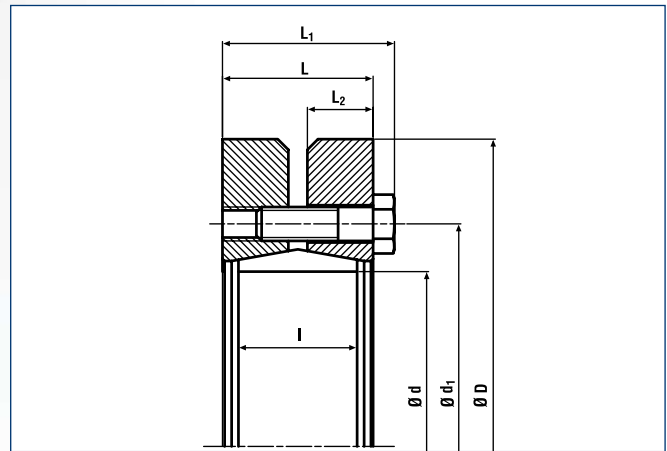
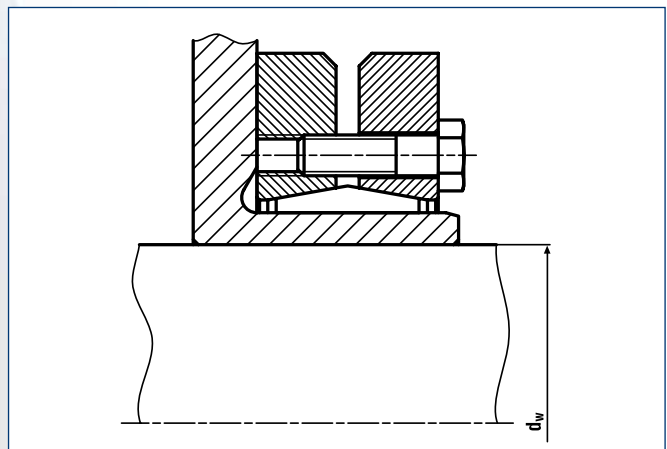


