


MechaLock

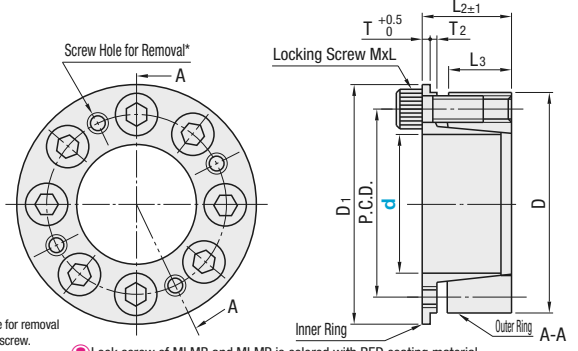
Standard (Centering Function)

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



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

Type	Material	Surface Treatment
MLM	EN 1.1191 Equiv.	Black Oxide
MLMB	EN 1.1191 Equiv.	Black Oxide
MLMP	EN 1.1191 Equiv.	Electroless Nickel Plating
MLHS	EN 1.4301 Equiv.	-



* 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		Unit Price											
Type	d	D	D1	P.C.D.	L2	L3	T	T2	Locking Screw MxL Qty.	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	20.1						12.5	1.6	M4x15	6
14	28	30.5	22.2		24.1	15.3	3.0	1.8	M5x18				
15	29	31.5	23.2	25.1						16.3	3.5	10	M5x18
16	30	33.0	24.2		26.6	17.3	4.0	10	M5x18				
17	31	33.5	25.2	27.6						18.3	4.5	12	M6x20
18	32	34.5	26.2		31.0	20.5	5.0	14	M6x20				
19	33	35.5	27.2	32.0						21.0	5.0	15	M6x20
20	38	42.0	30.8		33.5	22.0	5.0	15	M6x20				
22	42	46.0	34.8	36.1						24.0	5.0	14	M8x25
24	42	46.0	34.8		36.1	24.0	5.0	14	M8x25				
25	43	47.0	35.8	36.1						24.0	5.0	14	M8x25
28	46	50.0	38.8		36.1	24.0	5.0	14	M8x25				
30	48	52.0	40.8	36.1						24.0	5.0	14	M8x25
32	50	54.0	42.8		36.1	24.0	5.0	14	M8x25				
35	57	62.0	48.4	36.1						24.0	5.0	14	M8x25
38	60	65.0	51.4		36.1	24.0	5.0	14	M8x25				
40	62	67.0	53.4	36.1						24.0	5.0	14	M8x25
42	64	69.0	55.4		36.1	24.0	5.0	14	M8x25				
45	67	72.0	58.4	36.1						24.0	5.0	14	M8x25
48	70	75.0	61.4		36.1	24.0	5.0	14	M8x25				
50	72	77.0	63.4	36.1						24.0	5.0	14	M8x25
55	77	83.0	68.4		36.1	24.0	5.0	14	M8x25				
60	82	87.0	73.4	36.1						24.0	5.0	14	M8x25
65	87	92.0	78.4		36.1	24.0	5.0	14	M8x25				
70	97	103.0	86.2	36.1						24.0	5.0	14	M8x25

MLM
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MLMP (Electroless Nickel Plating)
MLHS (Stainless Steel)

