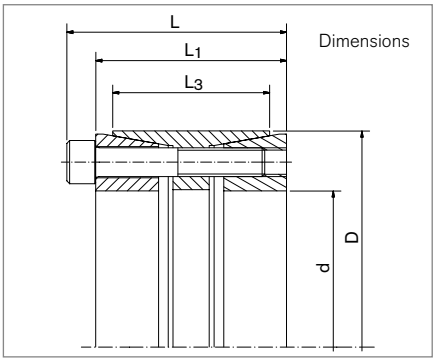
Locking Assemblies for Bending Loads

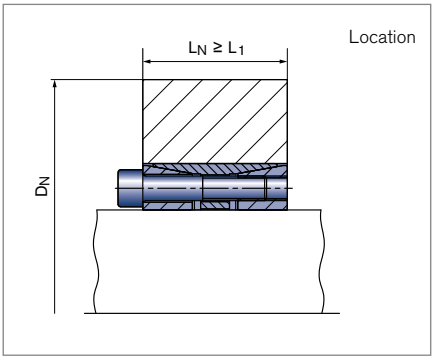
RINGFEDER® RfN 7515

Three part Locking Assembly



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





Locking Assembly dimensions						Locking screws																		
d	x	D	L	L_1	L_3	n_{Sc}	D_G	T_A	T	F_{ax}	p_W	p_N	$M_b$max	p_{Wmax} at $M_b$max	p_{Nmax} at $M_b$max	p_{Wmin} at $M_b$max	p_{Nmin} at $M_b$max	T_{res} at $M_b$max	F_{ax} at $M_b$max	$D_{N\,min}$ at $Rp_{0,2}$ [N/mm²] 250	350	450	Gw
mm			mm					Nm	Nm		N/mm²		Nm	N/mm²				Nm	kN	mm			kg
60	x	95	58	50	42	8	M8 x 40	41	4299	143	186	118	2800	228	144	145	91	3262	109	184	148	133	1,48
70	x	110	70	60	50	8	M10 x 50	83	7280	208	197	125	5040	242	154	152	97	5253	150	227	177	158	2,7
80	x	120	70	60	50	10	M10 x 50	83	10399	260	216	144	7210	272	181	159	106	7494	187	---	214	185	2,7
90	x	130	70	60	50	11	M10 x 50	83	12869	286	211	146	8890	272	189	149	103	9305	207	---	239	204	2,9
100	x	145	82	70	60	10	M12 x 60	145	18881	378	209	144	10080	254	175	163	112	15965	319	347	253	220	4,3
110	x	155	82	70	60	10	M12 x 60	145	20769	378	190	135	11070	235	167	144	102	17573	320	348	262	230	4,5
120	x	165	82	70	60	11	M12 x 60	145	24923	415	191	139	14490	246	179	137	99	20278	338	406	291	252	5
130	x	180	91	79	65	14	M12 x 70	145	34364	529	207	150	19710	262	190	152	110	28150	433	---	331	283	6,6
140	x	190	91	79	65	15	M12 x 70	145	39651	566	206	152	19440	257	189	156	115	34558	494	---	349	298	7
150	x	200	91	79	65	15	M12 x 70	145	42483	566	193	144	27270	259	194	127	95	32575	434	---	374	318	7,5
160	x	210	91	79	65	16	M12 x 70	145	48336	604	193	147	22050	243	185	143	109	43014	538	---	379	326	7,9
170	x	225	106	92	78	15	M14 x 80	230	65790	774	195	147	30900	243	183	147	111	58082	683	---	404	348	10,9
180	x	235	106	92	78	15	M14 x 80	230	69660	774	184	141	44820	250	191	118	90	53327	593	---	435	371	11,4
190	x	250	116	102	88	16	M14 x 80	230	78432	826	165	125	54460	226	172	104	79	56442	594	581	428	375	14,6
200	x	260	116	102	88	18	M14 x 80	230	92880	929	176	135	40470	219	169	133	102	83600	836	590	441	386	14,8
220	x	285	126	110	96	15	M16 x 90	355	116459	1059	173	133	75870	236	182	109	84	88353	803	---	509	439	19,9
240	x	305	124	108	96	20	M16 x 90	355	169394	1412	211	166	43460	245	193	176	139	163724	1364	---	568	483	21,5
260	x	325	127	111	96	20	M16 x 90	355	183510	1412	176	141	67410	221	177	130	104	170681	1313	785	567	493	22,9
280	x	355	131	111	96	15	M20 x 90	690	230199	1644	205	162	112140	277	219	133	105	201038	1436	---	739	604	33,1
300	x	375	131	111	96	16	M20 x 90	690	263085	1754	204	163	125280	279	223	129	103	231341	1542	---	799	648	30,6
320	x	405	156	136	124	20	M20 x 110	690	350780	2192	189	150	170050	252	199	126	100	306805	1918	---	759	644	46,3
340	x	425	156	136	124	20	M20 x 110	690	372704	2192	178	143	206820	250	200	106	85	310054	1824	---	815	687	48,9
360	x	455	177	155	140	20	M22 x 130	930	487557	2709	174	137	265770	239	189	108	85	408752	2271	---	835	714	66,2
380	x	475	177	155	140	20	M22 x 130	930	514644	2709	164	132	350820	247	197	82	66	376541	1982	---	901	761	69,5
400	x	495	177	155	140	22	M22 x 130	930	595903	2980	172	139	369270	254	205	89	72	467697	2338	---	971	811	73,4
420	x	515	177	155	140	24	M22 x 130	930	682580	3250	179	146	286396	239	195	118	96	619591	2950	---	967	820	76,5

