


MechaLock

Standard (Centering Function)

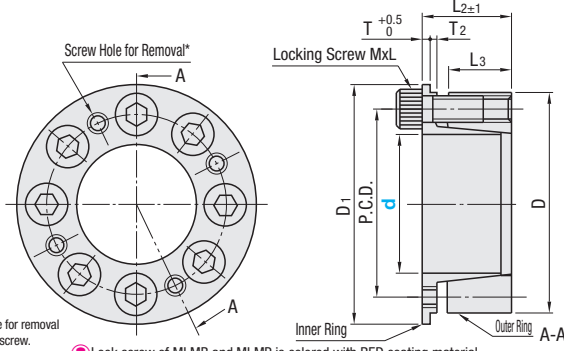
■ **Features:** Various options are offered in size, material and surface treatment. The Centering function comes with. This is the most widely used MechaLock.



RoHS

MLM
MLMB (Black Oxide)
MLMP (Electroless Nickel Plating)
MLHS (Stainless Steel)

Type	Material	Surface Treatment
MLM	S45C	-
MLMB	S45C	Black Oxide
MLMP	S45C	Electroless Nickel Plating
MLHS	SUS304	-



* Thread diameter of screw hole for removal is the same as that of locking screw.
 Lock screw of MLMB and MLMP is colored with RED coating material.

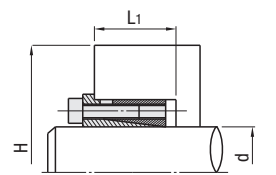
Part Number Type	d	D	D1	P.C.D.	L2	L3	T	T2	Locking Screw MxL Qty.	Unit Price			
										MLM	MLMB	MLMP	MLHS
5	16	18.5	11.7	13	8	1.8	1.2	M3x10	4				
6	19	21.5	14	14.3	9	2.0	1.3	M4x12	4				
8	21	23.5	15.4	14.6	9.3	2.0	1.3	M4x12	4				
10	23	25.5	17.5	14.8	9.5								
11	24	26.5	18.4	15.8	10.5	2.5	1.5	M4x15	6				
12	26	28.5	20.2	12.5						1.6	1.8	M5x18	8
14	28	30.5	22.2		15.3	3.0	1.8	M5x18	10				
15	29	31.5	23.2	16.3						3.5	2.0	M6x20	12
16	30	33.0	24.2		17.3	4.0	2.0	M6x20	14				
17	31	33.5	25.2	20.5						4.5	2.0	M6x20	15
18	32	34.5	26.2		21.0	5.0	2.0	M6x20	15				
19	33	35.5	27.2	21.5						5.0	2.0	M6x20	15
20	38	42.0	30.8		26.6	5.0	2.0	M8x25	14				
22	40	44.0	32.8	26.6						5.0	2.0	M8x25	14
24	42	46.0	34.8		26.6	5.0	2.0	M8x25	14				
25	43	47.0	35.8	26.6						5.0	2.0	M8x25	14
28	46	50.0	38.8		26.6	5.0	2.0	M8x25	14				
30	48	52.0	40.8	26.6						5.0	2.0	M8x25	14
32	50	54.0	42.8		26.6	5.0	2.0	M8x25	14				
35	57	62.0	48.4	26.6						5.0	2.0	M8x25	14
38	60	65.0	51.4		26.6	5.0	2.0	M8x25	14				
40	62	67.0	53.4	26.6						5.0	2.0	M8x25	14
42	64	69.0	55.4		26.6	5.0	2.0	M8x25	14				
45	67	72.0	58.4	26.6						5.0	2.0	M8x25	14
48	70	75.0	61.4		26.6	5.0	2.0	M8x25	14				
50	72	77.0	63.4	26.6						5.0	2.0	M8x25	14
55	77	83.0	68.4		26.6	5.0	2.0	M8x25	14				
60	82	87.0	73.4	26.6						5.0	2.0	M8x25	14
65	87	92.0	78.4		26.6	5.0	2.0	M8x25	14				
70	97	103.0	86.2	26.6						5.0	2.0	M8x25	14

