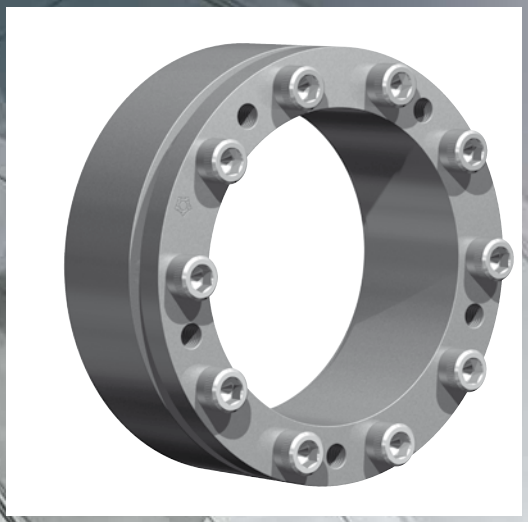
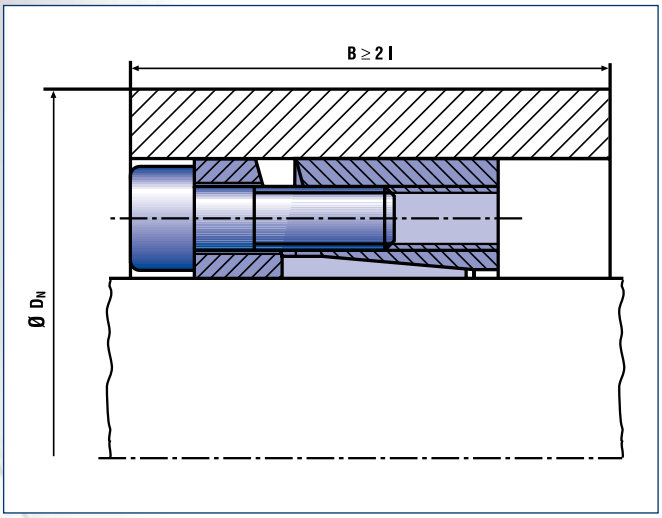
CfN 7013.0-IN





Locking Assembly CfN 7013.0-IN · Typical installation

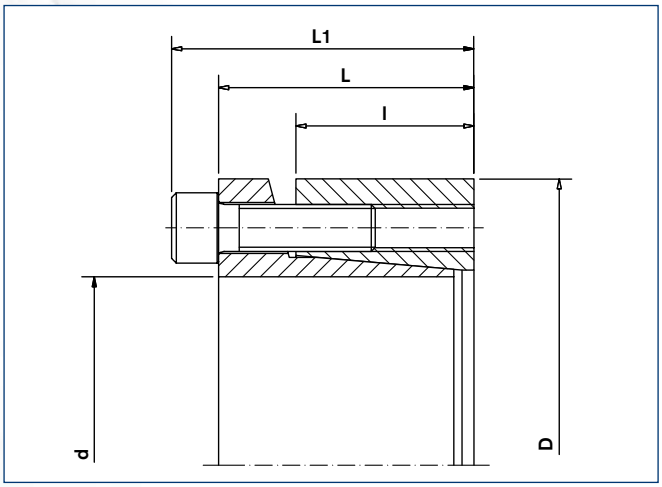
Characteristics

Excellent centering ability – Due to the shallow tapered design the CfN 7013.0-IN Locking Assemblies are self-centering.

Easy trouble free assembly/removal – The reinforced flange prevents the Locking Assembly from distorting when the jacking screws are used during assembly and removal.

High rotation speed – The dimensional accuracy of the CfN 7013.0-IN Locking Assemblies allows their use in applications with higher rotational speeds.

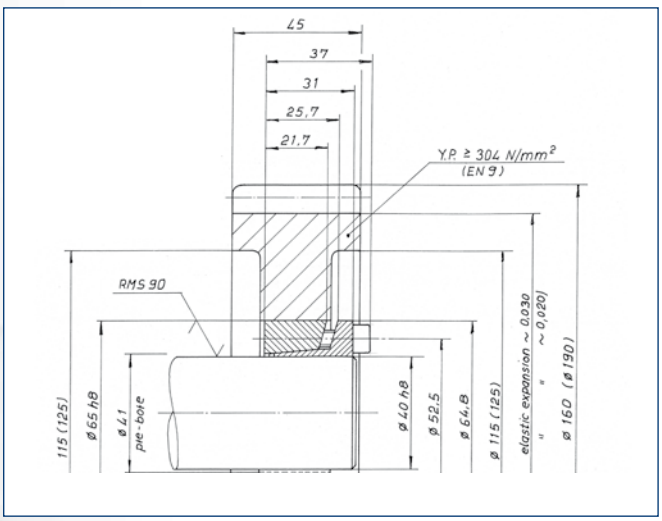
High radial loads – The material strength of the CfN 7013.0-IN Locking Assemblies makes them especially suitable for applications with high radial loads.



