

Keyless Timing Pulleys - L

Keyless Timing Pulleys - L

MechaLock Standard Type Incorporated (With Centering Function)

For Timing Belts, see P.1463. For Open End Belts, see P.1476.



RoHS 10

Type	Part Number				Material		Surface Treatment			
	Belt Width 12.7mm (1/2inch) A-14 W-19	Belt Width 19.1mm (3/4inch) A-21 W-26	Belt Width 25.4mm (1inch) A-27 W-32	Belt Width 38.1mm (1.5inch) A-40 W-45	Pulley	Flange	Bushing	Pulley	Flange	Bushing
MTPLA	●	●	●	●	A7075	Aluminum Alloy	S45C	Clear Anodize	-	-
MTPLK	●	●	●	●	A7075	Aluminum Alloy	S45C	Hard Clear Anodize	-	-
MTPLN	●	●	●	●	A7075	Aluminum Alloy	S45C	Electroless Nickel Plating	-	-
MTPL	●	●	●	●	A7075	Aluminum Alloy	S45C	Black Oxide	-	-
MTPLP	●	●	●	●	A7075	Aluminum Alloy	S45C	Electroless Nickel Plating	-	-

*1. The above material and accessory might be changed to the ones equivalent to the originals. *2. Hard Anodize Treatment: Film Hardness 300HV -

• Pulley Shape

E Shape

F Shape

Tooth Profile (ISO Standard Rack Dimensions)

Tooth groove dimensions slightly vary according to the number of teeth.

(Pitch: 9.525mm)

For quantity and size of tightening screws with flange installed, see P.1425

Surface treatment may not be applied to shaft bores.

Two types of bushings are available: Standard Type (ST Bushings) and Short Type (SH Bushings).

P.1425

Cut Flange for 60 and 72 Toothed Pulleys.

Electroless nickel plated bushing (Alterations BMC, BMR) decreases maximum allowable torque and allowable thrust load by 20 ~ 30%.

dh7	Max. Allowable Torque N · m	D	(L)		
8	16	8.5	25.5	24.5	8.5
10	39	18	30	29	10.5
11	43	20	31	30	10.5
12	48	23	32	31	12
14	73	37	35	36	12
15	78	39	36	37	13
16	83	42	37	38	13
17	88	45	38	39	13
18	154	48	43	40	14
19	163	49	45	42	14
20	171	97	46	46	14
22	186	110	48	47	15.5
24	206	121	50	49	15.5
25	216	124	52	51	16.5
28	353	141	54	53	19
30	382	149	57	56	19
32	412	163	59	58	20
35	451	173	63	61	20
38	686	71	70	74	24.5
40	725	71	70	74	24.5
42	757	74	74	84	24.5
45	1490	84	84	87	200
48	1600	87	87	90	200
50	1660	89	89	90	200

Features: MechaLock Standard Type (P.1491) Incorporated Timing Pulleys. It tolerates an average of 1.2 times and 2.5 times greater torque compared to the conventional ST bushing and SH bushing respectively.



RoHS 10

Type	Part Number				Material		Surface Treatment			
	Belt Width 12.7mm (1/2inch) A-14 W-19	Belt Width 19.1mm (3/4inch) A-21 W-26	Belt Width 25.4mm (1inch) A-27 W-32	Belt Width 38.1mm (1.5inch) A-40 W-45	Pulley	Flange	MechaLock	Pulley	Flange	MechaLock
HPLA	●	●	●	●	A5052	S45C	Clear Anodize	-	-	-
HPLK	●	●	●	●	A5052	S45C	Hard Clear Anodize	-	-	-
HPLN	●	●	●	●	A5052	S45C	Electroless Nickel Plating	-	-	-
HPLT	●	●	●	●	A5052	S45C	Black Oxide	-	-	-
HPLM	●	●	●	●	A5052	S45C	Electroless Nickel Plating	-	-	-
HPLP	●	●	●	●	A5052	S45C	Electroless Nickel Plating	-	-	-

*1. The above material and accessory might be changed to the ones equivalent to the originals. *2. Hard Anodize Treatment: Film Hardness 300HV -

• Pulley Shape

E Shape

F Shape

Tooth Profile (ISO Standard Rack Dimensions)

Tooth groove dimensions slightly vary according to the number of teeth.

