

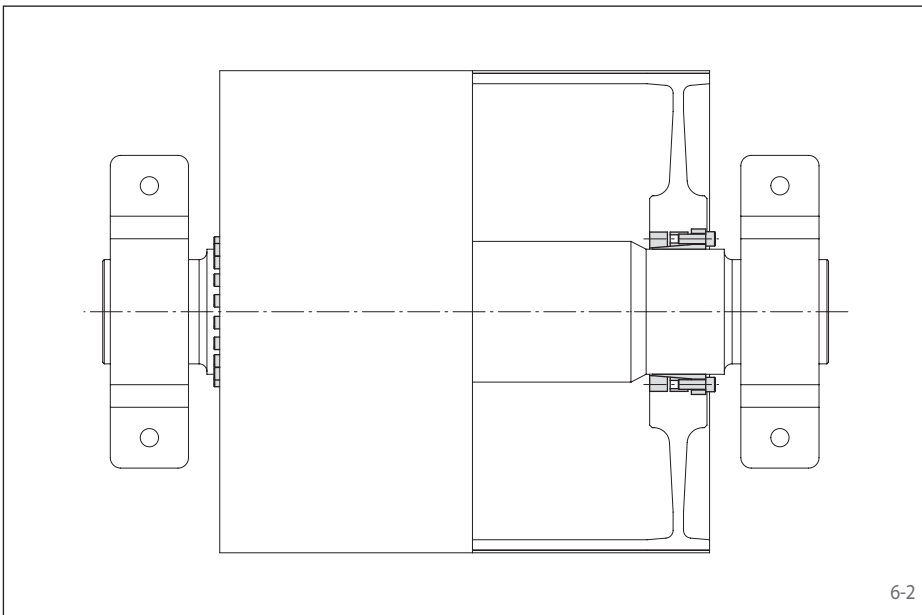
Cone Clamping Elements RLK 235 TC

Premium quality for high centering accuracy
Can be assembled multiple times



Features

- Centres the shaft to the hub
- Can be assembled multiple times
- Highest transmissible torque
- No axial displacement between hub and shaft during clamping procedure
- Highest machining quality
- Transmissible torque of 8510 Nm up to 1049600 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 235 TC. 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:
 $R_z = 10 \dots 25 \mu\text{m}$.

Materials

The following apply to the shaft and the hub:

- E-module $\geq 170 \text{ kN/mm}^2$

Installation

Please request our installation and operating instructions for Cone Clamping Elements RLK 235 TC.

Simultaneous transmission of torque and axial force

The transmissible torques M which are shown in the tables apply for axial forces $F = 0 \text{ kN}$ and conversely, the indicated axial forces F apply to torques $M = 0 \text{ Nm}$. 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 in catalogue „Shaft-Hub-Connections“.

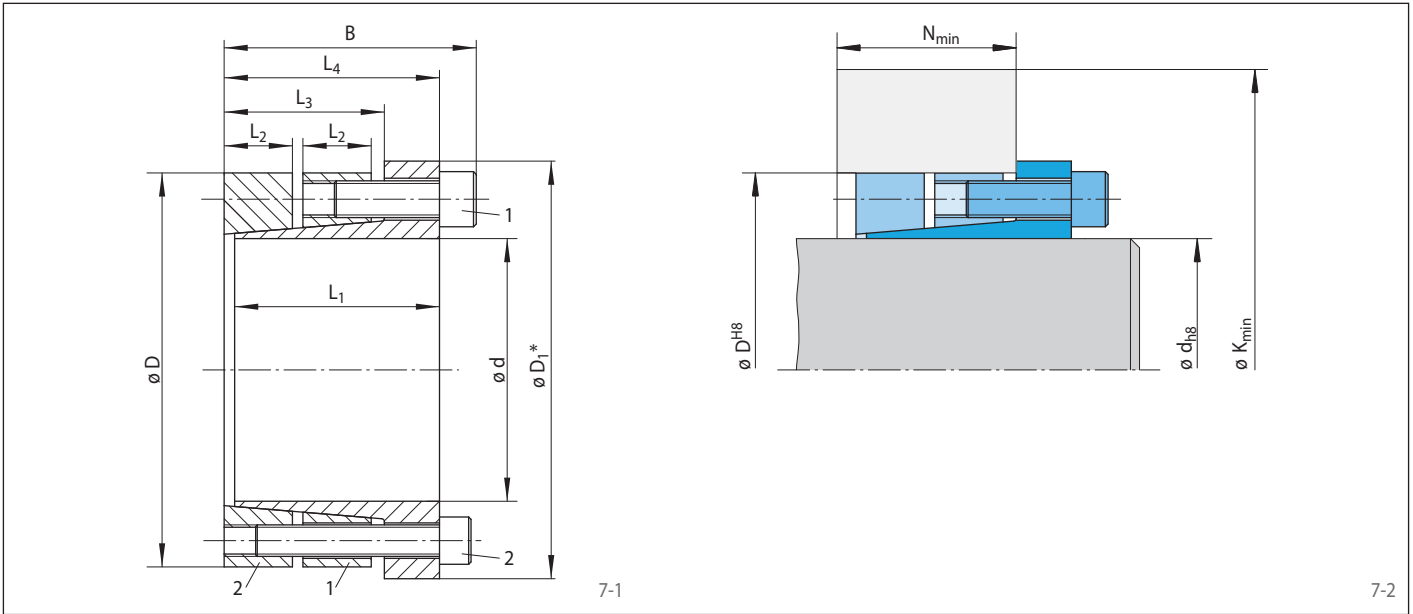
Example for ordering

Cone Clamping Element RLK 235 TC for shaft diameter $d = 100 \text{ mm}$:

