

# Keyless Timing Pulleys - H

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



Type	Part Number				Material *1			Surface Treatment		
	Belt Width	Belt Width	Belt Width	Belt Width	Pulley	Flange	Bushing	Pulley	Flange	Bushing
	19.1mm (3/4inch)	25.4mm (1inch)	38.1mm (1.5inch)	50.8mm (2inch)						
	A:21 W:26	A:27 W:32	A:40 W:45	A:54 W:59						
L075	L100	L150	L200	A7075	A5052	S45C	Clear Anodize	-	-	
MTPLA	●	●	●	●	S45C Equivalent	SPCC	S45C	Black Oxide	-	-
MTPL	●	●	●	●				Electroless Nickel Plating	-	-
MTPLP	●	●	●	●	-	-	-	-	-	-

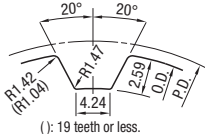
\*1. The above material and accessory might be changed to the ones equivalent to the originals.

### • Pulley Shape

**E** Shape

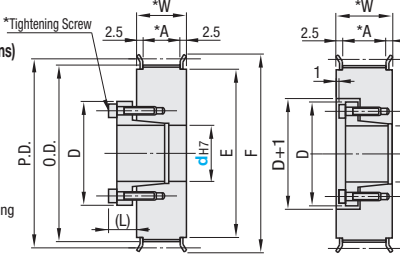
**F** Shape

### Tooth Profile (ISO Standard Rack Dimensions)



( ): 19 teeth or less.

Tooth groove dimensions slightly vary according to the number of teeth.  
(Pitch: 12.7mm)



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

Cut Flange for 38-50 Toothed Pulleys.

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

Table 1: Select Shaft Bore Dia.

dH7	Max. Allowable Torque Nm				D (L)
	ST Bushing	SH Bushing	ST Bushing	SH Bushing	
12	48	23	32	31	10.5
14	73	37	35	36	12
15	78	39	36	37	12
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	14
24	206	121	50	49	14
25	216	124	52	51	14
28	353	141	54	53	15.5
30	382	149	57	56	15.5
32	412	163	59	58	16.5
35	451	-	63	-	19
38	686	-	70	-	20
40	725	-	71	-	20
42	757	-	74	-	20
45	1490	-	84	-	24.5
48	1600	-	87	-	24.5
50	1660	-	89	-	24.5

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
P.D.	56.60	60.64	64.68	68.72	72.77	76.81	80.85	84.89	88.94	97.02	101.06	105.11	113.19	121.28	129.36	137.45	145.53	153.62	161.70	169.79	177.87	194.04	202.13
O.D.	55.22	59.27	63.31	67.35	71.39	75.44	79.48	83.52	87.56	95.65	99.69	103.73	111.82	119.90	127.99	136.07	144.16	152.24	160.33	168.41	176.50	192.67	200.76
F	61	67	70	80	80	87	87	95	95	104	111	111	123	127	135	144	152	165	170	180	190	205	210
E	45	50	56	60	60	67	67	75	75	84	90	90	102	105	115	125	130	140	150	155	170	180	185

Type	Number of Teeth	Type, Nominal Width	Pulley Shape	dH7 Range ( ): Select the former or latter, (-): Specify in 1mm Increment															
				Shape E				Shape F											
				H075		H100		H150		H200		H075		H100		H150		H200	
				ST Bushing	ST Bushing	ST Bushing	ST Bushing	SH Bushing	ST Bushing	ST Bushing	ST Bushing	ST Bushing	ST Bushing	ST Bushing	ST Bushing	ST Bushing			
MTPLA MTPL MTPLP	14	H075 *A:21 *W:26	E	12, 14-17	12, 14-17	15-17	16-17	12, 14-17	12, 14-17	15-17	16-17	12, 14-17	12, 14-17	15-17	16-17				
	15			14-20	14-20	15-20	16-20	14-20	14-20	15-20	16-20								
	16			14-20, 22, 24, 25	14-20, 22, 24, 25	15-20, 22, 24, 25	16-20, 22, 24, 25	14-20, 22, 24, 25	14-20, 22, 24, 25	15-20, 22, 24, 25	16-20, 22, 24, 25								
	17			14-20, 22, 24, 25, 28, 30, 32	14-20, 22, 24, 25, 28, 30, 32	15-20, 22, 24, 25, 28, 30, 32	16-20, 22, 24, 25, 28, 30, 32	14-20, 22, 24, 25, 28, 30, 32	14-20, 22, 24, 25, 28, 30, 32	15-20, 22, 24, 25, 28, 30, 32	16-20, 22, 24, 25, 28, 30, 32								
	18			14-20, 22, 24, 25, 28, 30, 32, 35	14-20, 22, 24, 25, 28, 30, 32, 35	15-20, 22, 24, 25, 28, 30, 32, 35	16-20, 22, 24, 25, 28, 30, 32, 35	14-20, 22, 24, 25, 28, 30, 32, 35	14-20, 22, 24, 25, 28, 30, 32, 35	15-20, 22, 24, 25, 28, 30, 32, 35	16-20, 22, 24, 25, 28, 30, 32, 35								
	19			19, 20, 22, 24, 25, 28, 30, 32, 35	19, 20, 22, 24, 25, 28, 30, 32, 35	19, 20, 22, 24, 25, 28, 30, 32, 35	19, 20, 22, 24, 25, 28, 30, 32, 35	19, 20, 22, 24, 25, 28, 30, 32	19, 20, 22, 24, 25, 28, 30, 32	19, 20, 22, 24, 25, 28, 30, 32	19, 20, 22, 24, 25, 28, 30, 32, 35								
	20			20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42, 45, 48	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42								
	21			20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42								
	22			20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42								
	24			20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42								
	26			-	-	-	-	25, 28, 30, 32	25, 28, 30, 32	25, 28, 30, 32	25, 28, 30, 32, 35, 38, 40, 42								
	28			-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50								
	30			-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50								
	32			-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50								
	34			-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50								
36	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											
38	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											
40	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											
42	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											
44	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											
48	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											
50	-	-	-	-	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50	25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50											

Ordering Example: Part Number - Pulley Shape - Shaft Bore Dia.  
MTPLP20H150 - F - 30

Number of Teeth	Unit Price															
	MTPLA								MTPL (x1.0) MTPLP (x1.1)							
	H075		H100		H150		H200		H1075		H100		H150		H200	
	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 E	Shape F
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Alterations Part Number - Pulley Shape - Shaft Bore Dia. - (BMC-etc.)  
MTPLA20H100 - E - 17 - FC84.5

Alterations	Surface Treatment
Code	BMC, BMR
Spec.	Applies electroless nickel plating on a bushing. (Anti-rust treatment is applied