Shrink Discs

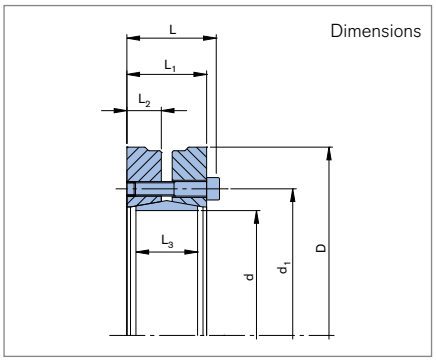
RINGFEDER® RfN 4061 stainless steel

Corrosion-Resistant Version of RfN 4061 Made of Robust Stainless Steel

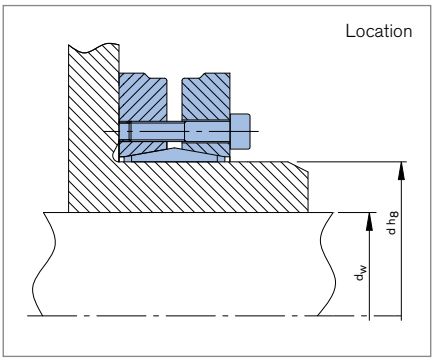


2-part | **3-part**

Dimensions



Location



Shrink Discs dimensions										Transmissible torques or axial forces				High-strength special screws ISO 4762			
d	x	D	d_w	d_1	L	L_1	L_2	L_3	T_A	T	F_{ax}	P	σ_v	n_{Sc}	D_G	Gw	T_{max}
mm			mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm²	N/mm²		mm	kg	Nm
			10							30	8		415				37,5
14	x	37	11	24	16	12	5	9	2,4	37	8	278	474	3	M4	0,1	46
			12							48	10		557				60
			12							70	15		509				90
16	x	41	13	27	20	15	6,25	12	4	90	18	336	575	4	M5	0,1	110
			14							110	20		774				130
			14							90	16		459				110
18	x	44	15	29	20	15	6,25	12	4	100	18	299	523	4	M5	0,2	130
			16							120	20		705				160
			15							110	20		462				140
20	x	46	16	32	22,5	17,5	7	12	4	140	22	336	497	5	M5	0,2	170
			17							160	24		580				200
			16							200	31		534				250
21	x	50	17	36	24	19	8	15	5	230	34	384	602	6	M5	0,2	290
			18							260	37		746				330
			19							240	32		495				300
24	x	50	20	36	24	19	8	15	5	270	35	336	554	6	M5	0,2	340
			21							300	38		679				390
			24							350	38		390				450
30	x	60	25	44	26,5	21,5	8,5	17	5	400	41	261	426	7	M5	0,3	500
			26							440	43		492				560
			28							590	53		390				730
36	x	72	30	52	29,5	23,5	10	18	12	690	58	303	438	5	M6	0,5	860
			31							700	58		536				890

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Shrink Discs dimensions										Transmissible torques or axial forces				High-strength special screws ISO 4762			
d	x	D	d_w	d_1	L	L_1	L_2	L_3	T_A	T	F_{ax}	P	σ_v	n_{Sc}	D_G	Gw	T_{max}
mm			mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm²	N/mm²		mm	kg	Nm
			29							700	62		378				890
38	x	72	30	55	32	26	10	21	12	770	65	295	394	6	M6	0,5	970
			31							780	63		474				980
			30							720	61		375				900
40	x	72	31	57	30,5	24,5	10,5	19	12	730	59	310	450	6	M6	0,5	910
			32							790	62		460				990
			32							800	63		429				1000
44	x	80	35	63	32	26	11	20	12	1000	73	312	444	7	M6	0,5	1250
			36							1050	76		458				1350
			36							900	65		371				1150
48	x	80	38	68	32	26	11	22	12	1050	72	260	380	7	M6	0,6	1350
			40							1200	78		403				1550
			38							1350	89		418				1650
50	x	90	40	70	33,5	27,5	11,5	22,5	12	1500	96	314	433	9	M6	0,9	1900
			42							1700	103		467				2150
			42							1300	78		343				1600
55	x	100	45	75	36,5	30,5	12	23	12	1550	87	248	359	8	M6	1,1	1950
			48							1800	96		410				2300
			48							2400	126		407				3000
62	x	110	50	86	36,5	30,5	12,5	23	12	2650	133	330	419	12	M6	1,3	3300
			52							2800	136		482				3500
			50							1900	95		314				2350
68	x	115	55	86	36,5	30,5	12	23,5	12	2250	104	245	367	10	M6	1,4	2850
			60							2850	121		411				3600
			55							2650	121		377				3300
75	x	138	60	100	40,5	32,5	13	25	30	3300	139	277	382	7	M8	2,3	4150
			65							4050	158		416				5100
			60							3200	126		353				4000
80	x	145	65	100	40,5	32,5	13	25	30	3900	143	259	358	7	M8	2,5	4900
			70							4600	160		392				5750
			60							4850	189		404				6050
85	x	155	65	114	48,5	40,5	16	30	30	5800	212	325	407	11	M8	3,5	7250
			70							6800	235		427				8500
			65							4800	174		353				6000
90	x	155	70	114	47	39	16	30	30	6050	195	274	356	10	M8	3,3	7550
			75							7300	215		372				9150
			65							5350	195		349				6700
95	x	170	70	127	55,1	47,1	19	34	30	6750	217	275	349	12	M8	4,7	8450
			75							8150	240		355				10200
			70							6950	202		331				8700
100	x	170	75	127	55,1	47,1	19	34	30	7600	223	261	331	12	M8	4,5	9500
			80							9100	245		338				11350
			75							8150	259		316				10150
110	x	185	80	145	63	53	21,5	42	59	10100	285	254	316	10	M10	6,3	12600
			85							12200	296		357				15250
			80							9500	267		302				11850
115	x	185	90	145	66	56	21,5	42	59	12100	302	243	342	10	M10	6,1	15100
			95							14050	329		353				17550