(Pitch: 9.525mm)

Surface treatment may not be applied to shaft bores.

Flange is installed.

For installation, see P.1489. For details of MechaLock, see P.1491.

Cut Flange for 60 and 72 Toothed Pulleys.

Y dimensions in () require the shaft bore diameter of 12 or more.

dh7	Max. Allowable Torque (N · m)	HPLA, HPLK, HPLN, HPLT, HPLM	HPLP	D1	(L)
8	19.6	16.6	23.5	6	6
10	27.5	19.6	25.5	6	6
12	44.1	36.2	28.5	6	6
14	63.7	50.9	30.5	6	6
15	80.4	54.8	31.5	6	6
16	83.3	58.8	33.0	6	6
17	92.2	76.4	33.5	6	6
18	95.1	80.3	34.5	6	6
19	98.1	85.2	35.5	6	6
20	216.0	183.0	42.0	8	8
22	255.0	201.0	44.0	8	8
24	363.0	252.0	46.0	8	8
25	392.0	264.0	47.0	8	8
28	441.0	295.0	50.0	8	8
30	500.0	396.0	52.0	8	8
32	530.0	423.0	54.0	8	8
35	883.0	548.0	62.0	10	10
40	1079.0	779.0	67.0	10	10
45	1285.0	882.0	72.0	10	10
50	1706.0	1362.0	77.0	10.5	10.5

Part Number			dh7 Range (-): Specify in 1mm Increment, (,): Select the former or latter										
Type	Number of Teeth	Type, Nominal Width	Pulley Shape	Shape E				Shape F					
				L050	L075	L100	L150	L050	L075	L100	L150		
				ST Bushing	ST Bushing	ST Bushing	ST Bushing	SH Bushing	SH Bushing	ST Bushing: 10-25 SH Bushing: 28-35	ST Bushing		
MTPLA MTPLK MTPLN MTPL MTPLP	14	L050 *A:14 *W:19	E	8, 10-12	10-12	10-12	11, 12	8, 10	8, 10	-	-		
	15			8, 10-12	10-12	10-12	11, 12	8, 10	8, 10	10, 11	11, 12		
	16			10-12, 14-17	10-12, 14-17	10-12, 14-17	11, 12, 4-17	10-12	10-12, 14, 15	10-12, 14, 15	11, 12, 14, 15		
	17			10-12, 14-17	10-12, 14-17	10-12, 14-17	11, 12, 14-17	10-12	10-12, 14-17	10-12, 14-17	11, 12, 14-17		
	18	12, 14-17		12, 14-17	12, 14-17	12, 14-17	12	12, 14-17	12, 14-17	12, 14-17			
	19	12, 14-20, 22, 24, 25		12, 14-20, 22, 24, 25	12, 14-20, 22, 24, 25	12	12, 14-20, 22, 24, 25	12, 14-20, 22, 24, 25	12, 14-20, 22, 24, 25	12, 14-20, 22, 24, 25			
	20	12, 14-20, 22, 24, 25, 28, 30		12, 14-20, 22, 24, 25, 28, 30	12, 14-20, 22, 24, 25, 28, 30	12	12, 14-20, 22, 24, 25, 28, 30	12, 14-20, 22, 24, 25, 28, 30	12, 14-20, 22, 24, 25, 28, 30	12, 14-20, 22, 24, 25, 28, 30			
	21	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	22	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	23	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	24	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	25	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	26	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	27	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	28	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	29	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	30	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	31	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	32	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	33	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	34	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	35	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	36	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	37	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	38	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
	39	12, 14-20, 22, 24, 25, 28, 30, 32		12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32			
40	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
41	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
42	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
43	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
44	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
45	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
46	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
47	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
48	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
49	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
50	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
51	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
52	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
53	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
54	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
55	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
56	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
57	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32					
58	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12, 14-20, 22, 24, 25, 28, 30, 32	12	12, 14-20, 22, 24,								