

Locking Assemblies

7005 ECOLOC

7005 ECOLOC

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

For shafts and hub bores
 $R_a = 1.6 \mu\text{m}$

■ Tolerances

We recommend the following mounting tolerances

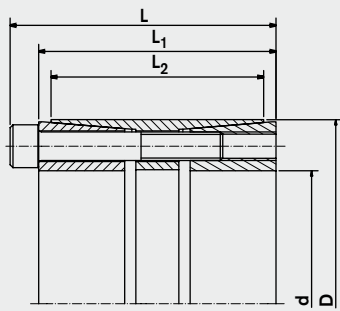
shaft: h8 · hub tolerances: H8

Ordering example

Type	d x D
7005 ECOLOC	35 x 60

Metric Dimensions						T or / o F _{ax}		T _A	P _W	P _N	Screws	
d	x	D	L	L ₁	L ₂	Nm	kN	Nm	N / mm ²		Quantity	Size
mm												
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



$$1 \text{ inch} = 25,4 \text{ mm} \cdot 1 \text{ ft-lbs} = 1,3558 \text{ Nm} \cdot 1 \text{ lbs} = 4,4482 \text{ N} \cdot 1 \text{ psi} = 0,0069 \text{ N/mm}^2$$

Notes

d x D, L, L₁, L₂ =

basic dimensions, loosened Locking Assembly,

T = transmissible torque

F_{ax} = transmissible axial forces

T_A = Screw-tightening torque

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

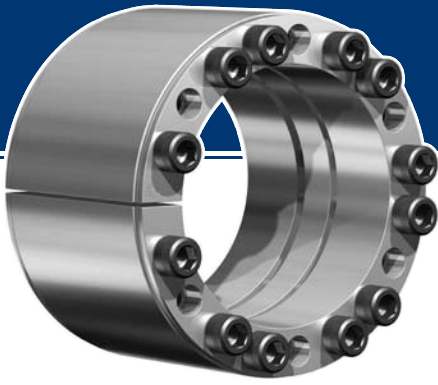
Dimensions							T or / o F _{ax}		T _A	P _w	P _n	Screws	
d	d	x	D	L	L ₁	L ₂						Quantity	Size
inch							ft-lbs	lbs	ft-lbs	psi			
1	1.000	x	1.969	2.402	2.165	1.772	485	14400	13	22300	11500	5	x M6
1 1/8	1.125	x	2.165	2.402	2.165	1.772	670	14400	13	24000	12500	6	x M6
1 3/16	1.188	x	2.165	2.402	2.165	1.772	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

7005 ECOLOC:

The new locking assemblies are interchangeable with

B-Loc	B-112
KTR	KTR 400
Dimensions and technical data are identical or similar, and must be checked before use	

see next page



7005 ECOLOC

Continuation

7005 ECOLOC

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

For shafts and hub bores

$R_a = 1.6 \mu\text{m}$

■ Tolerances

We recommend the following mounting tolerances

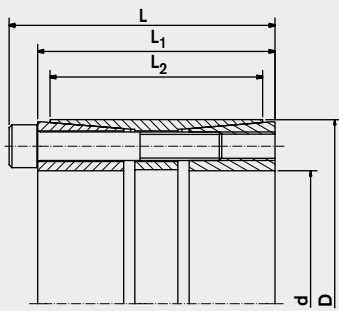
shaft: h8 · hub tolerances: H8

Ordering example

Type	d x D
7005 ECOLOC	35 x 60

Metric Dimensions						T or / 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	Size
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



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

Notes

d x D, L, L₁, L₂ =

basic dimensions, loosened Locking Assembly,

T = transmissible torque

F_{ax} = transmissible axial forces

T_A = Screw-tightening torque

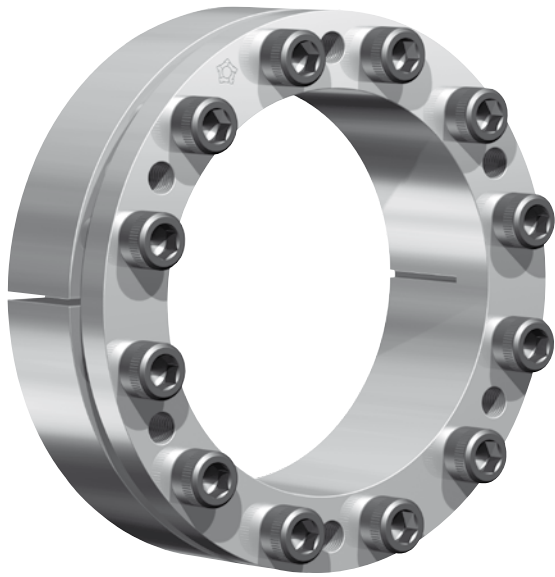
p_w = surface pressure between Locking Assembly and shaft

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

d	Dimensions /						T or / o F _{ax}		T _A	p _w	p _n	Screws								
	d	x	D	L	L ₁	L ₂	ft-lbs	lbs	ft-lbs	psi	psi	Quantity	Size							
inch													inch							
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



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.



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