

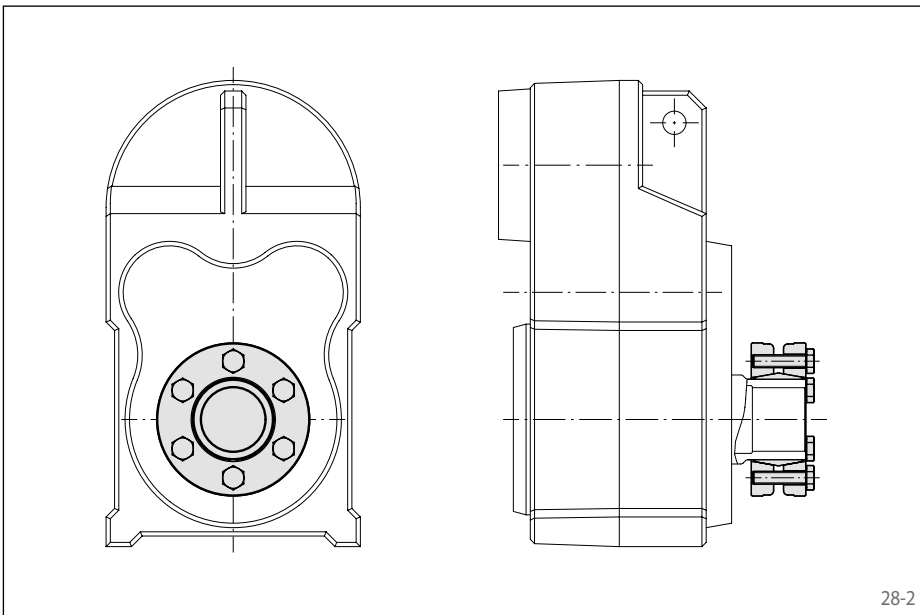
three-part design  
highest torque capacity



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## Features

- Highest torque capacity
- Transmissible torque of 25 Nm up to 153 000 Nm
- Tightening of clamping screws with a torque wrench
- Easy disassembly without jacking screws
- Centres the hollow shaft or hub to the shaft
- For hollow shafts or hubs with outer diameters of 14 mm up to 190 mm



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## Application example

Backlash free connection of a hollow-shaft to a machine shaft on a flat gear box with a Shrink Disc RLK 603 S. 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
10	18	H7	h6	0	0,029
18	30			0	0,034
30	50			0	0,041
50	80			0	0,049
80	120			0	0,057
120	150			0	0,065
150	180	H7	g6	0,014	0,079

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  $R_e \geq 340 \text{ N/mm}^2$
- E-module ca.  $206 \text{ kN/mm}^2$

### Installation

Please request our installation and operating instructions Shrink Discs RLK 603 S.

## Simultaneous transmission of torque and axial force

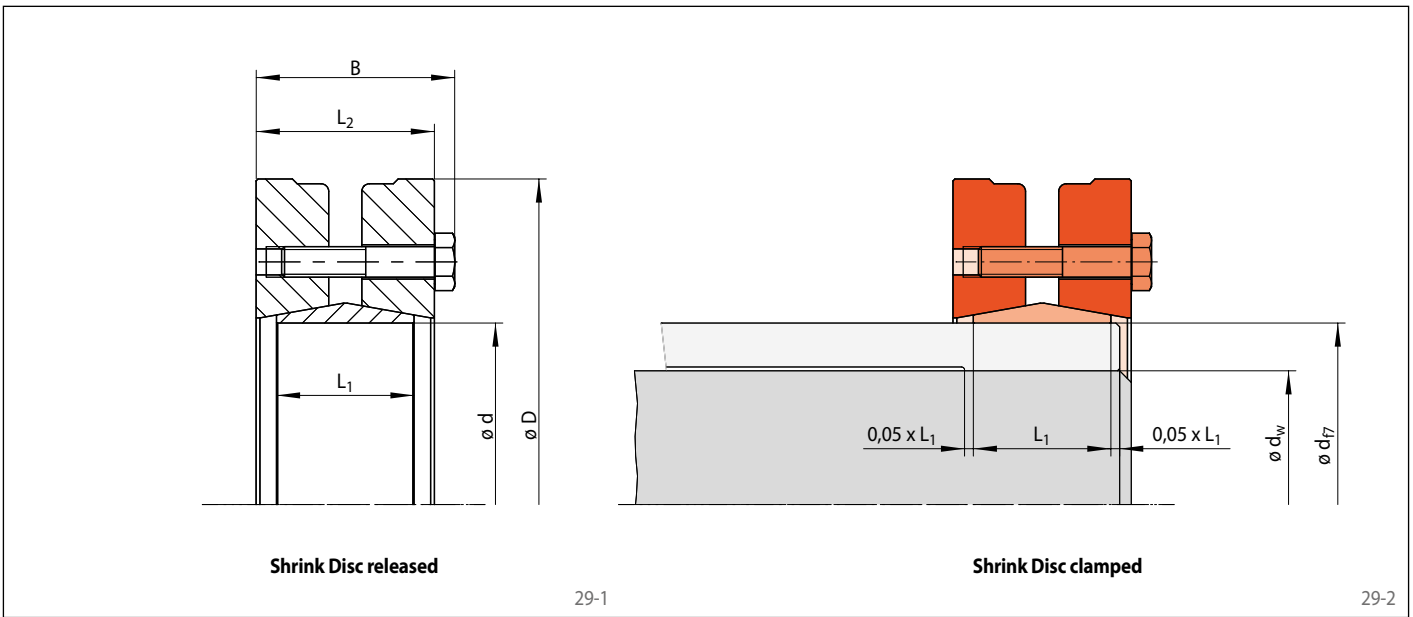
The transmissible torques  $M$  which are shown in the tables apply for axial forces  $F = 0 \text{ kN}$  and conversely, the indicated axial forces  $F$  apply to torques  $M = 0 \text{ Nm}$ . If torque and axial force are to be transmitted simultaneously, the transmissible torque and the transmissible axial force are reduced. Please refer to the technical points on page 35.

