

### Characteristics

As the industry standard the RfN 7012-IN stainless Locking Assembly is suitable for most applications.

**Transmission of high loads** – Up to 4 RfN 7012-IN stainless Locking Assemblies can be used in series, the transmissible torques and axial forces are added. (Please contact our specialists for assistance).

**Bending moment and radial loads** – Combined loads can be transmitted, please contact our specialist for assistance.

**Low risk to contamination** – During tightening process the functional surfaces of the device are under pressure, sufficient enough to keep contaminants out, thereby preserving the integrity of the the device.

**Adjustable transmission values** – The locking screw torque can be changed giving a corresponding change in transmission values. RfN 7012-IN stainless Locking Assemblies can be tightened and released repeatedly.

### Example applications:

sprockets, gears, coupling hubs, conveyor pulleys, idler wheels, sheaves

**STAINLESS**

Size	Locking Assembly dimensions							Transmissible torques or axial forces		Surface Pressure		Locking screws DIN EN ISO 4762-12.9				Weight		min. D <sub>N</sub> *		
	d	C <sub>1</sub>	D	C <sub>2</sub>	L	l	L <sub>1</sub>	T	F <sub>ax</sub>	Shaft	Hub	Thread			WT	d <sub>D</sub>	Rp0,2[psi]			
										P <sub>w</sub>	P <sub>N</sub>	n	d <sub>G</sub>	s			T <sub>A</sub>	36000	45000	62000
Inch	Inch							lb-ft	lbs	psi			mm		lb-ft	lbs	mm	Inch		
3/4	0.750	+0	1.850	-0	0.787	0.669	1.083	185	5920	28450	11500	8	M6x18	5	10	0.5	M8	2.404	2.278	2.149
1	1.000	-0.002	1.969	+0.002	0.787	0.669	1.083	275	6600	27000	13700	9	M6x18	5	10	0.6	M8	2.697	2.525	2.355
1 1/8	1.125		2.165		0.787	0.669	1.083	345	7360	23720	12300	10	M6x18	5	10	0.7	M8	2.868	2.705	2.542
1 3/16	1.1875		2.159		0.813	0.669	1.108	362	7316	24900	13700	10	M6x18	5	10	0.7	M8	2.956	2.768	2.581
1 1/4	1.250		2.362		0.787	0.669	1.083	459	8813	28000	14800	12	M6x18	5	10	0.7	M8	3.325	3.093	2.866
1 3/8	1.375		2.365		0.776	0.669	1.071	506	8832	25600	14900	12	M6x18	5	10	0.7	M8	3.335	3.101	2.873
1 7/16	1.4375		2.559		0.787	0.669	1.083	608	10151	28450	16000	15	M6x18	5	10	0.8	M8	3.710	3.427	3.155
1 1/2	1.500		2.559		0.787	0.669	1.083	636	10176	27000	15800	15	M6x18	5	10	0.8	M8	3.695	3.417	3.148
1 5/8	1.625	-0.0025	2.953	+0.0025	0.945	0.787	1.319	1070	15803	32700	18000	12	M8x22	6	25	1.3	M10	4.510	4.114	3.741
1 11/16	1.6875		2.953		0.945	0.787	1.319	1109	15772	28430	16200	12	M8x22	6	25	1.3	M10	4.310	3.975	3.653
1 3/4	1.750		2.953		0.945	0.787	1.319	1150	15771	30000	17800	12	M8x22	6	25	1.3	M10	4.484	4.096	3.730
1 7/8	1.875		3.150		0.945	0.787	1.319	1222	15642	28450	16900	12	M8x22	6	25	1.4	M10	4.679	4.298	3.933
1 15/16	1.9375		3.150		0.945	0.787	1.319	1259	15595	27000	16600	12	M8x22	6	25	1.4	M10	4.640	4.270	3.916
2	2.000		3.346		0.945	0.787	1.319	1519	18228	30600	18300	14	M8x22	6	25	1.4	M10	5.151	4.689	4.256
2 1/8	2.125		3.346		0.945	0.787	1.319	1613	18217	29150	18500	14	M8x22	6	25	1.4	M10	5.181	4.710	4.269
2 3/16	2.1875		3.543		0.945	0.787	1.319	1656	18169	28450	17600	14	M8x22	6	25	1.5	M10	5.350	4.894	4.462
2 1/4	2.250		3.543		0.945	0.787	1.319	1700	18133	27000	17100	14	M8x22	6	25	1.5	M10	5.292	4.854	4.437
2 3/8	2.375		3.531		0.996	0.787	1.370	1787	18058	25600	17200	14	M8x22	6	25	1.5	M10	5.284	4.844	4.426
2 7/16	2.4375		3.740		0.945	0.787	1.319	2098	20657	28450	18500	16	M8x22	6	25	1.6	M10	5.796	5.267	4.773
2 1/2	2.500	+0	3.740	-0	0.945	0.787	1.319	2148	20621	27750	18500	16	M8x22	6	25	1.6	M10	5.797	5.268	4.774
2 9/16	2.5625	-0.003	3.737	+0.003	0.959	0.787	1.333	2199	20596	27000	18500	16	M8x22	6	25	1.6	M10	5.787	5.260	4.768
2 5/8	2.625		4.331		1.102	0.945	1.555	3120	28526	30514	18500	14	M10x25	8	51	2.8	M12	6.703	6.094	5.524
2 11/16	2.6875		4.331		1.102	0.945	1.555	3195	28532	29804	18500	14	M10x25	8	51	2.8	M12	6.703	6.094	5.524
2 3/4	2.750		4.337		1.079	0.945	1.532	3320	28975	29850	18900	14	M10x25	8	51	2.8	M12	6.791	6.155	5.565
2 7/8	2.875		4.528		1.102	0.945	1.555	3450	28800	28450	18000	14	M10x25	8	51	2.9	M12	6.928	6.317	5.742
2 15/16	2.9375		4.528		1.102	0.945	1.555	3522	28775	27750	18000	14	M10x25	8	51	2.9	M12	6.917	6.309	5.737

