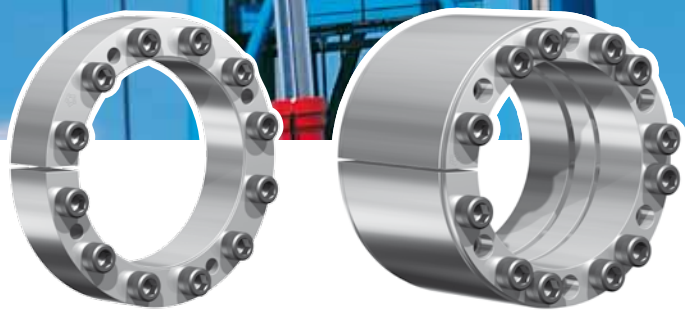


Locking Assemblies

ECOLOC



US
12/2010

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Put your trust in ECOLOC – the safe pair of hands

RINGFEDER POWER TRANSMISSION, always synonymous with precision, is now offering a new Locking Assembly with the launch of its ECOLOC product line. Improved manufacturing processes guarantee competitive pricing, making it possible to produce a low-cost RINGFEDER POWER TRANSMISSION branded product suitable for most applications.

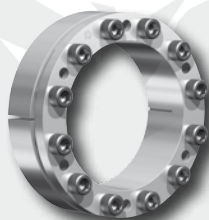


ECOLOC

Products



04 **7002 ECOLOC**

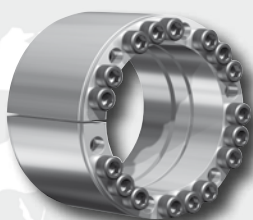
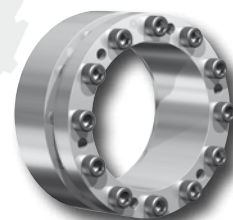


06 **7061 ECOLOC**



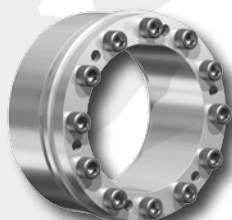
08 **7003 ECOLOC**

10 **7004 ECOLOC**



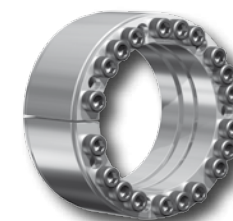
14 **7005 ECOLOC**

16 **7006 ECOLOC**



18 **7007 ECOLOC**

20 **7009 ECOLOC**



24 **7110 ECOLOC**

All technical details and information 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 at all times to carry out modifications in the

interests of technical progress. Upon the issue of this catalogue all previous brochures and questionnaires on the products displayed are no longer valid.



Locking Assemblies

7002 ECOLOC

7002 ECOLOC

Self-centering, cost-efficient 2-piece Locking Assemblies for medium torque. During mounting, slight axial displacement of the hub occurs. The small number of screws guarantees cost savings during mounting. Just a few release screws are required for disassembly.

Technical Information

■ **Surface finishes of 63 micro-inches**
For shafts and hub bores

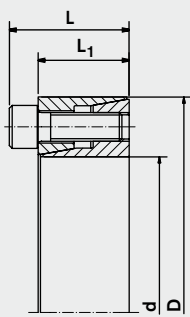
■ **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7002 ECOLOC	19 x 47

Metric Dimensions					T or F _{ax}		T _A P _W P _N			Screws	
d	x	D	L	L ₁						Quantity	Size
mm			mm		Nm	kN	Nm		N / mm ²		
19	x	47	26	20	260	34	17	215	85	6 x M6	
20	x	47	26	20	275	34	17	205	85	6 x M6	
22	x	47	26	20	305	34	17	185	85	6 x M6	
24	x	50	26	20	330	34	17	170	80	6 x M6	
25	x	50	26	20	345	34	17	165	80	6 x M6	
28	x	55	26	20	385	34	17	145	75	6 x M6	
30	x	55	26	20	550	46	17	180	100	8 x M6	
32	x	60	26	20	590	46	17	170	90	8 x M6	
-	-	-	-	-	-	-	-	-	-	-	
38	x	65	26	20	870	57	17	180	105	10 x M6	
40	x	65	26	20	920	57	17	170	105	10 x M6	
42	x	75	32	24	1.410	84	41	240	130	8 x M8	
45	x	75	32	24	1.510	84	41	220	130	8 x M8	
48	x	80	32	24	1.810	94	41	235	140	9 x M8	
50	x	80	32	24	1.890	94	41	225	140	9 x M8	
55	x	85	32	24	2.070	94	41	205	130	9 x M8	
60	x	90	32	24	2.260	94	41	185	125	9 x M8	
65	x	95	32	24	2.730	105	41	190	130	10 x M8	
70	x	110	38	28	3.850	138	83	195	125	8 x M10	
75	x	115	38	28	4.130	138	83	185	120	8 x M10	
80	x	120	38	28	4.401	138	83	170	115	8 x M10	
85	x	125	38	28	5.840	172	83	205	135	10 x M10	
-	-	-	-	-	-	-	-	-	-	-	
90	x	130	38	28	6.190	172	83	190	130	10 x M10	
95	x	135	38	28	7.840	206	83	220	155	12 x M10	
100	x	145	45	33	8.140	203	145	190	130	8 x M12	
110	x	155	45	33	8.950	203	145	170	120	8 x M12	
120	x	165	45	33	12.200	254	145	200	145	10 x M12	
130	x	180	50	38	15.900	305	145	170	120	12 x M12	
140	x	190	50	38	19.900	356	145	185	135	14 x M12	
150	x	200	50	38	21.400	356	145	170	130	14 x M12	

Other sizes on request



ECOLOC

1 inch = 25.4 mm • 1 ft-lbs = 1.3558 Nm • 1 lbs = 4.4482 N • 1 psi = 0.0069 N/mm²

Notes

d x D, L, L₁ =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

Dimensions						T or F _{ax}		T _A P _W P _N			Screws	
d	d	x	D	L	L ₁							
inch	inch			inch		ft-lbs	lbs	ft-lbs	psi		Quantity	Size
3/4	0.750	x	1.850	1.083	0.787	195	7645	13	31200	12300	6 x	M6
-	-	-	-	-	-	-	-	-	-	-	-	-
7/8	0.875	x	1.850	1.083	0.787	225	7645	13	26800	12300	6 x	M6
-	-	-	-	-	-	-	-	-	-	-	-	-
1	1.000	x	1.969	1.083	0.787	255	7645	13	23900	11600	6 x	M6
1 1/8	1.125	x	2.165	1.083	0.787	285	7645	13	21000	10900	6 x	M6
1 3/16	1.188	x	2.165	1.083	0.787	410	10300	13	26100	14500	8 x	M6
1 1/4	1.250	x	2.362	1.083	0.787	435	10300	13	24700	13000	8 x	M6
1 3/8	1.375	x	2.362	1.083	0.787	475	10300	13	22500	13000	8 x	M6
1 1/2	1.500	x	2.559	1.083	0.787	645	12800	13	26100	15200	10 x	M6
-	-	-	-	-	-	-	-	-	-	-	-	-
1 5/8	1.625	x	2.953	1.319	0.945	1040	18900	30	34800	18800	8 x	M8
1 3/4	1.750	x	2.953	1.319	0.945	1110	18900	30	31900	18800	8 x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-
1 15/16	1.938	x	3.150	1.319	0.945	1390	21100	30	32600	20300	9 x	M8
2 3/16	2.188	x	3.346	1.319	0.945	1530	21100	30	29700	18800	9 x	M8
2 3/8	2.375	x	3.543	1.319	0.945	1670	21100	30	26800	18100	9 x	M8
2 9/16	2.563	x	3.740	1.319	0.945	2010	23600	30	27500	18800	10 x	M8
2 3/4	2.750	x	4.331	1.555	1.102	2840	31000	61	28300	18100	8 x	M10
2 15/16	2.938	x	4.528	1.555	1.102	3040	31000	61	26800	17400	8 x	M10
3	3.000	x	4.724	1.555	1.102	3250	31000	61	24600	16700	8 x	M10
3 3/8	3.375	x	4.921	1.555	1.102	4310	38700	61	29700	19600	10 x	M10
3 7/16	3.438	x	4.921	1.555	1.102	4430	38700	61	28600	19300	10 x	M10
3 1/2	3.500	x	5.118	1.555	1.102	4560	38700	61	27500	18800	10 x	M10
3 3/4	3.750	x	5.315	1.555	1.102	5780	46300	61	31900	22500	12 x	M10
3 15/16	3.938	x	5.709	1.850	1.299	6000	45600	107	27500	18800	8 x	M12
4 7/16	4.438	x	6.102	1.850	1.299	6600	45600	107	24600	17400	8 x	M12
4 3/4	4.750	x	6.496	1.850	1.299	9000	57100	107	29000	21000	10 x	M12
5	5.000	x	7.087	2.047	1.496	11700	68600	107	24600	17400	12 x	M12
5 7/16	5.438	x	7.480	2.047	1.496	14700	80000	107	26800	19600	14 x	M12
5 15/16	5.938	x	7.874	2.047	1.496	15800	80000	107	24600	18800	14 x	M12

Other sizes on request



Locking Assemblies

7061 ECOLOC

7061 ECOLOC

Self-centering, cost-efficient 2-piece Locking Assemblies for medium torque. During mounting, slight axial displacement of the hub occurs. The small number of screws guarantees cost savings during mounting. Just a few release screws are required for disassembly. Also available for very small shaft diameters.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

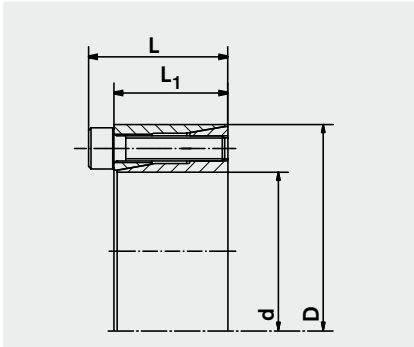
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7061 ECOLOC	6 x 16

Metric Dimensions					T or F _{ax}		T _A P _W P _N			Screws	
d	x	D	L	L ₁						Quantity	Size
mm			mm		Nm	kN	Nm	N / mm ²			
6	x	16	13.5	11	6	2	1.2	150	55	3 x	M2.5
6.35	x	16	13.5	11	6	2	1.2	140	55	3 x	M2.5
7	x	17	13.5	11	8	2	1.2	125	55	3 x	M2.5
8	x	18	13.5	11	10	2.5	1.2	110	50	3 x	M2.5
9	x	20	15.5	13	15	3	1.2	120	55	4 x	M2.5
9.53	x	20	15.5	13	15	3	1.2	110	55	4 x	M2.5
10	x	20	15.5	13	15	3	1.2	110	55	4 x	M2.5
11	x	22	15.5	13	18	3	1.2	100	50	4 x	M2.5
12	x	22	15.5	13	20	3	1.2	90	50	4 x	M2.5
14	x	26	20	17	35	5	2.1	105	55	4 x	M3
15	x	28	20	17	40	5	2.1	100	50	4 x	M3
16	x	32	21	17	70	8	4.9	130	65	4 x	M4
17	x	35	25	21	75	8	4.9	120	60	4 x	M4
18	x	35	25	21	80	8	4.9	115	60	4 x	M4
19	x	35	25	21	85	8	4.9	110	60	4 x	M4
20	x	38	26	21	150	15	9.7	140	75	4 x	M5
22	x	40	26	21	160	14	17	130	70	4 x	M6
24	x	47	32	26	250	20	17	140	75	4 x	M6
25	x	47	32	26	260	20	17	135	75	4 x	M6
25.4	x	47	32	26	265	20	17	130	75	4 x	M6
28	x	50	32	26	440	30	17	185	100	6 x	M6
30	x	55	32	26	470	30	17	175	95	6 x	M6
32	x	55	32	26	500	30	17	165	95	6 x	M6
35	x	60	37	29	730	40	17	165	95	8 x	M6
38	x	65	37	29	800	40	17	155	90	8 x	M6
40	x	65	37	29	840	40	17	145	90	8 x	M6
42	x	75	44	36	1.200	55	41	165	90	6 x	M8
45	x	75	44	36	1.300	55	41	155	90	6 x	M8
48	x	80	44	36	1.850	75	41	195	115	8 x	M8
50	x	80	44	36	1.900	75	41	185	115	8 x	M8

