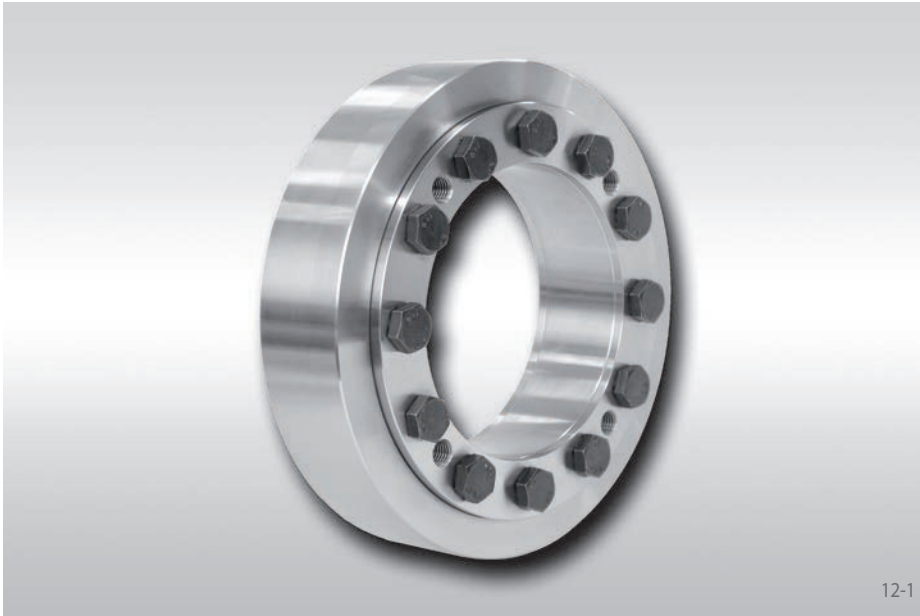


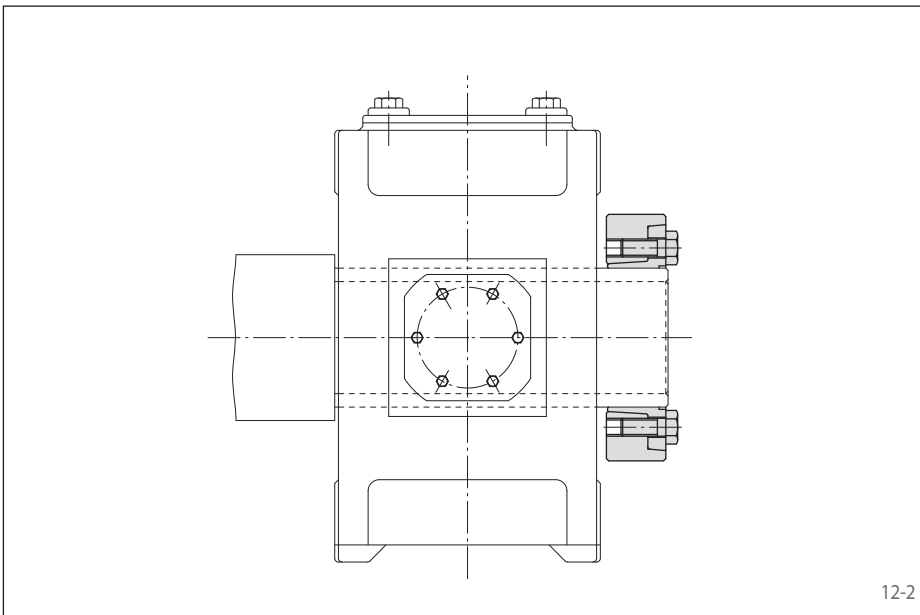
two-part design
highest torque capacity



12-1

Features

- Highest torque capacity
- Transmissible torque of 330 Nm up to 4225 000 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 620 mm



12-2

Application example

Backlash free connection of a hollow-shaft gearbox to a machine shaft with a Shrink Disc RLK 608. 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_w		Hollow shaft bore ISO	Shaft ISO	Joint clearance	
> mm	≤ mm			min. mm	max. mm
18	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	400			0,018	0,111
400	500			0,020	0,123
500	630			0,022	0,136

