

# Shrink Discs RLK 608 E

two-part design  
high torque capacity

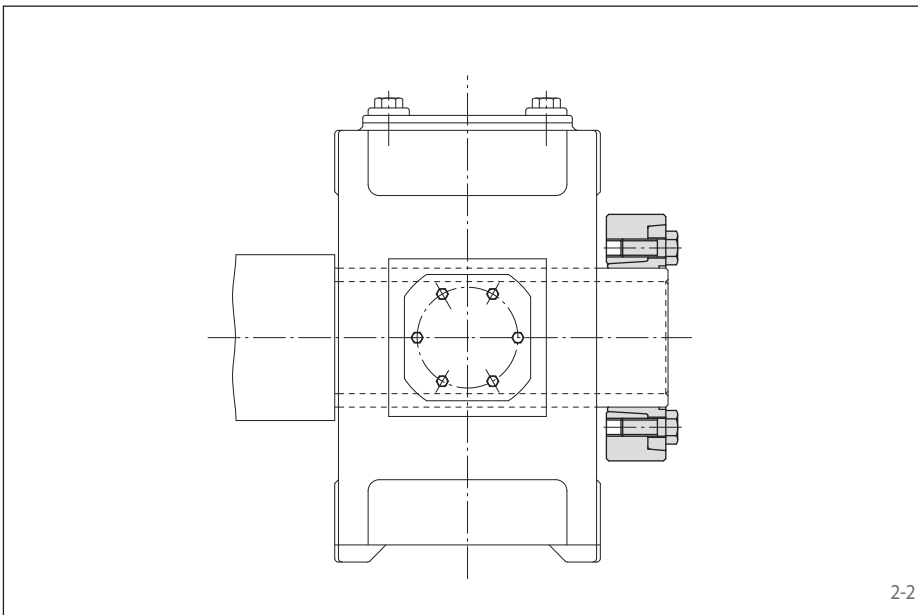
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## Features

- High torque capacity
- Transmissible torque of 290 Nm up to 237 900 Nm
- Easy, quick assembly by tightening clamping screws without a torque wrench
- Distance-controlled assembly ensures guaranteed transmissible torques
- Enclosed design, therefore impervious to dirt
- True running even at high speeds
- Centres the hollow shaft or hub to the shaft
- For hollow shafts or hubs with outer diameters of 30 mm up to 240 mm



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## Application example

Backlash free connection of a hollow-shaft gearbox to a machine shaft with a Shrink Disc RLK 608 E. The backlash free connection reduces the risk of fretting corrosion. As a result, the connection can be easily disassembled even after long periods of operation.

## Transmissible torques and axial forces

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

### Tolerances

d <sub>w</sub>		Hollow shaft bore ISO	Shaft ISO	Joint clearance	
> mm	≤ mm			min. mm	max. mm
24	30	H7	h6	0	0,034
30	50			0	0,041
50	80			0	0,049
80	120			0	0,057
120	160			0	0,065
160	180	H7	g6	0,014	0,079
180	250			0,015	0,090
250	315			0,017	0,101
315	320			0,018	0,111

Other fits may be selected, provided the joint clearance between the shaft and the hollow shaft remains within the indicated ranges.

### Surfaces

Average surface roughness at the contact surfaces between the shaft and the hollow shaft  $R_z = 10 \dots 25 \mu\text{m}$ .

### Materials

The following apply to the shaft and the hollow shaft:

- Yield strength  $R_e \geq 360 \text{ N/mm}^2$
- E-module ca.  $206 \text{ kN/mm}^2$

## Installation

Please request our installation and operating instructions for Shrink Discs RLK 608 E.

