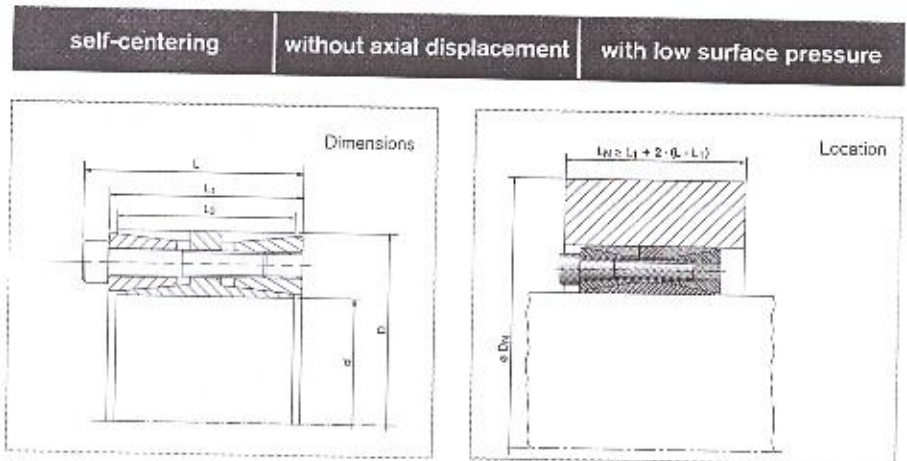
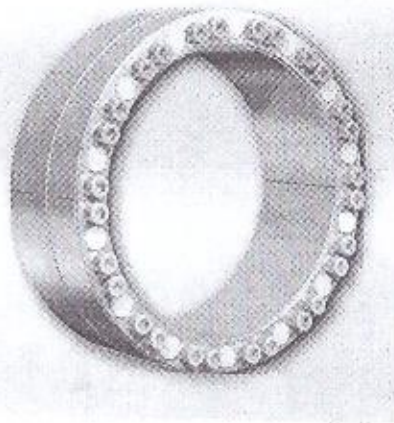