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 kN/mm^2

Installation

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

Simultaneous transmission of torque and axial force

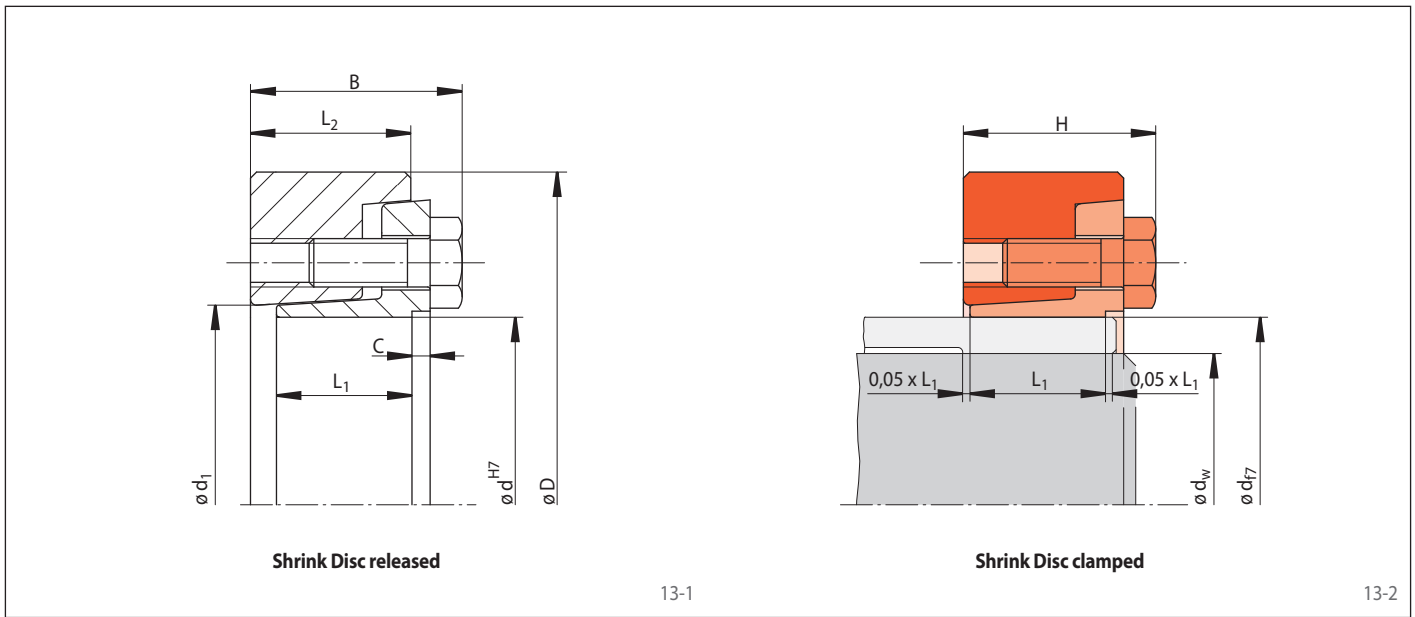
The transmissible torques M which are shown in the tables apply for axial forces $F = 0 \text{ kN}$ and conversely, the indicated axial forces F apply to torques $M = 0 \text{ Nm}$. If torque and axial force are to be transmitted simultaneously, the transmissible torque and the transmissible axial force are reduced. Please refer to the technical points on page 31.

