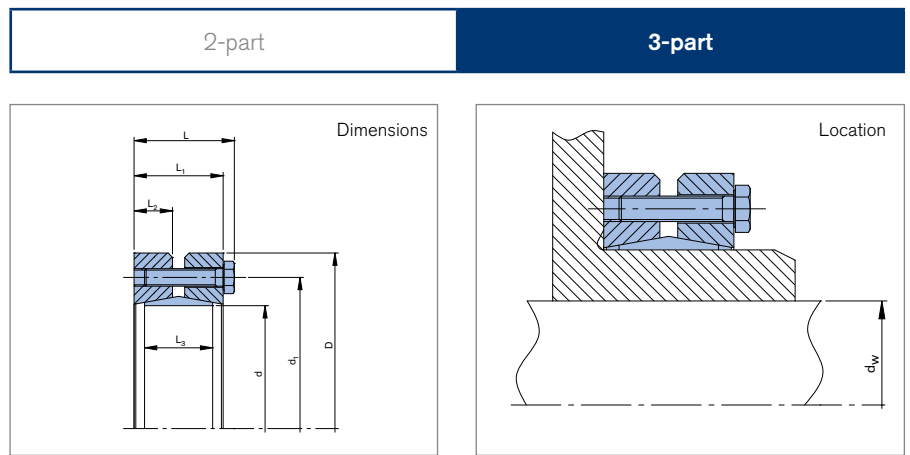


Shrink Discs

RINGFEDER® RfN 4051

Lighter version for moderate transfer values – particularly suited for thin hubs and hollow shafts



Shrink Discs dimensions									Transmissible torques or axial forces				Locking screws					
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}	Thread	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
125	x	185	95	158	58	51	22	39	30,5	59	10550	220	191	278	8	M10	5,1	13200
			100								12100	240		280				15125
			105								13800	260		288				17250
140	x	220	110	175	58	51	22	39	30,85	59	14800	265	192	268	9	M10	8	18500
			120								18640	310		281				23300
			125								20500	325		315				25625
155	x	245	130	192	58	51	22	39	30,5	59	24000	365	212	293	11	M10	10	30000
			135								26400	390		306				33000
			140								29000	410		334				36250
165	x	260	135	210	70	62	26	46	36	100	32000	475	224	298	10	M12	14	40000
			140								35200	500		308				44000
			145								38500	530		327				48125
175	x	275	145	220	70	62	26	46	36	100	39000	535	232	302	11	M12	14,7	48750
			150								42400	560		313				53000
			155								46000	590		334				57500
185	x	295	155	225	70	62	26	46	36	100	46600	600	240	307	12	M12	17,2	58250
			160								50300	625		319				62875
			165								54000	650		341				67500
195	x	315	165	237	80	72	31	56	41	100	63000	760	233	306	15	M12	23,8	78750
			170								67700	795		323				84625
			175								72500	825		355				90625
200	x	330	175	242	80	72	31	56	41	100	74000	850	243	334	16	M12	26,8	92500
			180								79500	890		368				99375
			185								84500	915		440				105625

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Shrink Discs dimensions									Transmissible torques or axial forces				Locking screws					
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}	Thread	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
220	x	345	180	265	94	84	36	66	47	250	82800	920	220	277	10	M16	32	103500
			190								93500	980		306				116875
			200								105000	1055		367				131250
240	x	370	200	290	94	84	36	66	47	250	113000	1135	243	304	12	M16	36	141250
			210								127500	1210		330				159375
			215								134500	1250		356				168125
260	x	395	220	310	102	92	40	72	52,5	250	149000	1350	240	303	14	M16	48	186250
			230								165000	1435		334				206250
			235								173000	1475		364				216250
280	x	425	230	333	114	104	46	84	59,5	250	171000	1485	218	270	16	M16	60	213750
			240								189000	1570		287				236250
			250								208000	1660		324				260000
300	x	460	250	358	114	104	46	84	59,5	250	215000	1720	229	279	18	M16	70	268750
			260								234000	1800		303				292500
			270								255000	1890		342				318750
320	x	495	270	378	116	106	48	84	60,5	250	260000	1940	239	293	20	M16	84	325000
			280								284000	2030		313				355000
			290								306000	2125		355				382500
340	x	535	290	402	116	106	48	84	60,5	250	300000	2070	236	288	21	M16	100	375000
			300								324000	2160		309				405000
			305								337000	2210		326				421250
350	x	545	300	413	135	122	54	100	68,5	490	372000	2485	230	292	16	M20	120	465000
			305								385000	2540		304				481250
			310								400000	2590		320				500000
360	x	555	300	423	135	122	54	100	68,5	490	360000	2400	223	270	16	M20	125	450000
			310								388000	2500		284				485000
			320								415000	2590		314				518750
380	x	585	320	442	149	136	60	112	75,5	490	435000	2720	213	268	18	M20	150	543750
			325								451000	2780		275				563750
			330								467000	2835		285				583750
390	x	595	330	452	149	136	60	112	78	490	505000	3060	230	285	20	M20	156	631250
			340								540000	3175		304				675000
			350								577000	3295		337				721250
400	x	615	340	462	149	136	60	112	78	490	550000	3235	236	291	21	M20	164	687500
			350								587000	3360		311				733750
			360								626000	3480		345				782500
420	x	630	350	485	157	144	64	120	82	490	578000	3300	219	265	22	M20	185	722500
			360								617000	3425		277				771250
			370								655000	3545		297				818750
440	x	660	370	505	157	144	64	120	82	490	677000	3660	229	274	24	M20	205	846250
			380								719000	3785		287				898750
			390								762000	3910		309				952500
460	x	685	390	527	171	158	71	132	91,5	490	840000	4320	232	283	28	M20	235	1050000
			400								890000	4460		299				1112500
			410								935000	4580		328				1170000

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Shrink Discs dimensions									Transmissible torques or axial forces				Locking screws					
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}	Thread	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
480	x	715	410	547	171	158	71	132	91,5	490	891000	4350	222	275	28	M20	255	1113750
			420								941000	4480		290				1176250
			425								966000	4548		301				1207500
500	x	750	425	567	171	158	71	132	91,5	490	986000	4645	228	275	30	M20	285	1232500
			430								1013000	4712		281				1266250
			440								1066000	4845		297				1332500

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.