


Keyless Timing Pulleys

L Type

For Timing Belts, refer to P.1434, Open End Belts, refer to P.1445.

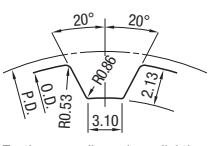


Keyless Timing Pulleys – L Type

Part Number				Material			Surface Treatment		
Belt Width 12.7 mm (1/2")	Belt Width 19.1 mm (3/4")	Belt Width 25.4 mm (1")	Belt Width 38.1 mm (1.5")	Pulley	Flange	Bushing	Pulley	Flange	Bushing
A: 14 W: 19	A: 21 W: 26	A: 27 W: 32	A: 40 W: 45	Duralumin-Based Aluminum Alloy	Aluminum Alloy	1045 Carbon Steel or Equivalent	Clear Anodize		
MTPLA_L050	MTPLA_L075	MTPLA_L100	MTPLA_L150				Hard Clear Anodize*		
MTPLK_L050	MTPLK_L075	MTPLK_L100	MTPLK_L150	1045 Carbon Steel or Equivalent	Low Carbon Steel	1045 Carbon Steel or Equivalent	Electroless Nickel Plating		
MTPLN_L050	MTPLN_L075	MTPLN_L100	MTPLN_L150				Black Oxide		
MTPL_L050	MTPL_L075	MTPL_L100	MTPL_L150				Electroless Nickel Plating		
MTPLP_L050	MTPLP_L075	MTPLP_L100	MTPLP_L150						

*Hard Anodize Treatment: Film Hardness 300 HV min.

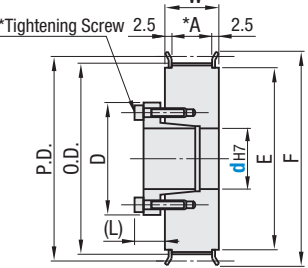
Tooth Profile (ISO Standard Rack Dimensions)



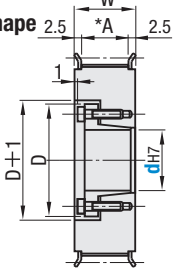
Tooth groove dimensions slightly change according to No. of teeth. (Pitch: 9.525 mm)

Pulley Shape

E Shape



F Shape



*For quantity and size of tightening screws with flange attached, refer to P.1388.

- The shaft bore may not have surface treatment.
- Two types of bushings are available: Standard Type (ST Bushings) and Short Type (SH Bushings). Refer to P.1388.
- Cut Flange for 60 and 72 toothed pulleys.

