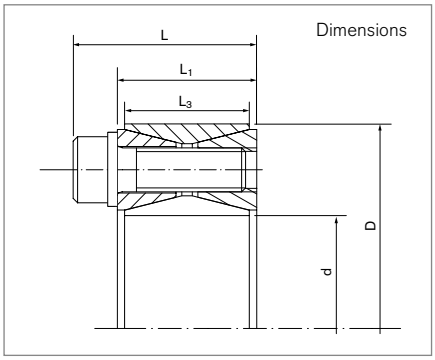
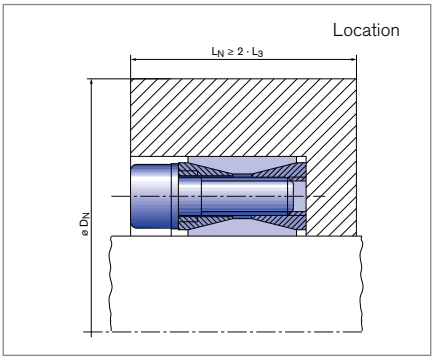
Locking Assemblies
RINGFEDER® RfN 7012
Large transmittable forces and moments



self-centering | **without axial displacement** | with low surface pressure





Locking Assembly dimensions						Transmissible torques or axial forces		Surface pressure		Locking screws				$D_{N\,min}$ at $Rp_{0,2}$			
								Shaft	Hub					200	300	400	
d	x	D	L	L_1	L_3	T	F_{ax}	p_W	p_N	n_{Sc}	D_G	T_A	Gw	[N/mm²]			T_{max}
mm			mm			Nm	kN	N/mm²				Nm	kg	mm			Nm
19	x	47	27,5	20	17	306	32	265	107	8	M6 x 18	17	0,24	67	59	56	356
20	x	47	27,5	20	17	321	32	251	107	8	M6 x 18	17	0,24	67	59	56	374
22	x	47	27,5	20	17	351	32	227	106	8	M6 x 18	17	0,23	66	59	56	412
24	x	50	27,5	20	17	429	36	232	112	9	M6 x 18	17	0,26	72	64	60	506
25	x	50	27,5	20	17	446	36	223	111	9	M6 x 18	17	0,25	72	64	60	526
28	x	55	27,5	20	17	496	35	197	100	9	M6 x 18	17	0,3	76	68	65	590
30	x	55	27,5	20	17	529	35	183	100	9	M6 x 18	17	0,29	76	68	65	632
32	x	60	27,5	20	17	749	47	228	122	12	M6 x 18	17	0,34	89	78	73	899
35	x	60	27,5	20	17	815	47	208	121	12	M6 x 18	17	0,32	89	78	73	983
38	x	65	27,5	20	17	1101	58	238	139	15	M6 x 18	17	0,36	102	87	81	1334
40	x	65	27,5	20	17	1154	58	225	139	15	M6 x 18	17	0,34	102	87	81	1404
42	x	75	33,5	24	20	1768	84	266	149	12	M8 x 22	41	0,6	122	103	95	2158
45	x	75	33,5	24	20	1886	84	247	148	12	M8 x 22	41	0,57	122	103	95	2312
48	x	80	33,5	24	20	2004	83	231	138	12	M8 x 22	41	0,62	125	107	100	2466
50	x	80	33,5	24	20	2082	83	221	138	12	M8 x 22	41	0,6	125	107	100	2568
55	x	85	33,5	24	20	2656	97	233	151	14	M8 x 22	41	0,63	140	117	108	3296
60	x	90	33,5	24	20	2881	96	212	142	14	M8 x 22	41	0,69	143	122	113	3596
65	x	95	33,5	24	20	3550	109	223	153	16	M8 x 22	41	0,73	156	131	121	4452
70	x	110	39,5	28	24	5432	155	245	156	14	M10 x 25	83	1,26	184	153	141	6844
75	x	115	39,5	28	24	5795	155	228	149	14	M10 x 25	83	1,33	187	157	145	7333
80	x	120	39,5	28	24	6156	154	213	142	14	M10 x 25	83	1,4	190	162	150	7822
85	x	125	39,5	28	24	7447	175	228	155	16	M10 x 25	83	1,49	208	173	159	9498
90	x	130	39,5	28	24	7857	175	214	148	16	M10 x 25	83	1,53	211	177	164	10057
95	x	135	39,5	28	24	9298	196	228	160	18	M10 x 25	83	1,62	229	189	173	11942
100	x	145	47	33	26	11126	223	227	157	14	M12 x 30	145	2,01	243	202	185	14335
110	x	155	47	33	26	12166	221	205	146	14	M12 x 30	145	2,15	249	210	195	15768

