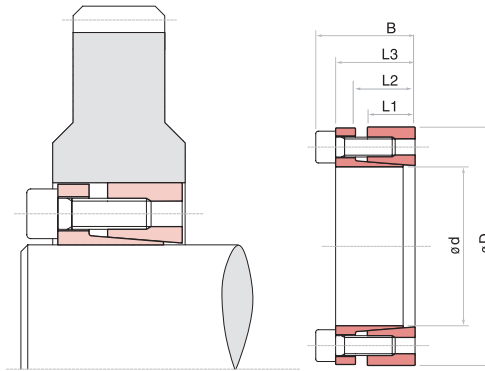




KEYLESS LOCKING ASSEMBLIES
MEDIUM-HIGH TORQUE 123-SERIES

Economical - Quick Installation - Compact Size

123-Series



Climax Metal Products Company • www.climaxmetal.com • Phone: 800-542-6552 • Fax: 800-860-5553

123-SERIES KEYLESS LOCKING ASSEMBLIES - INCH

123 INCH Climax Part #	ID d inch	ID d inch	OD D inch	Length			Length Incl.cap B inch	MS Screw Size n x type	Torque Seating Torque LB-ft	Axial Load (max.) Mit LB-ft	Shaft Pressure Ps psi	Hub Pressure Ph psi	Weight Lb	
				L1 inch	L2 inch	L3 inch								
C123E-075	3/4	0.7500	1.850	0.669	0.866	1.102	1.339	5 x M6	10	262	8442	44612	18082	1
C123E-087	7/8	0.8750	1.850	0.669	0.866	1.102	1.339	5 x M6	10	305	8442	38239	18082	1
C123E-100	1	1.0000	1.969	0.669	0.866	1.102	1.339	6 x M6	10	418	10131	40151	20397	1
C123E-112	1 1/8	1.1250	2.165	0.669	0.866	1.102	1.339	6 x M6	10	471	10131	35690	18543	1
C123E-118	1 3/16	1.1875	2.165	0.669	0.866	1.102	1.339	6 x M6	10	496	10131	33812	18543	1
C123E-125	1 1/4	1.2500	2.362	0.669	0.866	1.102	1.339	8 x M6	10	696	13507	42828	22663	1
C123E-137	1 3/8	1.3750	2.362	0.669	0.866	1.102	1.339	8 x M6	10	767	13507	38935	22663	1
C123E-143	1 7/16	1.4375	2.559	0.669	0.866	1.102	1.339	8 x M6	10	801	13507	37242	20920	1
C123E-150	1 1/2	1.5000	2.559	0.669	0.866	1.102	1.339	8 x M6	10	836	13507	35690	20920	1
C123E-162	1 5/8	1.6250	2.953	0.787	0.984	1.299	1.614	7 x M8	26	1518	22637	46929	25827	2
C123E-168	1 11/16	1.6875	2.953	0.787	0.984	1.299	1.614	7 x M8	26	1577	22637	45191	25827	2
C123E-175	1 3/4	1.7500	2.953	0.787	0.984	1.299	1.614	7 x M8	26	1635	22637	43577	25827	2
C123E-187	1 7/8	1.8750	3.150	0.787	0.984	1.299	1.614	7 x M8	26	1752	22637	40672	24213	2
C123E-193	1 15/16	1.9375	3.150	0.787	0.984	1.299	1.614	7 x M8	26	1809	22637	39360	24213	2
C123E-200	2	2.0000	3.150	0.787	0.984	1.299	1.614	7 x M8	26	1868	22637	38130	24213	2
C123E-212	2 1/8	2.1250	3.346	0.787	0.984	1.299	1.614	8 x M8	26	2269	25871	41014	26044	2
C123E-218	2 3/16	2.1875	3.346	0.787	0.984	1.299	1.614	8 x M8	26	2335	25871	39842	26044	2
C123E-225	2 1/4	2.2500	3.543	0.787	0.984	1.299	1.614	8 x M8	26	2401	25871	38735	24597	2
C123E-237	2 3/8	2.3750	3.543	0.787	0.984	1.299	1.614	8 x M8	26	2927	25871	36697	24897	2
C123E-243	2 7/16	2.4375	3.740	0.787	0.984	1.299	1.614	9 x M8	26	2927	29104	40225	26215	2
C123E-250	2 1/2	2.5000	3.740	0.787	0.984	1.299	1.614	9 x M8	26	3002	29104	39219	26215	2
C123E-256	2 9/16	2.5625	3.740	0.787	0.984	1.299	1.614	9 x M8	26	3076	29104	38263	26215	2
C123E-268	2 11/16	2.6875	4.331	0.945	1.181	1.575	1.969	8 x M10	52	4499	40583	42393	26308	4
C123E-275	2 3/4	2.7500	4.331	0.945	1.181	1.575	1.969	8 x M10	52	4604	40583	41430	26308	4
C123E-287	2 7/8	2.8750	4.528	0.945	1.181	1.575	1.969	8 x M10	52	4814	40583	39628	25164	4
C123E-293	2 15/16	2.9375	4.528	0.945	1.181	1.575	1.969	8 x M10	52	4918	40583	38785	25164	4
C123E-300	3	3.0000	4.724	0.945	1.181	1.575	1.969	8 x M10	52	5023	40583	37977	24115	4
C123E-325	3 1/4	3.2500	4.921	0.945	1.181	1.575	1.969	9 x M10	52	6122	45656	39438	26045	4
C123E-337	3 3/8	3.3750	4.921	0.945	1.181	1.575	1.969	9 x M10	52	6356	45656	37977	26045	4
C123E-343	3 7/16	3.4375	5.118	0.945	1.181	1.575	1.969	9 x M10	52	6474	45656	37287	25043	5
C123E-350	3 1/2	3.5000	5.118	0.945	1.181	1.575	1.969	9 x M10	52	6592	45656	36621	25043	5
C123E-375	3 3/4	3.7500	5.315	0.945	1.181	1.575	1.969	10 x M10	52	7847	50728	37977	26795	5
C123E-393	3 15/16	3.9375	5.709	1.024	1.260	1.732	2.205	8 x M12	92	9810	60398	39750	27417	6
C123E-400	4	4.0000	5.709	1.024	1.260	1.732	2.205	8 x M12	92	9966	60398	39129	27417	6

