Shrink Discs

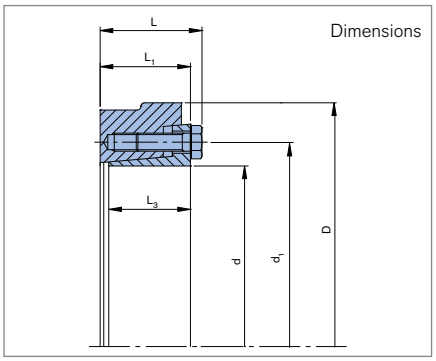
RINGFEDER® RfN 4161

Proven Standard Series with Smaller Dimensions for Transmission of High Torques

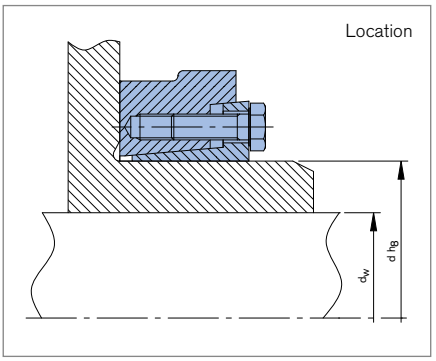


2-part | 3-part

Dimensions



Location



Shrink Discs dimensions									Transmissible torques or axial forces		Locking screws ISO 4014/4017 - 12.9		
d	x	D	d_w	d_1	L	L_1	L_3	T_A	T	F_{ax}	D_G	Gw	T_{max}
mm			mm	mm	mm	mm	mm	Nm	Nm	kN	mm	kg	Nm
			15						80	11			88
18	x	44	16	30	19	15	13	12	110	14	M6	0,15	121
			---						---	---			---
			17						150	18			165
20	x	47	18	32	19,3	15,3	13,5	12	180	20	M6	0,2	198
			---						---	---			---
			19						160	17			176
24	x	50	20	36	22	18	15	12	210	20	M6	0,2	231
			22						280	25			308
			20						230	23			253
26	x	51,5	22	38	22	18	16	12	300	27	M6	0,2	330
			24						310	29			341
			24						270	23			297
30	x	60	25	44	24	20	17	12	320	25	M6	0,3	352
			26						360	28			396
			27						510	37			561
36	x	72	30	52	27,3	22	18,5	35	710	47	M8	0,5	781
			33						950	58			1045
			27						480	36			528
38	x	72	30	54	27,3	22	18,5	35	650	43	M8	0,5	715
			33						860	52			946
			34						810	48			891
40	x	80	35	61	29,3	24	20,5	35	880	50	M8	0,7	968
			37						960	52			1056

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Shrink Discs dimensions									Transmissible torques or axial forces		Locking screws ISO 4014/4017 - 12.9		
d	x	D	d_w	d_1	L	L_1	L_3	T_A	T	F_{ax}	D_G	Gw	T_{max}
mm			mm	mm	mm	mm	mm	Nm	Nm	kN	mm	kg	Nm
			35						800	52			880
44	x	80	36	61	29,3	24	20,5	35	890	57	M8	0,6	979
			37						1050	60			1155
			38						1500	79			1650
50	x	90	40	68	31,3	26	22	35	1700	87	M8	0,8	1870
			42						2000	94			2200
			42						1600	78			1760
55	x	100	45	72	34,3	29	25	35	2000	88	M8	1,1	2200
			48						2400	99			2640
			48						2200	92			2420
60	x	110	50	80	34,3	29	24,5	35	2500	98	M8	1,3	2750
			52						2700	105			2970
			48						2200	92			2420
62	x	110	50	80	34,3	29	24,5	35	2500	98	M8	1,3	2750
			52						2700	105			2970
			50						2400	94			2640
68	x	115	55	86	34,3	29	24,5	35	3000	111	M8	1,4	3300
			60						3800	128			4180
			55						3700	135			4070
75	x	138	60	100	37,5	31	26,3	70	4700	156	M10	2,3	5170
			65						5800	177			6380
			60						4200	141			4620
80	x	141	65	104	37,5	31	26	70	5200	160	M10	2,3	5720
			70						6300	180			6930
			65						5900	186			6490
85	x	155	70	114	45	38	34	70	7200	204	M10	3,7	7920
			75						8500	227			9350
			65						5900	182			6490
90	x	155	70	114	45	38	33	70	7200	204	M10	3,5	7920
			75						8500	227			9350
			70						7400	213			8140
95	x	170	75	124	49,5	43	37,5	70	8900	236	M10	4,9	9790
			80						10400	260			11440
			80						15000	370			16500
100	x	185	85	139	56,5	49	43	121	17300	400	M12	6,7	19030
			90						19600	430			21560
			80						13900	348			15290
105	x	185	85	139	56,5	49	43	121	16100	380	M12	6,4	17710
			90						18600	434			20460
			80						15500	380			17050
110	x	185	85	139	56,5	49	43	121	17800	410	M12	6,1	19580
			90						20000	440			22000
			85						17200	405			18920
115	x	200	90	150	62,5	55	48	121	19900	443	M12	8	21890
			95						22900	482			25190
			85						17300	405			18920
120	x	200	90	150	62,5	55	48	121	19900	443	M12	7,7	21890
			95						22900	482			25190