Ordering Example **Part Number MLM35**

- **Features**
- With pilot on flange of the inner ring, the tightening lock screw presses hub I.D. This generates effect to control instability on the hub end face and O.D. (centering effect).
 - Free phase adjustment and positioning.
 - No hub movement in axial direction when tightened with locking screw.
 - No backlash after tightening.
- **Recommended Tolerance of Shaft and Hub / Roughness of Surface**
- | | | |
|------------|--------|---------------|
| Shaft O.D. | h7(g6) | Ra1.6 or less |
| Hub I.D. | H7 | Ra3.2 or less |

■ **Allowable Load applied to MechaLock** For Design Steps, see P.1489. kgf=Nx0.101972

Type	MLM, MLMB				MLMP			MLHS			Mass (g)
	Max. Allowable Torque (N·m)	Allowable Thrust Load (kN)	Screw Tightening (N·m)		Max. Allowable Torque (N·m)	Allowable Thrust Load (kN)	Screw Tightening (N·m)	Max. Allowable Torque (N·m)	Allowable Thrust Load (kN)	Screw Tightening (N·m)	
5	7	2.8	1.9	1.6	4.6	1.84	1.9	2.8	1.13	0.88	18
6	14	4.67	3.9	3.2	10.7	2.49	3.9	7.8	2.54	2.7	26
8	22	5.6	3.9	3.2	16.6	4.1	3.9	10.7	2.64	2.7	35
10	25	5.6	3.9	3.2	19.6	3.9	3.9	12.7	2.55	2.7	40
11	30	5.6	3.9	3.2	22.5	4.0	3.9	14.7	2.64	2.7	45
12	50	8.41	3.9	3.2	36.2	5.9	3.9	24.5	4.02	2.7	53
14	65	9.46	3.9	3.2	50.9	7.2	3.9	28.4	4.02	2.7	61
15	70	9.46	3.9	3.2	54.8	7.3	3.9	30.4	4.02	2.7	66
16	75	9.46	3.9	3.2	58.8	7.3	3.9	32.3	4.02	2.7	75
17	110	12.6	3.9	3.2	76.4	8.9	3.9	46.1	5.39	2.7	80
18	115	12.6	3.9	3.2	80.3	8.9	3.9	49.0	5.39	2.7	81
19	120	12.6	3.9	3.2	85.2	8.9	3.9	51.9	5.39	2.7	81
20	220	21.6	3.9	3.2	183.0	18.3	3.9	121.6	12.16	5.6	144
22	290	26	3.9	3.2	201.0	21.0	3.9	133.4	12.06	5.6	165
24	320	26	3.9	3.2	252.0	21.0	3.9	146.1	12.16	5.6	180
25	350	27.2	3.9	3.2	264.0	21.1	3.9	153.0	12.16	5.6	188
28	380	27	3.9	3.2	295.0	21.1	3.9	213.8	15.20	5.6	195
30	410	27	3.9	3.2	396.0	26.4	3.9	229.5	15.30	5.6	208
32	440	27	3.9	3.2	423.0	26.4	3.9	244.2	15.20	5.6	219
35	720	41.1	3.9	3.2	548.0	31.3	3.9	301.1	17.16	9.6	325
38	770	40.2	3.9	3.2	741.0	39.0	3.9	409.0	21.48	9.6	362
40	810	40.2	3.9	3.2	779.0	39.0	3.9	430.6	21.48	9.6	380
42	850	40.2	3.9	3.2	823.0	39.2	3.9	452.2	21.48	9.6	405
45	1200	52.9	3.9	3.2	882.0	54.4	3.9	484.6	30.11	9.6	435
48	1200	48.2	3.9	3.2	1117.0	46.5	3.9	620.9	25.80	9.6	460
50	1500	56.3	3.9	3.2	1362.0	54.4	3.9	754.3	30.11	9.6	485
55	1600	56.3	3.9	3.2	1512.0	55.0	3.9	-	-	9.6	520
60	1900	60.3	3.9	3.2	1768.0	58.9	3.9	-	-	9.6	560
65	2000	60.3	3.9	3.2	1915.0	58.9	3.9	-	-	9.6	610
70	3400	94.8	37.3	31.0	2920.0	83.6	37.3	-	-	9.6	845



