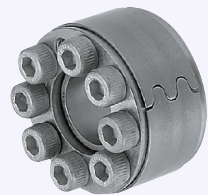


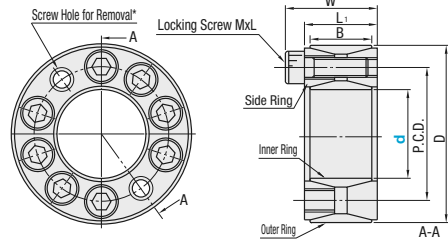
MechaLock

Straight

■ **Features:** Has larger maximum allowable torque than Standard Type, and locks the shaft and hub firmly. Has any part not shouldered to work the Centering function but makes applications based on several pieces easier than ever.



MLA
MLAP (Electroless Nickel Plating)

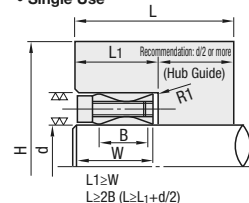


Type	Main Body	
	M Material	S Surface Treatment
MLA	EN 1.1191	-
MLAP	Equiv.	Electroless Nickel Plating

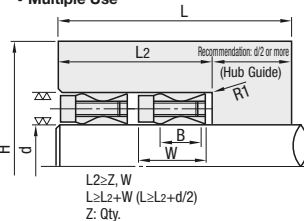
* Thread diameter of screw hole for removal is the same as that of locking screw.
 ⚠ Lock screw of MLA and MLAP is colored red due to coating agent.
 ⚠ When installation, press down side rings strongly and tighten with screws.

Part Number		D	W	P.C.D.	L ₁	B	Locking Screw			Mass (g)	Unit Price		
Type	d						MxL	Qty.	Hex Wrench Nominal		Tightening Torque (N · m)	MLA	MLAP
MLA MLAP	20	47	26	34.5	20	18	M6x18	8	5	12.7	240		
	22	34.5		230									
	24	37.5		250									
	25			240									
	28	55	42.5	24	21	M6x18	10	5	12.7	290			
	30		280										
	32		340										
	35	60	47.5							310			
	38	65	52.5	32	24	21	M8x22	12	6	29.4	370		
	40		350										
	42	75	60								600		
	45		570										
	48	80	65	32	24	21	M8x22	12	6	29.4	630		
	50		610										
	55	85	70								660		
	60	90	75								700		
65	95	80				710							

- **Single Use**



- Multiple Use



■ Check MechaLock for allowable load applied
For Calculation Steps, see 1489.

d	Max. Allowable Torque (N · m)	Allowable Thrust Load (kN)
20	300	29.5
22	330	29.5
24	410	33.8
25	430	33.8
28	530	37.8
30	570	37.8
32	730	45.4
35	800	45.4
38	1010	52.9
40	1060	52.9
42	1560	74.1
45	1670	74.1
48	1780	74.1
50	1860	74.1
55	2530	91.8
60	2760	91.8
65	2990	91.8

$$\text{kgf} = \text{N} \times 0.101972$$

■ **Check Shaft/Hub for Rigidity** For Design Steps, see P.1489.

d	Shaft Side Surface Pressure MPa	Side Surface Pressure of Hub MPa	Single Use					2 Hubs						
			H Hub Minimum O.D.					Hub Machining Depth L1	H Hub Minimum O.D.					Hub Machining Depth L2
			Yield Point Stress of Hub Material (MPa)						Yield Point Stress of Hub Material (MPa)					
			147	206	294	392	147		206	294	392			
			EN-JL 1060 Equiv. EN 1.1008 Equiv.	EN-JS 1040 Equiv. EN 1.1181 Equiv.	EN-JS 1060 Equiv. EN 1.1003 Equiv.	EN-JS 1060 Equiv. EN 1.1003 Equiv.	EN-JL 1060 Equiv. EN 1.1008 Equiv.		EN-JS 1040 Equiv. EN 1.1181 Equiv.	EN-JS 1060 Equiv. EN 1.1003 Equiv.	EN-JS 1060 Equiv. EN 1.1003 Equiv.			
20	217	93	70	62	57	55	28	87	72	63	58	55		
22	198	93	70	62	57	55		83	69	62	58			
24	207	100	77	68	62	59		85	72	65	61			
25	199	100	77	68	62	59								
28	199	101	86	75	68	65		98	82	72	67			
30	186	101	86	75	68	65								
32	209	111	98	84	76	72		115	93	81	75			
35	191	111	98	84	76	72		109	90	79	74			
38	205	120	112	94	84	79		126	101	88	81			
40	195	120	112	94	84	79								
42	223	125	132	110	98	91	34	159	123	105	96	67		
45	208	125	132	110	98	91		171	128	107	98			
48	195	117	135	115	103	96		170	131	112	102			
50	187	117	135	115	103	96		159	127	109	101			
55	211	136	160	130	114	106		200	147	123	111			
60	193	129	162	134	118	110		214	156	130	118			
65	178	122	165	138	123	115		211	159	134	123			

