Shrink Discs

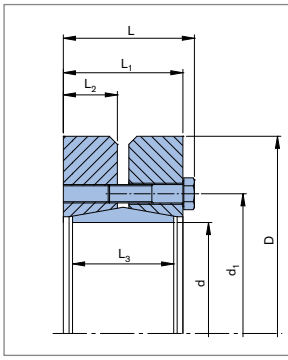
RINGFEDER® RfN 4071

Extended Series of RfN 4061 for Larger Shaft Diameters and Highest Transmission Values

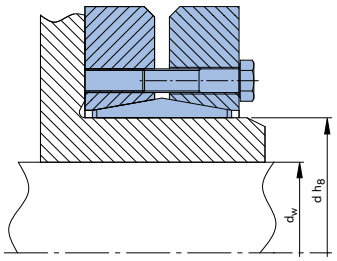


2-part | **3-part**

Dimensions



Location



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	Gw	T_{max}
mm			mm	mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm²	N/mm²		mm	kg	Nm
			160								95000	1190		295				118750
220	x	370	165	270	114	104	47	88	59,5	250	102000	1239	248	298	15	M16	54	127500
			170								110000	1290		303				137500
			170								120000	1464		309				150000
240	x	405	180	295	122	109	49	92	62	490	138000	1576	272	315	12	M20	67	172500
			190								156000	1675		334				195000
			190								164000	1760		306				205000
260	x	430	200	321	133	120	54	103	67,5	490	184000	1880	262	314	14	M20	82	230000
			210								205000	2010		329				256250
			210								217000	2090		295				271250
280	x	460	220	346	147	134	60	114	76,5	490	244000	2220	251	306	16	M20	102	305000
			230								270000	2350		324				337500
			230								275000	2431		291				343750
300	x	485	240	364	155	142	64	122	79,5	490	295000	2567	246	303	18	M20	118	368750
			245								315000	2636		312				393750
			240								312000	2647		293				390000
320	x	520	250	386	155	142	64	122	79,5	490	340000	2786	257	301	20	M20	131	425000
			260								374000	2900		320				467500
			250								390000	3119		295				487500
340	x	570	260	408	169	156	71	134	86,5	490	422500	3249	264	307	24	M20	186	528125
			270								460000	3400		317				575000
			270								442000	3276		289				552500
350	x	580	280	432	175	162	73	140	89,5	490	480000	3430	245	300	24	M20	195	600000
			285								500000	3500		307				625000

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Shrink Discs RINGFEDER® RfN 4071

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	Gw	T_{max}
mm			mm	mm	mm	mm	mm	mm	mm	Nm	Nm	kN	N/mm²	N/mm²		mm	kg	Nm
			280								463000	3310		282				578750
360	x	590	290	432	175	162	73	140	89,5	490	502000	3461	238	292	24	M20	204	627500
			295								522000	3536		298				652500
			290								567000	3910		300				708750
380	x	645	300	458	183	168	76	144	92,5	840	610000	4080	263	307	20	M24	239	762500
			310								658000	4248		320				822500
			300								624000	4160		305				780000
390	x	660	310	468	183	168	76	144	92,5	840	671000	4330	270	314	21	M24	260	838750
			320								718000	4484		331				897500
			315								670000	4260		302				837500
400	x	680	320	480	183	168	76	144	92,5	840	695000	4345	263	310	21	M24	280	868750
			330								744000	4500		324				930000
			330								780000	4850		295				975000
420	x	690	340	504	203	188	86	164	106,5	840	840000	5040	251	306	24	M24	316	1050000
			350								900000	5220		322				1125000
			340								806000	4740		267				1007500
440	x	750	350	527	217	202	91	177	113,5	840	860000	4910	223	274	24	M24	408	1075000
			360								917000	5090		285				1146250
			360								1000000	5670		293				1250000
460	x	770	370	547	217	202	91	177	113,5	840	1070000	5860	248	301	28	M24	420	1337500
			380								1400000	6050		314				1750000
			380								1170000	6150		282				1462500
480	x	800	390	570	228	213	96	188	119	840	1240000	6350	240	292	30	M24	505	1550000
			400								1310000	6550		306				1637500
			400								1312000	6560		284				1640000
500	x	850	410	590	230	213	96	188	119	1250	1380000	6730	242	297	24	M27	575	1725000
			420								1455000	6930		311				1818750

More sizes on request

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Shrink Discs RINGFEDER® RfN 4071

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
RfN 4071	420	520

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.
- 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.

Further information on
RINGFEDER® RfN 4071 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.