Locking Assembly CfN 7013.0-IN · Dimensions

Example applications:

Crane running wheels, couplings, gears, flywheels, fan blades



Locking Assembly CfN 7013.0-IN · Gear (metric example)

Size	Locking Assembly dimensions							Transmissible torques or axial forces		Surface Pressure		Locking screws DIN EN ISO 4762-12.9				Weight	min. D_N*		
										Shaft	Hub						Rp0,2[psi]		
	d	C_1	D	C_2	L	l	L_1	T	F_{ax}	p_W	p_N	n	d_G	s	T_A	WT	36000	45000	62000
Inch	Inch							lb-ft	lbs	psi			mm		lb-ft	lbs	Inch		
1	1.000	+0 -0.0013	1.969	-0 +0.0018	1.220	0.854	1.457	323	7752	40170	15070	5	M6x20	5	13	0.7	2.875	2.591	2.398
1 3/16	1.1875		2.165		1.220	0.854	1.457	385	7781	33800	13650	5	M6x20	5	13	0.8	3.000	2.773	2.587
1 1/4	1.250	+0 -0.0016	2.362		1.220	0.854	1.457	531	10195	38560	15070	6	M6x20	5	13	0.9	3.375	3.108	2.876
1 3/8	1.375		2.362		1.220	0.854	1.457	585	10211	35055	15070	6	M6x20	5	13	0.9	3.375	3.108	2.876
1 7/16	1.4375		2.559		1.220	0.854	1.457	620	10351	33495	13935	6	M6x20	5	13	1.0	3.625	3.296	3.069
1 1/2	1.500		2.559		1.220	0.854	1.457	647	10352	32100	13935	6	M6x20	5	13	1.0	3.625	3.296	3.069
1 5/8	1.625		2.953		1.496	0.996	1.811	1234	18225	43870	19055	6	M8x25	6	30	1.7	4.750	4.202	3.796
1 3/4	1.750		2.953		1.496	0.996	1.811	1329	18226	40740	19055	6	M8x25	6	30	1.7	4.750	4.202	3.796
1 7/8	1.875		3.150	-0 +0.0022	1.496	0.996	1.811	1426	18253	38070	17915	6	M8x25	6	30	1.8	4.875	4.381	3.986
1 15/16	1.9375		3.150		1.496	0.996	1.811	1473	18246	36840	17915	6	M8x25	6	30	1.8	4.875	4.381	3.986
2	2.000		3.150		1.496	0.996	1.811	1521	18252	35690	17915	6	M8x25	6	30	1.8	4.875	4.381	3.986
2 1/8	2.125	+0 -0.0018	3.346		1.496	0.996	1.811	1803	20363	39125	19625	7	M8x25	6	30	1.8	5.500	4.816	4.335
2 3/16	2.1875		3.346		1.496	0.996	1.811	1856	20363	38005	19625	7	M8x25	6	30	1.8	5.500	4.816	4.335
2 1/4	2.250		3.543		1.496	0.996	1.811	1908	20352	36875	18485	7	M8x25	6	30	1.9	5.500	4.984	4.518
2 3/8	2.375		3.543		1.496	0.996	1.811	2014	20352	34935	18485	7	M8x25	6	30	1.9	5.500	4.984	4.518
2 7/16	2.4375		3.740		1.496	0.996	1.811	2466	24281	38965	20050	8	M8x25	6	30	2.1	6.125	5.430	4.873
2 1/2	2.500		3.740		1.496	0.996	1.811	2530	24288	37990	20050	8	M8x25	6	30	2.1	6.125	5.430	4.873
2 9/16	2.5625		3.740		1.496	0.996	1.811	2593	24286	37065	20050	8	M8x25	6	30	2.1	6.125	5.430	4.873
2 3/4	2.750		4.331		1.969	1.315	2.362	3680	32116	34770	18200	7	M10x35	8	61	4.6	6.750	6.058	5.502
2 7/8	2.875		4.528		1.969	1.315	2.362	3845	32097	33300	16920	7	M10x35	8	61	4.9	6.875	6.176	5.653
2 15/16	2.9375		4.528		1.969	1.315	2.362	3929	32101	32590	16920	7	M10x35	8	61	4.9	6.875	6.176	5.653
3	3.000		4.528		1.969	1.315	2.362	4012	32096	31910	16920	7	M10x35	8	61	4.9	6.875	6.176	5.653
3 3/8	3.375	+0 -0.0022	4.921	-0 +0.0025	1.969	1.315	2.362	5434	38642	32430	18345	8	M10x35	8	61	5.3	7.625	6.903	6.264
3 7/16	3.4375		5.118		1.969	1.315	2.362	5543	38700	31810	17630	8	M10x35	8	61	5.7	7.875	7.079	6.451
3 1/2	3.500		5.118		1.969	1.315	2.362	5644	38702	31240	17630	8	M10x35	8	61	5.7	7.875	7.079	6.451
3 3/4	3.750		5.315		1.969	1.315	2.362	7180	45952	36450	21190	10	M10x35	8	61	6.0	9.000	7.899	7.036
3 15/16	3.9375		5.709		2.283	1.606	2.677	7957	48500	27300	16210	10	M10x35	8	61	8.2	8.500	7.680	7.059
4	4.000		5.709		2.283	1.606	2.677	8083	48498	26870	16210	10	M10x35	8	61	8.2	8.500	7.680	7.059