Other sizes on request



Notes

$d \times D, L, L_1 =$

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

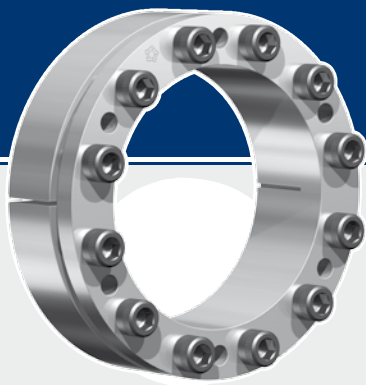
F_{ax} = Transmissible axial force

T_A = Tightening torque screw

p_W = Surface pressure between Locking Assembly and shaft

p_N = Surface pressure between Locking Assembly and hub





Locking Assemblies

7003 ECOLOC

7003 ECOLOC

Self-centering, 2-piece low-cost Locking Assemblies, with a slit that allows for larger tolerances. The hub repositions slightly during mounting towards the screw head. Just a few release screws are required for disassembly. Optimized flange geometry means that the deformation of the flange is significantly lower than in standard products.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

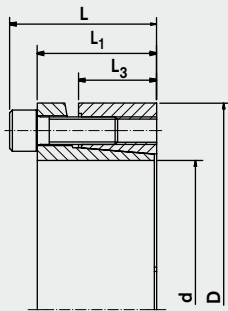
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7003 ECOLOC	24 x 50

Metric Dimensions						T or F _{ax}		T _A	P _W	P _N	Screws		
d	x	D	L	L ₁	L ₃	T or F _{ax}		T _A	P _W	P _N	Quantity		Size
mm				mm		Nm	kN	Nm	N / mm ²				
19	x	47	34	28	17	355	31	14	280	120	5	x	M6
20	x	47	34	28	17	360	33	14	280	120	5	x	M6
22	x	47	34	28	17	400	33	14	260	125	5	x	M6
24	x	50	34	28	17	440	36	14	245	120	6	x	M6
25	x	50	34	28	17	560	36	14	280	140	6	x	M6
28	x	55	34	28	17	625	36	14	250	130	6	x	M6
30	x	55	34	28	17	650	36	14	235	130	6	x	M6
32	x	60	34	28	17	950	50	14	290	150	8	x	M6
35	x	60	34	28	17	1050	50	14	290	150	8	x	M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	x	65	34	28	17	1140	50	14	250	145	8	x	M6
40	x	65	34	28	17	1200	50	14	230	145	8	x	M6
42	x	75	41	33	20	2030	70	35	305	170	7	x	M8
45	x	75	41	33	20	2180	70	35	285	170	7	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	x	80	41	33	20	2330	80	35	270	160	7	x	M8
50	x	80	41	33	20	2430	85	35	260	160	7	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	x	85	41	33	20	3050	100	35	270	175	8	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	x	90	41	33	20	3350	100	35	245	165	8	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	x	95	41	33	20	4080	110	35	255	175	9	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	x	110	50	40	24	6280	160	70	280	180	8	x	M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	x	115	50	40	24	6680	160	70	260	170	8	x	M10
80	x	120	50	40	24	7130	160	70	250	170	8	x	M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	x	125	50	40	24	8750	180	70	260	180	9	x	M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	x	130	50	40	24	9080	180	70	250	170	9	x	M10
95	x	135	50	40	24	10580	200	70	260	180	10	x	M10
100	x	145	56	44	26	13380	240	125	270	190	8	x	M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
110	x	155	56	44	26	14580	240	125	240	180	8	x	M12
120	x	165	56	44	26	17880	250	125	250	180	9	x	M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
130	x	180	64	52	34	25950	350	125	240	170	12	x	M12
140	x	190	68	54	34	26950	350	190	210	150	9	x	M14
150	x	200	68	54	34	32950	400	190	230	170	10	x	M14
160	x	210	68	54	34	37950	450	190	230	170	11	x	M14
170	x	225	78	64	44	44950	500	190	180	130	12	x	M14
180	x	235	78	64	44	46950	500	190	170	130	12	x	M14

Other sizes on request



ECOLOC

1 inch= 25.4 mm • 1 ft-lbs= 1.3558 Nm • 1 lbs= 4.4482 N • 1 psi = 0.0069 N/mm²

Notes

d x D, L, L₁, L₃ =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

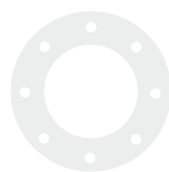
Dimensions							T or F _{ax}		T _A	P _W	P _N	Screws	
d	d	x	D	L	L ₁	L ₃						Quantity	Size
inch							ft-lbs	lbs	t-lbs	psi			
3/4	0.750	x	1.850	1.339	1.102	0.669	260	7000	10	40600	17400	5	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8	0.875	x	1.850	1.339	1.102	0.669	295	7400	10	38800	17800	5	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1.000	x	1.969	1.339	1.102	0.669	415	8100	10	40600	20000	6	x M6
1 1/8	1.125	x	2.165	1.339	1.102	0.669	460	8100	10	36200	18600	6	x M6
1 3/16	1.188	x	2.165	1.339	1.102	0.669	480	8100	10	34100	18600	6	x M6
1 1/4	1.250	x	2.362	1.339	1.102	0.669	700	11200	10	42000	21700	8	x M6
1 3/8	1.375	x	2.362	1.339	1.102	0.669	775	11200	10	38800	21700	8	x M6
1 7/16	1.438	x	2.559	1.339	1.102	0.669	805	11200	10	38000	21200	8	x M6
1 1/2	1.500	x	2.559	1.339	1.102	0.669	840	11200	10	36500	21200	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 5/8	1.625	x	2.953	1.614	1.299	0.787	1500	15700	26	44200	24300	7	x M8
1 3/4	1.750	x	2.953	1.614	1.299	0.787	1610	15700	26	41300	24300	7	x M8
1 7/8	1.875	x	2.953	1.614	1.299	0.787	1700	19100	26	39300	22900	7	x M8
1 15/16	1.938	x	3.150	1.614	1.299	0.787	1790	19100	26	37400	22900	7	x M8
2	2.000	x	3.150	1.614	1.299	0.787	1790	19100	26	36800	22900	7	x M8
2 1/8	2.125	x	3.346	1.614	1.299	0.787	2180	22500	26	39600	25100	8	x M8
2 3/16	2.188	x	3.346	1.614	1.299	0.787	2250	22500	26	38800	25100	8	x M8
2 1/4	2.250	x	3.543	1.614	1.299	0.787	2320	22500	26	37000	23600	8	x M8
2 3/8	2.375	x	3.543	1.614	1.299	0.787	2470	22500	26	35200	23600	8	x M8
2 7/16	2.438	x	3.740	1.614	1.299	0.787	2840	24700	26	38500	25100	9	x M8
2 1/2	2.500	x	3.740	1.614	1.299	0.787	2910	24700	26	37500	25100	9	x M8
2 9/16	2.563	x	3.740	1.614	1.299	0.787	3010	24700	26	36700	25100	9	x M8
2 11/16	2.688	x	4.331	1.969	1.575	0.945	4500	36000	52	41300	26500	8	x M10
2 3/4	2.750	x	4.331	1.969	1.575	0.945	4630	36000	52	40300	25800	8	x M10
2 7/8	2.875	x	4.528	1.969	1.575	0.945	4790	36000	52	38400	24300	8	x M10
2 15/16	2.938	x	4.528	1.969	1.575	0.945	4930	36000	52	37400	24300	8	x M10
3	3.000	x	4.724	1.969	1.575	0.945	5260	36000	52	36000	24300	8	x M10
3 1/4	3.250	x	4.921	1.969	1.575	0.945	6230	40500	52	38500	25800	9	x M10
3 3/8	3.375	x	4.921	1.969	1.575	0.945	6450	40500	52	37400	25800	9	x M10
3 7/16	3.438	x	5.118	1.969	1.575	0.945	6480	40500	52	37000	24300	9	x M10
3 1/2	3.500	x	5.118	1.969	1.575	0.945	6700	40500	52	36000	24300	9	x M10
3 3/4	3.750	x	5.315	1.969	1.575	0.945	7800	45000	52	37400	25800	10	x M10
3 15/16	3.938	x	5.709	2.205	1.732	1.024	9870	54000	92	38800	27200	8	x M12
4	4.000	x	5.709	2.205	1.732	1.024	9960	54000	92	38200	27200	8	x M12
4 7/16	4.438	x	6.102	2.205	1.732	1.024	10800	54000	92	34500	25800	8	x M12
4 3/4	4.750	x	6.496	2.205	1.732	1.024	13200	56200	92	36000	25800	9	x M12
4 15/16	4.938	x	7.087	2.520	2.047	1.339	18400	78700	92	35800	24300	12	x M12
5	5.000	x	7.087	2.520	2.047	1.339	19100	78700	92	34500	24300	12	x M12
5 7/16	5.438	x	7.480	2.677	2.126	1.339	19900	78700	140	30100	21400	9	x M14
5 15/16	5.938	x	7.874	2.677	2.126	1.339	24300	90000	140	33000	24300	10	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 7/16	6.438	x	8.858	3.071	2.520	1.732	33200	112000	140	26100	18800	12	x M14
6 15/16	6.938	x	9.252	3.071	2.520	1.732	34600	112000	140	24600	18800	12	x M14

Other sizes on request



Locking Assemblies

7004 ECOLOC



7004 ECOLOC

The extended version of series RfN 7003 ECOLOC. The hub design (small outer diameter) can be cost-effective as a result of the low pressure requirements.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

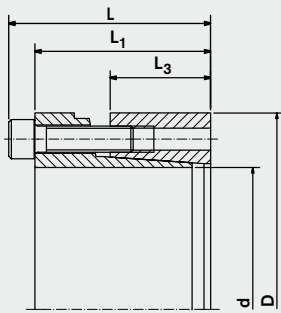
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7004 ECOLOC	55 x 85