## Example for ordering

Shrink Disc RLK 603 S for hollow shaft with an outer diameter  $d = 95 \text{ mm}$ :

- RLK 603 S-95 x 170  
Article number 4200-095301-C00000

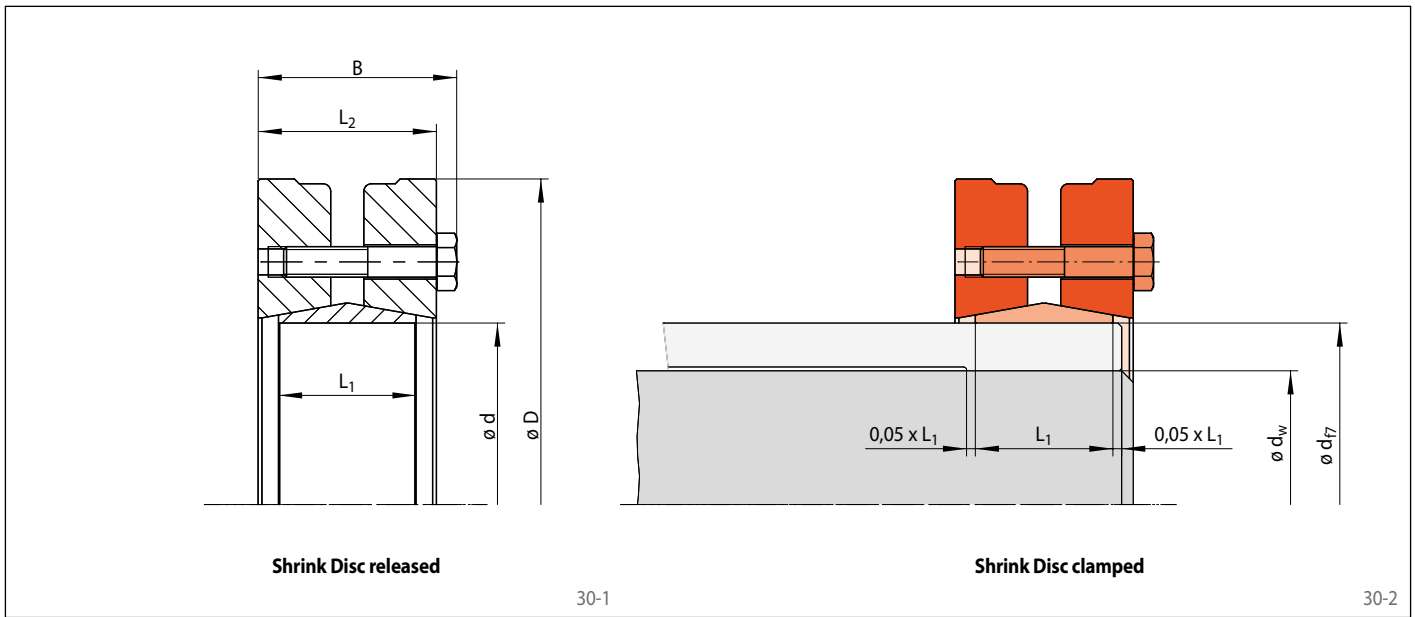
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Dimensions						Technical Data							Article number
Size d mm	D mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d <sub>w</sub> * mm	Transmissible torque or axial force		Clamping screws				Weight kg	
						M Nm	F kN	Tightening torque M <sub>S</sub> Nm	Number	Size	Length mm		
14	37	15	9	12	10	25	4,9	2,4	3	M 4	10	0,1	4200-014301-C00000
						37	6,6						
						58	9,7						
16	41	18,5	12	15	12	77	13	4	4	M 5	12	0,1	4200-016301-C00000
						110	17						
						140	21						
18	44	18,5	12	15	14	100	14	4	4	M 5	12	0,2	4200-018301-C00000
						130	18						
						170	22						
20	46	21	12	17,5	15	130	18	4	5	M 5	16	0,2	4200-020301-C00000
						170	21						
						210	25						
21	50	22,5	16	19	16	240	30	5	6	M 5	16	0,2	4200-021301-C00000
						290	35						
						350	39						
24	50	23	16	19	18	260	28	5	6	M 5	16	0,2	4200-024301-C00000
						290	31						
						360	36						
30	52	27	16	23	24	460	39	5	7	M 5	20	0,2	4200-030301-C00000
						530	43						
						610	47						
30	60	26	19	22	22	310	28	5	7	M 5	20	0,4	4200-030301-C00001
						440	37						
						520	41						
36	72	30	22	26	25	620	49	12	6	M 6	25	0,5	4200-036301-C00000
						900	65						
						1100	75						
38	72	30	22	26	25	530	42	12	6	M 6	25	0,6	4200-038301-C00000
						800	57						
						1000	67						
40	72	30	22	26	27	610	45	12	6	M 6	25	0,46	4200-040301-C00000
						890	59						
						1050	65						
44	80	30	22	26	30	870	58	12	7	M 6	25	0,7	4200-044301-C00000
						1000	63						
						1350	78						
48	80	30	22	26	35	1100	63	12	7	M 6	25	0,7	4200-048301-C00000
						1450	77						
						1700	86						
50	90	32	22	28	35	1400	80	12	9	M 6	25	1,0	4200-050301-C00000
						1800	96						
						2150	110						
55	100	35	25	31	42	2200	105	12	10	M 6	25	1,1	4200-055301-C00002
						2800	120						
						3350	135						
62	110	35	25	31	45	2700	120	12	12	M 6	25	1,6	4200-062301-C00000
						3700	150						
						4700	170						