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Shrink Discs dimensions									Transmissible torques or axial forces		Locking screws ISO 4014/4017 - 12.9		
d	x	D	d_w	d_1	L	L_1	L_3	T_A	T	F_{ax}	D_G	Gw	T_{max}
mm			mm	mm	mm	mm	mm	Nm	Nm	kN	mm	kg	Nm
			90						19200	420			21120
125	x	215	95	157	60,5	53	46,5	121	21700	450	M12	9	23870
			100						24400	480			26840
			95						25900	540			28490
130	x	230	100	172	65,5	58	51	121	29000	580	M12	11,5	31900
			110						36000	650			38600
			95						21450	452			23595
135	x	230	100	172	67	58	51	190	24300	486	M14	11,1	26730
			110						30500	555			33500
			100						25300	500			27830
140	x	230	105	172	67	58	51	190	28000	530	M14	10,7	30800
			115						35600	610			39160
			110						37000	673			40700
150	x	263	120	190	71	62	55	190	45300	754	M14	16,3	49830
			125						49700	795			54670
			110						33000	600			36300
155	x	263	115	190	71	62	55	190	36600	637	M14	15,8	40260
			120						40500	674			44550
			120						57300	950			63030
160	x	290	130	200	78	68	61	290	66700	1020	M16	22,3	73370
			135						72500	1070			79750
			120						56500	940			62150
165	x	290	125	200	78	68	61	290	61500	980	M16	21,7	67650
			135						72500	1070			79750
			130						61000	938			67100
170	x	300	140	210	78,5	68,5	61	290	72300	1023	M16	22,3	79530
			145						78400	1081			86240
			130						61500	900			67650
175	x	300	135	210	78,5	68,5	61	290	67000	990	M16	21,7	73700
			140						72500	1030			79750
			140						86500	1237			95150
180	x	320	150	224	97	87	77,5	290	101400	1352	M16	34	111540
			155						109300	1401			120230
			140						96000	1250			105600
185	x	320	145	224	97	87	77,5	290	104000	1350	M16	33,1	114400
			155						120000	1550			132000
			150						92000	1250			101200
190	x	320	155	238	96	86	76	290	99000	1300	M16	32	108900
			165						113500	1400			124850
			150						103000	1374			113300
195	x	340	160	238	95,5	85,5	77	290	119300	1491	M16	35	131230
			165						126100	1529			138710
			150						108000	1450			118800
200	x	340	155	238	95,5	85,5	77	290	116000	1500	M16	34	127600
			160						124000	1550			136400

More sizes on request

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Explanation

d	= Inner diameter	**L_1**	= Overall length (without screws)	**n_{Sc}**	= Quantity of screws
D	= Outer diameter	**L_3**	= Width of ring	**D_G**	= Thread
d_w	= Solid shaft diameter	**T_A**	= Tightening torque of the clamping screws	**Gw**	= Weight
d_1	= Pitch circle diameter	**T**	= Transmissible torque at given T_A	**T_{max}**	= Max. transmissible torque
L	= Overall length	**F_{ax}**	= Transmissible axial force		

Ordering example

Series	d	D
RfN 4161	150	263

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
- When using a hollow shaft instead of a solid shaft please contact our Engineering-Team.
- Hub with yield strength Rp0,2 ≥ 360 N/mm²
- 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 4161 up to size 140 x 230 mm.

Further information on
RINGFEDER® RfN 4161 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