Metric Dimensions						T or Fax		TA	PW	PN	Screws		
d	x	D	L	L1	L3						Quantity		Size
mm				mm		Nm	kN	Nm	N / mm ²				
19	x	47	45	39	26	530	56	17	298	120	6	x	M6
20	x	47	45	39	26	550	56	17	283	120	6	x	M6
22	x	47	45	39	26	610	56	17	257	120	6	x	M6
24	x	50	45	39	26	660	56	17	236	115	6	x	M6
25	x	50	45	39	26	690	56	17	227	115	6	x	M6
28	x	55	45	39	26	770	56	17	202	105	6	x	M6
30	x	55	45	39	26	830	56	17	190	105	6	x	M6
32	x	60	45	39	26	1180	74	17	235	125	8	x	M6
35	x	60	45	39	26	1295	74	17	216	126	8	x	M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	x	65	45	39	26	1400	74	17	200	116	8	x	M6
40	x	65	45	39	26	1480	74	17	190	116	8	x	M6
42	x	75	55	47	30	2120	101	41	212	120	6	x	M8
45	x	75	55	47	30	2270	101	41	198	120	6	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	x	80	55	47	30	3230	135	41	250	150	8	x	M8
50	x	80	55	47	30	3365	135	41	240	150	8	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	x	85	55	47	30	3700	135	41	216	140	8	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	x	90	55	47	30	4035	135	41	200	135	8	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	x	95	55	47	30	4370	135	41	183	125	8	x	M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	x	110	67	62	40	7615	218	83	206	131	8	x	M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	x	115	72	62	40	8160	218	83	192	126	8	x	M10
80	x	120	72	62	40	8700	218	83	180	120	8	x	M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	x	125	72	62	40	11560	272	83	212	145	10	x	M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	x	130	72	62	40	12240	272	83	200	140	10	x	M10
95	x	135	72	62	40	12920	272	83	190	135	10	x	M10
100	x	145	89	77	46	16270	325	145	190	130	8	x	M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
110	x	155	89	77	46	17900	325	145	171	121	8	x	M12
120	x	165	89	77	46	24410	405	145	196	142	10	x	M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
130	x	180	89	77	46	31735	488	145	220	160	12	x	M12
140	x	190	98	84	51	35502	507	210	188	139	10	x	M14
150	x	200	98	84	51	45645	609	210	211	158	12	x	M14
160	x	210	98	84	51	48688	609	210	198	151	12	x	M14
170	x	225	98	84	51	60353	710	210	217	164	14	x	M14
180	x	235	98	84	51	63903	710	210	205	157	14	x	M14

Other sizes on request



ECOLOC

$$1 \text{ inch} = 25.4 \text{ mm} \cdot 1 \text{ ft-lbs} = 1.3558 \text{ Nm} \cdot 1 \text{ lbs} = 4.4482 \text{ N} \cdot 1 \text{ psi} = 0.0069 \text{ N/mm}^2$$

Notes

$d \times D, L, L_1, L_3 =$

Basic dimensions, loosened Locking Assembly

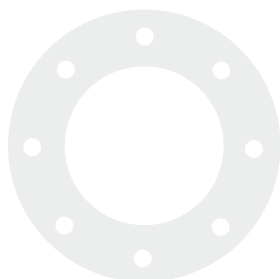
T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

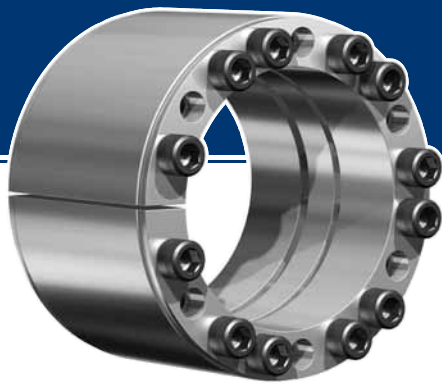
P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub



Dimensions							T or F_{ax}		T_A	P_W	P_N	Screws	
d	d	x	D	L	L ₁	L ₃						Quantity	Size
inch	inch				inch		ft-lbs	lbs	ft-lbs	psi			
3/4	0.750	x	1.850	1.772	1.535	1.024	225	7200	13	28000	11300	6	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8	0.875	x	1.850	1.772	1.535	1.024	260	7200	13	24100	11300	6	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1.000	x	1.969	1.772	1.535	1.024	445	10800	13	31900	15900	6	x M6
1 1/8	1.125	x	2.165	1.772	1.535	1.024	500	10800	13	28400	14500	6	x M6
1 3/16	1.188	x	2.165	1.772	1.535	1.024	535	10800	13	26500	14500	6	x M6
1 1/4	1.250	x	2.362	1.772	1.535	1.024	760	14600	13	33200	17700	8	x M6
1 3/8	1.375	x	2.362	1.772	1.535	1.024	835	14600	13	30300	17700	8	x M6
1 7/16	1.438	x	2.559	1.772	1.535	1.024	885	14600	13	29100	17100	8	x M6
1 1/2	1.500	x	2.559	1.772	1.535	1.024	905	14600	13	28000	16400	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 5/8	1.625	x	2.953	2.165	1.850	1.181	1350	19600	30	29600	16700	6	x M8
1 3/4	1.750	x	2.953	2.165	1.850	1.181	1450	19600	30	27700	16700	6	x M8
1 7/8	1.875	x	2.953	2.165	1.850	1.181	1530	19600	30	26700	15900	6	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 15/16	1.938	x	3.150	2.165	1.850	1.181	1610	19600	30	25000	15500	8	x M8
2	2.000	x	3.150	2.165	1.850	1.181	1680	19600	30	27000	17100	8	x M8
2 1/8	2.125	x	3.346	2.165	1.850	1.181	2210	19600	30	27100	17300	8	x M8
2 3/16	2.188	x	3.346	2.165	1.850	1.181	2360	26100	30	30200	19600	8	x M8
2 1/4	2.250	x	3.543	2.165	1.850	1.181	2480	26100	30	29000	19000	8	x M8
2 3/8	2.375	x	3.543	2.165	1.850	1.181	2570	26100	30	27700	18400	8	x M8
2 7/16	2.438	x	3.740	2.165	1.850	1.181	2700	26100	30	26700	18000	8	x M8
2 1/2	2.500	x	3.740	2.165	1.850	1.181	2730	26100	30	26700	18000	8	x M8
2 9/16	2.563	x	3.740	2.165	1.850	1.181	2790	26100	30	25500	17400	8	x M8
2 11/16	2.688	x	4.331	2.638	2.244	1.575	4120	42500	61	27200	18000	8	x M10
2 3/4	2.750	x	4.331	2.638	2.244	1.575	4870	42500	61	28800	18400	8	x M10
2 7/8	2.875	x	4.528	2.835	2.441	1.575	5080	42500	61	27800	18000	8	x M10
2 15/16	2.938	x	4.528	2.835	2.441	1.575	5220	42500	61	27000	17500	8	x M10
3	3.000	x	4.724	2.835	2.441	1.575	5570	42500	61	25200	16800	8	x M10
3 1/4	3.250	x	4.921	2.835	2.441	1.575	6480	53100	61	28100	19000	10	x M10
3 3/8	3.375	x	4.921	2.835	2.441	1.575	7390	53100	61	29700	20100	10	x M10
3 7/16	3.438	x	4.921	2.835	2.441	1.575	7610	53100	61	28600	19700	10	x M10
3 1/2	3.500	x	5.118	2.835	2.441	1.575	7830	53100	61	28000	19400	10	x M10
3 3/4	3.750	x	5.315	2.835	2.441	1.575	8260	53100	61	26500	18700	10	x M10
3 15/16	3.938	x	5.709	3.504	3.031	1.811	10100	61800	107	25500	17500	8	x M12
4	4.000	x	5.709	3.504	3.031	1.811	10300	61800	107	24600	17100	8	x M12
4 7/16	4.438	x	6.102	3.504	3.031	1.811	11100	61800	107	23200	16500	8	x M12
4 3/4	4.750	x	6.496	3.504	3.031	1.811	15200	77100	107	26500	19300	10	x M12
4 15/16	4.938	x	7.087	3.504	3.031	1.811	17500	92600	107	28000	20300	12	x M12
5	5.000	x	7.087	3.504	3.031	1.811	19800	92600	107	29400	21300	12	x M12
5 7/16	5.438	x	7.480	3.858	3.307	2.008	19280	83900	170	22300	16500	10	x M14
5 15/16	5.938	x	7.874	3.858	3.307	2.008	25800	105000	170	26100	19600	12	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 7/16	6.438	x	8.858	3.858	3.307	2.008	35100	126000	170	27700	20900	14	x M14
6 15/16	6.938	x	9.252	3.858	3.307	2.008	37200	126000	170	26100	20000	14	x M14

Other sizes on request



Locking Assemblies

7005 ECOLOC

ECOLOC 7005

3-piece, self-centering, slit Locking Assemblies for highest bending moment and torque. During assembly, a minor axial displacement of the hub occurs. The front and rear thrust rings are separately released by release threads.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

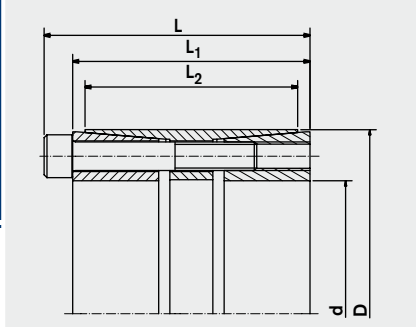
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
ECOLOC 7005	35 x 60

Metric Dimensions						T or F _{ax}		T _A P _W P _N			Screws	
d	x	D	L	L ₁	L ₂			T _A	P _W	P _N	Quantity	Size
mm				mm		Nm	kN	Nm	N / mm ²			
25	x	50	61	55	45	649	64	17	155	80	5	x M6
28	x	55	46	40	32	875	64	17	250	95	6	x M6
30	x	55	46	40	32	950	64	17	235	95	6	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-
35	x	60	60	54	44	1300	74	17	165	75	7	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
38	x	65	60	54	45	1600	84	17	165	95	8	x M6
40	x	65	60	54	45	1680	84	17	155	95	8	x M6
42	x	75	62	54	44	2800	135	41	250	110	7	x M8
45	x	75	62	54	44	3050	135	41	235	110	7	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-
48	x	80	72	64	56	3700	155	41	195	90	8	x M8
50	x	80	74	66	56	3950	155	41	185	90	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-
55	x	85	74	66	56	4900	174	41	190	100	9	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
60	x	90	74	66	56	5900	193	41	195	100	10	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-
65	x	95	74	66	56	6450	193	41	180	95	10	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-
70	x	110	90	80	70	10950	313	83	210	110	10	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
75	x	115	90	80	70	11700	313	83	200	105	10	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-
80	x	120	90	80	70	13750	344	83	205	110	11	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-
85	x	125	90	80	70	16000	375	83	210	115	12	x M10
90	x	130	90	80	70	16900	375	83	200	110	12	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
95	x	135	90	80	70	17820	375	83	185	105	12	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
100	x	145	114	102	90	25725	514	145	195	105	11	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
110	x	155	114	102	90	30850	561	145	195	110	12	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-

See next page



$$1 \text{ inch} = 25.4 \text{ mm} \quad 1 \text{ ft-lbs} = 1.3558 \text{ Nm} \quad 1 \text{ lbs} = 4.4482 \text{ N} \quad 1 \text{ psi} = 0.0069 \text{ N/mm}^2$$

Notes

$d \times D, L, L_1, L_2 =$

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

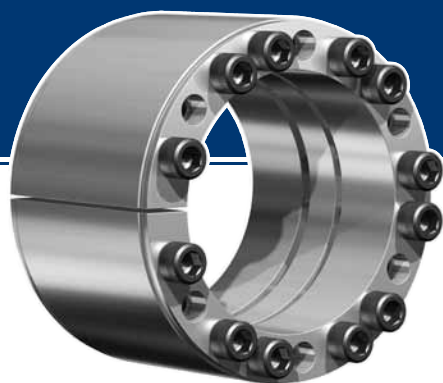
P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

If bending moments occur, reduced screw tightening torques have to be considered. Please consult our Technical Department