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Locking Assemblies RINGFEDER® RfN 7012

Locking Assembly dimensions						Transmissible torques or axial forces		Surface pressure		Locking screws				$D_{N\,min}$ at $Rp_{0,2}$			
								Shaft	Hub					200	300	400	
d	x	D	L	L_1	L_3	T	F_{ax}	p_W	p_N	n_{Sc}	D_G	T_A	Gw	[N/mm²]			T_{max}
mm			mm			Nm	kN	N/mm²				Nm	kg	mm			Nm
120	x	165	47	33	26	15085	251	214	155	16	M12 x 30	145	2,35	274	228	210	19659
130	x	180	52	38	34	20326	313	188	136	20	M12 x 35	145	3,51	279	239	222	26621
140	x	190	52	38	34	23967	342	191	141	22	M12 x 35	145	3,85	299	255	237	31536
150	x	200	52	38	34	27893	372	193	145	24	M12 x 35	145	4,07	320	271	250	36860
160	x	210	52	38	34	32102	401	196	149	26	M12 x 35	145	4,3	341	287	265	42594
170	x	225	60	44	38	39326	463	190	144	22	M14 x 40	230	5,78	358	304	281	52377
180	x	235	60	44	38	45262	503	195	149	24	M14 x 40	230	6,05	385	325	300	60499
190	x	250	68	52	46	55552	585	177	135	28	M14 x 45	230	8,25	385	331	308	74504
200	x	260	68	52	46	62452	625	175	135	30	M14 x 45	230	8,65	406	347	322	84027
220	x	285	74	56	50	79874	726	175	135	26	M16 x 50	355	11,22	439	377	351	108110
240	x	305	74	56	50	99995	833	184	145	30	M16 x 50	355	12,2	487	412	381	136082
260	x	325	74	56	50	122159	940	192	153	34	M16 x 50	355	13,2	535	447	412	167078
280	x	355	86,5	66	60	148773	1063	168	132	32	M18 x 60	485	19,2	541	466	435	204423
300	x	375	86,5	66	60	178553	1190	175	140	36	M18 x 60	485	20,5	588	501	465	246403
320	x	405	100,5	78	72	246382	1540	177	140	36	M20 x 70	690	29,6	635	541	502	341382
340	x	425	100,5	78	72	260791	1534	166	133	36	M20 x 70	690	31,1	649	559	521	362719
360	x	455	116	90	84	336729	1871	164	130	36	M22 x 80	930	42,2	688	595	555	470012
380	x	475	116	90	84	371687	1858	147	119	36	M22 x 80	930	44	703	613	574	522235
400	x	495	116	90	84	371687	1858	147	119	36	M22 x 80	930	46	720	632	594	522235
420	x	515	116	90	84	432315	2059	155	126	40	M22 x 80	930	50	768	667	625	609275
440	x	545	130	102	96	531403	2415	152	122	40	M24 x 90	1200	64,6	801	700	657	751102
460	x	565	130	102	96	554016	2409	145	118	40	M24 x 90	1200	67,4	819	720	677	785243
480	x	585	130	102	96	605396	2522	145	119	42	M24 x 90	1200	71	702	747	702	860354
500	x	605	130	102	96	658967	2636	146	120	44	M24 x 90	1200	72,6	883	774	727	938878
520	x	630	130	102	96	699186	2689	143	118	45	M24 x 90	1200	80	913	802	754	998625
540	x	650	130	102	96	724367	2683	137	114	45	M24 x 90	1200	82	929	821	774	1037033
560	x	670	130	102	96	799456	3855	141	118	48	M24 x 90	1200	85	971	853	802	1147138
580	x	690	130	102	96	860618	2968	141	119	50	M24 x 90	1200	88	1003	880	827	1237612
600	x	710	130	102	96	888410	2961	136	115	50	M24 x 90	1200	91	1018	898	846	1280288
620	x	730	130	102	96	952790	3074	137	117	52	M24 x 90	1200	93	1051	926	871	1375883
640	x	750	130	102	96	1019329	3185	138	117	54	M24 x 90	1200	96	1083	953	897	1474892
660	x	770	130	102	96	1088021	3297	138	118	56	M24 x 90	1200	99	1116	980	922	1577315
680	x	790	130	102	96	1118902	3291	134	115	56	M24 x 90	1200	102	1133	999	941	1625113
700	x	810	130	102	96	1231849	3520	139	120	60	M24 x 90	1200	104	1182	1036	973	1792404
720	x	830	130	102	96	1264816	3513	135	117	60	M24 x 90	1200	107	1199	1054	992	1843615
740	x	850	130	102	96	1340983	3624	135	118	62	M24 x 90	1200	110	2132	1082	1017	1957987
760	x	870	130	102	96	1419285	3735	136	119	64	M24 x 90	1200	113	1265	1110	1043	2075774
780	x	890	130	102	96	1476995	3787	134	118	65	M24 x 90	1200	116	1289	1133	1065	2163687
800	x	910	130	102	96	1535740	3839	133	117	66	M24 x 90	1200	118	1314	1156	1088	2253307
820	x	930	130	102	96	1619333	3950	133	117	68	M24 x 90	1200	121	1343	1181	1111	2379629
840	x	950	130	102	96	1705048	4060	134	118	70	M24 x 90	1200	124	1376	1209	1137	2509365
860	x	970	130	102	96	1792882	4169	134	119	72	M24 x 90	1200	127	1410	1237	1163	2642515
880	x	990	130	102	96	1882830	4279	134	119	74	M24 x 90	1200	129	1439	1263	1187	2779079
900	x	1010	130	102	96	1948904	4331	133	118	75	M24 x 90	1200	132	1463	1286	1209	2880649