Ordering Example **Part Number MLM35**

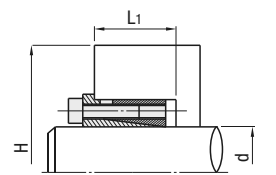
- **Features**
- With pilot on flange of the inner ring, the tightening lock screw presses hub I.D.. This generates effect to control instability on the hub end face and O.D. (centering effect).
 - Free phase adjustment and positioning.
 - No hub movement in axial direction when tightened with locking 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)	
			MLM	MLMB							
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			10.7	2.49		7.8	2.54		26
8	22	5.6			16.6	4.1		10.7	2.64		35
10	25	5.6			19.6	3.9		12.7	2.55		40
11	30	5.6			22.5	4.0		14.7	2.64		45
12	50	8.41			36.2	5.9		24.5			53
14	65	9.46			50.9			28.4			61
15	70	9.46			54.8	7.2		30.4	4.02	2.7	66
16	75	9.46			58.8	7.3		32.3			75
17	110	12.6			76.4			46.1			75
18	115	12.6			80.3			49.0	5.39		80
19	120	12.6			85.2			51.9			81
20	220	21.6			183.0			121.6	12.16		144
22	290	26			201.0	18.3		133.4	12.06		165
24	320	26			252.0	21.0		146.1	12.16	5.6	180
25	350	27.2			264.0			153.0			188
28	380	27			295.0	21.1		213.8	15.20		195
30	410	27			396.0			229.5	15.30		208
32	440	27			423.0	26.4		244.2	15.20		219
35	720	41.1			548.0	31.3		301.1	17.16		325
38	770	40.2			741.0			409.0			362
40	810	40.2			779.0	39.0		430.6	21.48	9.6	380
42	850	40.2			823.0			452.2			405
45	1200	52.9			882.0	39.2		484.6			435
48	1200	48.2			1117.0	46.5		620.9	25.80		460
50	1500	56.3			1362.0	54.4		754.3	30.11		485
55	1600	56.3			1512.0	55.0					520
60	1900	60.3			1768.0	58.9					560
65	2000	60.3			1915.0						610
70	3400	94.8	37.3	31.0	2920.0	83.6	37.3				845



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

Type	d	MLM, MLMB						MLMP						MLHS					
		Shaft Side Surface Pressure (MPa)	Side Surface Pressure of Hub (MPa)	H Hub Minimum O.D.			Hub Machining Depth L1	Shaft Side Surface Pressure (MPa)	Side Surface Pressure of Hub (MPa)	H Hub Minimum O.D.			Hub Machining Depth L1	Shaft Side Surface Pressure (MPa)	Side Surface Pressure of Hub (MPa)	H Hub Minimum O.D.			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		29		16	153	55.9	29	27.5	27.5	16	
11	170	92	39	34	31		174	73	36		31		139	53.6	30	28.5	28.5		
12	233	115	49	40	36		239	91	43	36	33		191	67.1	35	32.0	30.5		
14	225	120	55	44	39		204	84	44	38	35		164	62.3	36		32.5	17	
15	186	106	52	43	39		205	90	47	40	37		136	55.0	37	34.0	33.5	18	
16	166	98	51	43	39		193	87	48	41	38		121	50.9	38	35.0	35.0		
17	197	121	61	49	43		205	97	53	44	40		144	63.1	40	37.0	36.0		
18	186	118	62	49	44		166	93	54	45	41		136	61.2				19	
19	177	114	62	50	45		184	91	55	46	42		129	59.2	42	39.0	38.0		
20	234	139	87	64	56		213	97	64	54	49		165	69.8	51	47.0	44.0	23	
22	256	159	112	74	62		193	92	65	56	51		150	66.3	53	49.0	46.0		
24	217	142	98	72	62	24	121	105	74	61	56	24	128	59.2		50.0	48.0	24	
25	216	137	96	72	62		212	102	75	62	57		122	54.5	54	51.0	49.0		
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		198	102	86	69	63		127	61.1	62	57.0	55.0		
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		207	105	100	83	75		107	51.4	72	67.0	67.0		
38	178	125	122	95	84	28	208		109	89	80	28	119	59.5	79	73.0	70.0	28	
40	164	118	119	95	85		202		113	92	83		110	56.2	80	74.0	72.0		
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		184	104	117	97	88		95	50.8	85	79.0	77.0		
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		202	119	140	111	99		116	64.6	97	88.0	84.0		
55	158	127	159	123	108		185	106	137	113	102								
60	150	125	166	130	115		176	104	143	119	108								
65	139	118	167	134	119		163	98	146	124	113								
70	187	152	250	172	147	34													