Dimensions							T or F_{ax}		T_A	P_W	P_N	Screws	
d	d	x	D	L	L ₁	L ₂						Quantity	Size
inch	inch			inch	inch		ft-lbs	lbs	ft-lbs	psi			
1	1.000	x	1.969	2.402	2.165	1.772	485	14400	13	22300	11500	5	x M6
1 1/8	1.125	x	2.165	2.402	2.165	1.772	670	14400	13	24000	12500	6	x M6
1 3/16	1.188	x	2.165	2.402	2.165	1.772	705	14400	13	22800	12500	6	x M6
1 1/4	1.250	x	2.362	2.402	2.165	1.772	870	14400	13	25900	10600	7	x M6
1 3/8	1.375	x	2.362	2.402	2.165	1.772	955	16600	13	23600	10600	7	x M6
1 7/16	1.438	x	2.559	2.402	2.165	1.772	1130	16600	13	22800	13900	8	x M6
1 1/2	1.500	x	2.559	2.402	2.165	1.772	1180	16600	13	22500	13900	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 5/8	1.625	x	2.953	2.441	2.126	1.732	2020	30300	30	37000	15800	7	x M8
1 3/4	1.750	x	2.953	2.441	2.126	1.732	2180	30300	30	34400	15800	7	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 7/8	1.875	x	3.150	2.835	2.520	2.205	2700	34800	30	28400	13300	8	x M8
1 15/16	1.938	x	3.150	2.835	2.520	2.205	2860	34800	30	27400	13300	8	x M8
2	2.000	x	3.150	2.835	2.520	2.205	2960	34800	30	26600	13300	8	x M8
2 1/8	2.125	x	3.346	2.835	2.520	2.205	3540	39100	30	28200	14100	9	x M8
2 3/16	2.188	x	3.346	2.835	2.520	2.205	3650	39100	30	26400	14100	9	x M8
2 1/4	2.250	x	3.543	2.835	2.520	2.205	4140	39100	30	29500	14800	10	x M8
2 3/8	2.375	x	3.543	2.835	2.520	2.205	4370	43400	30	28000	14800	10	x M8
2 7/16	2.438	x	3.740	2.835	2.520	2.205	4530	43400	30	27200	13900	10	x M8
2 1/2	2.500	x	3.740	2.835	2.520	2.205	4640	43400	30	26600	13900	10	x M8
2 9/16	2.563	x	3.740	2.835	2.520	2.205	4760	43400	30	25900	13900	10	x M8
2 5/8	2.625	x	4.331	3.465	3.071	2.756	7690	70400	61	32300	15700	10	x M10
2 11/16	2.688	x	4.331	3.465	3.071	2.756	7870	70400	61	31500	15700	10	x M10
2 3/4	2.750	x	4.331	3.465	3.071	2.756	8050	70400	61	30800	15700	10	x M10
2 7/8	2.875	x	4.528	3.465	3.071	2.756	8400	70400	61	29300	14900	10	x M10
2 15/16	2.938	x	4.528	3.465	3.071	2.756	8580	70400	61	28700	14900	10	x M10
3	3.000	x	4.724	3.465	3.071	2.756	9650	70400	61	31100	15800	11	x M10
3 1/8	3.125	x	4.724	3.465	3.071	2.756	10100	77300	61	29800	15800	11	x M10
3 1/4	3.250	x	4.724	3.465	3.071	2.756	10500	77300	61	28700	15800	11	x M10
3 3/8	3.375	x	4.921	3.465	3.071	2.756	11900	84300	61	30000	16500	12	x M10
3 7/16	3.438	x	5.118	3.465	3.071	2.756	12100	84300	61	29400	15800	12	x M10
3 1/2	3.500	x	5.118	3.465	3.071	2.756	12300	84300	61	28900	15800	12	x M10
3 5/8	3.625	x	5.315	3.465	3.071	2.756	12700	84300	61	28000	15200	12	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 3/4	3.750	x	5.709	4.409	3.937	3.543	18100	84300	107	29700	15200	11	x M12
3 7/8	3.875	x	5.709	4.409	3.937	3.543	18700	84300	107	28700	15200	11	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 15/16	3.937	x	5.709	4.409	3.937	3.543	19000	116000	107	28300	15200	11	x M12
4	4.000	x	5.709	4.409	3.937	3.543	19300	116000	107	27800	15200	11	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
4 3/8	4.375	x	6.102	4.409	3.937	3.543	23000	126000	107	27700	15500	12	x M12

See next page



Locking Assemblies

7005 ECOLOC

Continuation

ECOLOC 7005

3-piece, self-centering, slit Locking Assemblies for highest bending moment and torque. Slight axial displacement of the hub occurs during assembly. The front and rear thrust rings are released separately by release threads

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

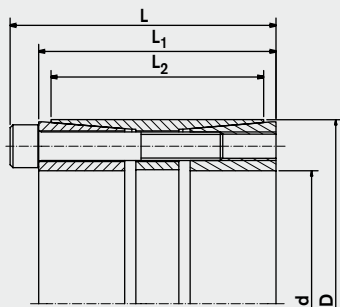
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
ECOLOC 7005	150 x 200

Metric Dimensions						T or F _{ax}		T _A	P _W	P _N	Screws	
d	x	D	L	L ₁	L ₂						Quantity	Size
mm				mm		Nm	kN	Nm	N / mm ²			
-	-	-	-	-	-	-	-	-	-	-	-	-
120	x	165	114	102	90	39275	655	145	210	115	14	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
130	x	180	130	116	104	50300	774	230	190	110	12	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-
140	x	190	130	116	104	63200	903	230	205	120	14	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
150	x	200	130	116	104	72550	967	230	205	125	15	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
160	x	210	130	116	104	82550	1032	230	205	125	16	x M14
170	x	225	165	149	134	103800	1221	360	170	110	14	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-
180	x	235	165	149	134	117800	1308	360	175	110	15	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
190	x	250	165	149	134	132600	1395	360	180	110	16	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-
200	x	260	165	149	134	140000	1400	360	170	110	16	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
220	x	285	165	149	134	173000	1570	360	170	110	18	x M16
240	x	305	162	146	134	218000	1820	360	185	120	20	x M16
260	x	325	162	146	134	250000	1920	360	180	120	21	x M16
280	x	355	197	177	165	360000	2550	690	185	120	18	x M20
300	x	375	197	177	165	428000	2850	690	190	125	20	x M20
320	x	405	197	177	165	480000	3000	690	190	120	21	x M20
340	x	425	197	177	165	534000	3140	690	185	120	22	x M20
360	x	455	224	202	190	670000	3730	930	175	115	21	x M22
380	x	475	224	202	190	742000	3900	930	175	115	22	x M22
400	x	495	224	202	190	852000	4260	930	180	120	24	x M22
420	x	515	224	202	190	894000	4260	930	175	115	24	x M22
440	x	535	224	202	190	937000	4260	930	165	110	24	x M22
460	x	555	224	202	190	980000	4260	930	160	110	24	x M22
480	x	575	224	202	190	1200000	5000	930	175	120	28	x M22
500	x	595	224	202	190	1240000	5000	930	170	120	28	x M22
520	x	615	224	202	190	1390000	5330	930	175	120	30	x M22
540	x	635	224	202	190	1440000	5330	930	170	120	30	x M22
560	x	655	224	202	190	1590000	5680	930	170	120	32	x M22
580	x	675	224	202	190	1705000	5680	930	170	120	33	x M22
600	x	695	224	202	190	1760000	5680	930	170	120	33	x M22

Other sizes on request



ECOLOC

$$1 \text{ inch} = 25.4 \text{ mm} \cdot 1 \text{ ft-lbs} = 1.3558 \text{ Nm} \cdot 1 \text{ lbs} = 4.4482 \text{ N} \cdot 1 \text{ psi} = 0.0069 \text{ N/mm}^2$$

Notes

d x D, L, L₁, L₂ =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

If bending moments occur, reduced screw tightening torques have to be considered. Please consult our Technical Department

Dimensions							T or F _{ax}		T _A	P _W	P _N	Screws	
d	d	x	D	L	L ₁	L ₂	T or F _{ax}		T _A	P _W	P _N	Quantity	Size
inch	inch				inch		ft-lbs	lbs	ft-lbs	psi			
4 1/2	4.500	x	6.496	4.409	3.937	3.543	27600	126000	107	31500	17000	14	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-
4 3/4	4.750	x	6.496	4.409	3.937	3.543	29100	147000	107	29800	17000	14	x M12
4 15/16	4.938	x	7.087	5.118	4.567	4.094	35800	147000	170	28300	15900	12	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5.000	x	7.087	5.118	4.567	4.094	36200	174000	170	27900	15900	12	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 7/16	5.438	x	7.480	5.118	4.567	4.094	46000	203000	170	30000	17500	14	x M14
5 1/2	5.500	x	7.480	5.118	4.567	4.094	46500	203000	170	29600	17500	14	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 15/16	5.938	x	7.874	5.118	4.567	4.094	53800	217000	170	29400	17800	15	x M14
6	6.000	x	8.268	5.118	4.567	4.094	58600	217000	170	30700	18100	16	x M14
6 7/16	6.438	x	8.858	6.378	5.748	5.276	73600	217000	266	26100	15500	14	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 1/2	6.500	x	8.858	6.378	5.748	5.276	74300	274000	266	25800	15500	14	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 15/16	6.938	x	9.252	6.378	5.748	5.276	85000	294000	266	25900	15900	15	x M16
7	7.000	x	9.252	6.378	5.748	5.276	85800	294000	266	25700	15900	15	x M16
7 7/16	7.438	x	9.843	6.378	5.748	5.276	97200	294000	266	25800	15900	16	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 1/2	7.500	x	9.843	6.378	5.748	5.276	98000	314000	266	25600	15900	16	x M16
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 15/16	7.938	x	10.236	6.378	5.748	5.276	104000	315000	266	24200	15400	16	x M16
8	8.000	x	10.433	6.378	5.748	5.276	105000	315000	266	24000	15100	16	x M16
9	9.000	x	12.008	6.378	5.748	5.276	153000	315000	266	28000	17300	20	x M16

Other sizes on request



Locking Assemblies

7006 ECOLOC

7006 ECOLOC

All the positive features of series RfN 7003 ECOLOC. As a result of the larger flange diameter there is also no axial displacement of the hub during mounting. Frequently used for belt pulleys.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

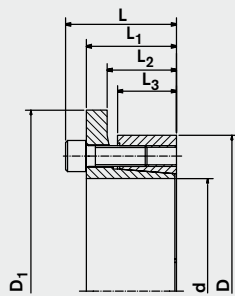
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7006 ECOLOC	55 x 85