$$\text{kgf/mm}^2 = \text{MPa} \times 0.101972$$

■ Recommended Tolerance of Shaft and Hub / Roughness of Surface

Mounting Surface	Tolerance	Roughness of Surface
Shaft Outer Dia.	h7(g6)	Ra1.6 or less
Hub I.D.	H7	Ra3.2 or less

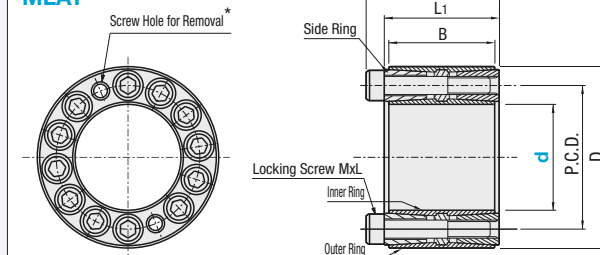
MechaLock

Straight for High Torque

■ **Features:** In order to withstand higher load, is made longer in axial direction than conventional Straight Type.



MLAT



Weight of side ring itself may shrink or enlarge the inner or outer rings. When installation, loosen side rings on both sides and insert a shaft into the hub.

Type	Main Body	
	M Material	S Surface Treatment
MLAT	EN 1.1191 Equiv.	-

Part Number		D	W	P.C.D.	L ₁	B	Locking Screw			Mass (g)	Unit Price
Type	d						MxL	Qty.	Tightening Torque (N · m)		
MLAT	30	55	44	42.5	38	35	M6x35	10	15.7	490	
	35	60		47.5				12		560	
	40	65		52.5				14		620	
	45	75	58	60	50	45	M8x45	12	37.3	1090	
	50	80		65						1170	
	55	85		70						1250	
	60	90		75						1340	
	65	95		80						1430	

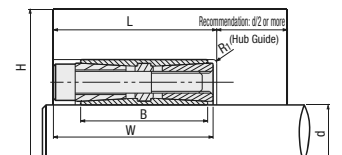
■ Check MechaLock for allowable load applied
For Calculation Steps, see P.1489.

■ **Check Shaft / Hub for Rigidity.**
For Design Steps, see **P.1489.**

d	Max. Allowable Torque (N·m)	Allowable Thrust Load (kN)
30	1110	74
35	1550	88.8
40	2070	103
45	3800	168
50	4220	
55	4640	
60	5060	
65	6400	197

$$\text{kgf} = \text{N} \times 0.101972$$

d	Shaft Side Surface Pressure MPa	Side Surface Pressure of Hub MPa	H Hub Minimum O.D.			Hub Machining Depth L
			Yield Point Stress of Hub Material (MPa)			
			206	294	392	
			EN-JL 1060 Equiv. EN 1.0038 Equiv. EN 1.0301 Equiv.	EN-JS 1040 Equiv. EN 1.1181 Equiv.	EN-JS 1060 Equiv. EN 1.1203 Equiv.	
30	250	136	122	91	80	44
35	257	150	151	106	90	
40	262	161	187	121	101	
45	277	166	229	143	118	
50	249	156	215	145	122	59
55	226	147	207	147	126	
60	208	138	204	151	131	
65	224	153	247	170	144	

$$\text{kgf/mm}^2 = \text{MPa} \times 0.101972$$


Recommended Tolerance of Shaft and Hub / Roughness of Surface

Mounting Surface	Tolerance	Roughness of Surface
Shaft Outer Dia.	h7(g6)	Ra1.6 or less
Hub I.D.	H7	Ra3.2 or less



■ Recommended Tolerance of Shaft and Hub / Roughness of Surface

Mounting Surface	Tolerance	Roughness of Surface
Shaft Outer Dia.	h7(g6)	Ra1.6 or less
Hub I.D.	H7	Ra3.2 or less