Example for ordering

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

- RLK 608-155
Article number 4200-155801-000000

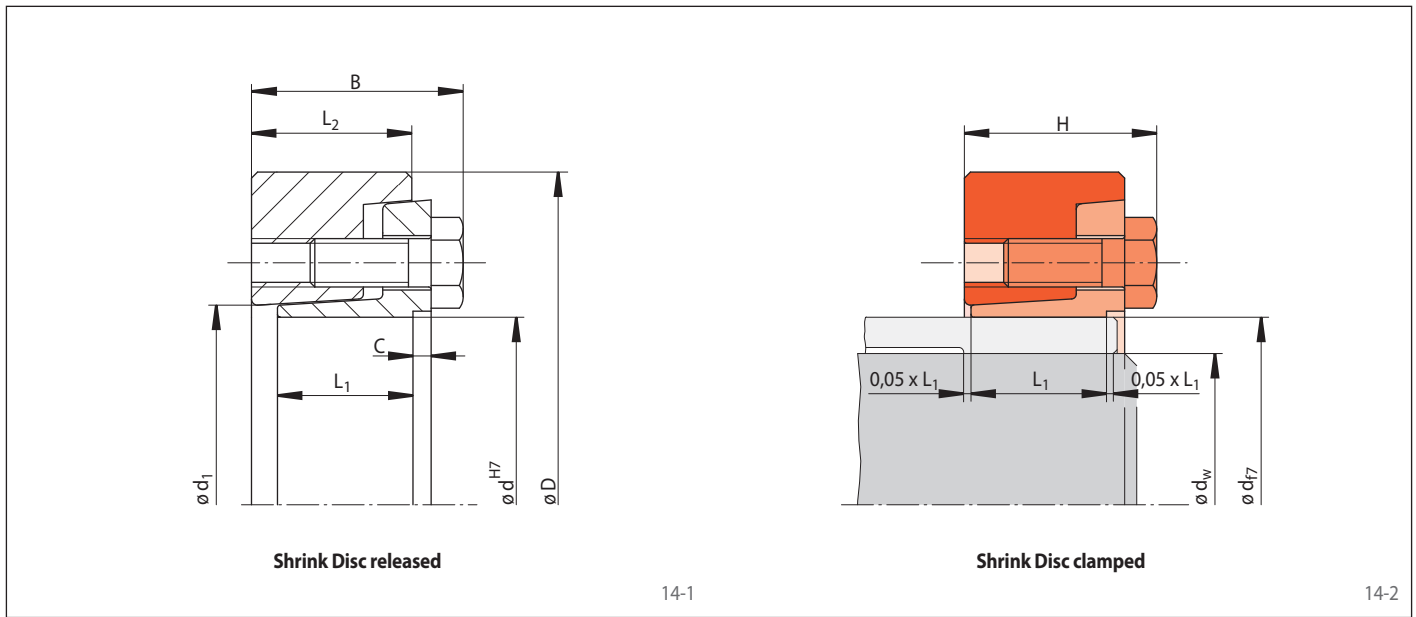
two-part design
highest torque capacity



Dimensions									Technical Data					Article number	
Size d mm	D mm	d ₁ mm	B mm	L ₁ mm	L ₂ mm	C mm	H mm	d _w * mm	Transmissible torque or axial force		Clamping screws				Weight kg
									M Nm	F kN	Number	Size	Length mm		
30	60	32	25	16,5	19	2	23,0	24	330	27	6	M 6	16	0,3	4200-030801-000000
								25	370	29					
								26	415	31					
								27	660	48					
36	72	38	28	18	20,5	2	25,8	30	850	56	5	M 8	20	0,5	4200-036801-000000
								33	1070	64					
								34	950	55					
								35	1030	58					
44	80	47	30	20	22,5	2	27,8	37	1200	64	6	M 8	20	0,6	4200-044801-000000
								38	1750	92					
								40	2000	100					
								42	2250	105					
50	90	53	33	22	24,5	2	29,8	42	2050	97	8	M 8	20	0,8	4200-050801-000000
								45	2400	100					
								48	2800	110					
								48	2900	120					
55	100	58	35	23	26,5	3	31,8	50	3200	120	8	M 8	20	1,1	4200-055801-000000
								52	3550	130					
								50	3000	120					
								55	3800	130					
62	110	66	35	23	26,5	3	31,8	60	4650	150	9	M 8	20	1,3	4200-062801-000000
								55	4900	170					
								60	6100	200					
								65	7400	220					
68	115	72	35	23	26,5	3	31,8	60	5200	170	10	M 10	25	2,4	4200-075801-000000
								65	5200	170					
								65	6400	190					
								70	7700	220					
75	138	79	40	25	29	3	35,4	65	6900	210	10	M 10	25	2,4	4200-080801-000000
								70	8200	230					
								75	9700	250					
								70	8800	250					
80	141	84	40	25	29	3	35,4	75	10350	270	12	M 10	30	4,6	4200-100801-000000
								80	12000	300					
								80	15500	380					
								85	17800	410					
90	155	94	46	30	35	4	41,4	90	20000	440	12	M 12	35	6,6	4200-105801-000000
								80	15500	380					
								85	17800	410					
								90	20000	440					
100	170	104	51	34	40	5	46,4	85	17200	400	12	M 12	35	7,7	4200-120801-000000
								90	19700	430					
								95	22300	460					
								90	19150	420					
105	185	114	59	39	46	6	53,5	95	21700	450	12	M 12	35	9,2	4200-125801-000000
								100	24400	480					
								95	25900	540					
								100	29000	580					
130	230	139	68	46	53	6	60,5	100	36000	650	14	M 12	35	11,7	4200-130801-000000
								110							

* The shaft diameters d_w listed in the table are selected examples. For other shaft diameters d_w see the technical specifications on page 31.