* B ≥ 2 l necessary

More sizes on request

Mounting of Locking Assembly

The Locking Assemblies are supplied slightly oiled and ready-to-use. The values for T, F_{ax}, P_W and P_N apply to installed in oiled condition.

Surface finishes

For shafts and hub bores

R_a = 63 RMS

Tolerances

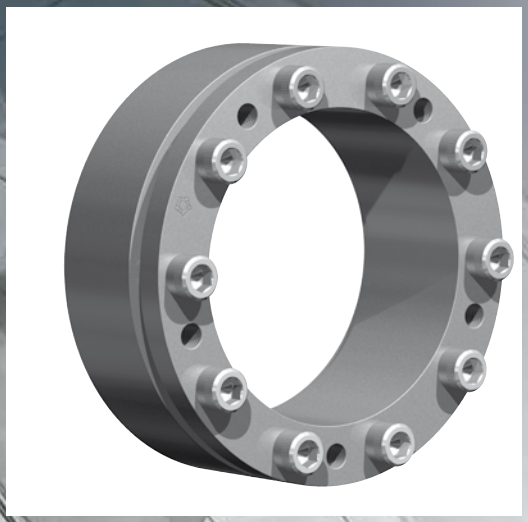
We recommend the following mounting tolerances

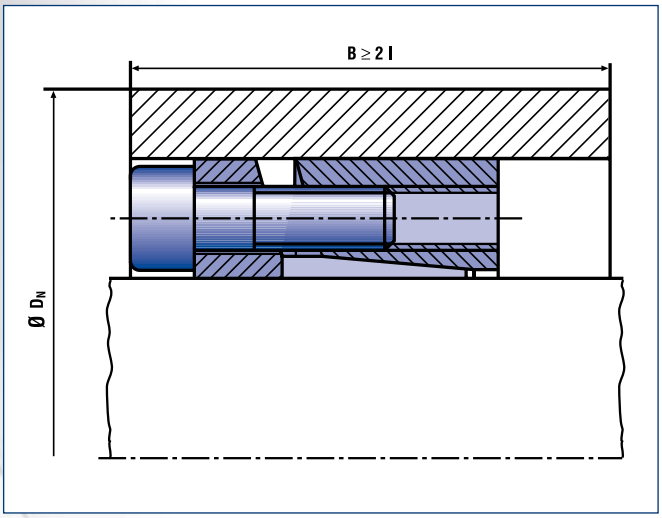
shaft: h8 · hub: H8 - see table above

Change of screw tightening torques

A change of the T_A values given in the above table is inadmissible.

CfN 7013.0





Locking Assembly CfN 7013.0 · Typical installation

Characteristics

Excellent centering ability – Due to the shallow tapered design the CfN 7013 Locking Assemblies are self-centering.

