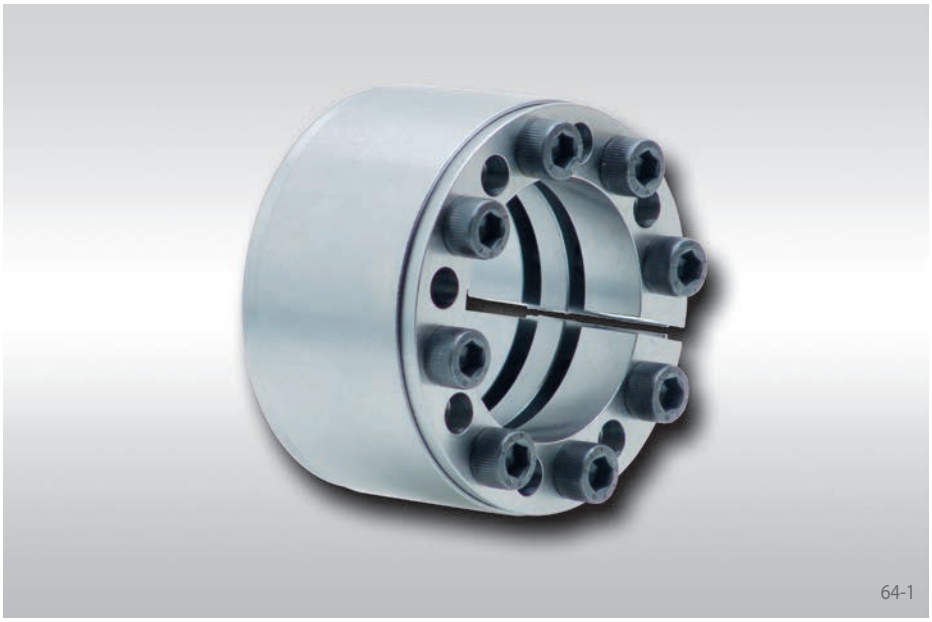
Cone Clamping Elements RLK 404

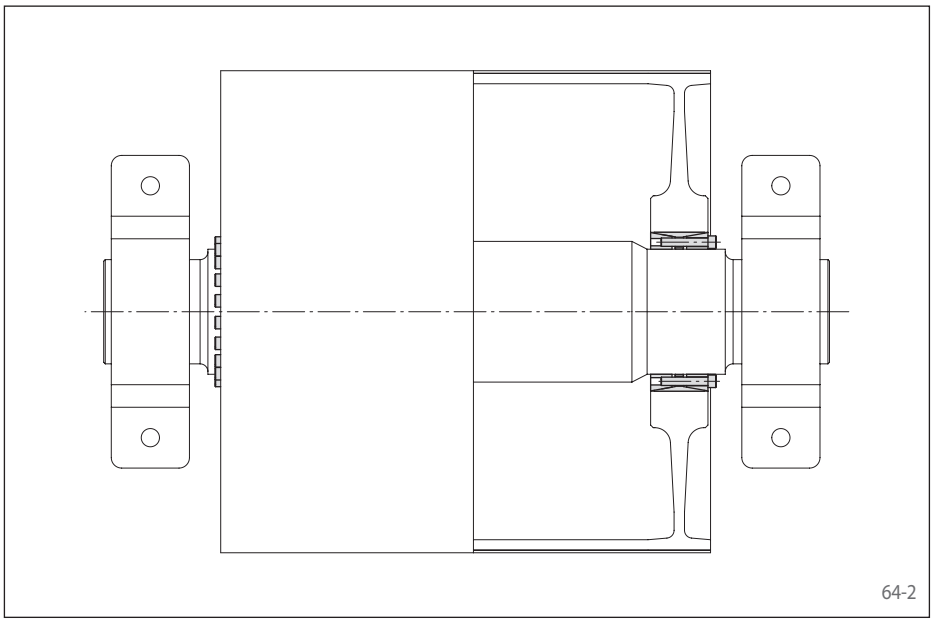
RINGSPANN®

centres the hub to the shaft
high transmissible torques



Features

- Centres the hub to the shaft
- High transmissible torques
- No axial displacement between hub and shaft during clamping procedure
- Transmissible torque of 7 000 Nm up to 1 206 000 Nm
- For shaft diameters between 70 mm and 600 mm



Application example

Backlash free attachment of a belt drum to the drive shaft of a conveyor belt with an Cone Clamping Element RLK 404. The Cone Clamping Element centres the belt drum on the drive shaft. As no axial shift occurs during the clamping process, the axial position of the belt drum in relation to the drive shaft remains unchanged.