\* 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 35.

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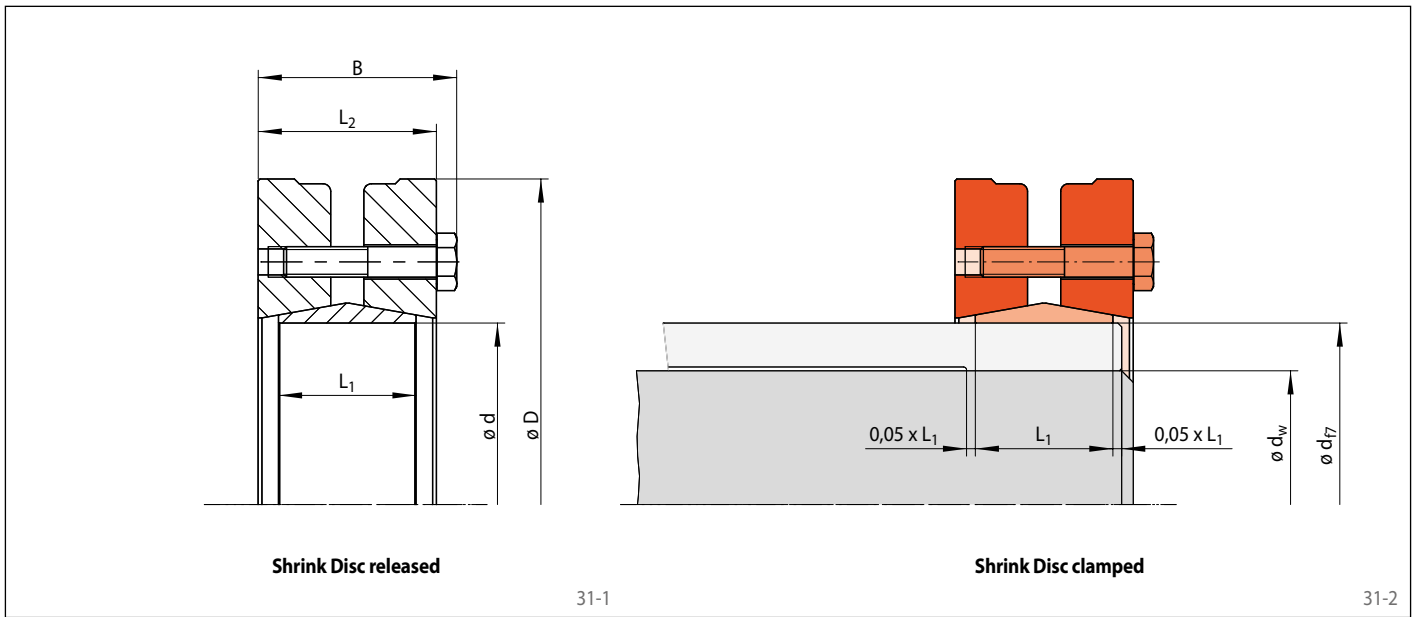
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Dimensions						Technical Data							Article number
Size d mm	D mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d <sub>w</sub> * mm	Transmissible torque or axial force		Clamping screws				Weight kg	
						M Nm	F kN	Tightening torque M <sub>S</sub> Nm	Number	Size	Length mm		
68	115	35,0	25	31	50	2450	97	12	10	M 6	25	1,4	4200-068301-C00000
					55	3200	120						
					60	4200	140						
75	138	38,3	26	33	55	3600	130	30	7	M 8	30	2,3	4200-075301-C00000
					60	4700	160						
					65	5900	180						
80	145	38,3	25	33	60	4100	140	30	7	M 8	30	2,5	4200-080301-C00000
					65	5300	160						
					70	6500	190						
85	155	46,3	33	41	60	6100	200	30	11	M 8	35	4,2	4200-085301-C00000
					65	7700	240						
					70	9400	270						
90	155	44,3	30	39	65	6200	190	30	10	M 8	35	3,3	4200-090301-C00000
					70	7700	220						
					75	9300	250						
95	170	52,3	36	47	65	6800	210	30	12	M 8	40	5,8	4200-095301-C00000
					70	8400	240						
					75	10200	270						
100	170	52,3	36	47	70	7600	220	30	12	M 8	40	4,4	4200-100301-C00000
					75	9300	250						
					80	11200	280						
110	185	62	45	56	75	10400	280	59	10	M 10	45	6,3	4200-110301-C00000
					80	12500	310						
					85	14500	340						
115	185	62	45	56	80	11500	290	59	10	M 10	45	7,2	4200-115301-C00000
					85	13000	310						
					90	15500	350						
120	215	60	44	54	80	13500	330	59	12	M 10	45	9,0	4200-120301-C00000
					85	15500	360						
					90	18000	400						
125	215	60	44	54	85	14000	330	59	12	M 10	45	8,7	4200-125301-C00000
					90	16500	370						
					95	19500	410						