To continue see next page

Locking Assemblies for Bending Loads RINGFEDER® RfN 7515

Locking Assembly dimensions						Locking screws																		
d	x	D	L	L_1	L_3	n_{Sc}	D_G	T_A	T	F_{ax}	p_W	p_N	$M_b$max	p_{Wmax} at $M_b$max	p_{Nmax} at $M_b$max	p_{Wmin} at $M_b$max	p_{Nmin} at $M_b$max	T_{res} at $M_b$max	F_{ax} at $M_b$max	$D_{N\,min}$ at $Rp_{0,2}$ 250 [N/mm²]	350 [N/mm²]	450 [N/mm²]	Gw
mm			mm					Nm	Nm		N/mm²		Nm	N/mm²				Nm	kN	mm			kg
440	x	535	177	155	140	24	M22 x 130	930	715084	3250	170	140	387810	249	205	92	75	600790	2731	---	1047	875	80
460	x	555	177	155	140	24	M22 x 130	930	747588	3250	163	135	463939	253	210	73	61	586215	2549	---	1109	920	83
480	x	575	177	155	140	25	M22 x 130	930	812595	3386	163	136	437178	244	204	81	68	684972	2854	---	1119	938	86
500	x	595	177	155	140	25	M22 x 130	930	846453	3386	156	131	436816	234	197	78	66	725034	2900	---	1125	952	90
520	x	615	177	155	140	28	M22 x 130	930	985949	3792	168	142	506360	255	216	81	69	845987	3254	---	1263	1038	93
540	x	635	177	155	140	28	M22 x 130	930	1023870	3792	162	138	629600	266	226	58	49	807412	2990	---	1371	1105	96
560	x	655	177	155	140	30	M22 x 130	930	1137633	4063	167	143	541600	254	217	81	69	1000439	3573	---	1352	1109	101
580	x	675	177	155	140	30	M22 x 130	930	1178263	4063	162	139	664900	264	227	59	51	972734	3354	---	1461	1176	104
600	x	695	177	155	140	30	M22 x 130	930	1218893	4063	156	135	782334	272	235	40	34	934694	3116	---	1570	1242	108
620	x	715	177	155	140	30	M22 x 130	930	1259522	4063	151	131	909163	282	244	20	18	871676	2812	---	1698	1315	112
640	x	735	177	155	140	30	M22 x 130	930	1300152	4063	146	128	631858	234	204	58	51	1136288	3551	---	1434	1200	116

More sizes on request

Explanations

- **d** = Inner diameter
- **D** = Outer diameter
- **L** = Overall length
- **L_1** = Overall length (without screws)
- **L_3** = Width of ring
- **n_{Sc}** = Quantity of screws
- **D_G** = Thread
- **T_A** = Tightening torque of the clamping screws
- **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
- **$M_b$max** = Max. bending moment under the specified T_A
- **p_{Wmax} at $M_b$max** = Max. surface pressure on shaft at max. bending moment
- **p_{Nmax} at $M_b$max** = Max. surface pressure on hub at max. bending moment
- **p_{Wmin} at $M_b$max** = Min. surface pressure on shaft at max. bending moment
- **p_{Nmin} at $M_b$max** = Min. surface pressure on hub at max. bending moment
- **T_{res} at $M_b$max** = Remaining transmissible torque at indicated Mbmax and specified torque
- **F_{ax} at $M_b$max** = Transmissible axial force at max. bending moment
- **$D_{N\,min}$ at $Rp_{0,2}$** = Min. hub outer diameter depending of the given hub yield point $Rp_{0,2}$ and part of bending moment
- **Gw** = Weight

Ordering example

Locking Assembly	d	D
RfN 7515	**300**	**375**

Further information on
RINGFEDER® RfN 7515
for Bending Loads
on **www.ringfeder.com**

Technical Information

- Surface finishes: Shaft bore $R_a \leq 1{,}6$ µm · Hub bore $R_a \leq 3{,}2$ 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 $M_b$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_b 20% - M_b 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.

RINGFEDER POWER TRANSMISSION