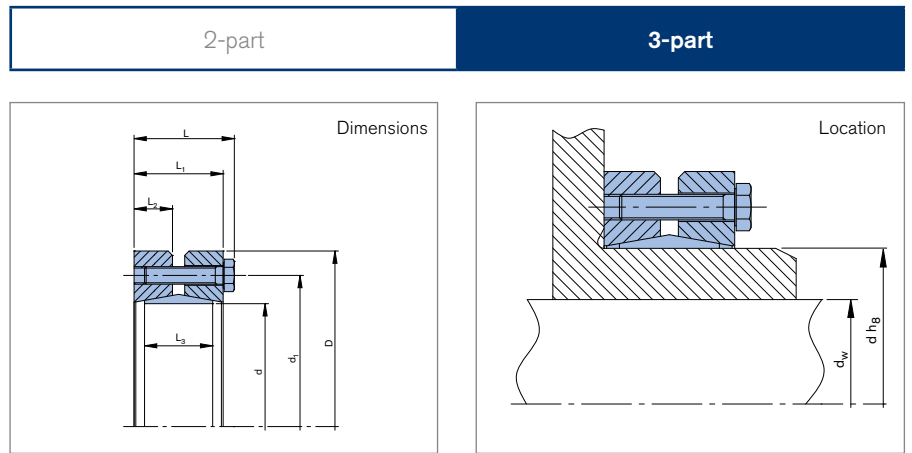


Shrink Discs

RINGFEDER® RfN 4051

Light Series for Medium Transmission Values, Ideal for Thin-Walled Hubs and Shafts



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	T _A	T	F _{ax}	P	σ _v	n _{sc}	Thread	G _w	T _{max}
mm		mm		mm				Nm	Nm	kN	N/mm ²	N/mm ²			kg	Nm	
125	x	185	95	158	58	51	22	39	59	10.550	220	191	278	8	M10	5,1	13.200
			100							12.100	240		280				15.125
			105							13.800	260		288				17.250
140	x	220	110	175	58	51	22	39	59	14.800	265	192	268	9	M10	8	18.500
			120							18.640	310		281				23.300
			125							20.500	325		315				25.625
155	x	245	130	192	58	51	22	39	59	24.000	365	212	293	11	M10	10	30.000
			135							26.400	390		306				33.000
			140							29.000	410		334				36.250
165	x	260	135	210	70	62	26	46	100	32.000	475	224	298	10	M12	14	40.000
			140							35.200	500		308				44.000
			145							38.500	530		327				48.125
175	x	275	145	220	70	62	26	46	100	39.000	535	232	302	11	M12	14,7	48.750
			150							42.400	560		313				53.000
			155							46.000	590		334				57.500
185	x	295	155	225	70	62	26	46	100	46.600	600	240	307	12	M12	17,2	58.250
			160							50.300	625		319				62.875
			165							54.000	650		341				67.500
195	x	315	165	237	80	72	31	56	100	63.000	760	233	306	15	M12	23,8	78.750
			170							67.700	795		323				84.625
			175							72.500	825		355				90.625
200	x	330	175	242	80	72	31	56	100	74.000	850	243	334	16	M12	26,8	92.500
			180							79.500	890		368				99.375
			185							84.500	915		440				105.625

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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	T _A	T	F _{ax}	P	σ _v	n _{sc}	Thread	Gw	T _{max}
mm		mm		mm				Nm	Nm	kN	N/mm ²	N/mm ²			kg	Nm	
220	x	345	180	265	94	84	36	66	250	82.800	920	220	277	10	M16	32	103.500
			190							93.500	980		306				116.875
			200							105.000	1.055		367				131.250
240	x	370	200	290	94	84	36	66	250	113.000	1.135	243	304	12	M16	36	141.250
			210							127.500	1.210		330				159.375
			215							134.500	1.250		356				168.125
260	x	395	220	310	102	92	40	72	250	149.000	1.350	240	303	14	M16	48	186.250
			230							165.000	1.435		334				206.250
			235							173.000	1.475		364				216.250
280	x	425	230	333	114	104	46	84	250	171.000	1.485	218	270	16	M16	60	213.750
			240							189.000	1.570		287				236.250
			250							208.000	1.660		324				260.000
300	x	460	250	358	114	104	46	84	250	215.000	1.720	229	279	18	M16	70	268.750
			260							234.000	1.800		303				292.500
			270							255.000	1.890		342				318.750
320	x	495	270	378	116	106	48	84	250	260.000	1.940	239	293	20	M16	84	325.000
			280							284.000	2.030		313				355.000
			290							306.000	2.125		355				382.500
340	x	535	290	402	116	106	48	84	250	300.000	2.070	236	288	21	M16	100	375.000
			300							324.000	2.160		309				405.000
			305							337.000	2.210		326				421.250
350	x	545	300	413	135	122	54	100	490	372.000	2.485	230	292	16	M20	120	465.000
			305							385.000	2.540		304				481.250
			310							400.000	2.590		320				500.000
360	x	555	300	423	135	122	54	100	490	360.000	2.400	223	270	16	M20	125	450.000
			310							388.000	2.500		284				485.000
			320							415.000	2.590		314				518.750
380	x	585	320	442	149	136	60	112	490	435.000	2.720	213	268	18	M20	150	543.750
			325							451.000	2.780		275				563.750
			330							467.000	2.835		285				583.750
390	x	595	330	452	149	136	60	112	490	505.000	3.060	230	285	20	M20	156	631.250
			340							540.000	3.175		304				675.000
			350							577.000	3.295		337				721.250
400	x	615	340	462	149	136	60	112	490	550.000	3.235	236	291	21	M20	164	687.500
			350							587.000	3.360		311				733.750
			360							626.000	3.480		345				782.500
420	x	630	350	485	157	144	64	120	490	578.000	3.300	219	265	22	M20	185	722.500
			360							617.000	3.425		277				771.250
			370							655.000	3.545		297				818.750
440	x	660	370	505	157	144	64	120	490	677.000	3.660	229	274	24	M20	205	846.250
			380							719.000	3.785		287				898.750
			390							762.000	3.910		309				952.500
460	x	685	390	527	171	158	71	132	490	840.000	4.320	232	283	28	M20	235	1.050.000
			400							890.000	4.460		299				1.112.500
			410							935.000	4.580		328				1.170.000

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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	T _A	T	F _{ax}	P	σ _v	n _{sc}	Thread	G _w	T _{max}
mm		mm		mm				Nm	Nm	kN	N/mm ²	N/mm ²			kg	Nm	
480	x	715	410	547	171	158	71	132	490	891.000	4.350	222	275	28	M20	255	1.113.750
			420							941.000	4.480		290				1.176.250
			425							966.000	4.548		301				1.207.500
500	x	750	425	567	171	158	71	132	490	986.000	4.645	228	275	30	M20	285	1.232.500
			430							1.013.000	4.712		281				1.266.250
			440							1.066.000	4.845		297				1.332.500

More sizes on request

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
RfN 4051	420	630

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

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.
- 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.

Further information on
RINGFEDER® RfN 4051
 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.