NOTE: Stocked sizes available through 8" diameter.

It is possible to reduce the screws tightening torque down to 60% of the values indicated in the above table; as a result the Mt, Fax, Ps, Ph are reduced proportionally.



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Installation

Carefully clean the hub and shaft contact surfaces and apply a thin film of lightweight oil. Slide the locking assembly into the hub bore, insert the shaft and tighten gradually and regularly in crossed sequence all screws to reach the tightening torque Ms as indicated in the rating table.

The values Mt and Fax indicated in the rating table are valid only in case of oil installation. Do not use any oil with molybdenum bisulphide, high pressure additives or grease. Above substances notably reduce the coefficient of friction.

Dismantling

Loosen the clamping screws. Insert the screws into the dismantling threading and tighten gradually and regularly in crossed sequence until the back cone is released. If the element is to be reused, lubricate both screws and threads.

Axial Movement

123-Series: during tightening of mounting screws the hub has a slight axial movement with respect to the shaft.

Common Applications

- Timing Pulleys, Sprockets, Sheaves, Conveyor Pulleys
- Gears-Spur, Helical, Worm Wheel, Bevel, Spiral Bevel, Pinion, Bull
- Cams, Levers, Flywheels, Agitator Shafts, Speed Reducers
- Motors - AC, DC, Hydraulic
- Clutches & Brakes
- Flange Couplings

Tolerances, surface finish

A good machined surface finish is sufficient. Maximum allowable surface finish:

Rt max 16 µm (Ra 3 µm - Rz 13 µm)

Maximum permissible tolerances:

h8 for shaft (Ød)

H8 for hub (ØD)

For exact tolerance values and DM hub calculation see page 30.