Transmissible torques and axial forces

The transmissible torques or axial forces listed on the following page are subject to the following tolerances, surface characteristics and material requirements. Please contact us in the case of deviations.

Tolerances

- h8 for shaft diameter d
- H8 for hub bore D

Surfaces

Average surface roughness at the contact surfaces between the shaft and the hub bore: $R_z = 10 \ldots 25$ µm.

Materials

The following apply to the shaft and the hub:

- E-module ≥ 170 kN/mm^2

Installation

Please request our installation and operating instructions for Cone Clamping Elements RLK 404.

Simultaneous transmission of torque and axial force

The transmissible torques M which are shown in the tables apply for axial forces F = 0 kN and conversely, the indicated axial forces F apply to torques M = 0 Nm. If torque and axial force are to be transmitted simultaneously, the transmissible torque and the transmissible axial force are reduced. Please refer to the technical points on pages 72 and 73.

Example for ordering

Cone Clamping Element RLK 404 for shaft diameter d = 100 mm:

- RLK 404, size 100 x 145
  Article number 4205-100401-000000

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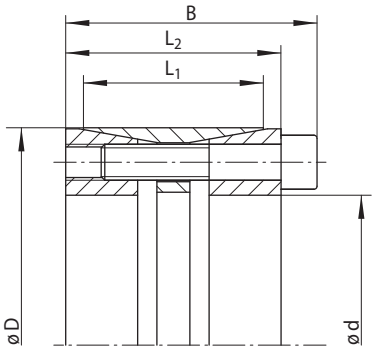

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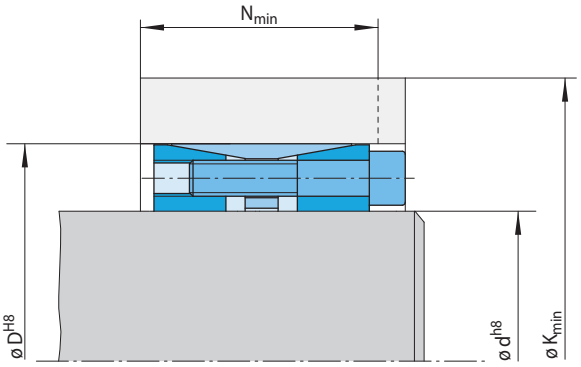

