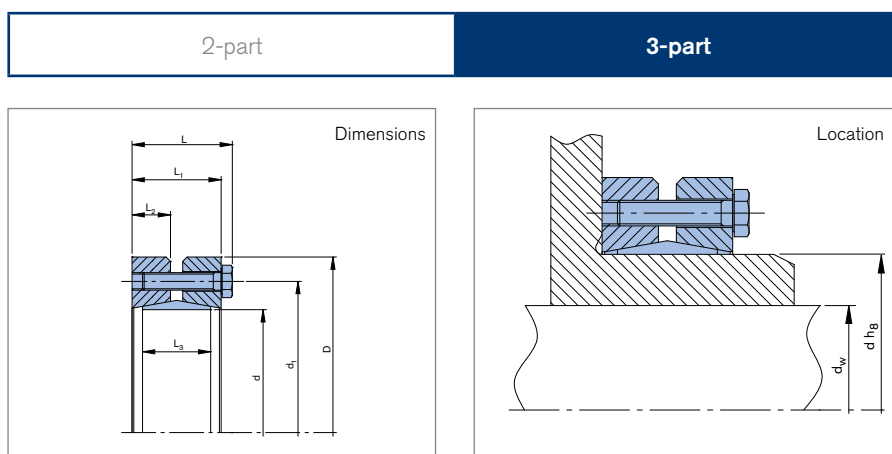


Shrink Discs

RINGFEDER® RfN 4051

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



Shrink Discs dimensions							T _A	Transmissible torques or axial forces		P	σ _v	Locking screws ISO 4014/4017 - 10.9		G _w	T _{max}
d	x	D	d _w	d ₁	L	L ₁		T	F _{ax}			n _{sc}	Thread		
mm			mm		mm		Nm	Nm	kN	N/mm ²	N/mm ²			kg	Nm
125	x	185	95					10.550	220		278				13.200
			100	158	58	51	22	12.100	240	191	280	8	M10	5,1	15.125
			105					13.800	260		288				17.250
140	x	220	110					14.800	265		268				18.500
			120	175	58	51	22	18.640	310	192	281	9	M10	8	23.300
			125					20.500	325		315				25.625
155	x	245	130					24.000	365		293				30.000
			135	192	58	51	22	26.400	390	212	306	11	M10	10	33.000
			140					29.000	410		334				36.250
165	x	260	135					32.000	475		298				40.000
			140	210	70	62	26	35.200	500	224	308	10	M12	14	44.000
			145					38.500	530		327				48.125
175	x	275	145					39.000	535		302				48.750
			150	220	70	62	26	42.400	560	232	313	11	M12	14,7	53.000
			155					46.000	590		334				57.500
185	x	295	155					46.600	600		307				58.250
			160	225	70	62	26	50.300	625	240	319	12	M12	17,2	62.875
			165					54.000	650		341				67.500
195	x	315	165					63.000	760		306				78.750
			170	237	80	72	31	67.700	795	233	323	15	M12	23,8	84.625
			175					72.500	825		355				90.625
200	x	330	175					74.000	850		334				92.500
			180	242	80	72	31	79.500	890	243	368	16	M12	26,8	99.375
			185					84.500	915		440				105.625

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Shrink Discs dimensions							T _A	Transmissible torques or axial forces		P	σ _V	Locking screws ISO 4014/4017 - 10.9		G _w	T _{max}
d	x	D	d _w	d ₁	L	L ₁		T	F _{ax}			n _{sc}	Thread		
mm			mm		mm		Nm	Nm	kN	N/mm ²	N/mm ²			kg	Nm
220	x	345	180	265	94	84	36	66	250			10	M16	32	103.500
			190												116.875
			200												131.250
240	x	370	200	290	94	84	36	66	250			12	M16	36	141.250
			210												159.375
			215												168.125
260	x	395	220	310	102	92	40	72	250			14	M16	48	186.250
			230												206.250
			235												216.250
280	x	425	230	333	114	104	46	84	250			16	M16	60	213.750
			240												236.250
			250												260.000
300	x	460	250	358	114	104	46	84	250			18	M16	70	268.750
			260												292.500
			270												318.750
320	x	495	270	378	116	106	48	84	250			20	M16	84	325.000
			280												355.000
			290												382.500
340	x	535	290	402	116	106	48	84	250			21	M16	100	375.000
			300												405.000
			305												421.250
350	x	545	300	413	135	122	54	100	490			16	M16	120	465.000
			305												481.250
			310												500.000
360	x	555	300	423	135	122	54	100	490			16	M20	125	450.000
			310												485.000
			320												518.750
380	x	585	320	442	149	136	60	112	490			18	M20	150	543.750
			325												563.750
			330												583.750
390	x	595	330	452	149	136	60	112	490			20	M20	156	631.250
			340												675.000
			350												721.250
400	x	615	340	462	149	136	60	112	490			21	M20	164	687.500
			350												733.750
			360												782.500
420	x	630	350	485	157	144	64	120	490			22	M20	185	722.500
			360												771.250
			370												818.750
440	x	660	370	505	157	144	64	120	490			24	M20	205	846.250
			380												898.750
			390												952.500
460	x	685	390	527	171	158	71	132	490			28	M20	235	1.050.000
			400												1.112.500
			410												1.170.000

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Shrink Discs RINGFEDER® RfN 4051

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
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	Gw = 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
above	up to		mm
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.
- 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.