## 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 page 29 in catalogue „Shaft-Hub-Connections“.

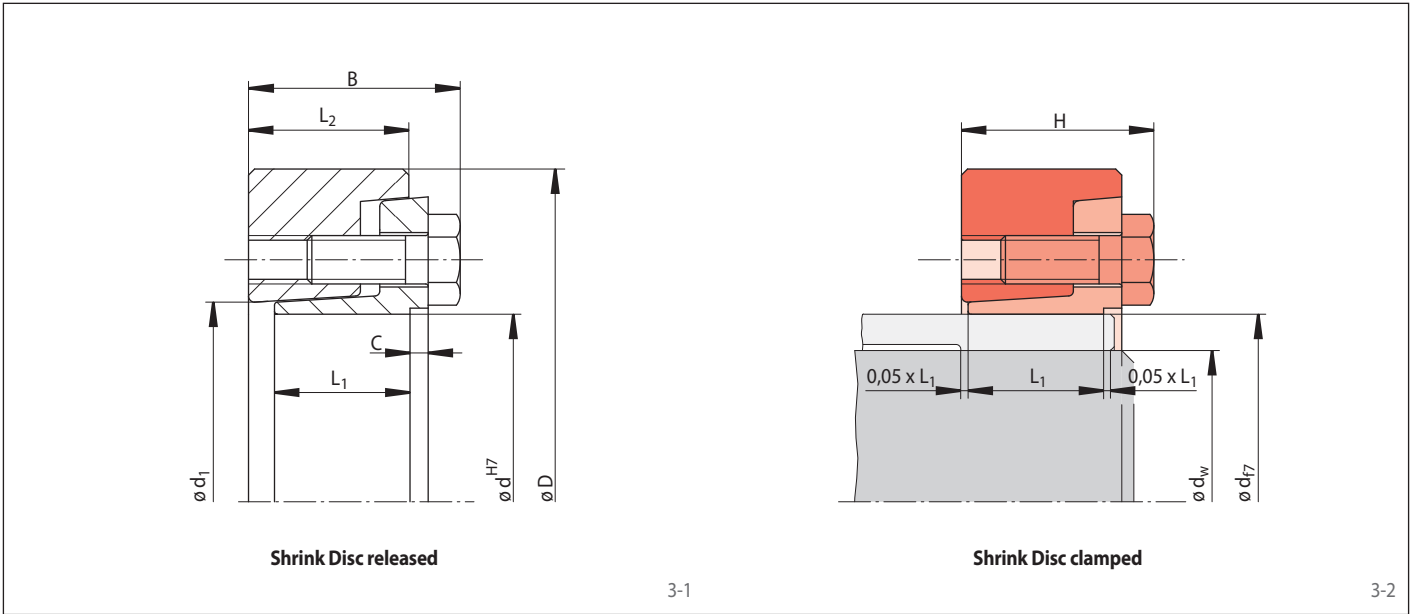
## Example for ordering

Shrink Disc RLK 608 E for hollow shaft with an outer diameter  $d = 155 \text{ mm}$ :

- RLK 608-155 E  
Article number 4200-155801-E00000

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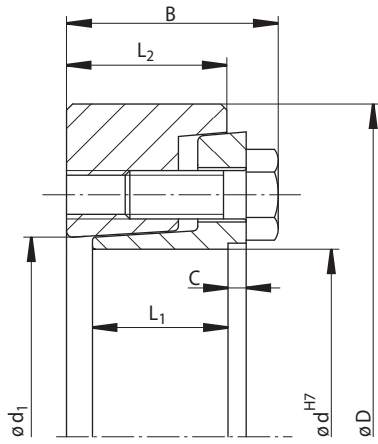


Dimensions									Technical Data				Article number		
Size d mm	D mm	d <sub>1</sub> mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	C mm	H mm	d <sub>w</sub> * mm	Transmissible torque or axial force**		Clamping screws			Weight	
									M Nm	F kN	Number	Size	Length mm	kg	
30	60	32	25	16,5	19	2	23,0	24	290	25	6	M 6	16	0,3	4200-030801-E00000
								25	330	27					
								26	370	29					
36	72	38	28	18	20,5	2	25,8	27	600	45	5	M 8	20	0,5	4200-036801-E00000
								30	790	53					
								33	1000	61					
44	80	47	30	20	22,5	2	27,8	34	830	49	6	M 8	20	0,6	4200-044801-E00000
								35	900	52					
								37	1050	57					
50	90	53	33	22	24,5	2	29,8	38	1540	81	8	M 8	20	0,8	4200-050801-E00000
								40	1750	88					
								42	1980	95					
55	100	58	35	23	26,5	3	31,8	42	1800	88	8	M 8	20	1,1	4200-055801-E00000
								45	2190	98					
								48	2580	108					
62	110	66	35	23	26,5	3	31,8	48	2590	108	9	M 8	20	1,3	4200-062801-E00000
								50	2850	115					
								52	3150	121					
68	115	72	35	23	26,5	3	31,8	50	2680	107	9	M 8	20	1,4	4200-068801-E00000
								55	3390	123					
								60	4180	139					
75	138	79	40	25	29	3	35,4	55	4390	160	10	M 10	25	2,4	4200-075801-E00000
								60	5400	180					
								65	6500	200					
80	141	84	40	25	29	3	35,4	60	4590	153	10	M 10	25	2,4	4200-080801-E00000
								65	5560	171					
								70	6600	189					
90	155	94	46	30	35	4	41,4	65	6140	189	10	M 10	30	3,4	4200-090801-E00000
								70	7300	210					
								75	8600	230					
100	170	104	51	34	40	5	46,4	70	7850	224	12	M 10	30	4,6	4200-100801-E00000
								75	9250	245					
								80	10780	270					
110	185	114	59	39	46	6	53,5	80	14000	350	12	M 12	35	6,2	4200-110801-E00000
								85	16000	379					
								90	18300	405					
120	200	124	63	42	49	6	56,5	85	15300	360	12	M 12	35	7,7	4200-120801-E00000
								90	17500	390					
								95	19900	410					
125	215	132	63	42	49	6	56,5	90	17050	380	12	M 12	35	9,2	4200-125801-E00000
								95	19300	405					
								100	21800	430					
130	230	139	68	46	53	6	60,5	95	22900	480	14	M 12	35	11,7	4200-130801-E00000
								100	25700	515					
								110	32000	580					
140	230	144	71	46	53	6	61,8	100	23900	475	12	M 14	40	10,8	4200-140801-E00000
								105	26750	510					
								115	32800	570					