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Locking Assemblies RINGFEDER® RfN 7012

Locking Assembly dimensions					Transmissible torques or axial forces		Surface pressure		Locking screws				$D_{N\,min}$ at $Rp_{0,2}$			
							Shaft	Hub					200	300	400	
d x D	L	L_1	L_3	T	F_{ax}	p_W	p_N	n_{Sc}	D_G	T_A	Gw	[N/mm²]			T_{max}
mm		mm		Nm	kN	N/mm²				Nm	kg	mm			Nm
920 x 1030	130	102	96	2016005	4383	132	118	76	M24 x 90	1200	135	1492	1311	1233	2983925
940 x 1050	130	102	96	2111197	4492	132	118	78	M24 x 90	1200	138	1521	1337	1257	3129024
960 x 1070	130	102	96	2208493	4601	132	119	80	M24 x 90	1200	140	1555	1365	1283	3277538
980 x 1090	130	102	96	2279745	4653	131	118	81	M24 x 90	1200	143	1579	1387	1305	3387643
1000 x 1110	130	102	96	2352018	4704	130	117	82	M24 x 90	1200	146	1603	1410	1326	3499454

More sizes on request

Explanation

d = Inner diameter
D = Outer diameter
L = Overall length
L_1 = Overall length (without screws)
L_3 = Width of ring
T = Transmissible torque at given T_A
F_{ax} = Transmissible axial force
p_W = Surface pressure on shaft at given T_A
p_N = Surface pressure on hub at given T_A
n_{Sc} = Quantity of screws
D_G = Thread
T_A = Tightening torque of the clamping screws
Gw = Weight
$D_{N\,min}$ = Min. hub outer diam. depending of the given hub yield point Rp0,2
T_{max} = Max. transmissible torque

Technical Information

- The Locking Assemblies are supplied slightly oiled and ready-to-use. The values for T, F_{ax}, p_W and p_N apply to Locking Assemblies in delivery condition.
- Surface finishes: For shaft and hub bore $R_a \leq 3{,}2$ µm
- Tolerances: Shaft: k9-h9 · Hub: N9-H9
  Max. permissible: Shaft: k11-h11; Hub: N11-H11
- To avoid excessive deformations of the relatively thickwalled thrust rings, the Locking Assembly should be located as symmetrically as possible between shaft and hub bore. If the shaft is smaller than nominal d, the bore should exceed nominal D to the same extent and vice versa. The concentricity quality is determined by the direct centering between shaft and hub.
- If several Locking Assemblies are to be installed the transmission values of the table can be added when the Locking Assemblies are located within a distance of $4 \cdot L$.
- The Locking Assemblies are equipped with 12.9 grade screws. A reduction of the screw tightening torque is possible. Please contact our specialists for assistance.
- To facilitate removal, the front thrust rings have auxiliary threads.
- The outside diameter of the hub is calculated with factor C3 = 0.6. (see chapter „Calculation“ in Product Paper & Tech Paper „RINGFEDER® Locking Assemblies“).

Ordering example

Locking assembly	d	D
RfN 7012	200	260

Further information on
RINGFEDER® RfN 7012
on **www.ringfeder.com**

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RINGFEDER POWER TRANSMISSION