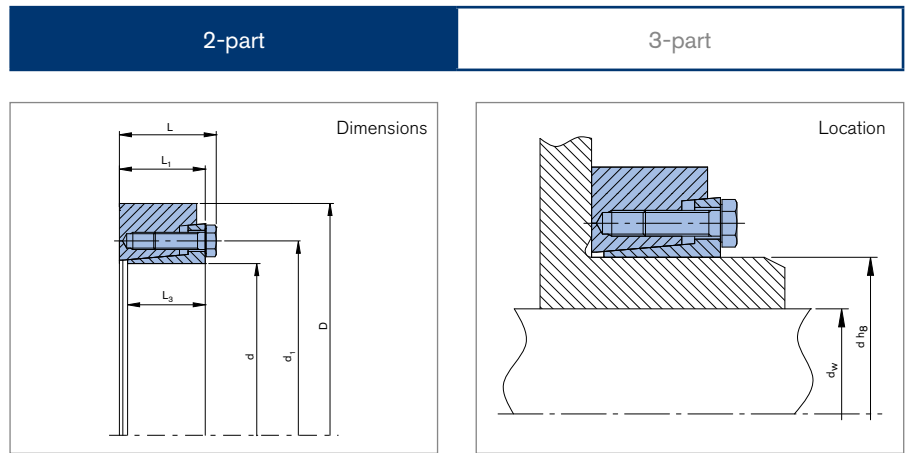


Shrink Discs

RINGFEDER® RfN 4181

Size-Extended Series of RfN 4161 for Larger Shaft Diameters and Maximum Torques



Shrink Discs dimensions							Transmissible torques or axial forces			Locking screws ISO 4014/4017 - 12.9			
d	x	D	d _w	d ₁	L	L ₁	L ₃	T _A	T	F _{ax}	D _G	G _w	T _{max}
mm			mm	mm	mm	mm	mm	Nm	Nm	kN	mm	kg	Nm
220	x	370	160	270	115,8	103,3	87	570	160000	2000	M20	52,11	176000
			170						182000	2150			200200
			180						206000	2300			226600
240	x	405	170	296	121,4	108,9	92	570	190000	2250	M20	66,58	209000
			180						215000	2400			236500
			200						269000	2700			295900
260	x	430	190	318	128,4	115,9	102	580	247000	2600	M20	77,29	271700
			200						277000	2750			304700
			220						340000	3100			374000
280	x	460	210	340	146,4	133,9	121	570	282000	2686	M20	103,28	310200
			220						313000	2845			344300
			240						380000	3167			418000
300	x	485	220	360	154,1	139,1	122	980	385000	3500	M24	117,05	423500
			230						425000	3700			467500
			250						505000	4050			555500
320	x	520	240	380	156,6	141,6	124	980	444000	3700	M24	132,1	488400
			250						488000	3904			536800
			270						580000	4296			638000
340	x	570	250	402	167,5	152,5	135	980	564000	4500	M24	184,25	620400
			260						612000	4700			673200
			270						668000	4950			734800
360	x	590	270	424	182,7	167,7	150	980	658000	4850	M24	208,11	723800
			280						712000	5100			783200
			300						825000	5500			907500

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Shrink Discs dimensions							T _A	Transmissible torques or axial forces		Locking screws		T _{max}	
d	x	D	d _w	d ₁	L	L ₁		L ₃	T	F _{ax}	ISO 4014/4017 - 12.9		G _w
mm			mm	mm	mm	mm	mm	Nm	Nm	kN	mm	kg	Nm
380	x	640	290	444	185,1	168,1	148	1450	735000	5069	M27	247,5	808500
			300						790000	5266			869000
			310						845000	5452			929500
390	x	650	290	470	186,3	167,6	144	1900	903000	6250	M30	259,55	993300
			300						970000	6450			1067000
			320						1101000	6950			1221000
420	x	670	320	495	203,9	186,9	166	1450	969000	6056	M27	284,75	1065900
			330						1038000	6291			1141800
			350						1183000	6762			1301300
440	x	740	340	518	212,9	195,9	178	1450	1212000	7129	M27	398	1333200
			350						1292000	7383			1421200
			370						1460000	7892			1606000
480	x	790	380	552	243,7	225,0	201	1900	1815000	9552	M30	495,4	1996500
			390						1920000	9845			2112000
			410						2118000	10331			2329800
500	x	835	400	572	238,7	220,0	198	1900	2054000	10270	M30	626,3	2259400
			410						2145000	10463			2359500
			430						2377000	11055			2614700
530	x	850	430	608	260,0	240,0	206	1900	2397000	11150	M30	653,4	2636700
			440						2520520	11457			2772572
			460						2777417	12076			3055159
560	x	940	450	632	260,0	240,0	206	1900	2545000	11311	M30	748,7	2799500
			460						2670006	11609			2937006
			480						2929521	12206			3222473
590	x	960	470	654	380,0	361,0	286	1900	4012000	17072	M30	1173,9	4413200
			480						4199188	17497			4619106
			500						4587043	18348			5045747
620	x	970	500	720	304,0	285,0	244	1900	3402000	13608	M30	886,7	3742200
			520						3708000	14261			4078800
			540						4028000	14918			4430800
660	x	1040	530	728	418,0	396,0	310	3500	5758000	21750	M36	1448,2	6333800
			550						6236900	22680			6860590
			570						6735919	23635			7409510
700	x	1140	560	815	315,0	294,0	260	2700	4518700	16138	M33	1467,5	4970570
			580						4880000	16828			5368000
			600						5258000	17527			5783800
750	x	1150	600	900	340,0	428,0	360	3500	7669000	25563	M36	1847,5	8435900
			620						8228643	26544			9051507
			650						9106895	28021			10017584
800	x	1230	640	935	373,0	352,0	296	2700	6897960	21226	M33	1894,4	7587756
			660						7378000	22358			8115800
			700						8390500	23973			9229550

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Explanation

d = Inner diameter	L₁ = Overall length (without screws)	n_{Sc} = Quantity of screws
D = Outer diameter	L₃ = Width of ring	D_G = Thread
d_w = Solid shaft diameter	T_A = Tightening torque of the clamping screws	G_w = Weight
d₁ = Pitch circle diameter	T = Transmissible torque at given T _A	T_{max} = Max. transmissible torque
L = Overall length	F_{ax} = Transmissible axial force	

Ordering example

Series	d	D
RfN 4181	260	430

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.
- Hub with yield strength Rp0,2 ≥ 360 N/mm²
- 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 4181 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.