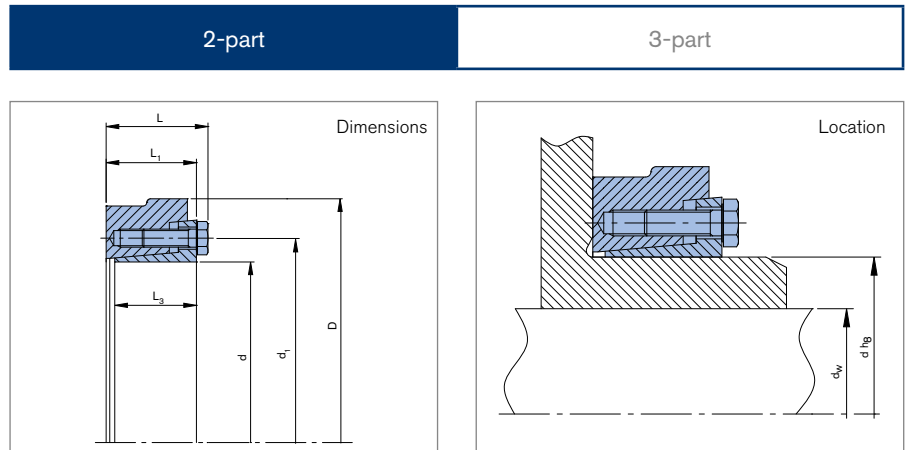


Shrink Discs

RINGFEDER® RfN 4161

Standard series for high torque



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	G _w	T _{max}
mm			mm	mm	mm	mm	mm	Nm	Nm	kN	mm	kg	Nm
18	x	44	15	30	19	15	13	12	80	11	M6	0,15	88
			16						110	14			121
			---						---	---			---
20	x	47	17	32	19,3	15,3	13,5	12	150	18	M6	0,2	165
			18						180	20			198
			---						---	---			---
24	x	50	19	36	22	18	15	12	160	17	M6	0,2	176
			20						210	20			231
			22						280	25			308
26	x	51,5	20	38	22	18	16	12	230	23	M6	0,2	253
			22						300	27			330
			24						310	29			341
30	x	60	24	44	24	20	17	12	270	23	M6	0,3	297
			25						320	25			352
			26						360	28			396
36	x	72	27	52	27,3	22	18,5	35	510	37	M8	0,5	561
			30						710	47			781
			33						950	58			1045
38	x	72	27	54	27,3	22	18,5	35	480	36	M8	0,5	528
			30						650	43			715
			33						860	52			946
40	x	80	34	61	29,3	24	20,5	35	810	48	M8	0,7	891
			35						880	50			968
			37						960	52			1056

To continue see next page

Shrink Discs RINGFEDER® RfN 4161

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

To continue see next page

Shrink Discs RINGFEDER® RfN 4161

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

More sizes on request
To continue see next page

Shrink Discs RINGFEDER® RfN 4161

Explanation

d = Inner diameter	L₁ = Overall length (without screws)	n_{Sc} = Quantity of screws
D = Outer diameter	L₃ = Width of ring	D_G = Thread
d_w = Solid shaft diameter	T_A = Tightening torque of the clamping screws	G_w = Weight
d₁ = 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		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	H7/g6	0,048
80	120		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 ≤ 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 R_{p0,2} ≥ 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 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.

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.