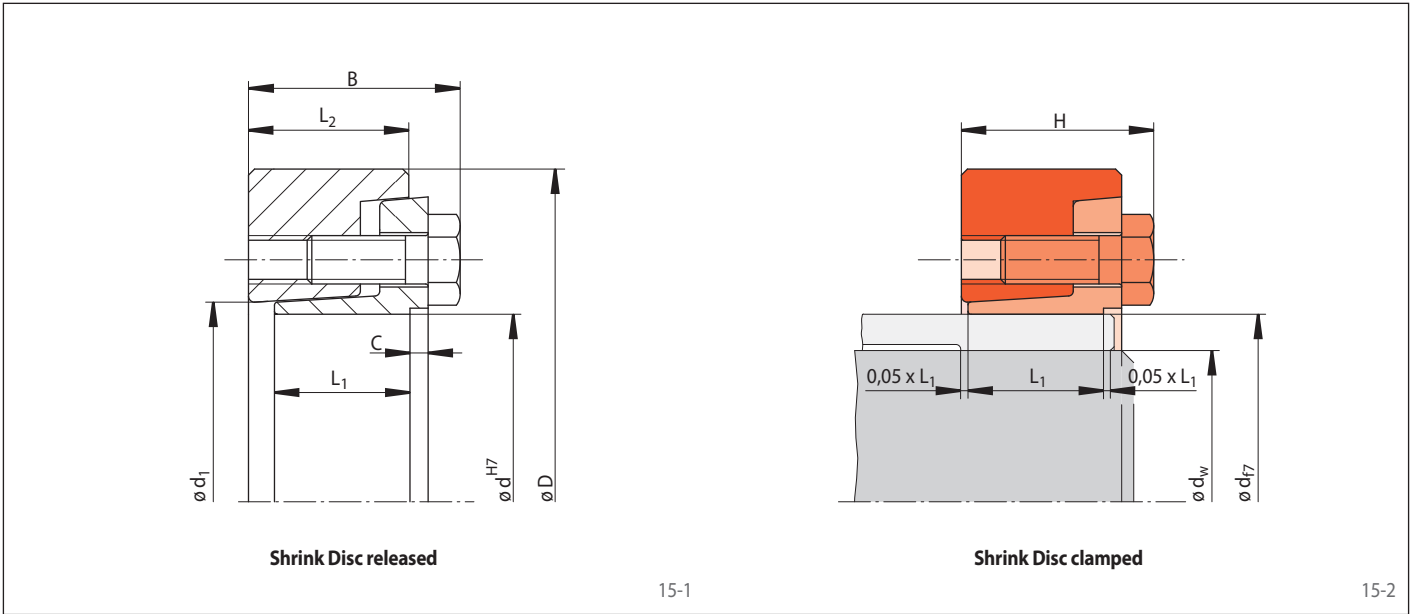
two-part design
highest torque capacity



Dimensions									Technical Data					Article number	
Size d mm	D mm	d ₁ mm	B mm	L ₁ mm	L ₂ mm	C mm	H mm	d _w * mm	Transmissible torque or axial force		Clamping screws				Weight kg
									M Nm	F kN	Number	Size	Length mm		
140	230	144	71	46	53	6	61,8	100	27000	540	12	M 14	40	10,8	4200-140801-000000
								105	30200	570					
								115	37000	640					
150	263	159	75	50	57	6	65,8	110	35700	640	12	M 14	40	16,3	4200-150801-000000
								115	39500	680					
								125	47500	760					
155	263	159	75	50	57	6	65,8	110	36200	650	12	M 14	40	15,8	4200-155801-000000
								115	40000	690					
								125	48000	760					
160	290	169	82	56	63	6	73,0	120	56000	930	12	M 16	50	22,6	4200-160801-000000
								125	61000	970					
								135	72500	1000					
165	290	169	82	56	63	6	73,0	120	56500	940	12	M 16	50	22,0	4200-165801-000000
								125	61500	980					
								135	72500	1000					
170	300	179	82	56	63	6	73,0	130	61000	930	12	M 16	50	23,6	4200-170801-000000
								135	66500	980					
								145	78000	1000					
175	300	179	82	56	63	6	73,0	130	61500	940	12	M 16	50	22,9	4200-175801-000000
								135	67000	990					
								140	72500	1000					
180	320	191	99	72	79	6	89,0	140	97500	1300	16	M 16	50	33,9	4200-180801-000000
								145	105000	1400					
								155	122000	1500					
185	320	191	99	72	79	6	89,0	140	96000	1300	16	M 16	50	33,0	4200-185801-000000
								145	104000	1400					
								155	120000	1500					
190	320	195	100	71	79	7	89,0	150	92000	1200	16	M 16	50	33,0	4200-190801-000001
								155	99000	1200					
								165	113500	1300					
195	340	206	100	71	79	7	89,0	150	107000	1400	16	M 16	50	37,6	4200-195801-000000
								155	115000	1400					
								165	129000	1500					
200	340	206	100	71	79	7	89,0	150	108000	1400	16	M 16	50	36,6	4200-200801-000000
								155	116000	1400					
								165	130000	1500					
220	370	228	121	87	95	7	107,5	160	160000	2000	16	M 20	60	51,6	4200-220801-000000
								170	182000	2100					
								180	206000	2200					
240	405	248	127	92	100	7	112,5	170	190000	2200	18	M 20	60	65,3	4200-240801-000000
								180	215000	2300					
								200	269000	2600					
260	430	268	137	102	110	7	122,5	190	247000	2600	21	M 20	60	79,1	4200-260801-000000
								200	277000	2700					
								220	340000	3000					
280	460	288	150	115	123	7	135,5	210	335000	3100	22	M 20	60	100,0	4200-280801-000000
								220	370000	3300					
								240	449000	3700					