Metric Dimensions								T or F _{ax}		T _A	P _W	P _N	Screws	
d	x	D	L	L ₁	L ₂	L ₃	D ₁						Quantity	Size
mm								Nm	kN	Nm	N / mm ²			
19	x	47	34	28	23	17	56	270	28	17	215	95	5	x M6
20	x	47	34	28	23	17	56	280	28	17	215	95	5	x M6
22	x	47	34	28	23	17	56	310	28	17	195	95	5	x M6
24	x	50	34	28	23	17	59	400	32	17	215	105	6	x M6
25	x	50	34	28	23	17	59	440	34	17	210	105	6	x M6
28	x	55	34	28	23	17	64	490	34	17	195	100	6	x M6
30	x	55	34	28	23	17	64	530	34	17	185	100	6	x M6
32	x	60	34	28	23	17	69	750	46	17	210	110	8	x M6
35	x	60	34	28	23	17	69	820	46	17	185	110	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	x	65	34	28	23	17	74	890	46	17	190	110	8	x M6
40	x	65	34	28	23	17	74	940	46	17	185	110	8	x M6
42	x	75	41	33	27	20	84	1600	70	41	240	130	7	x M8
45	x	75	41	33	27	20	84	1720	70	41	225	130	7	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	x	80	41	33	27	20	89	1890	74	41	205	125	7	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	x	85	41	33	27	20	94	2400	76	41	210	130	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	x	90	41	33	27	20	99	2650	76	41	185	120	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	x	95	41	33	27	20	104	3190	80	41	195	130	9	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	x	110	50	40	32	24	119	4910	130	83	215	135	8	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	x	115	50	40	32	24	124	5150	130	83	195	125	8	x M10
80	x	120	50	40	32	24	129	5490	130	83	185	120	8	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	x	125	50	40	32	24	134	6620	140	83	195	130	9	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	x	130	50	40	32	24	139	6960	140	83	185	125	9	x M10
95	x	135	50	40	32	24	144	8190	160	83	195	135	10	x M10
100	x	145	56	44	34	26	154	10100	170	145	205	145	8	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
110	x	155	56	44	34	26	164	11000	170	145	190	135	8	x M12
120	x	165	56	44	34	26	174	13600	200	145	205	140	9	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
130	x	180	64	52	42	34	189	19000	250	145	185	135	12	x M12
140	x	190	68	54	42	34	199	21800	270	230	175	125	9	x M14
150	x	200	68	54	42	34	209	25600	320	230	185	135	10	x M14
160	x	210	68	54	42	34	219	26100	320	230	175	135	11	x M14
170	x	225	78	64	52	44	234	30300	340	230	140	105	12	x M14
180	x	235	78	64	52	44	244	32000	340	230	135	105	12	x M14

Other sizes on request



ECOLOC

$$1 \text{ inch} = 25.4 \text{ mm} \cdot 1 \text{ ft-lbs} = 1.3558 \text{ Nm} \cdot 1 \text{ lbs} = 4.4482 \text{ N} \cdot 1 \text{ psi} = 0.0069 \text{ N/mm}^2$$

Notes

d x D, L, L₁, L₂, L₃ =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

* = Approx. 3 mm space for mounting!

Dimensions									T or F _{ax}		T _A P _W P _N			Screws	
d	d	x	D	L	L ₁	L ₂	L ₃	D ₁			T _A	P _W	P _N	Quantity	Size
inch	inch				inch	inch			ft-lbs	lbs	ft-lbs	psi			
3/4	0.750	x	1.850	1.339	1.102	0.906	0.669	2.205	200	6290	13	31160	13500	5	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8	0.875	x	1.850	1.339	1.102	0.906	0.669	2.205	230	6290	13	28400	13500	5	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1.000	x	1.969	1.339	1.102	0.906	0.669	2.323	325	7640	13	30400	15500	6	x M6
1 1/8	1.125	x	2.165	1.339	1.102	0.906	0.669	2.520	360	7640	13	28400	14200	6	x M6
1 3/16	1.188	x	2.165	1.339	1.102	0.906	0.669	2.520	390	7640	13	27000	14200	6	x M6
1 1/4	1.250	x	2.362	1.339	1.102	0.906	0.669	2.717	555	10300	13	30400	16200	8	x M6
1 3/8	1.375	x	2.362	1.339	1.102	0.906	0.669	2.717	605	10300	13	27000	16200	8	x M6
1 7/16	1.438	x	2.559	1.339	1.102	0.906	0.669	2.913	625	10300	13	28700	15900	8	x M6
1 1/2	1.500	x	2.559	1.339	1.102	0.906	0.669	2.913	655	10300	13	27700	15900	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 5/8	1.625	x	2.953	1.614	1.299	1.063	0.787	3.307	1180	15700	30	34900	19100	7	x M8
1 3/4	1.750	x	2.953	1.614	1.299	1.063	0.787	3.307	1270	15700	30	32600	19100	7	x M8
1 7/8	1.875	x	2.953	1.614	1.299	1.063	0.787	3.504	1330	15700	30	31200	18400	7	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 15/16	1.938	x	3.150	1.614	1.299	1.063	0.787	3.504	1390	16600	30	29700	18400	7	x M8
2	2.000	x	3.150	1.614	1.299	1.063	0.787	3.504	1390	16600	30	29200	18400	7	x M8
2 1/8	2.125	x	3.346	1.614	1.299	1.063	0.787	3.701	1730	17100	30	31000	19100	8	x M8
2 3/16	2.188	x	3.346	1.614	1.299	1.063	0.787	3.701	1770	17100	30	30400	19100	8	x M8
2 1/4	2.250	x	3.543	1.614	1.299	1.063	0.787	3.898	1860	17100	30	28300	17700	8	x M8
2 3/8	2.375	x	3.543	1.614	1.299	1.063	0.787	3.898	1950	17100	30	27000	17700	8	x M8
2 7/16	2.438	x	3.740	1.614	1.299	1.063	0.787	4.094	2230	18000	30	29800	19100	9	x M8
2 1/2	2.500	x	3.740	1.614	1.299	1.063	0.787	4.094	2290	18000	30	29100	19100	9	x M8
2 9/16	2.563	x	3.740	1.614	1.299	1.063	0.787	4.094	2350	18000	30	28400	19100	9	x M8
2 11/16	2.688	x	4.331	1.969	1.575	1.260	0.945	4.685	3530	29200	61	32000	19900	8	x M10
2 3/4	2.750	x	4.331	1.969	1.575	1.260	0.945	4.685	3620	29200	61	31200	19900	8	x M10
2 7/8	2.875	x	4.528	1.969	1.575	1.260	0.945	4.882	3690	29200	61	29000	18400	8	x M10
2 15/16	2.938	x	4.528	1.969	1.575	1.260	0.945	4.882	3800	29200	61	28300	18400	8	x M10
3	3.000	x	4.724	1.969	1.575	1.260	0.945	5.079	4050	29200	61	26800	17700	8	x M10
3 1/4	3.250	x	4.921	1.969	1.575	1.260	0.945	5.276	4730	31500	61	29100	19100	9	x M10
3 3/8	3.375	x	4.921	1.969	1.575	1.260	0.945	5.276	4880	31500	61	28300	19100	9	x M10
3 7/16	3.438	x	4.921	1.969	1.575	1.260	0.945	5.472	4980	31500	61	27600	18400	9	x M10
3 1/2	3.500	x	5.118	1.969	1.575	1.260	0.945	5.472	5130	31500	61	26800	18400	9	x M10
3 3/4	3.750	x	5.315	1.969	1.575	1.260	0.945	5.669	6040	36000	61	28300	19900	10	x M10
3 15/16	3.938	x	5.709	2.205	1.732	1.339	1.024	6.063	7450	38200	107	29700	21000	8	x M12
4	4.000	x	5.709	2.205	1.732	1.339	1.024	6.063	7560	38200	107	29200	21000	8	x M12
4 7/16	4.438	x	6.102	2.205	1.732	1.339	1.024	6.457	8110	38200	107	27500	19600	8	x M12
4 3/4	4.750	x	6.496	2.205	1.732	1.339	1.024	6.850	10000	45000	107	29700	20600	9	x M12
4 15/16	4.938	x	7.087	2.520	2.047	1.654	1.339	7.441	13400	56200	107	27900	19900	12	x M12
5	5.000	x	7.087	2.520	2.047	1.654	1.339	7.441	14000	56200	107	27000	19900	12	x M12
5 7/16	5.438	x	7.480	2.677	2.126	1.654	1.339	7.835	16100	60700	170	25700	18400	9	x M14
5 15/16	5.938	x	7.874	2.677	2.126	1.654	1.339	8.228	18900	71900	170	26800	19900	10	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 7/16	6.438	x	8.858	3.071	2.520	2.047	1.732	9.213	22300	76400	170	20300	15200	12	x M14
6 15/16	6.938	x	9.252	3.071	2.520	2.047	1.732	9.606	23600	76400	170	19600	15200	12	x M14

Other sizes on request



Locking Assemblies

7007 ECOLOC

7007 ECOLOC

A sub-design of RfN 7004 ECOLOC with all its positive features, but here -as with RfN 7006 ECOLOC - axial displacement during mounting is averted.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

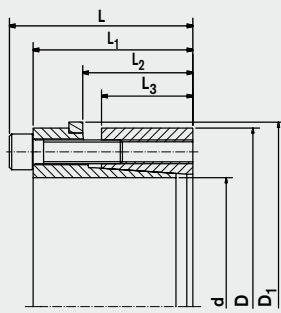
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7007 ECOLOC	110 x 155

Metric Dimensions								T or F _{ax}		T _A P _W P _N			Screws	
d	x	D	L	L ₁	L ₂	L ₃	D ₁							
mm								Nm	kN	Nm	N / mm ²		Quantity	Size
19	x	47	45	39	31	26	53	320	33	17	180	70	6	x M6
20	x	47	45	39	31	26	53	330	33	17	170	70	6	x M6
22	x	47	45	39	31	26	53	370	33	17	155	70	6	x M6
24	x	50	45	39	31	26	56	400	33	17	140	70	6	x M6
25	x	50	45	39	31	26	56	420	33	17	135	70	6	x M6
28	x	55	45	39	31	26	61	470	33	17	120	60	6	x M6
30	x	55	45	39	31	26	61	500	33	17	115	60	6	x M6
32	x	60	45	39	31	26	66	710	44	17	140	75	8	x M6
35	x	60	45	39	31	26	66	780	44	17	130	75	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	x	65	45	39	31	26	71	850	44	17	120	70	8	x M6
40	x	65	45	39	31	26	71	890	44	17	110	70	8	x M6
42	x	75	55	47	36	30	81	1270	61	41	130	70	6	x M8
45	x	75	55	47	36	30	81	1360	61	41	120	70	6	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	x	80	55	47	36	30	86	1940	81	41	150	90	8	x M8
50	x	80	55	47	36	30	86	2020	81	41	145	90	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	x	85	55	47	36	30	91	2220	81	41	130	85	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	x	90	55	47	36	30	96	2430	81	41	120	80	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	x	95	55	47	36	30	101	2630	81	41	110	75	8	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	x	110	72	62	46	40	116	4580	131	83	125	80	8	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	x	115	72	62	46	40	121	4900	131	83	115	75	8	x M10
80	x	120	72	62	46	40	126	5230	131	83	110	70	8	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	x	125	72	62	46	40	131	6950	163	83	125	85	10	x M10
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	x	130	72	62	46	40	136	7350	163	83	120	85	10	x M10
95	x	135	72	62	46	40	141	7760	163	83	115	80	10	x M10
100	x	145	89	77	52	46	151	9780	196	145	115	80	8	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
110	x	155	89	77	52	46	161	10750	196	145	100	75	8	x M12
120	x	165	89	77	52	46	171	14660	244	145	115	85	10	x M12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
130	x	180	89	77	52	46	186	19060	293	145	130	95	12	x M12
140	x	190	98	84	59	51	196	23600	337	230	125	90	10	x M14
150	x	200	98	84	59	51	206	30340	405	230	140	105	12	x M14
160	x	210	98	84	59	51	216	32360	405	230	130	100	12	x M14
170	x	225	98	84	59	51	231	40120	472	230	145	110	14	x M14
180	x	235	98	84	59	51	241	42480	472	230	135	105	14	x M14

Other sizes on request



ECOLOC

$$1 \text{ inch} = 25.4 \text{ mm} \cdot 1 \text{ ft-lbs} = 1.3558 \text{ Nm} \cdot 1 \text{ lbs} = 4.4482 \text{ N} \cdot 1 \text{ psi} = 0.0069 \text{ N/mm}^2$$

Notes

d x D, L, L₁, L₂, L₃ =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

T_A = Tightening torque screw

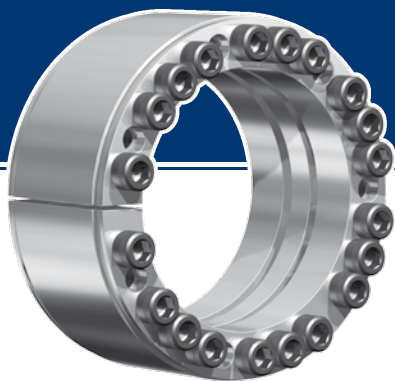
P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

* = Approx. 3 mm space for mounting!

