

Cone Clamping Elements RLK 250 L

centers the hub to the shaft
quick assembly

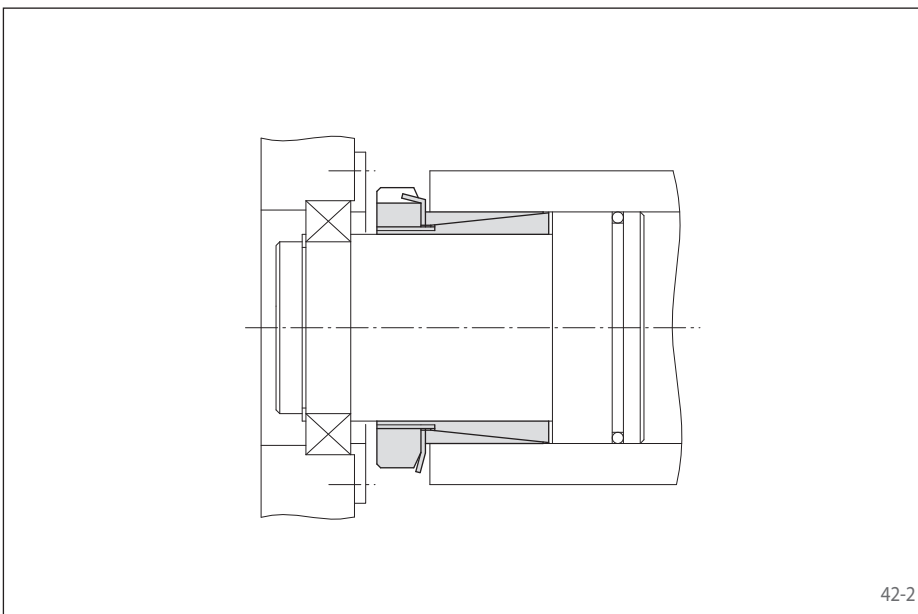
Morskate®



42-1

Features

- Centers the hub to the shaft
- Radial flat height is particularly suitable for small hub outer diameters
- Quick assembly by central groove nut
- For shaft diameters between 15 mm and 70 mm



42-2

Application example

Backlash free connection of a hollow shaft with a Cone Clamping Element RLK 250 L. The clamping element centers the hollow shaft on the shaft. Due to the flat radial height of the clamping element, the hollow shaft can be designed thin walled.

Transmissible torques and axial forces

The transmissible torques or axial forces listed on page 43 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:
 $R_a \leq 3,2 \mu\text{m}$.

Materials

The following apply to the shaft and the hub:

- E-module ca. 170 kN/mm^2

Installation

Please request our installation and operating instructions for Cone Clamping Elements RLK 250 L.

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 on pages 54 and 55.