# Locking Assemblies Bending Loads

## RINGFEDER® RfN 7015.1

### Reduced surface pressures



Locking Assembly dimensions				Locking screws				T	F <sub>RA</sub>	P <sub>W</sub>	P <sub>R</sub>	M <sub>Bmax</sub>	P <sub>Wmax</sub> at M <sub>Bmax</sub>	P <sub>Rmax</sub> at M <sub>Bmax</sub>	P <sub>Wmin</sub> at M <sub>Bmax</sub>	P <sub>Rmin</sub> at M <sub>Bmax</sub>	T <sub>res</sub> at M <sub>Bmax</sub>	F <sub>ax</sub> at M <sub>Bmax</sub>	D <sub>H min</sub> at R <sub>p0,2</sub>			G <sub>w</sub>	
d	x	D	L	L <sub>1</sub>	L <sub>3</sub>	n <sub>sc</sub>	D <sub>G</sub>												T <sub>A</sub>	T	F <sub>RA</sub>		P <sub>W</sub>
mm		mm	mm	mm	mm		mm	Nm	Nm	N/mm <sup>2</sup>	Nm	N/mm <sup>2</sup>				Nm	kN	[N/mm <sup>2</sup> ]			kg		
100	x	145	75	65	60	9	M10 x 55	83	6575	132	91	63	6540	125	86	57	39	681	14	192	179	172	4,1
110	x	155	75	65	60	10	M10 x 55	83	8037	145	92	65	7900	130	92	55	39	1475	27	210	194	185	4,4
120	x	165	75	65	60	12	M10 x 55	83	10521	175	101	74	10450	147	107	56	41	1128	19	230	215	205	4,8
130	x	180	84	74	68	15	M10 x 60	83	16247	219	101	73	14170	145	105	58	42	1475	23	258	234	223	6,5
140	x	191	84	74	68	15	M10 x 60	83	15343	219	94	69	15263	138	101	50	37	1595	23	263	243	234	7
150	x	200	84	74	68	15	M10 x 60	83	17534	234	94	70	17440	140	105	47	35	1816	24	258	261	248	7,4
160	x	210	84	74	68	16	M10 x 60	83	21041	253	99	75	20930	151	115	43	35	2160	27	317	282	267	7,8
170	x	225	93	81	75	15	M12 x 55	145	27352	322	105	80	27210	159	120	52	39	2788	33	348	307	298	10
180	x	235	93	81	75	16	M12 x 55	145	30682	343	106	81	30730	164	125	49	37	3151	35	374	326	306	10,6
190	x	250	106	94	88	18	M12 x 75	145	36684	385	96	73	36500	144	109	48	37	3674	39	371	333	315	14,3
200	x	260	106	94	88	20	M12 x 75	145	42906	425	101	76	42620	154	119	43	37	4288	43	405	357	336	15
220	x	285	116	104	98	21	M12 x 80	145	49566	451	89	69	49300	135	104	43	33	5033	45	416	375	356	19,8
240	x	305	116	104	98	24	M12 x 80	145	61784	515	93	73	61470	145	114	41	32	6225	52	470	415	381	21,4
260	x	325	116	104	98	27	M12 x 80	145	75320	579	97	77	74920	155	124	38	30	7562	58	531	458	428	23
280	x	355	140	126	120	25	M14 x 100	230	115034	822	105	84	114450	154	129	49	39	11574	83	626	513	476	35,2
300	x	375	140	126	120	28	M14 x 100	230	123250	822	99	80	122630	157	125	42	34	12351	82	623	534	498	37,4
320	x	405	158	142	135	25	M16 x 110	355	179682	1125	110	87	179050	171	135	45	39	18093	113	716	597	551	51,3
340	x	425	158	142	135	28	M16 x 110	355	191293	1125	103	83	190250	164	131	42	34	19151	113	733	618	573	54,1
360	x	455	183	165	158	24	M18 x 140	485	239022	1165	94	67	208570	130	103	38	30	20978	117	638	600	570	75,4
380	x	475	183	165	158	27	M18 x 140	485	248927	1310	90	72	247670	141	113	38	30	24580	131	736	648	611	79
400	x	495	183	165	158	32	M18 x 140	485	310352	1533	101	82	308930	152	131	40	32	31104	155	861	723	690	82,8
420	x	515	183	165	158	32	M18 x 140	485	326075	1553	96	78	324440	157	128	35	28	32655	155	879	744	691	86,5
440	x	545	200	180	172	27	M20 x 140	690	372775	1894	91	74	370930	147	119	35	28	37338	170	871	758	711	110
460	x	565	200	180	172	27	M20 x 140	690	389719	1894	87	71	387760	143	117	31	25	39025	170	891	779	732	114
480	x	585	200	180	172	30	M20 x 140	690	451843	1883	93	76	448500	155	127	30	25	46034	192	985	838	761	119
500	x	605	200	180	172	30	M20 x 140	690	470675	1883	88	74	463300	151	125	27	22	47224	189	1006	861	802	123