Dimensions									T or F _{ax}		T _A P _W P _N			Screws	
d	d	x	D	L	L ₁	L ₂	L ₃	D ₁	T or F _{ax}		T _A	P _W	P _N	Quantity	Size
inch	inch								ft-lbs	lbs	ft-lbs	psi			
3/4	0.750	x	1.850	1.772	1.535	1.220	1.024	2.087	235	7400	13	26000	10400	6	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8	0.875	x	1.850	1.772	1.535	1.220	1.024	2.087	270	7400	13	22500	10400	6	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1.000	x	1.969	1.772	1.535	1.220	1.024	2.205	310	7400	13	19700	9900	6	x M6
1 1/8	1.125	x	2.165	1.772	1.535	1.220	1.024	2.402	345	7400	13	17500	9000	6	x M6
1 3/16	1.188	x	2.165	1.772	1.535	1.220	1.024	2.402	370	7400	13	16400	9000	6	x M6
1 1/4	1.250	x	2.362	1.772	1.535	1.220	1.024	2.598	525	9890	13	20600	11000	8	x M6
1 3/8	1.375	x	2.362	1.772	1.535	1.220	1.024	2.598	575	9890	13	18800	11000	8	x M6
1 7/16	1.438	x	2.559	1.772	1.535	1.220	1.024	2.795	595	9890	13	18100	10600	8	x M6
1 1/2	1.500	x	2.559	1.772	1.535	1.220	1.024	2.795	625	9890	13	17300	10100	8	x M6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 5/8	1.625	x	2.953	2.165	1.850	1.417	1.181	3.189	940	13700	30	18600	10300	6	x M8
1 3/4	1.750	x	2.953	2.165	1.850	1.417	1.181	3.189	1010	13700	30	17300	10300	6	x M8
1 7/8	1.875	x	2.953	2.165	1.850	1.417	1.181	3.386	1270	18200	30	20000	11900	6	x M8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 15/16	1.938	x	3.150	2.165	1.850	1.417	1.181	3.386	1490	18200	30	20700	12900	8	x M8
2	2.000	x	3.150	2.165	1.850	1.417	1.181	3.583	1550	18200	30	20000	12600	8	x M8
2 1/8	2.125	x	3.346	2.165	1.850	1.417	1.181	3.583	1550	18200	30	19900	12600	8	x M8
2 3/16	2.188	x	3.346	2.165	1.850	1.417	1.181	3.583	1640	18200	30	18800	12200	8	x M8
2 1/4	2.250	x	3.543	2.165	1.850	1.417	1.181	3.780	1710	18200	30	18100	11900	8	x M8
2 3/8	2.375	x	3.543	2.165	1.850	1.417	1.181	3.780	1790	18200	30	17300	11500	8	x M8
2 7/16	2.438	x	3.740	2.165	1.850	1.417	1.181	3.976	1790	18200	30	16700	11200	8	x M8
2 1/2	2.500	x	3.740	2.165	1.850	1.417	1.181	3.976	1860	18200	30	16700	11200	8	x M8
2 9/16	2.563	x	3.740	2.165	1.850	1.417	1.181	3.976	1940	18200	30	15900	10900	8	x M8
2 11/16	2.688	x	4.331	2.835	2.441	1.811	1.575	4.567	2710	29400	61	17100	11200	8	x M10
2 3/4	2.750	x	4.331	2.835	2.441	1.811	1.575	4.567	3370	29400	61	18000	11500	8	x M10
2 7/8	2.875	x	4.528	2.835	2.441	1.811	1.575	4.764	3510	29400	61	17300	11900	8	x M10
2 15/16	2.938	x	4.528	2.835	2.441	1.811	1.575	4.764	3620	29400	61	16800	10900	8	x M10
3	3.000	x	4.724	2.835	2.441	1.811	1.575	4.961	3860	29400	61	15700	10400	8	x M10
3 1/4	3.250	x	4.921	2.835	2.441	1.811	1.575	5.157	4680	36600	61	15500	10900	10	x M10
3 3/8	3.375	x	4.921	2.835	2.441	1.811	1.575	5.157	5120	36600	61	18400	12600	10	x M10
3 7/16	3.438	x	4.921	2.835	2.441	1.811	1.575	5.354	5330	36600	61	17700	12200	10	x M10
3 1/2	3.500	x	5.118	2.835	2.441	1.811	1.575	5.354	5420	36600	61	17400	12000	10	x M10
3 3/4	3.750	x	5.315	2.835	2.441	1.811	1.575	5.551	5720	36600	61	16500	11600	10	x M10
3 15/16	3.938	x	5.709	3.504	3.031	2.047	1.811	5.945	7210	44100	61	16400	11300	8	x M12
4	4.000	x	5.709	3.504	3.031	2.047	1.811	5.945	7500	44100	61	17100	11700	8	x M12
4 7/16	4.438	x	6.102	3.504	3.031	2.047	1.811	6.339	7930	44100	107	14800	10600	8	x M12
4 3/4	4.750	x	6.496	3.504	3.031	2.047	1.811	6.732	10800	54900	107	17000	12300	10	x M12
4 15/16	4.938	x	7.087	3.504	3.031	2.047	1.811	7.323	12400	65900	107	17700	12800	12	x M12
5	5.000	x	7.087	3.504	3.031	2.047	1.811	7.323	14100	65900	107	18800	13600	12	x M12
5 7/16	5.438	x	7.480	3.858	3.307	2.323	2.008	7.717	17400	75800	170	18100	13300	10	x M14
5 15/16	5.938	x	7.874	3.858	3.307	2.323	2.008	8.110	22400	91000	170	20300	15200	12	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 7/16	6.438	x	8.858	3.858	3.307	2.323	2.008	9.094	29600	106000	170	20900	15800	14	x M14
6 15/16	6.938	x	9.252	3.858	3.307	2.323	2.008	9.488	31300	106000	170	19700	15100	14	x M14

Other sizes on request



Locking Assemblies

7009 ECOLOC

Standard tightening torque

Bold printed lines: Version with reduced surface pressure

7009 ECOLOC

A shorter, more cost-efficient design of RfN 7005 ECOLOC. By adjusting the screw tightening torque it can be adapted to the required loads (bending moments for conveyor pulley connection).

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

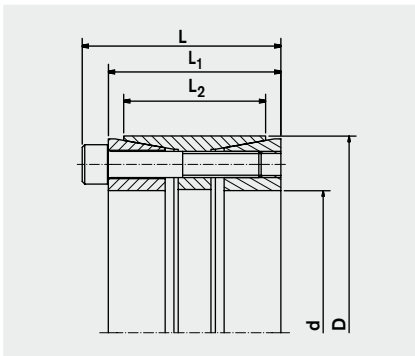
Type	d x D
7009 ECOLOC	70 x 110

Metric Dimensions						T or F _{ax}		T _A	P _W	P _N	Screws		
d	x	D	L	L ₁	L ₂						Quantity		Size
mm				mm		Nm	kN	Nm	N / mm ²				
70	x	110	70	60	50	7150	204	83	195	105	8	x	M10
80	x	120	70	60	50	10250	250	83	210	125	10	x	M10
90	x	130	70	60	50	12600	280	83	205	125	11	x	M10
100	x	145	82	70	60	18600	372	145	205	125	10	x	M12
110	x	155	82	70	60	20500	372	145	185	120	10	x	M12
120	x	165	82	70	60	24500	408	145	190	120	11	x	M12
130	x	180	91	79	65	33800	520	145	200	130	14	x	M12
140	x	190	91	79	65	41000	557	145	195	130	15	x	M12
150	x	200	91	79	65	41800	557	145	185	125	15	x	M12
160	x	210	91	79	65	47500	593	145	185	125	16	x	M12
170	x	225	106	92	78	65000	764	230	195	135	15	x	M14
180	x	235	106	92	78	69000	765	230	180	125	15	x	M14
180	x	235	98	86	75	30210	335	145	85	65	10	x	M12
190	x	250	116	102	88	77500	815	230	165	105	16	x	M14
200	x	260	116	102	88	102000	1020	230	195	125	18	x	M14
220	x	285	124	108	96	117000	1060	355	175	115	15	x	M16
240	x	305	124	108	96	170000	1060	355	210	140	20	x	M16
240	x	305	126	112	85	69130	576	355	85	80	9	x	M16
260	x	325	124	108	96	193000	1480	355	205	140	20	x	M16
260	x	325	140	124	97	90500	696	355	82	66	11	x	M16
280	x	355	130	110	96	232000	1650	690	215	140	15	x	M20
280	x	355	136	136	108	116490	832	355	85	60	13	x	M16
300	x	375	130	110	96	249000	1650	690	200	135	16	x	M20
300	x	375	127	127	108	124810	832	355	85	60	13	x	M16
320	x	405	156	136	124	354000	2210	690	190	125	20	x	M20
340	x	425	156	136	124	376000	2210	690	180	120	20	x	M20
340	x	425	142	142	120	150340	884	355	70	50	15	x	M16
360	x	455	177	155	140	496000	2750	930	185	120	20	x	M22
380	x	475	177	155	140	524000	2750	930	175	115	20	x	M22
400	x	495	177	155	140	602000	3010	930	185	120	22	x	M22
400	x	495	192	172	145	319720	1598	690	90	65	16	x	M20
420	x	515	177	155	140	694000	3300	930	190	125	24	x	M22
420	x	515	190	180	145	335710	1598	690	80	65	16	x	M20
440	x	535	177	155	140	728000	3300	930	165	125	24	x	M22
460	x	555	177	155	140	760000	3300	930	160	120	24	x	M22
480	x	575	177	155	140	830000	3440	930	160	120	25	x	M22
500	x	595	177	155	140	861000	3440	930	155	115	25	x	M22
500	x	605	190	180	140	499500	1998	690	85	80	20	x	M20
520	x	615	177	155	140	1003000	3850	930	165	125	28	x	M22
540	x	635	177	155	140	1042000	3850	930	160	120	28	x	M22
560	x	655	177	155	140	1157000	4130	930	165	125	30	x	M22
580	x	675	177	155	140	1199000	4130	930	160	120	30	x	M22
580	x	690	208	208	180	664450	2291	930	75	50	20	x	M22
600	x	695	177	155	140	1240000	4130	930	155	120	30	x	M22
620	x	730	208	208	180	781200	2520	930	90	60	22	x	M22

See next page



1 inch = 25.4 mm • 1 ft-lbs = 1.3558 Nm • 1 lbs = 4.4482 N • 1 psi = 0.0069 N/mm²