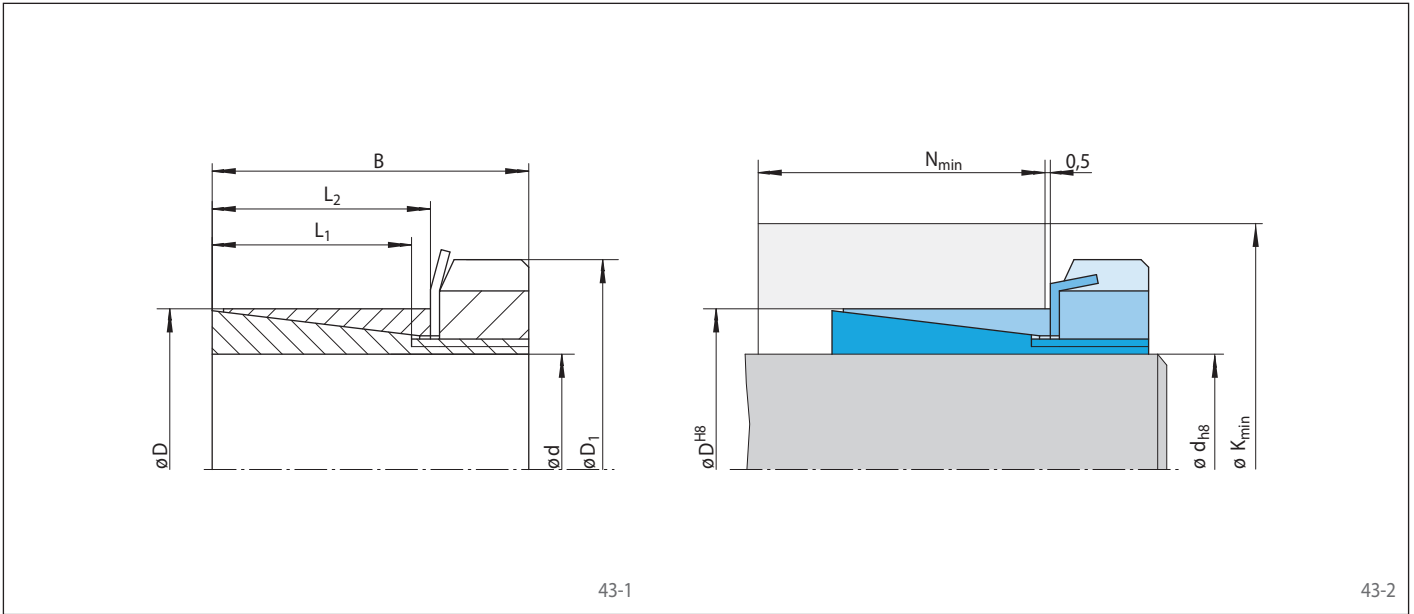
Example for ordering

Cone Clamping Element RLK 250 L for shaft diameter $d = 50 \text{ mm}$:

- RLK 250 L, size 50 x 60
Article number 4202.050.002.000000

Cone Clamping Elements RLK 250 L

centers the hub to the shaft
quick assembly



Dimensions												Technical Data						Article number	
Size		Yield strength R_e of the hub material [N/mm ²]										Transmissible torque or axial force		Contact pressure at		Groove nut	Weight		
d mm	D mm	D ₁ mm	B mm	L ₁ mm	L ₂ mm	200		320		500		M Nm	F kN	Shaft P_W N/mm ²	Hub P_N N/mm ²	Tightening torque M_s Nm	Size	kg	
15	25	32	29	17	23	43	32	36	29	33	27	74	9,8	120	72	53	KM4	0,080	4202.015.001.A00000
16	25	32	29	17	23	45	33	37	29	33	27	80	10	120	76	56	KM4	0,070	4202.016.001.A00000
17	25	38	31	18	24	46	35	38	31	34	29	100	11	120	81	72	KM5	0,130	4202.017.001.A00000
18	30	38	31	18	24	51	35	43	31	39	29	110	12	120	72	83	KM5	0,120	4202.018.002.000000
19	30	38	31	18	24	52	35	44	31	39	29	120	12	120	76	90	KM5	0,120	4202.019.001.A00000
20	30	38	31	18	24	54	36	45	32	40	29	130	13	120	80	100	KM5	0,110	4202.020.001.A00000
22	35	45	35	21	26	62	40	52	35	46	32	180	16	120	75	130	KM6	0,180	4202.022.001.A00000
24	35	45	35	21	26	65	41	54	36	47	32	230	19	119	82	160	KM6	0,160	4202.024.001.A00000
25	35	45	35	21	26	66	42	55	36	48	33	200	16	120	85	160	KM6	0,150	4202.025.001.A00000
28	40	52	35	22	27	74	44	62	38	54	34	330	23	120	84	220	KM7	0,240	4202.028.001.A00000
30	40	52	35	22	27	76	45	63	39	55	35	300	20	120	90	230	KM7	0,210	4202.030.004.000000
35	45	58	42	28	31,5	91	55	74	46	64	41	460	26	120	93	320	KM8	0,260	4202.035.001.A00000
40	50	65	44	28	34	98	58	81	50	70	44	640	32	120	96	440	KM9	0,330	4202.040.002.000000
45	55	70	45	28	34	108	61	89	51	77	45	760	33	120	98	550	KM10	0,390	4202.045.001.A00000
50	60	75	46	28	34	116	62	97	53	84	46	930	37	120	100	660	KM11	0,400	4202.050.002.000000
55	65	80	47	28	34	122	63	103	53	90	47	1100	40	120	97	770	KM12	0,440	4202.055.002.000000
60	70	85	52	28	38,5	126	67	107	57	94	51	1500	50	120	97	890	KM13	0,550	4202.060.001.A00000

If the hub cannot be freely moved to the left, e.g. due to a shaft shoulder, the values for M, F, P_W and P_N are reduced by 37%. In this case, the required hub outer diameter K_{min} and the required hub width N_{min} may be lower than indicated.