Shrink Disc® RINGFEDER® RfN 4061 · Location



Shrink Disc® RINGFEDER® RfN 4061 · Dimensions



Axial bearing disc

Size	Shrink Disc® dimensions										T _A	Transmissible torques or axial forces				Locking screws DIN EN ISO 4014-10.9		Weight	
	d _w	C _w	d	Ch	D	L ₁	L	d ₁	L ₂	l		T	F _{ax}	P	σ _v	Quantity	Thread	lbs	T _{max}
	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lb-ft		lb-ft	lbs	psi	psi	n		lbs	lb-ft
14	0.394	0.0007	0.551	+0 -0.0013	1.457	0.591	0.472	0.945	0.197	0.354	1.5	13	1191	56105	99470	3	M5x12	0.2	17
	26											1798	119805		32				
	33											2383	100940		41				
16	0.472	0.0007	0.551	+0 -0.0013	1.614	0.728	0.591	1.063	0.246	0.472	3	59	3192	61250	154840	3	M5x16	0.2	74
	63											3619	113680		78				
18	0.551	0.0007	0.709	+0 -0.0013	1.732	0.728	0.591	1.142	0.246	0.472	3	96	4518	72765	185465	4	M5x16	0.2	120
	81											4271	114415		102				
20	0.591	0.0007	0.787	+0 -0.0013	1.811	0.807	0.669	1.260	0.276	0.472	3	112	5170	81585	152635	5	M5x16	0.3	140
	162											7194	120540		199				
24	0.669	0.0007	0.945	+0 -0.0013	1.969	0.906	0.748	1.417	0.315	0.591	3.7	236	8318	81830	165130	6	M5x18	0.4	295
	280											8542	101185		347				
30	0.748	0.0007	1.181	+0 -0.0013	2.047	0.984	0.846	1.654	0.354	0.669	3.7	347	9666	65905	124950	7	M5x20	0.7	435
	378											10790	94325		354				
36	1.024	0.0013	1.417	+0 -0.0015	2.835	1.083	0.925	2.047	0.394	0.709	9	278	10790	75215	94325	5	M6x20	0.9	354
	420											13038	109270		524				
38	1.142	0.0013	1.496	+0 -0.0015	2.835	1.181	1.024	2.165	0.433	0.827	9	479	13488	72030	92365	6	M6x25	1.1	605
	553											14387	115885		686				
40	1.181	0.0013	1.575	+0 -0.0015	2.953	1.122	0.965	2.244	0.413	0.748	9	465	13263	76930	98000	6	M6x25	1.2	583
	538											14162	113925		671				
44	1.260	0.0013	1.732	+0 -0.0015	3.150	1.181	1.024	2.402	0.433	0.787	9	546	14162	76195	104860	7	M6x25	1.3	679
	752											17085	111965		937				
48	1.417	0.0013	1.890	+0 -0.0015	3.150	1.181	1.024	2.677	0.433	0.866	9	538	13713	61005	86730	7	M6x25	1.2	671
	819											16410	89425		1018				
50	1.417	0.0013	1.969	+0 -0.0015	3.543	1.260	1.102	2.756	0.472	0.866	9	774	20007	78400	103635	9	M6x25	1.8	966
	1136											23154	115395		1416				
55	1.654	0.0013	2.165	+0 -0.0018	3.937	1.358	1.201	2.953	0.512	0.906	9	856	17759	61740	84280	8	M6x25	2.4	1069
	1387											21806	101920		1733				
62	1.890	0.0013	2.441	+0 -0.0018	4.331	1.378	1.220	3.386	0.512	0.906	9	1637	28100	80850	99470	12	M6x30	2.9	2043
	2132											30348	117845		2663				

To continue see next page

Characteristics

Reduced dimensions with lower transmission values – especially for applications with restricted space.

Simplified manufacture – only plain shaft and bore diameters with easily achieved surface finish and tolerances are required.

Easy adjustability – No stops, steps, keyways, splines etc. are required, therefore hubs can be located and locked at any point or angle on the shaft.

Easy mounting – RINGFEDER® Shrink Discs® use standard screws and tightened using standard tools. No additional machining or fitting work is required.

Easy removal – after loosening the locking screws, the RINGFEDER® Shrink Disc® will self release and the hub will move freely on the shaft.

Low susceptibility to contamination – when the locking screws are tightened the contact (functional) surfaces are pressed firmly together and prevent contamination by dirt and moisture.

Highest reliability – due to the materials chosen and manufacturing processes used, RINGFEDER® Shrink Discs® can be tightened and released as often as required. If locking screws need replacing, they are standard items and thus easily available.