Notes

d x D, L, L₁, L₂ =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

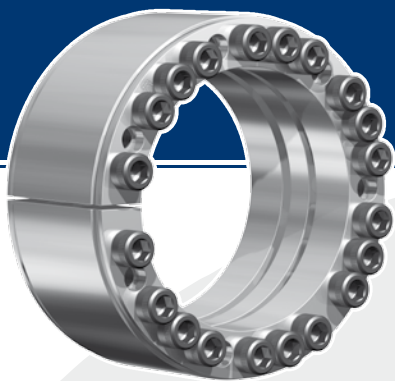
T_A = Tightening torque screw

P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

Dimensions							T or F _{ax}		T _A	P _W	P _N	Screws	
d	d	x	D	L	L ₁	L ₂	T or F _{ax}		T _A	P _W	P _N	Quantity	Size
inch	inch			inch	inch		ft-lbs	lbs	ft-lbs	psi			
2 3/4	2.750	x	4.331	2.756	2.362	1.969	5260	45900	61	28200	15500	8	x M10
2 7/8	2.875	x	4.528	2.756	2.362	1.969	6180	45900	61	30300	16700	9	x M10
2 15/16	2.938	x	4.528	2.756	2.362	1.969	6320	45900	61	29700	16700	9	x M10
3	3.000	x	4.724	2.756	2.362	1.969	7200	45900	61	32300	17800	10	x M10
3 1/8	3.125	x	4.724	2.756	2.362	1.969	7500	56200	61	31000	17800	10	x M10
3 1/4	3.250	x	4.724	2.756	2.362	1.969	7800	56200	61	29800	17800	10	x M10
3 7/16	3.438	x	5.118	2.756	2.362	1.969	9010	62900	61	30900	18100	11	x M10
3 1/2	3.500	x	5.118	2.756	2.362	1.969	9180	62900	61	30400	18100	11	x M10
3 15/16	3.937	x	5.709	3.228	2.756	2.362	13700	83600	107	29700	18300	10	x M12
4	4.000	x	5.709	3.228	2.756	2.362	13900	83600	107	29300	18300	10	x M12
4 3/8	4.375	x	6.102	3.228	2.756	2.362	15300	83600	107	26800	17100	10	x M12
4 7/16	4.438	x	6.496	3.228	2.756	2.362	17000	83600	107	29000	17700	11	x M12
4 1/2	4.500	x	6.496	3.228	2.756	2.362	17200	83600	107	28600	17700	11	x M12
4 3/4	4.750	x	6.496	3.228	2.756	2.362	18200	91700	107	27100	17700	11	x M12
4 15/16	4.938	x	7.087	3.583	3.110	2.559	24000	91700	107	29600	18600	14	x M12
5	5.000	x	7.087	3.583	3.110	2.559	24400	117000	107	29200	18600	14	x M12
5 7/16	5.438	x	7.480	3.583	3.110	2.559	29800	125000	107	28800	18800	15	x M12
5 1/2	5.500	x	7.480	3.583	3.110	2.559	30200	125000	107	28500	18800	15	x M12
5 15/16	5.938	x	7.874	3.583	3.110	2.559	31000	125000	107	26400	17800	15	x M12
6	6.000	x	8.268	3.583	3.110	2.559	33400	125000	107	27900	18100	16	x M12
6 7/16	6.438	x	8.858	4.173	3.622	3.071	46100	125000	167	29100	19300	15	x M14
6 1/2	6.500	x	8.858	4.173	3.622	3.071	46600	172000	170	28800	19300	15	x M14
6 15/16	6.938	x	9.252	4.173	3.622	3.071	49800	172000	170	27500	18400	15	x M14
7	7.000	x	9.252	4.173	3.622	3.071	50300	172000	170	27300	18400	15	x M14
7 1/4	7.250	x	9.843	4.567	4.016	3.465	55400	172000	170	24400	14900	16	x M14
7 7/16	7.438	x	9.843	4.567	4.016	3.465	56800	172000	170	23800	14900	16	x M14
7 1/2	7.500	x	9.843	4.567	4.016	3.465	57300	183000	170	23600	14900	16	x M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 15/16	7.938	x	10.236	4.567	4.016	3.465	75900	229000	170	27900	18000	18	x M14

See next page



Locking Assemblies

7009 ECOLOC

Reduced tightening torque

7009 ECOLOC

A shorter, more cost-efficient design of RfN 7005 ECOLOC. By adjusting the screw-tightening torques it can be adapted to the required loads (bending moments for conveyor pulley connection).

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

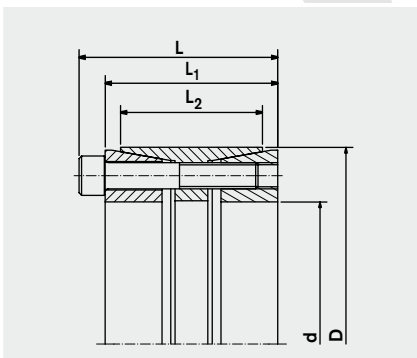
Type	d x D
7009 ECOLOC	70 x 110

Metric Dimensions						T / o F _{ax}		T _A	P _W	P _N	Screws		
d	x	D	L	L ₁	L ₂	T / o F _{ax}		T _A	P _W	P _N	Quantity	x	Size
mm				mm		Nm	kN	Nm	N / mm ²				
70	x	110	70	60	50	4310	123	50	115	65	8	x	M10
80	x	120	70	60	50	6175	151	50	130	75	10	x	M10
90	x	130	70	60	50	7590	169	50	125	75	11	x	M10
100	x	145	82	70	60	8980	180	70	100	60	10	x	M12
110	x	155	82	70	60	9900	180	70	90	55	10	x	M12
120	x	165	82	70	60	11830	197	70	90	60	11	x	M12
130	x	180	91	79	65	16320	251	70	95	60	14	x	M12
140	x	190	91	79	65	19790	269	70	95	65	15	x	M12
150	x	200	91	79	65	20180	269	70	90	60	15	x	M12
160	x	210	91	79	65	22930	286	70	90	60	16	x	M12
170	x	225	106	92	78	31090	365	110	90	65	15	x	M14
180	x	235	106	92	78	32750	366	110	85	60	15	x	M14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
190	x	250	116	102	88	36800	390	110	80	50	16	x	M14
200	x	260	116	102	88	48450	488	110	95	60	18	x	M14
220	x	285	124	108	96	55570	508	170	85	55	15	x	M16
240	x	305	124	108	96	80750	673	170	100	65	20	x	M16
-	-	-	-	-	-	-	-	-	-	-	-	-	-
260	x	325	124	108	96	91670	709	170	100	65	20	x	M16
-	-	-	-	-	-	-	-	-	-	-	-	-	-
280	x	355	130	110	96	122800	885	370	115	75	15	x	M20
-	-	-	-	-	-	-	-	-	-	-	-	-	-
300	x	375	130	110	96	133000	885	370	105	70	16	x	M20
-	-	-	-	-	-	-	-	-	-	-	-	-	-
320	x	405	156	136	124	189000	1185	370	100	65	20	x	M20
340	x	425	156	136	124	200800	1185	370	95	65	20	x	M20
-	-	-	-	-	-	-	-	-	-	-	-	-	-
360	x	455	177	155	140	262000	1464	495	100	65	20	x	M22
380	x	475	177	155	140	277700	1464	495	95	60	20	x	M22
400	x	495	177	155	140	319000	1602	495	95	65	22	x	M22
-	-	-	-	-	-	-	-	-	-	-	-	-	-
420	x	515	177	155	140	367800	1756	495	100	70	24	x	M22
-	-	-	-	-	-	-	-	-	-	-	-	-	-
440	x	535	177	155	140	429500	1950	495	90	65	24	x	M22
460	x	555	177	155	140	448400	1950	495	85	65	24	x	M22
480	x	575	177	155	140	489700	2030	495	85	65	25	x	M22
500	x	595	177	155	140	508000	2030	495	80	60	25	x	M22
-	-	-	-	-	-	-	-	-	-	-	-	-	-
520	x	615	177	155	140	591000	2270	495	85	65	28	x	M22
540	x	635	177	155	140	614000	2275	495	85	65	28	x	M22
560	x	655	177	155	140	682000	2435	495	85	65	30	x	M22
580	x	675	177	155	140	707400	2440	495	85	65	30	x	M22
-	-	-	-	-	-	-	-	-	-	-	-	-	-
600	x	695	177	155	140	731600	2440	495	80	65	30	x	M22
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Other sizes on request



$$1 \text{ inch} = 25.4 \text{ mm} \cdot 1 \text{ ft-lbs} = 1.3558 \text{ Nm} \cdot 1 \text{ lbs} = 4.4482 \text{ N} \cdot 1 \text{ psi} = 0.0069 \text{ N/mm}^2$$



Notes

d x D, L, L₁, L₂, =

Basic dimensions, loosened Locking Assembly

T = Transmissible torque

F_{ax} = Transmissible axial force

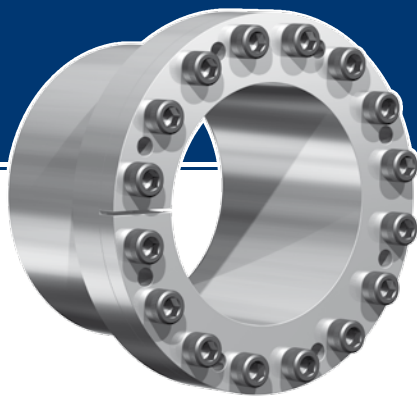
T_A = Tightening torque screw

P_W = Surface pressure between Locking Assembly and shaft

P_N = Surface pressure between Locking Assembly and hub

Dimensions							T or F _{ax}		T _A		P _W		P _N		Screws	
d	d	x	D	L	L ₁	L ₂	T or F _{ax}		T _A		P _W		P _N		Quantity	Size
inch	inch			inch	inch		ft-lbs	lbs	ft-lbs		psi					
2 3/4	2.750	x	4.331	2.756	2.362	1.969	3170	26300	37	17000	9350	8	x	M10		
2 7/8	2.875	x	4.528	2.756	2.362	1.969	3730	28400	37	18300	10100	9	x	M10		
2 15/16	2.938	x	4.528	2.756	2.362	1.969	3810	27700	37	17900	10100	9	x	M10		
3	3.000	x	4.724	2.756	2.362	1.969	4340	30200	37	19400	10700	10	x	M10		
3 1/8	3.125	x	4.724	2.756	2.362	1.969	4520	29000	37	18700	10700	10	x	M10		
3 1/4	3.250	x	4.724	2.756	2.362	1.969	4700	27900	37	17900	10700	10	x	M10		
3 7/16	3.438	x	5.118	2.756	2.362	1.969	5430	28900	37	18600	10900	11	x	M10		
3 1/2	3.500	x	5.118	2.756	2.362	1.969	5530	28400	37	18300	10900	11	x	M10		
3 15/16	3.937	x	5.709	3.228	2.756	2.362	6620	22300	52	14300	8820	10	x	M12		
4	4.000	x	5.709	3.228	2.756	2.362	6730	21900	52	14100	8820	10	x	M12		
4 3/8	4.375	x	6.102	3.228	2.756	2.362	7370	20100	52	13000	8260	10	x	M12		
4 7/16	4.438	x	6.496	3.228	2.756	2.362	8190	21700	52	14000	8540	11	x	M12		
4 1/2	4.500	x	6.496	3.228	2.756	2.362	8310	21400	52	13800	8540	11	x	M12		
4 3/4	4.750	x	6.496	3.228	2.756	2.362	8770	20300	52	13100	8540	11	x	M12		
4 15/16	4.938	x	7.087	3.583	3.110	2.559	11600	22200	52	14300	8960	14	x	M12		
5	5.000	x	7.087	3.583	3.110	2.559	11800	21900	52	14100	8960	14	x	M12		
5 7/16	5.438	x	7.480	3.583	3.110	2.559	14400	21600	52	13900	9100	15	x	M12		
5 1/2	5.500	x	7.480	3.583	3.110	2.559	14700	21300	52	13700	9100	15	x	M12		
5 15/16	5.938	x	7.874	3.583	3.110	2.559	15000	19800	52	12700	8610	15	x	M12		
6	6.000	x	8.268	3.583	3.110	2.559	16100	20900	52	13400	8750	16	x	M12		
6 7/16	6.438	x	8.858	4.173	3.622	3.071	22100	21600	81	13900	9220	15	x	M14		
6 1/2	6.500	x	8.858	4.173	3.622	3.071	22300	21400	81	13800	9220	15	x	M14		
6 15/16	6.938	x	9.252	4.173	3.622	3.071	23900	20400	81	13200	8810	15	x	M14		
7	7.000	x	9.252	4.173	3.622	3.071	24000	20200	81	13000	8810	15	x	M14		
7 1/4	7.250	x	9.843	4.567	4.016	3.465	26500	18100	81	11700	7140	16	x	M14		
7 7/16	7.438	x	9.843	4.567	4.016	3.465	27200	17600	81	11400	7140	16	x	M14		
7 1/2	7.500	x	9.843	4.567	4.016	3.465	27400	17500	81	11300	7140	16	x	M14		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 15/16	7.938	x	10.236	4.567	4.016	3.465	36300	20700	81	13300	8600	18	x	M14		

Other sizes on request



Locking Assemblies

7110 ECOLOC

7110 ECOLOC

Specially small-dimensioned self-centering Locking Assembly with no axial displacement. As the locking screws are located outside the actual clamping area and the pressure is relatively low, the hub can be designed to be small and economical.