130	215	60	44	54	90	15500	340	59	12	M 10	45	8,3	4200-130301-C00000
					95	18000	380						
					100	21000	420						
135	212	85	63	77	95	24500	520	100	12	M 12	60	13,0	4200-135301-C00000
					100	28500	570						
					105	32500	620						
140	230	68	46	60	95	19500	410	100	10	M 12	50	10,7	4200-140301-C00001
					100	22500	450						
					105	25500	490						
140	304	106	84	96	95	48500	1000	250	12	M 16	70	43,0	4200-140301-C00000
					105	62000	1200						
					110	69500	1250						
155	265	72	50	64	105	26500	500	100	12	M 12	70	16,0	4200-155301-C00001
					110	30000	540						
					115	33500	580						

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Dimensions						Technical Data							Article number
Size d mm	D mm	B mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d <sub>w</sub> * mm	Transmissible torque or axial force		Clamping screws				Weight kg	
						M Nm	F kN	Tightening torque M <sub>5</sub> Nm	Number	Size	Length mm		
155	263	92	68	84	115	42000	730	100	15	M 12	70	23,0	4200-155301-C00000
					120	47000	780						
					125	51500	820						
160	290	81	56	71	110	37500	680	250	8	M 16	60	22,4	4200-160301-C00000
					115	42000	730						
					120	46500	780						
165	290	81	56	71	115	40000	690	250	8	M 16	60	21,7	4200-165301-C00000
					120	44500	740						
					125	48500	780						
170	290	81	56	71	120	42500	700	250	8	M 16	60	21,2	4200-170301-C00000
					125	46000	740						
					130	51000	790						
175	300	124	98	114	120	78500	1300	250	15	M 16	90	42,0	4200-175301-C00000
					125	85000	1350						
					130	94000	1450						
190	350	130	98	117	135	111500	1650	470	12	M 20	90	62,0	4200-190301-C00000
					145	132500	1850						
					155	153000	2000						

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