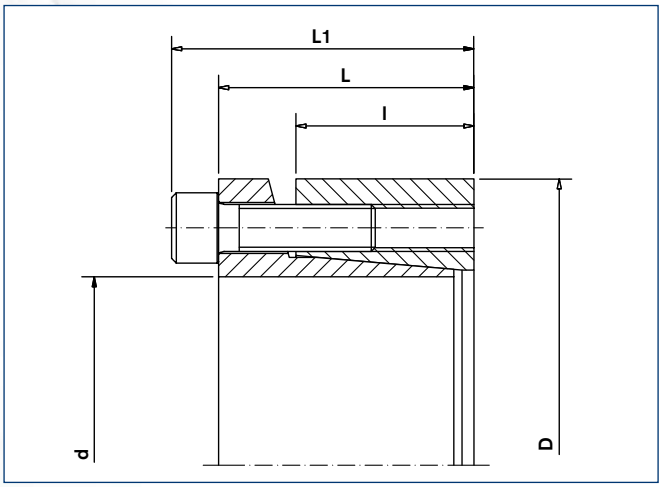
Easy trouble free assembly/removal – The reinforced flange prevents the Locking Assembly from distorting when the jacking screws are used during assembly and removal.

High rotation speed – The dimensional accuracy of the RfN 7013 Locking Assemblies allows their use in applications with higher rotational speeds.

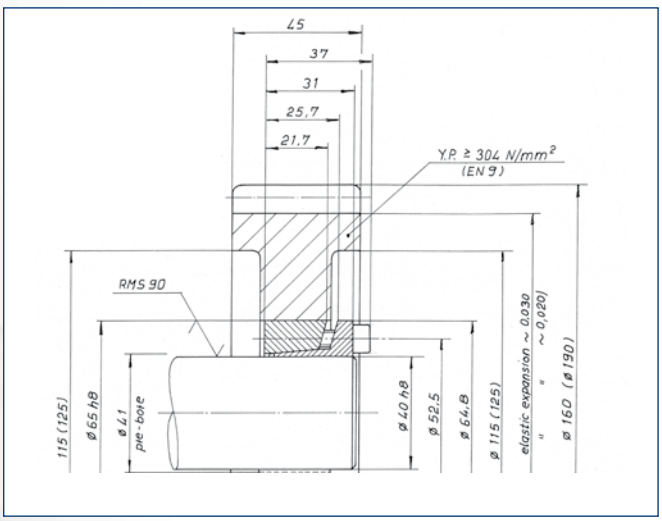
High radial loads – The material strength of the CfN 7013 Locking Assemblies makes them especially suitable for applications with high radial loads.

Example applications:

Crane running wheels, couplings, gears, flywheels, fan blades



Locking Assembly CfN 7013.0 · Dimensions



Locking Assembly CfN 7013.0 · Gear (metric example)