\* B ≥ 2 l necessary

More sizes on request

### ■ Mounting of Locking Assembly

The values for T, F<sub>ax</sub>, P<sub>w</sub> and P<sub>N</sub> apply to Locking Assemblies installed in oiled condition.

### ■ Surface finishes

For shafts and hub bores

**R<sub>a</sub> = 125 RMS**

### ■ Tolerances

We recommend the following mounting tolerances

**shaft: k9-h9 · hub: N9-H9 - see table above**

**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 true running out quality is determined by the direct centering between shaft and hub.

### ■ Location of several Locking Assemblies RfN 7012 stainless

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 x L<sub>1</sub>.

### ■ Change of screw tightening torques

The Locking Assemblies are equipped with A2-70 grade screws. A reduction of the screw tightening torque is possible. (Please contact our specialists for assistance).

### ■ Auxiliary Threads

To facilitate removal, the front thrust rings have pullout threads.

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Size	Locking Assembly dimensions								Transmissible torques or axial forces		Surface Pressure		Locking screws DIN EN ISO 4762-12.9			Weight	min. D <sub>N</sub> *		
	d	C <sub>1</sub>	D	C <sub>2</sub>	L	I	L <sub>1</sub>	T	F <sub>ax</sub>	Shaft P <sub>w</sub>	Hub P <sub>N</sub>	n	Thread d <sub>G</sub>	T <sub>A</sub>	WT	Rp0,2[psi]		Tmax	
	mm	Inch							lb-ft	lbs	psi			mm	lb-ft	lbs	Inch		lb-ft
19 x 47	0.748		1.850		0.787	0.669	1.083	105	11065	17986	7252	8	M 6 x 18	6	0.5	2.177	2.106	2.032	122
20 x 47	0.787	+0	1.850	-0	0.787	0.669	1.083	111	11065	16970	7252	8	M 6 x 18	6	0.5	2.177	2.106	2.032	129
22 x 47	0.866	-0.002	1.850	+0.002	0.787	0.669	1.083	121	11065	15375	7252	8	M 6 x 18	6	0.5	2.177	2.106	2.032	142
24 x 50	0.945		1.969		0.787	0.669	1.083	148	12540	15810	7542	9	M 6 x 18	6	0.6	2.332	2.253	2.171	175
25 x 50	0.984		1.969		0.787	0.669	1.083	154	12540	15085	7542	9	M 6 x 18	6	0.6	2.332	2.253	2.171	181
28 x 55	1.102		2.165		0.787	0.669	1.083	171	12540	13344	6817	9	M 6 x 18	6	0.7	2.522	2.445	2.365	204
30 x 55	1.181		2.165		0.787	0.669	1.083	182	11802	12474	6817	9	M 6 x 18	6	0.6	2.522	2.445	2.365	218
32 x 60	1.260		2.362		0.787	0.669	1.083	258	16228	15520	8268	12	M 6 x 18	6	0.7	2.844	2.739	2.629	311
35 x 60	1.378		2.362		0.787	0.669	1.083	281	16228	14069	8268	12	M 6 x 18	6	0.7	2.844	2.739	2.629	339
38 x 65	1.496	+0	2.559	-0	0.787	0.669	1.083	380	19916	16100	9428	15	M 6 x 18	6	0.8	3.165	3.031	2.892	460
40 x 65	1.575	-0.0025	2.559	+0.0025	0.787	0.669	1.083	398	19916	15230	9428	15	M 6 x 18	6	0.7	3.165	3.031	2.892	485
42 x 75	1.654		2.953		0.945	0.787	1.319	566	27292	16680	9428	12	M 8 x 22	13	1.3	3.653	3.497	3.337	690
45 x 75	1.772		2.953		0.945	0.787	1.319	603	25817	15520	9283	12	M 8 x 22	13	1.3	3.640	3.488	3.331	740