* The shaft diameters d_w listed in the table are selected examples. For other shaft diameters d_w see the technical specifications on page 31.

two-part design
highest torque capacity



Dimensions									Technical Data			Clamping screws			Weight	Article number
Size d mm	D mm	d ₁ mm	B mm	L ₁ mm	L ₂ mm	C mm	H mm	d _w * mm	M Nm	F kN	Number	Size	Length mm	kg		
300	485	308	162	122	131	8	146	220	386 000	3 500	20	M 24	80	116,3	4200-300801-000000	
								230	425 000	3 600						
								250	508 000	4 000						
320	520	328	158	116	125	8	140	240	465 500	3 800	18	M 24	80	129,0	4200-320801-000000	
								250	509 000	4 000						
								270	600 000	4 000						
340	570	348	170	127	136	8	151	250	564 000	4 500	20	M 24	80	175,0	4200-340801-000000	
								260	612 000	4 700						
								280	719 000	5 100						
360	590	369	177	133	142	8	157	270	658 000	4 800	20	M 24	80	197,0	4200-360801-000000	
								280	712 000	5 000						
								300	825 000	5 500						
390	650	399	195	144	153	8	172	290	903 000	6 200	18	M 30	100	254,0	4200-390801-000000	
								300	970 000	6 400						
								320	1 110 000	6 900						
420	670	428	208	162	167	4	194	320	1 084 000	6 700	20	M 27	80	285,0	4200-420801-000001	
								330	1 158 000	7 000						
								350	1 313 000	7 500						
440	725	448	222	173	180	6	202	340	1 353 000	7 900	21	M 27	80	371,0	4200-440801-000001	
								350	1 440 000	8 200						
								370	1 621 000	8 700						
460	760	468	225	173	180	6	202	360	1 509 000	8 300	21	M 27	80	409,0	4200-460801-000001	
								370	1 600 000	8 600						
								390	1 790 000	9 100						
480	790	488	249	198	202	3	226	380	1 860 000	9 700	21	M 30	100	495,0	4200-480801-000000	
								390	1 966 000	10 000						
								410	2 186 000	10 600						
500	835	508	244	195	199	3	223	400	2 098 000	10 400	24	M 30	100	554,0	4200-500801-000000	
								410	2 210 000	10 700						
								430	2 445 000	11 300						
530	870	538	266,5	213	216	3	240	430	2 645 000	12 300	24	M 30	100	638,0	4200-530801-000000	
								440	2 777 000	12 500						
								460	3 050 000	13 000						
560	920	568	268,5	217	221	3	245	450	2 778 000	12 000	24	M 30	100	730,0	4200-560801-000000	
								460	2 912 000	12 500						
								480	3 190 000	13 000						
590	960	598	284	232	237	4	261	470	3 238 000	13 500	28	M 30	100	842,0	4200-590801-000000	
								480	3 386 000	14 000						
								500	3 693 000	14 500						
620	970	630	310	254	259	4	283	500	3 585 000	14 000	28	M 30	100	892,0	4200-620801-000000	
								520	3 898 000	14 500						
								540	4 225 000	15 500						

* The shaft diameters d_w listed in the table are selected examples. For other shaft diameters d_w see the technical specifications on page 31.