Size	Shrink Disc® dimensions										T _A	Transmissible torques or axial forces				Locking screws DIN EN ISO 4014-10.9		Weight	
	d _w	C _w	d	Ch	D	L ₁	L	d ₁	L ₂	l		T	F _{ax}	P	σ _v	Quantity	Thread	WT	T _{max}
	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lb-ft		lb-ft	lbs	psi	psi	n		lbs	lb-ft
68	1.969		2.677		4.528	1.378	1.220	3.386	0.512	0.906	9	1475	21356	61250	77910	10	M6x30	3.1	1844
	2323											26976	101675		2899				
75	2.165		2.953	+0 -0.0018	5.433	1.496	1.280	3.937	0.551	0.984	22	1844	26751	66885	90160	7	M8x30	3.7	2305
	2913											34844	100940		3642				
80	2.362		3.150		5.709	1.496	1.280	3.937	0.551	0.984	22	2360	27875	62720	84525	7	M8x30	4.2	2950
	2756											35518	95060		4241				
85	2.362		3.346		6.102	1.890	1.614	4.488	0.669	1.181	22	3172	37991	71050	91630	10	M8x35	7.7	3961
	4861											47658	96040		6070				
90	2.559	0.0019	3.543		6.102	1.752	1.535	4.488	0.669	1.181	22	3503	38216	66395	84525	10	M8x35	7.3	4380
	2953											47208	90160		6685				
95	2.559		3.740	+0 -0.0021	6.693	2.087	1.850	4.882	0.748	1.339	22	3968	43836	68600	85505	12	M8x40	10	4956
	6048											53952	86975		7560				
100	2.756		3.937		6.693	1.949	1.732	4.882	0.748	1.339	22	5089	43836	63210	79135	12	M8x35	10	6361
	6638											53952	81830		8298				
110	2.953		4.331		7.283	2.244	1.969	5.354	0.866	1.535	44	5310	51479	59780	73990	9	M10x40	13	6638
	3346											58898	84035		9957				
115	3.150		4.528		7.283	2.402	2.165	5.591	0.906	1.654	44	7966	58898	60696	84035	10	M10x40	13	9957
	3150											6786	73990		8482				
125	3.346											6786	60696	61005	73990	10	M10x45	13	8482
	3740											11063	74184		13829				
140	3.740	0.0027	5.512	+0 -0.0025	9.055	2.697	2.382	6.890	1.024	1.811	74	8113	66541	64680	84525	10	M12x45	22	10141
	3740											11063	79130		13829				
155	4.134		6.102		10.433	2.854	2.539	7.559	1.102	1.969	74	11137	82502	64680	81095	12	M12x45	33	13921
	4134											14825	95540		18531				
165	4.528		6.496		11.417	3.189	2.795	8.268	1.220	2.205	184	16226	100486	67865	78400	8	M16x55	49	20283
	4528											20652	114423		25815				
175	4.921		6.890		11.811	3.189	2.795	8.661	1.220	2.205	184	22864	133756	67865	80360	8	M16x55	49	28580
	4921											28765	147244		35956				
185	5.315	0.0031	7.283	+0 -0.0028	12.992	3.780	3.386	9.291	1.496	2.795	184	26552	136004	59780	81830	10	M16x90	49	33190
	5315											38353	174894		47941				
195	5.709		7.677		13.780	3.780	3.386	9.685	1.496	2.795	184	74235	174894	67865	74235	12	M16x65	82	47941
	5709											45729	193553		76440				
200	5.906		7.874		13.780	3.780	3.386	9.685	1.496	2.795	184	74235	174894	67865	80115	12	M16x65	90	59927
	6102											60111	240761		83790				
200	6.299											54579	222552	66150	78890	12	M16x65	90	68224
	6299											63430	242784		81830				79288

Explanations to tables

d, D, L, l, L₁, L₂, d₁ = Basic dimensions

d_w = solid shaft diameter (provided by the customer)

T = transmissible torque

F_{ax} = transmissible axial force

p = approx. surface pressure on the hub extension (diameter d)

T_A = required tightening torque per screw (Screws greased with molykote or equivalent!)

n = quantity of screws

T_{max} = maximum theoretical transmissible torque

C_w = shaft clearances

C_n = hub tolerances

C_d = shaft tolerances

|l₁ = Inner ring centering shoulder length

d₂ = clamped component bore

x = clamped component thickness

B = width dimension, relaxed condition

R₁ = hub max. radius (split Shrink Disc®)

s_v = calculated combined stress in the hub extension (d/dw) under consideration of the tangential, radial and torsional stresses following the equation:

$$\sigma_v = \sqrt{1/2 [(\sigma_x - \sigma_y)^2 + (\sigma_y - \sigma_z)^2 + (\sigma_z - \sigma_x)^2] + 3\tau^2}$$

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 30 x 10⁶ PSI. (Lower values result in increased values for T and Fax with reduced tangential stress.)

The maximum clearance 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.



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