48 x 80	1.890		3.150		0.945	0.787	1.319	642	26555	14504	8703	12	M 8 x 22	13	1.4	3.832	3.682	3.526	789
50 x 80	1.969		3.150		0.945	0.787	1.319	666	26555	13924	8703	12	M 8 x 22	13	1.3	3.832	3.682	3.526	822
55 x 85	2.165		3.346		0.945	0.787	1.319	850	30981	14650	9428	14	M 8 x 22	13	1.4	4.139	3.963	3.781	1055
60 x 90	2.362		3.543		0.945	0.787	1.319	922	30981	13344	8848	14	M 8 x 22	13	1.5	4.324	4.152	3.973	1159
65 x 95	2.559	+0	3.740	-0	0.945	0.787	1.319	1136	34669	14069	9573	16	M 8 x 22	13	1.6	4.642	4.441	4.234	1425
70 x 110	2.756	-0.003	4.331	+0.003	1.102	0.945	1.555	1655	47209	14650	9283	14	M10 x 25	26	2.8	5.339	5.116	4.885	2086
75 x 115	2.953		4.528		1.102	0.945	1.555	1766	47209	13634	8848	14	M10 x 25	26	2.9	5.526	5.306	5.078	2235
80 x 120	3.150		4.724		1.102	0.945	1.555	1877	47209	12764	8558	14	M10 x 25	26	3.1	5.727	5.507	5.278	2384
85 x 125	3.346		4.921		1.102	0.945	1.555	2270	53110	13634	9283	16	M10 x 25	26	3.3	6.067	5.813	5.550	2895
90 x 130	3.543		5.118		1.102	0.945	1.555	2395	53110	12909	8848	16	M10 x 25	26	3.4	6.246	5.998	5.740	3065
95 x 135	3.740	+0	5.315	-0	1.102	0.945	1.555	2834	59748	13634	9573	18	M10 x 25	26	3.6	6.597	6.312	6.018	3640
100 x 145	3.937	-0.0035	5.709	+0.0035	1.299	1.024	1.850	3395	67862	13634	9428	14	M12 x 30	44	4.4	7.062	6.762	6.451	4373
110 x 155	4.331		6.102		1.299	1.024	1.850	3712	67125	12329	8703	14	M12 x 30	44	4.7	7.422	7.132	6.830	4811
120 x 165	4.724		6.496		1.299	1.024	1.850	4602	76714	12764	9283	16	M12 x 30	44	5.2	8.008	7.673	7.327	5998
130 x 180	5.118	+0 -0.004	7.087	-0 +0.004	1.496	1.339	2.047	6201	95155	11314	8123	20	M12 x 35	44	7.7	8.506	8.196	7.873	8122

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### ■ Auxiliary Threads

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## Explanations to tables

$d, D, D_1, L, l, L_1, L_2$  = Basic dimensions,  
Locking Assemblies not tightened

$C_1$  = shaft tolerances

$C_b$  = hub bore tolerances

$C_2$  = bore tolerances

$T$  = transmissible torque

$F_{ax}$  = transmissible axial force

$p_w$  = surface pressure between Locking Assembly  
and shaft

$p_N$  = surface pressure between Locking Assembly  
and hub

$n$  = quantity

$d_G$  = clamping thread

$T_A$  = maximum tightening torque for the screws  
considered in order to determine the values  
 $T, F_{ax}, p_w$  and  $p_N$

$D_N$  = minimum required outside hub diameter

$R_{p0,2}$  = minimum required yield point of hub material

$d1$  = clamp plate bore

$D1$  = spacer sleeve OD

$T_{max}$  = maximum theoretical transmissible torque

$B$  = minimum hub width (calculation formula at  
[www.ringfeder.com](http://www.ringfeder.com))

**STAINLESS**



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