- RLK 235 TC, Größe 100 x 150
Article number 4204-100501-TC0000

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Dimensions								Technical Data																
Size		Transmissible torque or axial force						Contact pressure at				Clamping screws 1			Clamping screws 2			Weight kg						
d mm	D mm	B mm	L1 mm	L2 mm	L3 mm	L4 mm	M1 Nm	M2 Nm	ΣM Nm	F1 kN	F2 kN	ΣF Nm	Shaft PW1 N/mm²	Hub PW2 N/mm²	PN1 N/mm²	PN2 N/mm²	Tightening torque Ms Nm		Num- ber	Size	Tightening torque Ms Nm	Num- ber	Size	
70	115	88	70	24	58	76	5080	3430	8510	145	98	243	229	155	140	94	145	6	M12	83	6	M10	3,62	
80	125	88	70	24	58	76	6780	4580	11360	169	114	283	234	158	150	101	145	7	M12	83	7	M10	4,02	
90	135	88	70	24	58	76	7620	5150	12770	169	114	283	208	141	139	94	145	7	M12	83	7	M10	4,44	
100	150	96	78	26	61	82	11500	8470	19970	231	169	400	236	173	157	115	230	7	M14	145	7	M12	6,02	
110	160	96	78	26	61	82	12700	9320	22020	231	169	400	215	157	148	108	230	7	M14	145	7	M12	6,46	
120	170	96	78	26	61	82	13800	10100	23900	231	169	400	197	144	139	102	230	7	M14	145	7	M12	6,88	
130	190	111	90	30	71	95	23400	17100	40500	361	264	625	246	180	168	123	355	8	M16	230	8	M14	10,56	
140	200	111	90	30	71	95	25200	18500	43700	361	264	625	228	167	160	117	355	8	M16	230	8	M14	11,22	
150	210	111	90	30	71	95	27100	19800	46900	361	264	625	213	156	152	111	355	8	M16	230	8	M14	11,92	
160	220	111	90	30	71	95	28900	21100	50000	361	264	625	200	146	145	106	355	8	M16	230	8	M14	12,46	
170	240	142	114	40	92	122	47700	30700	78400	561	361	922	219	141	155	100	690	8	M20	355	8	M16	20,58	
180	250	142	114	40	92	122	50500	32500	83000	561	361	922	207	133	149	96	690	8	M20	355	8	M16	21,52	
190	260	142	114	40	92	122	53300	34300	87600	561	361	922	196	126	143	82	690	8	M20	355	8	M16	22,58	
200	270	142	114	40	92	122	70200	45100	115300	702	451	1153	233	150	173	111	690	10	M20	355	10	M16	23,38	
220	290	142	114	40	92	122	77200	49600	126800	702	451	1153	212	136	161	103	690	10	M20	355	10	M16	25,64	
240	310	142	114	40	92	122	101100	65000	166000	842	542	1384	233	150	180	116	690	12	M20	355	12	M16	27,90	
260	330	142	114	40	92	122	109500	70400	179900	842	542	1384	215	138	169	109	690	12	M20	355	12	M16	29,85	
280	365	168	135	45	108	144	143100	98300	241400	1022	702	1724	215	148	165	113	1200	10	M24	690	10	M20	45,80	
300	385	168	135	45	108	144	153300	105300	258600	1022	702	1724	201	138	157	108	1200	10	M24	690	10	M20	48,40	
320	405	168	135	45	108	144	196200	134800	331000	1226	842	2068	226	155	179	123	1200	12	M24	690	12	M20	51,40	
340	425	168	135	45	108	144	243200	167100	410400	1431	983	2414	247	170	198	136	1200	14	M24	690	14	M20	54,25	
360	445	168	135	45	108	144	257500	177000	434500	1431	983	2414	234	161	190	130	1200	14	M24	690	14	M20	57,25	
380	465	168	135	45	108	144	310700	213500	524200	1635	1123	2758	254	174	207	142	1200	16	M24	690	16	M20	59,00	
400	485	168	135	45	108	144	327100	224700	551800	1635	1123	2758	241	166	199	137	1200	16	M24	690	16	M20	62,90	
420	505	168	135	45	108	144	348400	239400	587800	1659	1140	2799	233	160	194	133	1200	16	M24	690	16	M20	65,35	
440	525	202	167	59	147	178	365000	250800	615800	1659	1140	2799	170	116	142	98	1200	16	M24	690	16	M20	82,70	
460	545	202	167	59	147	178	381500	262200	643700	1659	1140	2799	162	111	137	94	1200	16	M24	690	16	M20	85,70	
480	565	202	167	59	147	178	398100	273600	671700	1866	1140	2799	155	107	132	91	1200	16	M24	690	16	M20	91,00	
500	585	202	167	59	147	178	466600	320600	787200	1866	1282	3148	168	115	143	99	1200	18	M24	690	18	M20	94,00	
520	605	202	167	59	147	178	485200	333400	818600	1866	1282	3148	161	111	139	95	1200	18	M24	690	18	M20	98,00	
540	625	202	167	59	147	178	503900	346200	850100	1866	1282	3148	155	107	134	92	1200	18	M24	690	18	M20	101,00	
560	645	202	167	59	147	178	522600	359100	881700	1866	1282	3148	150	103	130	89	1200	18	M24	690	18	M20	104,00	
580	665	202	167	59	147	178	601400	413200	1014600	2073	1425	3498	161	110	140	96	1200	20	M24	690	20	M20	108,00	
600	685	202	167	59	147	178	622100	427500	1049600	2073	1425	3498	155	107	136	94	1200	20	M24	690	20	M20	111,00	

* Up to and including size d = 260, the outside diameter of the fixed backstop point D1 varies between D + 6 mm or D + 9 mm. From size d = 280, D1 = D + 9 mm corresponds.