■ **Shaft/Hub Rigidity** For Design Steps, see P.1489. kgf/mm²=MPax0.101972

d	MLM, MLMB										MLMP					MLHS				
	Shaft Side Surface Pressure MPa	Side Surface Pressure of Hub MPa	H Hub Minimum O.D. Yield Point Stress of Hub Material (MPa)			Hub Machining Depth L1	Shaft Side Surface Pressure MPa	Side Surface Pressure of Hub MPa	H Hub Minimum O.D. Yield Point Stress of Hub Material (MPa)			Hub Machining Depth L1	Shaft Side Surface Pressure MPa	Side Surface Pressure of Hub MPa	H Hub Minimum O.D. Yield Point Stress of Hub Material (MPa)			Hub Machining Depth L1		
			206	294	392				206	294	392				206	294	392			
5	249	81	25	22	20	13	217	51	21	20	19	13	175	42.0	20	19	18	13		
6	318	102	33	28	25	14	258	59	26	24	23	14	251	58.0	26	24	22	14		
8	239	107	38	31	28	15	244	92	35	29	27	15	196	62.6	28	26.0	25.5	15		
10	186	96	39	33	30	16	192	77	31	29	27	16	153	55.9	29	27.5	27.5	16		
11	170	92	39	34	31	16	174	73	36	31	30	16	139	53.6	30	28.5	28.5	16		
12	233	115	49	40	36	17	239	91	43	36	33	17	191	67.1	35	32.0	30.5	17		
14	225	120	55	44	39	17	204	84	44	38	35	17	164	62.3	36	34.0	32.5	17		
15	186	106	52	43	39	18	205	90	47	40	37	18	136	55.0	37	33.5	33.5	18		
16	166	98	51	43	39	18	193	87	48	41	38	18	121	50.9	38	35.0	35.0	18		
17	197	121	61	49	43	19	205	97	53	44	40	19	144	63.1	40	37.0	36.0	19		
18	186	118	62	49	44	19	166	93	54	45	41	19	136	61.2	40	37.0	36.0	19		
19	177	114	62	50	45	19	184	91	55	46	42	19	129	59.2	42	39.0	38.0	19		
20	234	139	87	64	56	23	213	97	64	54	49	23	165	69.8	51	47.0	44.0	23		
22	256	159	112	74	62	24	193	92	65	56	51	24	150	66.3	53	49.0	46.0	24		
24	217	142	98	72	62	24	121	105	74	61	56	24	128	59.2	54	50.0	48.0	24		
25	216	137	96	72	62	24	212	102	75	62	57	24	122	54.5	54	51.0	49.0	24		
28	192	127	95	74	65	25	212	107	82	68	61	25	136	63.7	60	55.0	53.0	25		
30	179	122	95	75	67	26	198	102	86	69	63	26	127	61.1	62	57.0	55.0	26		
32	156	110	91	75	67	26	192	103	87	73	66	26	110	55.4	63	59.0	57.0	26		
35	204	138	129	95	83	28	207	105	100	83	75	28	107	51.4	72	67.0	67.0	28		
38	178	125	122	95	84	28	208	110	109	89	80	28	119	59.5	79	73.0	70.0	28		
40	164	118	119	95	85	29	202	113	113	92	83	29	110	56.2	80	74.0	72.0	29		
42	156	114	120	97	87	29	192	106	114	94	85	29	105	54.4	82	76.0	74.0	29		
45	186	140	154	113	98	30	184	104	117	97	88	30	95	50.8	85	79.0	77.0	30		
48	159	123	140	110	97	30	206	118	135	108	96	30	107	58.4	91	84.0	81.0	30		
50	173	136	160	119	104	31	202	119	140	111	99	31	116	64.6	97	88.0	84.0	31		
55	158	127	159	123	108	31	185	106</												