123 METRIC	ID	ID	OD	Length				Length Incl.cap	Screw Size	MS Screw Seating	Torque (max.)	Axial Load (max.)	Shaft Pressure	Hub Pressure (approx.)	Weight
				L1	L2	L3	B								
Climax Part #	d x D mm	d inch	D inch	L1 inch	L2 inch	L3 inch	B inch	n x type	Torque LB-ft	Mt Lb-ft	Fax Lbf	Ps psi	Ph psi	Lb	
C123M-20x47	20 x 47	0.787	1.850	0.669	0.866	1.102	1.339	5 x M6	10	280	8543	42786	18130	0.7	
C123M-22x47	22 x 47	0.866	1.850	0.669	0.866	1.102	1.339	5 x M6	10	302	8543	39160	18130	0.7	
C123M-24x50	24 x 50	0.945	1.969	0.669	0.866	1.102	1.339	5 x M6	10	332	8543	35534	17405	0.7	
C123M-25x50	25 x 50	0.984	1.969	0.669	0.866	1.102	1.339	6 x M6	10	420	10341	41336	20305	0.7	
C123M-28x55	28 x 55	1.102	2.165	0.669	0.866	1.102	1.339	6 x M6	10	465	10341	36985	18855	0.9	
C123M-30x55	30 x 55	1.181	2.165	0.669	0.866	1.102	1.339	6 x M6	10	487	10341	34084	18855	0.9	
C123M-32x60	32 x 60	1.260	2.362	0.669	0.866	1.102	1.339	8 x M6	10	715	13489	42786	22481	0.9	
C123M-35x60	35 x 60	1.378	2.362	0.669	0.866	1.102	1.339	8 x M6	10	782	13489	39160	22481	0.9	
C123M-38x65	38 x 65	1.496	2.559	0.669	0.866	1.102	1.339	8 x M6	10	848	13489	36259	21030	0.9	
C123M-40x65	40 x 65	1.575	2.559	0.669	0.866	1.102	1.339	8 x M6	10	892	13489	34084	21030	0.9	
C123M-42x75	42 x 75	1.654	2.953	0.787	0.984	1.299	1.614	7 x M8	26	1512	22031	43511	24656	2	
C123M-45x75	45 x 75	1.772	2.953	0.787	0.984	1.299	1.614	7 x M8	26	1623	22031	42061	24656	2	
C123M-48x80	48 x 80	1.890	3.150	0.787	0.984	1.299	1.614	7 x M8	26	1733	22031	39160	23206	2	
C123M-50x80	50 x 80	1.969	3.150	0.787	0.984	1.299	1.614	7 x M8	26	1807	22031	37710	23206	2	
C123M-55x85	55 x 85	2.165	3.346	0.787	0.984	1.299	1.614	8 x M8	26	2272	25179	39160	25382	2	
C123M-60x90	60 x 90	2.362	3.543	0.787	0.984	1.299	1.614	8 x M8	26	2478	25179	35534	23931	2	
C123M-65x95	65 x 95	2.559	3.740	0.787	0.984	1.299	1.614	9 x M8	26	3017	28326	36985	25382	2	
C123M-70x110	70 x 110	2.756	4.331	0.945	1.181	1.575	1.969	8 x M10	52	4647	40241	40611	26107	4	
C123M-75x115	75 x 115	2.953	4.528	0.945	1.181	1.575	1.969	8 x M10	52	4942	40241	37710	24656	4	
C123M-80x120	80 x 120	3.150	4.724	0.945	1.181	1.575	1.969	8 x M10	52	5274	40241	36259	24656	4	
C123M-85x125	85 x 125	3.346	4.921	0.945	1.181	1.575	1.969	9 x M10	52	6269	44962	37710	26107	4	
C123M-90x130	90 x 130	3.543	5.118	0.945	1.181	1.575	1.969	9 x M10	52	6712	44962	36259	24656	5	
C123M-95x135	95 x 135	3.740	5.315	0.945	1.181	1.575	1.969	10 x M10	52	7818	50357	37710	26107	5	

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123-SERIES KEYLESS LOCKING ASSEMBLIES - METRIC