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Shrink Discs RINGFEDER® RfN 4061 stainless steel

Shrink Discs dimensions										Transmissible torques or axial forces				High-strength special screws ISO 4762			
d	x	D	d_w	d_1	L	L_1	L_2	L_3	T_A	T	F_{ax}	P	σ_v	n_{Sc}	D_G	Gw	T_{max}
mm			mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm²	N/mm²		mm	kg	Nm
			85							11050	300		354				13800
125	x	215	90	160	64	54	23	42	59	13100	327	269	352	12	M10	8,7	16350
			95							15150	355		352				18950
			95							15100	365		336				18850
140	x	230	100	175	72,5	60,5	26	46	100	17550	395	263	335	10	M12	10,6	21900
			105							20000	424		335				25000
			115							31400	601		334				39300
165	x	290	120	210	87	71	31	56	250	35500	637	280	335	8	M16	21,7	44400
			125							39400	664		348				49250
			135							52500	786		307				65600
185	x	330	140	236	102,4	86,4	38,2	71	250	57350	828	246	310	10	M16	36	71650
			145							62400	870		314				78000
			140							65950	943		332				82450
195	x	350	150	246	102	86	38,2	71	250	77600	1035	280	338	12	M16	40	97000
			155							83750	1081		345				104700
			150							75000	1000		326				93750
200	x	350	155	246	102	86	38,2	71	250	81000	1045	273	330	12	M16	39	101200
			160							87200	1091		337				109000

More sizes on request

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Shrink Discs RINGFEDER® RfN 4061 stainless steel

Explanation

d	= Inner diameter	**L_2**	= Thrust ring width	**P**	= Hub surface pressure
D	= Outer diameter	**L_3**	= Width of ring	**σ_v**	= Equivalent stress in the hub
d_w	= Solid shaft diameter	**L_B**	= Width of the half Shrink Disc	**n_{Sc}**	= Quantity of screws
d_1	= Pitch circle diameter	**T_A**	= Tightening torque of the clamping screws	**D_G**	= Thread
L	= Overall length	**T**	= Transmissible torque at given T_A	**Gw**	= Weight
L_1	= Overall length (without screws)	**F_{ax}**	= Transmissible axial force	**T_{max}**	= Max. transmissible torque

Ordering example

Series	d	D	Version
RfN 4061	96	170	SST

SST = Stainless steel

Table Clearance

d_w above	d_w up to	ISO	Max. clearance S mm
6	10	H6/j6	0,011
10	18		0,014
18	30		0,017
30	50	H6/h6	0,032
50	80	H6/g6	0,048
80	120	H7/g6	0,069
120	180		0,079
180	250		0,090
250	315		0,101
315	400		0,111
400	500		0,123
500	630		0,136
630	800		0,154

Clearances considered for the calculation of the function values

Technical information

- Surface finishes: For shaft $R_a \leq 3{,}2$ µm
- Tolerances: For shaft see table
- Due to its high chromium content, the material used has medium to high corrosion resistance to media with moderate aggressiveness, e.g., water, steam, humidity, soaps, solvents, organic acids, or alkalis. It is not suitable for media containing chlorine or for seawater. In case of uncertainty, please consult with RINGFEDER POWER TRANSMISSION.
- When using a hollow shaft instead of a solid shaft please contact our Engineering-Team.
- Additional loads, e.g. tension, thrust or bending have to be taken into consideration accordingly
- Function values: The functional characteristics are valid with the screw tightening torque listed in the tables and the following assumed conditions: The locking screws are lubricated using MoS_2 (μ_{tot}= 0,1). The tapered cones are lubricated using MoS_2 (µ = 0,05). The contact surfaces (d_w) are in lightly oiled condition with coefficient of friction µ = 0,12. The hub and shaft materials have a modulus of elasticity of 210,000 N/mm². (Lower values result in increased values for T and Fax with reduced tangential stress.) The maximum clearance S is being fully utilized. The shaft being used is solid, for hollow shaft applications the functional values will change. In cases where the assumed conditions do not apply then contact our Technical Department where we will be happy to assist you with your application.

Safety Covers

As an effective, safe contact protection against screw heads of rotating shrink discs, original **RINGFEDER® Safety Covers** made of high-quality synthetic material are available for series RINGFEDER® RfN 4061 up to size 140 x 230 mm.

Further information on
RINGFEDER® RfN 4061 stainless steel
on **www.ringfeder.com**

Disclaimer of liability
All technical details and notes are non-binding and cannot be used as a basis for legal claims. The user is obligated to determine whether the represented products meet his requirements. We reserve the right carry out modifications at any time in the interests of technical progress.

RINGFEDER POWER TRANSMISSION