Size	Locking Assembly dimensions							Transmissible torques or axial forces		Surface Pressure		Locking screws DIN EN ISO 4762-12.9			Weight	min. D_N*			
										Shaft	Hub					Rp0,2[psi]			
	d	C_1	D	C_2	L	l	L_1	T	F_{ax}	p_W	p_N	n	d_G	T_A	WT	36000	45000	62000	T_{max}
Inch	Inch							lb-ft	lbs	psi			mm	lb-ft	lbs	Inch			lb-ft
19 x 47	0.748	+0 -0.0013	1.850	-0 +0.0016	1.220	0.854	1.457	210	22129	43513	13054	4	M6 x 20	13	0.6	2.494	2.343	2.193	236
20 x 47	0.787		1.850		1.220	0.854	1.457	221	22129	42063	13054	4	M6 x 20	13	0.6	2.494	2.343	2.193	251
22 x 47	0.866		1.850		1.220	0.854	1.457	243	22129	37712	13054	4	M6 x 20	13	0.6	2.494	2.343	2.193	273
24 x 50	0.945		1.969		1.220	0.854	1.457	310	29505	43513	15955	5	M6 x 20	13	0.7	2.852	2.636	2.426	354
25 x 50	0.984		1.969	-0 +0.0018	1.220	0.854	1.457	325	29505	42063	15955	5	M6 x 20	13	0.7	2.852	2.636	2.426	369
28 x 55	1.102		2.165		1.220	0.854	1.457	361	29505	37712	14504	5	M6 x 20	13	0.8	3.024	2.819	2.616	413
30 x 55	1.181		2.165		1.220	0.854	1.457	391	29505	34811	14504	5	M6 x 20	13	0.7	3.024	2.819	2.616	443
32 x 60	1.260	+0 -0.0016	2.362		1.220	0.854	1.457	546	36882	39162	15955	6	M6 x 20	13	0.9	3.422	3.162	2.911	627
35 x 60	1.378		2.362		1.220	0.854	1.457	597	36882	36261	15955	6	M6 x 20	13	0.8	3.422	3.162	2.911	686
38 x 65	1.496		2.559		1.220	0.854	1.457	656	36882	33360	14504	6	M6 x 20	13	1.0	3.575	3.331	3.093	752
40 x 65	1.575		2.559		1.220	0.854	1.457	693	36882	31910	14504	6	M6 x 20	13	0.9	3.575	3.331	3.093	797
42 x 75	1.654		2.953		1.496	0.996	1.811	1276	59011	43513	18856	6	M8 x 25	30	1.7	4.615	4.185	3.785	1461
45 x 75	1.772		2.953		1.496	0.996	1.811	1372	59011	42063	18856	6	M8 x 25	30	1.5	4.615	4.185	3.785	1571
48 x 80	1.890		3.150		1.496	0.996	1.811	1461	59011	39162	18856	6	M8 x 25	30	1.8	4.923	4.464	4.038	1674
50 x 80	1.969		3.150		1.496	0.996	1.811	1527	59011	37712	18856	6	M8 x 25	30	1.7	4.923	4.464	4.038	1756
55 x 85	2.165	+0 -0.0018	3.346	-0 +0.0022	1.496	0.996	1.811	1874	66387	39162	20306	7	M8 x 25	30	1.8	5.441	4.883	4.376	2154
60 x 90	2.362		3.543		1.496	0.996	1.811	2043	66387	36261	18856	7	M8 x 25	30	1.9	5.537	5.021	4.541	2346
65 x 95	2.559		3.740		1.496	0.996	1.811	2641	81140	37712	20306	8	M8 x 25	30	2.1	6.082	5.458	4.891	3032
70 x 110	2.756		4.331		1.969	1.315	2.362	3762	103269	34811	18856	7	M10 x 35	61	4.6	6.769	6.138	5.552	4323
75 x 115	2.953		4.528		1.969	1.315	2.362	4027	103269	33360	17405	7	M10 x 35	61	4.9	6.809	6.235	5.690	4625
80 x 120	3.150		4.724		1.969	1.315	2.362	4315	103269	30459	15955	7	M10 x 35	61	5.1	6.844	6.324	5.821	4957
85 x 125	3.346	+0 -0.0022	4.921	-0 +0.0025	1.969	1.315	2.362	5495	132774	33360	18856	8	M10 x 35	61	5.3	7.691	6.974	6.308	6314
90 x 130	3.543		5.118		1.969	1.315	2.362	5827	132774	31910	17405	8	M10 x 35	61	5.7	7.697	7.047	6.432	6698
95 x 135	3.740		5.315		1.969	1.315	2.362	7303	154903	37712	21757	10	M10 x 35	61	6.0	9.008	7.993	7.092	8394
100 x 145	3.937		5.709		2.283	1.606	2.677	8114	162280	27559	15955	10	M10 x 35	61	8.2	8.270	7.642	7.035	9331
110 x 155	4.331		6.102		2.283	1.606	2.677	8925	162280	26108	15955	10	M10 x 35	61	8.8	8.840	8.168	7.519	10261
120 x 165	4.724		6.496		2.283	1.606	2.677	11581	191785	27559	17405	12	M10 x 35	61	9.5	9.769	8.945	8.163	13314
130 x 180	5.118	+0 -0.0025	7.087		2.559	1.787	3.031	15269	236043	27559	17405	10	M12 x 40	107	13	10.658	9.759	8.906	17556
140 x 190	5.512		7.480	-0 +0.0028	2.559	1.787	3.031	16597	236043	26108	15955	10	M12 x 40	107	14	10.836	10.013	9.217	19083
150 x 200	5.906		7.874		2.559	1.787	3.031	21023	280301	29009	18856	12	M12 x 40	107	15	12.306	11.159	10.093	24172

* B ≥ 2 l necessary

More sizes on request

Mounting of Locking Assembly

The Locking Assemblies are supplied slightly oiled and ready-to-use. The values for T, F_{ax}, P_W and P_N apply to installed in oiled condition.

Surface finishes

For shafts and hub bores

R_a = 63 RMS

Tolerances

We recommend the following mounting tolerances

shaft: h8 · hub: H8 - see table above

Change of screw tightening torques

A change of the T_A values given in the above table is inadmissible.

Explanations to tables

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

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 = fastener quantity

d_G = clamping thread

d_D = metric pullout thread dia.

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

T_{max} = maximum theoretical transmissible torque

B = minimum hub width

C_1 = Shaft Tolerances

C_2 = Bore Tolerances

s = metric hex key size (across flats)