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Locking Assembly dimensions			Locking screws			T	F <sub>ax</sub>	P <sub>W</sub>	P <sub>N</sub>	M <sub>b</sub> max	P <sub>W</sub> max at M <sub>b</sub> max	P <sub>N</sub> max at M <sub>b</sub> max	P <sub>W</sub> min at M <sub>b</sub> max	P <sub>N</sub> min at M <sub>b</sub> max	T <sub>res</sub> at M <sub>b</sub> max	F <sub>ax</sub> at M <sub>b</sub> max	D <sub>N</sub> min at R <sub>p0,2</sub>			G <sub>w</sub>		
d	x D	L	L <sub>1</sub>	L <sub>3</sub>	n <sub>sc</sub>												D <sub>G</sub>	T <sub>A</sub>	250		350	450
mm	mm	mm	mm	mm		Nm	Nm	N/mm <sup>2</sup>	Nm	N/mm <sup>2</sup>			Nm	kN	mm			kg				
500	x 650	220	200	190	32	M20 x 150	680	522135	2008	80	66	519500	131	110	27	22	52395	202	951	851	804	148
540	x 690	220	200	190	32	M20 x 150	680	542218	2008	77	64	538400	131	109	24	20	55205	204	982	873	826	154
580	x 730	220	200	190	36	M20 x 150	680	632567	2259	84	70	629100	144	120	24	20	63421	227	1054	938	873	160
580	x 690	220	200	190	36	M20 x 150	680	655180	2259	81	68	651890	141	119	21	18	65573	226	1104	960	900	165
600	x 710	220	200	190	36	M20 x 150	680	677772	2259	78	66	674570	138	117	18	16	67823	226	1125	982	922	170
620	x 730	220	200	190	36	M20 x 150	680	700364	2259	76	64	696850	135	115	16	13	70074	226	1146	1004	944	175
640	x 750	220	200	190	36	M20 x 150	680	722957	2259	73	63	705037	132	113	15	13	72597	226	1168	1027	967	180
660	x 770	220	200	190	40	M20 x 150	680	826388	2510	79	68	733300	142	122	16	14	262670	227	1200	1085	1014	184
680	x 790	220	200	190	40	M20 x 150	680	853401	2510	77	66	753300	138	119	15	13	338951	227	1250	1101	1032	189
700	x 810	220	200	190	40	M20 x 150	680	875593	2510	75	64	733300	134	116	15	13	397954	227	1277	1117	1049	205
720	x 830	220	200	190	40	M20 x 150	680	903696	2510	73	63	733300	131	113	15	13	450675	227	1257	1133	1067	210
740	x 850	220	200	190	42	M20 x 150	680	975239	2536	74	65	822500	133	116	15	13	524008	227	1341	1172	1101	215
760	x 870	220	200	190	42	M20 x 150	680	1001536	2536	72	63	822500	130	113	14	13	571567	227	1351	1188	1119	221
780	x 890	220	200	190	42	M20 x 150	680	1027954	2536	70	62	822500	127	111	14	12	616590	227	1352	1205	1137	227
800	x 910	220	200	190	42	M20 x 150	680	1054372	2536	69	60	822500	123	108	14	12	652697	227	1374	1222	1155	232

More sizes on request

### Explanations

d	= Inner diameter	P <sub>W</sub>	= Surface pressure on shaft at given T <sub>A</sub>	T <sub>res</sub> at M <sub>b</sub> max	= Remaining transmissible torque at indicated M <sub>b</sub> max and specified torque
D	= Outer diameter	P <sub>N</sub>	= Surface pressure on hub at given T <sub>A</sub>	F <sub>ax</sub> at M <sub>b</sub> max	= Transmissible axial force at max. bending moment
L	= Overall length	M <sub>b</sub> max	= Max. bending moment under the specified T <sub>A</sub>	D <sub>N</sub> min at R <sub>p0,2</sub>	= Min. hub outer diameter depending of the given hub yield point R <sub>p0,2</sub> and part of bending moment
L <sub>1</sub>	= Overall length (without screws)	P <sub>W</sub> max at M <sub>b</sub> max	= Max. surface pressure on shaft at max. bending moment	G <sub>w</sub>	= Weight
L <sub>3</sub>	= Width of ring	P <sub>N</sub> max at M <sub>b</sub> max	= Max. surface pressure on hub at max. bending moment		
n <sub>sc</sub>	= Quantity of screws	P <sub>W</sub> min at M <sub>b</sub> max	= Min. surface pressure on shaft at max. bending moment		
D <sub>G</sub>	= Thread	P <sub>N</sub> min at M <sub>b</sub> max	= Min. surface pressure on hub at max. bending moment		
T <sub>A</sub>	= Max tightened torque of the clamping screws				
T	= Transmissible torque at given T <sub>A</sub>				
F <sub>ax</sub>	= Transmissible axial force				

### Ordering example

Locking Assembly	d	D
RfN 7015.1	620	730

#### Technical Information

- Surface finishes: Shaft and hub bores R<sub>a</sub> ≤ 3,2 μm
- Tolerances: Shaft: h8 - Hub: H8

**Remark:** The Values of the shaft- and hub pressures have been calculated with the screw tightening shown in the tables. Increase resp. reduction of the screw tightening torque results in different calculation values!

The specified pressures at M<sub>b</sub>max. are sometimes very low. An operation near these limit values may therefore lead to increased fretting corrosion! More options with reduced bending moments (M<sub>b</sub> 20% - M<sub>b</sub> 80%) are also available.

#### 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.