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Dimensions											Technical Data									Article number
					Yield strength R_e of the hub material [N/mm²]						Transmissible torque or axial force		Contact pressure at		Clamping screws				Weight	
Size					200		320		500				Shaft	Hub	Tightening torque	Number	Size	Length		
d	D	B	L_1	L_2	K_{min}	N_{min}	K_{min}	N_{min}	K_{min}	N_{min}	M	F	P_W	P_N	M_S					
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kN	N/mm²	N/mm²	Nm			mm	kg	
70	110	72	50	62	231	70	177	56	150	49	7 000	200	195	124	83	8	M 10	50	2,5	4205-070401-000000
75	115	72	50	62	232	69	180	56	154	49	7 500	200	182	119	83	8	M 10	50	2,5	4205-075401-000000
80	120	72	50	62	270	77	203	60	169	52	10 000	250	213	142	83	10	M 10	50	2,6	4205-080401-000000
85	125	72	50	62	270	76	206	60	173	51	10 600	250	201	137	83	10	M 10	50	2,8	4205-085401-000000
90	130	72	50	62	287	79	219	62	183	53	12 400	280	209	145	83	11	M 10	50	2,9	4205-090401-000000
95	135	72	50	62	287	77	222	61	187	52	13 000	280	198	139	83	11	M 10	50	3,3	4205-095401-000000
100	145	84	60	72	331	92	249	71	207	61	18 500	370	217	150	144	10	M 12	60	4,1	4205-100401-000000
110	155	84	60	72	330	89	255	70	215	60	20 000	370	198	140	144	10	M 12	60	4,5	4205-110401-000000
120	165	84	60	72	352	92	272	72	230	62	24 500	400	199	145	144	11	M 12	60	5,0	4205-120401-000000
130	180	94	65	82	396	105	303	82	254	70	33 500	520	207	149	144	14	M 12	70	6,6	4205-130401-000000
140	190	94	65	82	415	108	319	84	268	71	38 500	550	206	152	144	15	M 12	70	7,1	4205-140401-000000
150	200	94	65	82	416	105	325	83	277	71	41 500	550	192	144	144	15	M 12	70	7,5	4205-150401-000000
160	210	94	65	82	434	107	341	84	291	72	47 000	590	192	146	144	16	M 12	70	7,8	4205-160401-000000
170	225	107	78	93	490	125	378	97	318	82	64 000	760	204	154	229	15	M 14	80	10,8	4205-170401-000000
180	235	107	78	93	491	122	384	96	327	81	68 000	760	192	148	229	15	M 14	80	11,3	4205-180401-000000
190	250	119	88	105	485	129	385	104	333	91	76 500	810	161	123	229	16	M 14	80	14,8	4205-190401-000000
200	260	119	88	105	523	136	412	108	353	94	90 500	910	172	133	229	18	M 14	80	15,7	4205-200401-000000
220	285	127	96	111	557	144	443	116	382	101	113 500	1 050	164	127	354	15	M 16	90	19,9	4205-220401-000000
240	305	127	96	111	668	167	516	129	434	109	165 500	1 400	201	158	354	20	M 16	90	21,5	4205-240401-000000
260	325	127	96	111	690	167	539	130	457	109	188 000	1 450	195	156	354	21	M 16	90	22,8	4205-260401-000000
280	355	131	96	111	757	171	596	131	507	108	226 500	1 600	219	173	692	15	M 20	90	29,0	4205-280401-000000
300	375	131	96	111	789	174	626	133	534	110	258 500	1 700	218	175	692	16	M 20	90	31,2	4205-300401-000000
320	405	156	124	136	835	204	657	159	561	135	345 000	2 150	187	148	692	20	M 20	110	45,9	4205-320401-000000
340	425	156	124	136	840	200	671	158	578	135	366 500	2 150	176	141	692	20	M 20	110	48,3	4205-340401-000000
360	455	177	140	155	931	227	735	178	628	152	482 500	2 700	183	145	945	20	M 22	130	67,9	4205-360401-000000
380	475	177	140	155	936	223	748	177	645	151	509 000	2 700	174	139	945	20	M 22	130	71,4	4205-380401-000000
400	495	177	140	155	994	233	792	183	680	155	589 500	2 900	182	147	945	22	M 22	130	74,5	4205-400401-000000
420	515	177	140	155	1 049	242	834	188	715	158	675 500	3 200	189	154	945	24	M 22	130	77,8	4205-420401-000000
440	535	177	140	155	1 055	238	848	187	732	158	707 500	3 200	180	148	945	24	M 22	130	81,4	4205-440401-000000
460	555	177	140	155	1 062	235	863	185	750	157	739 500	3 200	172	143	945	24	M 22	130	84,1	4205-460401-000000
480	575	177	140	155	1 092	237	891	187	775	158	804 000	3 400	172	144	945	25	M 22	130	88,0	4205-480401-000000
500	595	177	140	155	1 101	235	906	186	793	158	837 500	3 400	165	139	945	25	M 22	130	91,6	4205-500401-000000
520	615	177	140	155	1 174	248	958	194	835	163	975 500	3 800	178	150	945	28	M 22	130	94,1	4205-520401-000000
540	635	177	140	155	1 182	245	973	193	852	163	1 013 000	3 800	171	146	945	28	M 22	130	97,5	4205-540401-000000
560	655	182	140	160	1 236	251	1 016	196	888	165	1 125 500	4 000	180	154	945	30	M 22	130	100,7	4205-560401-000000
580	675	182	140	160	1 246	249	1 031	195	906	164	1 166 000	4 000	174	150	945	30	M 22	130	104,2	4205-580401-000000
600	695	182	140	160	1 256	246	1 047	194	924	164	1 206 000	4 000	168	145	945	30	M 22	130	107,6	4205-600401-000000