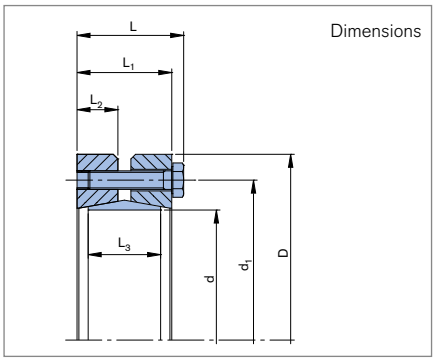
Shrink Discs

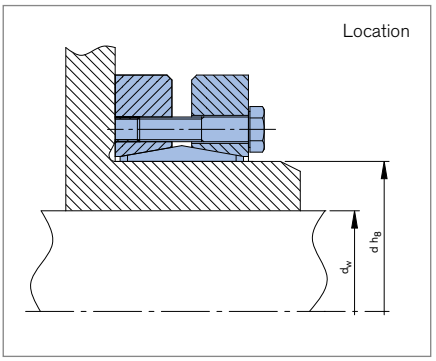
RINGFEDER® RfN 4091

Heaviest, Highly Robust Series for Maximum Transmission Values Even at Extreme Loads



2-part | **3-part**





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
50	x	95	38	73	44,5	39	17	30	23	25	1800	106	285	410	7	M8	1,4	2250
			40								2100	115		447				2625
			42								2400	124		511				3000
55	x	105	42	78	44,5	39	17	30	23	28	2250	122	290	404	7	M8	1,7	2813
			45								2700	135		457				3375
			48								3200	148		574				4000
62	x	115	48	85	44,5	39	17	30	23	30	2950	134	276	376	7	M8	2	3688
			50								3400	142		401				4250
			52								3600	145		458				4500
68	x	118	50	93	49	44	19	34	27	30	3600	147	260	334	8	M8	2,1	4500
			55								4600	168		362				5750
			60								5700	190		475				7125
75	x	145	55	105	53	46	20	36	27	59	4600	193	302	403	7	M10	3,8	5750
			60								5700	221		437				7125
			65								7000	249		540				8750
80	x	145	60	105	53	46	20	36	27	59	5700	200	283	379	7	M10	3,6	7125
			65								7000	226		413				8750
			70								8400	253		510				10500
90	x	160	65	116	57	50	22	40	29	59	6700	217	259	339	8	M10	4,8	8375
			70								8100	243		352				10125
			75								9600	269		395				12000
100	x	170	70	126	61	54	23	44	32	59	8800	265	265	334	10	M10	5,6	11000
			75								10000	293		342				12500
			80								12200	321		368				15250

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Shrink Discs RINGFEDER® RfN 4091