\* The shaft diameters d<sub>w</sub> listed in the table are selected examples. For other shaft diameters d<sub>w</sub> see the technical specifications on page 29 in catalogue „Shaft-Hub-Connections“.  
\*\* Torques and axial forces are calculated with a friction coefficient of 0.15 between hollow shaft and shaft. This friction coefficient is achieved due to the state of the art for clean and dry joints of two steel materials.

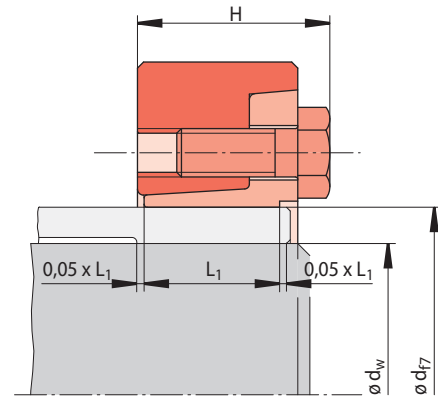
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Shrink Disc released

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Shrink Disc clamped

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Dimensions									Technical Data					Article number	
Size d mm	D mm	d <sub>1</sub> mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	C mm	H mm	d <sub>w</sub> * mm	Transmissible torque or axial force**		Clamping screws				Weight
									M Nm	F kN	Number	Size	Length mm	kg	
150	263	159	75	50	57	6	65,8	110	31750	575	12	M 14	40	16,3	4200-150801-E00000
								115	35100	610					
								125	42300	675					
155	263	159	75	50	57	6	65,8	110	32200	585	12	M 14	40	15,8	4200-155801-E00000
								115	35600	620					
								125	42900	685					
160	290	169	82	56	63	6	73,0	120	50300	835	12	M 16	50	22,6	4200-160801-E00000
								125	55100	880					
								135	65200	965					
165	290	169	82	56	63	6	73,0	120	50600	840	12	M 16	50	22,0	4200-165801-E00000
								125	55400	880					
								135	65500	970					
170	300	179	82	56	63	6	73,0	130	54500	835	12	M 16	50	23,6	4200-170801-E00000
								135	59300	875					
								145	69500	960					
175	300	179	82	56	63	6	73,0	130	55100	845	12	M 16	50	22,9	4200-175801-E00000
								135	60000	885					
								145	70250	970					
180	320	191	99	72	79	6	89,0	140	86400	1230	16	M 16	50	33,9	4200-180801-E00000
								145	93300	1280					
								155	108000	1390					
185	320	191	99	72	79	6	89,0	140	84900	1210	16	M 16	50	33,0	4200-185801-E00000
								145	91800	1260					
								155	106300	1370					
190	320	195	100	71	79	7	89,0	150	81600	1080	16	M 16	50	33,0	4200-190801-E00000
								155	87800	1100					
								165	100900	1220					
195	340	206	100	71	79	7	89,0	150	94300	1250	16	M 16	50	37,6	4200-195801-E00000
								155	101400	1300					
								165	116400	1400					
200	340	206	100	71	79	7	89,0	150	95300	1270	16	M 16	50	36,6	4200-200801-E00000
								155	102400	1320					
								165	117500	1425					
220	370	228	121	87	95	7	107,5	160	141600	1770	16	M 20	60	51,6	4200-220801-E00000
								170	161500	1900					
								180	182600	2000					
240	405	248	127	92	100	7	112,5	170	167600	1970	18	M 20	60	65,3	4200-240801-E00000
								180	189700	2100					
								200	237900	2380					

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Any questions? Please contact us.

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