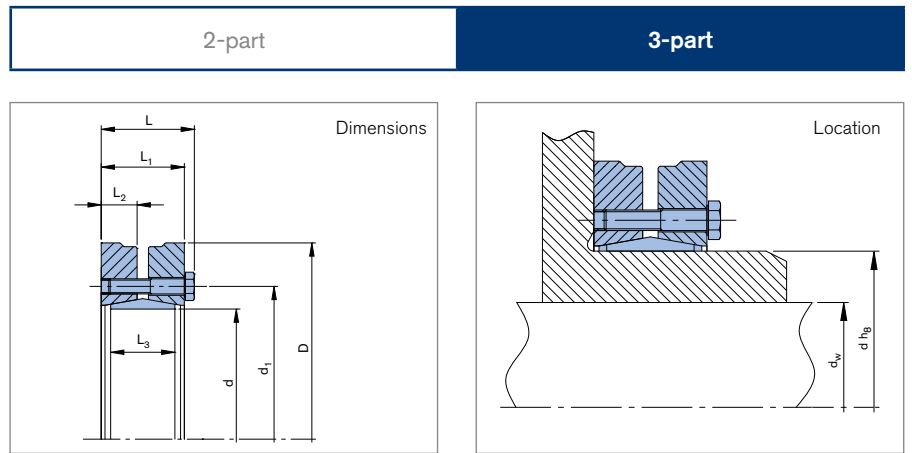


Shrink Discs

RINGFEDER® RfN 4061

Universally Applicable Series for Smaller Shaft Diameters and High Torques



Shrink Discs dimensions										Transmissible torques or axial forces				Locking screws ISO 4014/4017 - 10.9				
d	x	D	d _w	d ₁	L	L ₁	L ₂	L ₃	L _B	T _A	T	F _{ax}	P	σ _v	n _{sc}	D _G	G _w	T _{max}
mm		mm	mm	mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm ²	N/mm ²		mm	kg	Nm
14	x	37	10	24	14,8	12	5	9	9,5	2,4	30	8	278	415	3	M4 ¹⁾	0,1	37,5
			11	24	14,8	12	5	9	9,5		37	8		474				46
			12	24	14,8	12	5	9	9,5		48	10		557				60
16	x	41	12	27	18,5	15	6,25	12	9,5	4	70	15	336	509	4	M5	0,1	90
			13	27	18,5	15	6,25	12	9,5		90	18		575				110
			14	27	18,5	15	6,25	12	9,5		110	20		774				130
18	x	44	14	29	18,5	15	6,25	12	9,5	4	90	16	299	459	4	M5	0,2	110
			15	29	18,5	15	6,25	12	9,5		100	18		523				130
			16	29	18,5	15	6,25	12	9,5		120	20		705				160
20	x	46	15	32	21	17,5	7	12	11,5	4	110	20	336	462	5	M5	0,2	140
			16	32	21	17,5	7	12	11,5		140	22		497				170
			17	32	21	17,5	7	12	11,5		160	24		580				200
21	x	50	16	36	22,5	19	8	15	11,8	5	200	31	384	534	6	M5	0,2	250
			17	36	22,5	19	8	15	11,8		230	34		602				290
			18	36	22,5	19	8	15	11,8		260	37		746				330
24	x	50	19	36	22,5	19	8	15	11,8	5	240	32	336	495	6	M5	0,2	300
			20	36	22,5	19	8	15	11,8		270	35		554				340
			21	36	22,5	19	8	15	11,8		300	38		679				390
30	x	52	24	41,5	26	22,5	9,5	18	12,8	5	350	38	261	390	7	M5	0,2	450
			25	41,5	26	22,5	9,5	18	12,8		400	41		426				500
			26	41,5	26	22,5	9,5	18	12,8		440	43		492				560
36	x	72	28	52	27,5	23,5	10	18	13,8	12	590	53	303	390	5	M6	0,5	730
			30	52	27,5	23,5	10	18	13,8		690	58		438				860
			31	52	27,5	23,5	10	18	13,8		700	58		536				890