Technical Information

- **Surface finishes of 63 micro-inches**
For shafts and hub bores

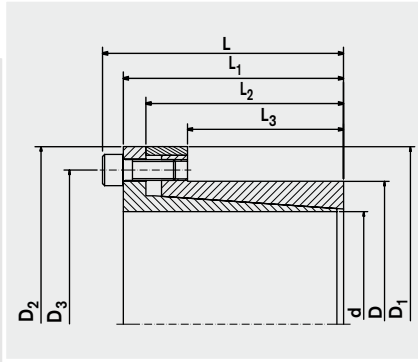
- **Tolerances**
We recommend the following mounting tolerances
shaft: h8 · hub tolerances: H8

Ordering example:

Type	d x D
7110 ECOLOC	70 x 90

Metric Dimensions										T or F _{ax}		T _A P _W P _N			Screws	
d	x	D	D ₁	D ₂	D ₃	L	L ₁	L ₂	L ₃							
mm					mm					Nm	kN	Nm	N / mm ²		Quantity	Size
8	x	15	24,3	27	20	30	26	22	12	30	7	4	230	120	4 x M4	
9	x	16	25,3	28	21	31	27	23	14	34	7	4	170	100	4 x M4	
10	x	16	25,3	28	21	31	27	23	14	37	7	4	160	100	4 x M4	
11	x	18	28,8	32	23	31	27	23	14	51	10	5	180	110	4 x M4	
12	x	18	28,8	32	23	31	27	23	14	56	10	5	155	110	4 x M4	
13	x	23	33,8	38	28	31	27	23	14	61	10	5	150	85	4 x M4	
14	x	23	33,8	38	28	31	27	23	14	65	10	5	140	85	4 x M4	
15	x	24	39,5	44	31	42	36	29	16	110	17	17	180	115	3 x M6	
16	x	24	39,5	44	31	42	36	29	16	120	17	17	170	115	3 x M6	
17	x	26	42	47	33	44	38	31	18	165	22	17	190	135	4 x M6	
18	x	26	42	47	33	44	38	31	18	180	22	17	180	135	4 x M6	
19	x	27	43	48	34	44	38	31	18	190	22	17	170	125	4 x M6	
20	x	28	44	49	35	44	38	31	18	200	22	17	150	115	4 x M6	
22	x	32	48	53	39,5	51	45	38	25	230	21	17	115	80	4 x M6	
24	x	34	50	55	41,5	51	45	38	25	255	21	17	105	75	4 x M6	
25	x	34	50	55	41,5	51	45	38	25	255	21	17	100	75	4 x M6	
28	x	39	55	60	46	51	45	38	25	370	31	17	110	80	5 x M6	
30	x	41	57	62	48	51	45	38	25	475	31	17	125	90	6 x M6	
32	x	43	59	64	50,5	56	50	43	30	505	31	17	95	75	6 x M6	
35	x	47	63	68	54	56	50	43	30	740	42	17	120	90	8 x M6	
38	x	50	66	71	57	56	50	43	30	800	42	17	110	85	8 x M6	
40	x	53	69	74	60	58	52	45	32	950	53	17	110	85	9 x M6	
42	x	55	71	77	62	58	52	45	32	995	78	17	105	80	9 x M6	
45	x	59	79	85	68,5	72	64	56	40	1750	78	41	130	100	8 x M8	
48	x	62	82	87	71,5	72	64	56	40	1870	78	41	120	95	8 x M8	
50	x	65	85	91	74,5	82	74	66	50	2430	97	41	115	90	10 x M8	
55	x	71	91	98	80	82	74	66	50	2670	97	41	105	80	10 x M8	
60	x	77	97	103	86	82	74	66	50	2920	97	41	95	75	10 x M8	
65	x	84	104	110	93	82	74	66	50	3160	97	41	90	70	10 x M8	
70	x	90	114	119	101	101	91	80	60	4330	123	83	85	70	8 x M10	
75	x	95	119	126	106	101	91	80	60	5310	142	83	90	75	9 x M10	
80	x	100	124	131	111	106	96	85	65	7580	190	83	110	85	12 x M10	
85	x	106	130	137	117	106	96	85	65	7990	190	83	100	80	12 x M10	
90	x	112	136	143	123	106	96	85	65	9960	222	83	110	90	14 x M10	
95	x	120	144	153	131	106	96	85	65	10500	222	83	105	85	14 x M10	
100	x	125	153	162	138	114	102	89	65	13600	273	145	125	100	12 x M12	
110	x	140	168	177	153	119	107	94	70	15000	273	145	105	80	12 x M12	
120	x	155	185	195	168	139	127	114	90	21800	364	145	100	75	16 x M12	
130	x	165	195	205	178	139	127	114	90	23700	364	145	90	70	16 x M12	

Other sizes on request



Notes

$d \times D, D_1, D_2, D_3, L, L_1, L_2, L_3 =$
Basic dimensions, loosened Locking Assembly

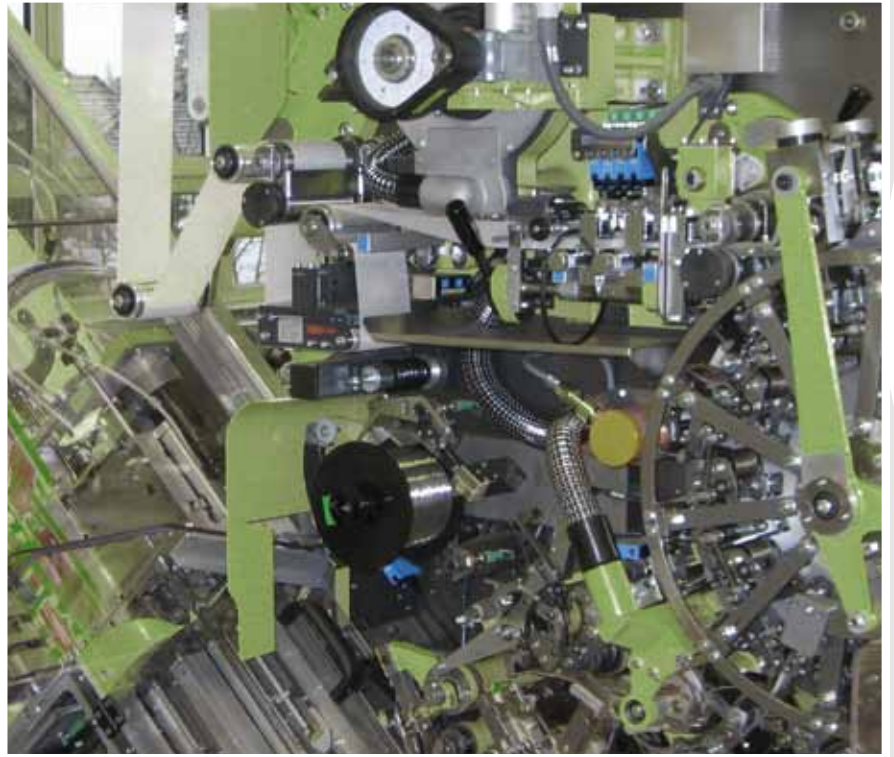
$T =$ Transmissible torque

$F_{ax} =$ Transmissible axial force

$T_A =$ Tightening torque screw

$P_W =$ Surface pressure between Locking Assembly
and shaft

$P_N =$ Surface pressure between Locking
Assembly and hub





To get a design proposal for RINGFEDER® shaft-hub-connections

RINGFEDER POWER TRANSMISSION USA CORPORATION, P.O. Box 691 Westwood · NJ 07675

Fax +1 201 664 6053

From

Company			
Attn.		Dept.	
Address			
Phone		Fax	
E-Mail			

Please have someone contact me at the following number or email address:

To make it easier for our technical staff and to avoid errors or mistakes your inquiry should include the following information:

Information for technical service

Expected maximum loads:

Max. torque	T	max.	=		lb-ft
Max. bending moment	M	max.	=		lb-ft
Max. axial load	F	max.	=		lbs
Max. radial load	F _r	max.	=		lbs

Dimensions, materials:

Shaft diameter	d _w	=		Inches
In case of hollow shaft, internal diameter	d _B	=		Inches
Speed	n	=		rpm
Hub outside diameter	D _N	=		lbs
Hub width	B	=		Inches
Hub material yield strength	R _{p0.2N}	=		psi
Shaft material yield strength	R _{p0.2W}	=		psi
Ambient temperature	Temp.	=		degree F

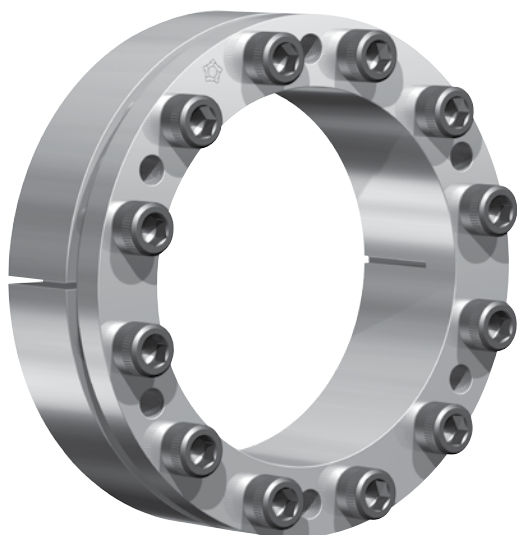
Additional information:

Please send a drawing or sketch together with your inquiry!

RINGFEDER POWER TRANSMISSION USA CORPORATION · 165 Carver Avenue, P.O. Box 691 Westwood, NJ 07675, USA

Toll Free: +1 888 746-4333 · Phone: +1 201 666 3320 · Fax: +1 201 664 6053

E-mail: sales.usa@ringfeder.com



ECOLOC

As world leader in the shaft-hub connector market, **RINGFEDER POWER TRANSMISSION** has more to offer today than ever before. Top technical know-how combined with improved production and sales organization are available to anyone who appreciates the benefits of application experience, flexibility, innovation and reliability.

Use our Strength!



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Delivery / within 24 hours



**RINGFEDER
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Quality Management**
DIN EN ISO 9001:2008,

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