Keyless Timing Pulleys - L

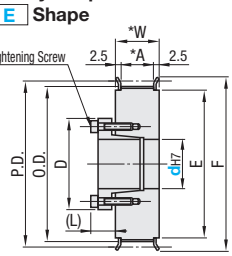
For Timing Belts, see P.1463. For Open End Belts, see P.1476.

Type	Part Number: Belt Width 12.7mm (1/2inch) A:14 W:19 L050	Belt Width 19.1mm (3/4inch) A:21 W:26 L075	Belt Width 25.4mm (1inch) A:27 W:32 L100	Belt Width 38.1mm (1.5inch) A:40 W:45 L150	M Material *1: Pulley	Flange	Bushing	S Surface Treatment: Pulley	Flange	Bushing
MTPLA	●	●	●	●	A7075	Aluminum Alloy	S45C	Clear Anodize		-
MTPLK	●	●	●	●				Hard Clear Anodize *2		-
MTPLN	●	●	●	●				Electroless Nickel Plating		-
MTPL	●	●	●	●	S45C Equivalent	SPCC	S45C	Black Oxide		
MTPLP	●	●	●	●				Electroless Nickel Plating		

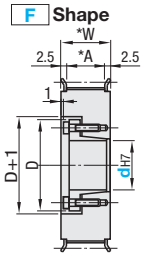
*1. The above material and accessory might be changed to the ones equivalent to the originals. *2. Hard Anodize Treatment: Film Hardness 300HV ~

• Pulley Shape

E Shape



F Shape



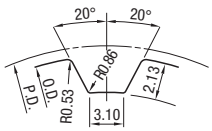
* For quantity and size of tightening screws with flange installed, see P.1425.

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.

Tooth Profile (ISO Standard Rack Dimensions)



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

(Pitch:9.525mm)

Table 1: Select Shaft Bore Dia.

dH7	Max. Allowable Torque N・m D ST Bushing	SH Bushing	ST Bushing	SH Bushing	(L)
8	16	8.5	25.5	24.5	8.5
10	39	18	30	29	10.5
11	43	20	31	30	
12	48	23	32	31	12
14	73	37	35	36	
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	
22	186	110	48	47	
24	206	121	50	49	
25	216	124	52	51	
28	353	141	54	53	15.5
30	382	149	57	56	
32	412	163	59	58	16.5
35	451	173	63	61	
38	686	-	70	-	19
40	725		71		
42	757		74		20
45	1490		84		24.5
48	1600		87		
50	1660		89		

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

Number of Teeth	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
P.D.	42.45	45.48	48.51	51.54	54.57	57.61	60.64	63.67	66.70	72.77	75.80	78.83	84.89	90.96	97.02	103.08	109.15	115.21	121.28	127.34	133.40	145.53	151.60	181.91	218.30
O.D.	41.68	44.72	47.75	50.78	53.81	56.84	59.88	62.91	65.94	72.00	75.04	78.07	84.13	90.20	96.26	102.32	108.39	114.45	120.51	126.58	132.64	144.77	150.83	181.15	217.53
F	48	48	55	55	61	67	67	70	80	87	87	87	95	99	104	111	123	127	131	135	140	152	160	190	225
E	35	35	40	40	45	50	50	56	60	67	67	67	75	80	84	90	102	105	110	115	120	130	140	170	200

Part Number: Type	Number of Teeth	Type, Nominal Width	Pulley Shape	dH7 Range (~): Specify in 1mm Increment, (,): Select the former or latter — Shape E: L050 ST Bushing	Shape E: L075 ST Bushing	Shape E: L100 ST Bushing	Shape E: L150 ST Bushing	Shape F: L050 SH Bushing	Shape F: L075 SH Bushing	Shape F: L100 ST Bushing: 10~25 SH Bushing: 28~35	Shape F: L150 ST Bushing
MTPLA MTPLK MTPLN MTPL MTPLP	14	L050 *A:14 *W:19	E F	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										
	18			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
	19			12, 14~17	12, 14~17	12, 14~17	12, 14~17	12	12, 14~17	12, 14~17	12, 14~17
	20										
	21			12, 14~20, 22, 24, 25		12, 14~20, 22, 24, 25		12	12, 14~20, 22, 24, 25		
	22										
	24	L075 *A:21 *W:26		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		
	25										
	26			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		
	28			12, 14~20, 22, 24, 25, 28, 30, 32	12, 14~20, 22, 24, 25, 28, 30, 32, 35			12	12, 14~20, 22, 24, 25, 28, 30, 32	12, 14~20, 22, 24, 25, 28, 30, 32, 35	
	30	L100 *A:27 *W:32		12, 14~20, 22, 24, 25, 28, 30, 32	12, 14~20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42			12	12, 14~20, 22, 24, 25, 28, 30, 32	12, 14~20, 22, 24, 25, 28, 30, 32, 35	
	32										
	34										
	36	L150 *A:40 *W:45		15~20, 22, 24, 25, 28, 30, 32	15~20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	15~20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42		-	15~20, 22, 24, 25, 28, 30, 32	15~20, 22, 24, 25, 28, 30, 32, 35	
	38										
	40										
	42			16~20, 22, 24, 25, 28, 30, 32, 35, 38	16~20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50		-	-	16~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32, 35	-
	44										
	48										
	50										
	60										
	72										

Ordering Example

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

Number of Teeth	Unit Price: MTPLA (x1.0) MTPLK (x1.1) MTPLN (x1.2) L050 Shape E	L050 Shape F	L075 Shape E	L075 Shape F	L100 Shape E	L100 Shape F	L150 Shape E	L150 Shape F	MTPL (x1.0) MTPLP (x1.1) L050 Shape E	L050 Shape F	L075 Shape E	L075 Shape F	L100 Shape E	L100 Shape F	L150 Shape E	L150 Shape F
14						-		-						-		-
15																
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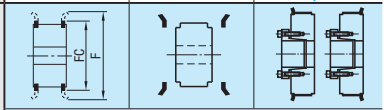
40		-								-						
42										-					-	-
44	-	-	-	-	-	-	-	-		-					-	-
48										-					-	-
50										-					-	-
60	-	-	-	-	-	-	-	-		-					-	-
72										-					-	-

Alterations

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

Alterations	Surface Treatment
Code	BMC, BMR
Spec.	Applies electroless nickel plating on a bushing. (Antirusting treatment is applied to screws.) Electroless nickel plated bushing decreases allowable torque by 20 ~ 30%. BMC: Not RoHS Compliant (Screw: SCM435 Dacrotized Treatment) BMR: RoHS Compliant (Screw: SCM435 GeoMet Coating)

Alterations	Flange Cut	Flange Not Swaged	Flange Swaged on One Side
Code	FC	NFC	LFC, RFC
Spec.			

For details of specs., refer to the right-hand page.