¹⁾ Different quality of screws. ISO 4014/4017 - 8.8

To continue see next page

Shrink Discs RINGFEDER® RfN 4061

Shrink Discs dimensions											Transmissible torques or axial forces				Locking screws			T _{max}
d	x	D	d _w	d ₁	L	L ₁	L ₂	L ₃	L _B	T _A	T	F _{ax}	P	σ _v	n _{Sc}	D _G	G _w	
mm			mm	mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm ²	N/mm ²		mm	kg	Nm
38	x	72	29	55	30	26	10,5	21	15,2	12	700	62	295	378	6	M6	0,5	890
			30								770	65		394				970
			31								780	63		474				980
40	x	72	30	28,5	24,5	10,5	19	14,8	12	720	61	310	375	6	M6	0,5	900	
			31							730	59		450				910	
			32							790	62		460				990	
44	x	80	32	63	30	26	11	20	15,3	12	800	63	312	429	7	M6	0,5	1000
			35								1000	73		444				1250
			36								1050	76		458				1350
48	x	80	36	68	30	26	11	22	15,8	12	900	65	260	371	7	M6	0,6	1150
			38								1050	72		380				1350
			40								1200	78		403				1550
50	x	90	38	70	31,5	27,5	12	22,5	16,3	12	1350	89	314	418	9	M6	0,9	1650
			40								1500	96		433				1900
			42								1700	103		467				2150
55	x	100	42	75	34,5	30,5	13	23	17,8	12	1300	78	248	343	8	M6	1,1	1600
			45								1550	87		359				1950
			48								1800	96		410				2300
62	x	110	48	86	34,5	30,5	13	23	17,8	12	2400	126	330	407	12	M6	1,3	3000
			50								2650	133		419				3300
			52								2800	136		482				3500
68	x	115	50	86	34,5	30,5	13	23,5	17,8	12	1900	95	245	314	10	M6	1,4	2350
			55								2250	104		367				2850
			60								2850	121		411				3600
75	x	138	55	100	37,8	32,5	14	25	19,7	30	2650	121	277	377	7	M8	2,3	3300
			60								3300	139		382				4150
			65								4050	158		416				5100
80	x	145	60	100	37,8	32,5	14	25	19,7	30	3200	126	259	353	7	M8	2,5	4000
			65								3900	143		358				4900
			70								4600	160		392				5750
85	x	155	60	114	45,8	40,5	16	30	23	30	4850	189	325	404	11	M8	3,5	6050
			65								5800	212		407				7250
			70								6800	235		427				8500
90	x	155	65	114	44,5	39	17	30	23	30	4800	174	274	353	10	M8	3,3	6000
			70								6050	195		356				7550
			75								7300	215		372				9150
95	x	170	65	127	52,5	47,2	19	34	23,5	30	5350	195	275	349	12	M8	4,7	6700
			70								6750	217		349				8450
			75								8150	240		355				10200
100	x	170	70	127	52,5	47,2	19	34	25,5	30	6950	202	261	331	12	M8	4,5	8700
			75								7600	223		331				9500
			80								9100	245		338				11350
110	x	185	75	145	59,4	53	23	42	28,5	59	8150	259	254	316	10	M10	6,3	10150
			80								10100	285		316				12600
			85								12200	296		357				15250
115	x	185	80	145	62,4	56	23	42	32	59	9500	267	243	302	10	M10	6,1	11850
			90								12100	302		342				15100
			95								14050	329		353				17550

To continue see next page

Shrink Discs RINGFEDER® RfN 4061

Shrink Discs dimensions										Transmissible torques or axial forces				Locking screws		Gw	T _{max}	
d	x	D	d _w	d ₁	L	L ₁	L ₂	L ₃	L _B	T _A	T	F _{ax}	P	σ _v	n _{Sc}			D _G
mm			mm	mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm ²	N/mm ²		mm	kg	
125	x	215	85	160	60,4	54	23	42	32	59	11050	300	269	354	12	M10	8,7	13800
			90								13100	327		352				16350
			95								15150	355		352				18950
140	x	230	95	175	68	60,5	26	46	35,5	100	15100	365	263	336	10	M12	10,6	18850
			100								17550	395		335				21900
			105								20000	424		335				25000
155	x	265	105	192	72,5	64,5	28	50	37,2	100	22000	447	263	320	12	M12	15	27500
			110								25000	478		320				31250
			115								28000	509		322				35000
165	x	290	115	210	81	71	31	56	40,5	250	31400	601	280	334	8	M16	21,7	39300
			120								35500	637		335				44400
			125								39400	664		348				49250
175	x	300	125	220	81	71	31	56	40,5	250	36000	605	261	334	8	M16	22	45000
			130								41000	639		321				51250
			135								45000	675		324				56250
185	x	330	135	236	96,4	86,4	38,2	71	48	250	52500	786	246	307	10	M16	36	65600
			140								57350	828		310				71650
			145								62400	870		314				78000
195	x	350	140	246	96	86	38,2	71	48	250	65950	943	280	332	12	M16	40	82450
			150								77600	1035		338				97000
			155								83750	1081		345				104700
200	x	350	150	246	96	86	38,2	71	48	250	75000	1000	273	326	12	M16	39	93750
			155								81000	1045		330				101200
			160								87200	1091		337				109000

More sizes on request
To continue see next page

Shrink Discs RINGFEDER® RfN 4061

Explanation

d = Inner diameter	L₂ = Thrust ring width	P = Hub surface pressure
D = Outer diameter	L₃ = 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
d₁ = Pitch circle diameter	T_A = Tightening torque of the clamping screws	D_G = Thread
L = Overall length	T = Transmissible torque at given T _A	G_w = Weight
L₁ = Overall length (without screws)	F_{ax} = Transmissible axial force	T_{max} = Max. transmissible torque

Ordering example

Series	d	D	Version
RfN 4061	185	330	
RfN 4061	185	330	N

N = Nickel plated series

Table Clearance

d _w		ISO	Max. clearance S mm
above	up to		
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	

Technical information

- Surface finishes: For shaft R_a ≤ 3,2 μm
- Tolerances: For shaft see table
- 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 MoS₂ (μ_{tot} = 0,1). The tapered cones are lubricated using MoS₂ (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.

Clearances considered for the calculation of the function values

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 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.