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
			75								11000	308		316				13750
110	x	185	80	138	67	60	26	50	35	59	12900	338	254	321	12	M10	7,6	16125
			85								14700	352		360				18375
			85								15000	355		331				18750
125	x	215	90	160	73	65	28	55	37,5	100	17500	388	248	331	10	M12	11	21875
			95								20000	422		337				25000
			90								18800	420		330				22500
135	x	212	95	172	85	77	32	60	45	100	21600	456	251	329	12	M12	10,7	27000
			105								27800	531		338				34750
			90								36700	817		423				45850
140	x	300	100	220	106	96	42	80	54	250	47000	942	360	433	12	M16	35,5	58750
			110								58700	1096		470				73350
			105								28900	551		310				36100
155	x	263	110	197	91,5	84	35	66	45	100	32400	590	248	311	15	M12	19,6	40500
			115								36200	630		314				45250
			115								41000	740		324				51250
165	x	290	120	210	98	88	38	72	49	250	46000	785	270	328	10	M16	26	57500
			125								50700	815		344				63375
			125								72800	1165		367				91000
175	x	300	130	220	124	114	50	92	59	250	79900	1230	301	374	15	M16	36,5	99850
			135								87300	1294		386				109100
			135								72000	1100		327				90000
185	x	330	140	236	122	112	50	92	61	250	78000	1150	263	334	14	M16	47	97500
			145								86000	1200		345				107500
			135								95100	1409		386				118850
190	x	350	140	239	129	116,5	50	92	62	470	103400	1478	331	392	12	M20	55	129250
			155								130600	1685		440				163250
			140								75000	1075		310				93750
195	x	350	150	246	122	112	50	92	63,5	250	88000	1180	250	319	14	M16	53	110000
			155								96000	1235		330				120000
			145								85000	1170		317				106250
200	x	350	150	246	122	112	50	92	63,5	250	92500	1230	261	322	15	M16	50	115625
			155								100000	1290		330				125000
			160								127000	1590		309				158750
220	x	370	165	270	144	134	60	114	74,5	250	136000	1650	255	316	20	M16	65	170000
			170								146500	1720		325				183125
			170								155000	1820		305				193750
240	x	405	180	295	157	144	65	120	79,5	490	176000	1960	261	315	15	M20	87	220000
			190								198000	2080		341				247500
			190								213000	2260		308				266250
260	x	430	200	321	173	160	72	136	87,5	490	240000	2420	255	322	18	M20	100	300000
			210								268000	2580		346				335000
			210								285000	2740		310				356250
280	x	460	220	346	185	172	78	148	96	490	320000	2910	254	327	21	M20	132	400000
			230								355000	3090		356				443750
			230								341000	2960		298				426250
300	x	485	240	364	189	176	80	152	98	490	376000	3130	242	316	22	M20	140	470000
			245								394000	3215		327				492500

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Shrink Discs RINGFEDER® RfN 4091

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
			240								378000	3150		282				472500
320	x	520	250	386	196,5	184	82	160	102	490	415000	3325	235	294	24	M20	165	518750
			260								451000	3470		318				563750
			250								489500	3910		295				611875
340	x	570	260	420	215	200	92	176	110	840	530000	4075	253	310	21	M24	240	662500
			270								578000	4275		326				722500
			270								556000	4122		304				695000
350	x	580	280	425	215	200	92	176	110	840	604000	4320	247	320	21	M24	247	755000
			285								629000	4415		331				786250
			280								612000	4370		303				765000
360	x	590	290	432	219	204	92	180	114,5	840	663000	4570	245	320	22	M24	250	828750
			295								689000	4670		332				861250
			290								618000	4270		279				772500
380	x	645	300	458	219	204	92	180	114,5	840	668000	4455	233	290	22	M24	320	835000
			310								719000	4645		307				898750
			300								708000	4715		284				885000
390	x	660	310	468	227	212	96	188	118,5	840	762000	4910	236	297	24	M24	350	952500
			320								814500	5090		318				1018125
			315								765000	4855		285				956250
400	x	680	320	480	227	212	96	188	118,5	840	788000	4927	231	294	24	M24	370	985000
			330								845000	5125		312				1056250
			330								999000	6055		302				1248750
420	x	690	340	504	253	238	111	214	131,5	840	1068000	6285	241	318	30	M24	410	1335000
			350								1140000	6515		342				1425000
			340								1058000	6230		283				1322500
440	x	750	350	527	269	252	115	224	138,5	1250	1130000	6460	231	295	24	M27	540	1412500
			360								1204000	6690		312				1505000
			360								1320000	7440		312				1650000
460	x	770	370	547	269	252	115	224	141	1250	1420000	7700	257	326	28	M27	540	1775000
			380								1500000	7950		346				1875000
			380								1535000	8080		302				1918750
480	x	800	390	580	291	274	128	246	152	1250	1626000	8340	241	318	30	M27	650	2032500
			400								1720000	8600		340				2150000
			400								1750000	8750		309				2187500
500	x	850	410	600	291	274	128	246	152	1250	1840000	8980	246	328	32	M27	750	2300000
			420								1940000	9250		350				2425000

More sizes on request

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Shrink Discs RINGFEDER® RfN 4091

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 4091	100	170

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 4091 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.