Part Number	Type	Teeth	Type, Nom. Width	Pulley Shape	d _{HT} Range (Select Shaft Bore Dia. from Table 1)								P.D.	O.D.	F	E		
					L050		L075		L100		L150							
					E Shape (ST Bushing)	F Shape (SH Bushing)	E Shape (ST Bushing)	F Shape (SH Bushing)	E Shape (ST Bushing)	F Shape (ST & SH Bushing)	E Shape (ST Bushing)	F Shape (ST Bushing)						
14	L050	*A: 14	*W: 19	E	8-12	8, 10	10-12	8, 10	10-12	—	11, 12	—	42.45	41.68	48	35		
15					8-12	8, 10	10-12	8, 10	10-12	10, 11	11, 12	11, 12	—	—	45.48	44.72	—	—
16					10-17	10-12	10-17	10-15	10-17	10-15	11-17	11-15	—	—	48.51	47.75	—	—
17					10-17	10-12	10-17	10-15	10-17	10-15	11-17	11-15	—	—	51.54	50.78	55	40
18					10-17	10-12	10-17	10-17	10-17	10-17	11-17	11-17	—	—	54.57	53.81	61	45
19					12-17	12	12-17	12-17	12-17	12-17	12-17	12-17	—	—	57.61	56.84	67	50
20					12-17	12	12-17	12-17	12-17	12-17	12-17	12-17	—	—	60.64	59.88	67	50
21					12-25	12	12-25	12-25	12-25	12-25	12-25	12-25	—	—	63.67	62.91	70	56
22					12-25	12	12-25	12-25	12-25	12-25	12-25	12-25	—	—	66.70	65.94	80	60
24					12-30	12	12-30	12-30	12-30	12-30	12-30	12-30	—	—	72.77	72.00	—	—
25	L075	*A: 21	*W: 26	E	12-32	12	12-32	12-32	12-32	12-32	12-32	75.80	75.04	87	67			
26					12-32	12	12-32	12-32	12-32	12-32	12-32	—	—	78.83	78.07	—	—	
28					12-32	12	12-35	12-32	12-35	12-35	12-35	12-35	—	—	84.89	84.13	95	75
30					12-32	12	12-42	12-32	12-42	12-35	12-42	12-35	—	—	90.96	90.20	99	80
32	L100	*A: 27	*W: 32	F	12-32	12	12-42	12-32	12-42	12-35	12-42	97.02	96.26	104	84			
34					12-32	12	12-42	12-32	12-42	12-35	12-42	12-35	—	—	103.08	102.32	111	90
36					15-32	—	15-42	15-32	15-42	15-35	15-42	15-35	—	—	109.15	108.39	123	102
38					15-32	—	15-42	15-32	15-42	15-35	15-42	15-35	—	—	115.21	114.45	127	105
40					15-32	—	15-42	15-32	15-42	15-35	15-42	15-35	—	—	121.28	120.51	131	110
42					16-38	—	16-50	16-32	16-50	16-35	—	—	—	—	127.34	126.58	135	115
44					16-38	—	16-50	16-32	16-50	16-35	—	—	—	—	133.40	132.64	140	120
48					16-38	—	16-50	16-32	16-50	16-35	—	—	—	—	145.53	144.77	152	130
50					16-38	—	16-50	16-32	16-50	16-35	—	—	—	—	151.60	150.83	160	140
60					16-38	—	16-50	16-32	16-50	16-35	—	—	—	—	181.91	181.15	190	170
72	16-38	—	16-50	16-32	16-50	16-35	—	—	—	—	218.30	217.53	225	200				

Table 1: Select Shaft Bore Diameter

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

⊖ Electroless nickel plated bushing decreases maximum allowable torque and allowable thrust load by 20-30%

⊖ For "F" shape of S8M250, ST bushing is applicable to shaft bore diameter of 10-25 and SH bushing is applicable to 28-35.

Part Number Example

Part Number: **MTPL20L075** - Pulley Shape: **E** - Shaft Bore Dia.: **17**

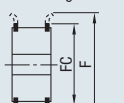
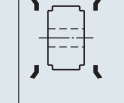
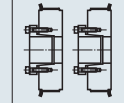
Keyless Timing Pulleys

L Type, continued

Teeth	Available Types															
	L050		MTPLA (x1.0) L075		MTPLK (x1.1) L100		MTPLN (x1.2) L150		L050		MTPL (x1.0) L075		MTPLP (x1.1) L100		L150	
	E Shape	F Shape	E Shape	F Shape	E Shape	F Shape	E Shape	F Shape	E Shape	F Shape	E Shape	F Shape	E Shape	F Shape	E Shape	F Shape
14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
26	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
28	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
32	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
34	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
36	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
42	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
44	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
48	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
60	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
72	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Part Number Alterations

Part Number: **MTPLA20L075** - Pulley Shape: **E** - Shaft Bore Dia.: **17** - (BMC...etc.): **FC63**

Alterations	Flange Cut	Flange Not Swaged	Flange Swaged on One Side	Surface Treatment
Code	FC	NFC	RFC / LFC	BMC / BMR
Spec.	<p>Lowers flange by cutting. FC: 0.5 mm Increment</p> <p>⊖ No surface treatment applied on flange circumference.</p>  <p>FC=(O.D.)+2 FC=F-2 Ordering Code: FC35</p>	<p>Flange is not installed. (Flange included)</p> 	<p>Flange installed on the hub side (LFC) or the opposite side (RFC) only prior to shipping.</p> 	<p>Applies electroless nickel plating on a bushing. (Anti-rusting treatment applied to screws).</p> <p>⊖ Electroless nickel plated bushing decreases allowable torque by 20-30%.</p> <p>BMC: Non-RoHS-compliant (Screw: Dacrotized treatment applied 4137 Alloy Steel)</p> <p>BMR: RoHS-compliant (Screw: GeoMet coating applied 4137 Alloy Steel)</p>