

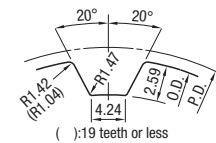
# Keyless Timing Pulleys

## H Type

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



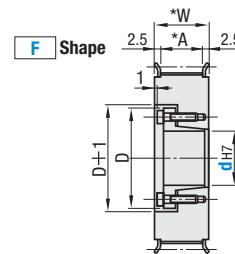
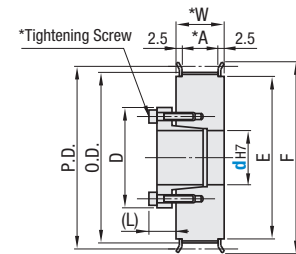
### Tooth Profile (ISO Standard Rack Dimensions)



Tooth groove dimensions slightly change according to No. of teeth. (Pitch: 12.7 mm)

### Pulley Shape

E Shape



- \*For quantity and size of tightening screws with flange attached, refer to P.1388.
- ① The shaft bore may not have surface treatment.
- ② Two types of bushings are available: Standard Type (ST Bushings) and Short Type (SH Bushings). Refer to P.1388.
- ③ Cut Flange for 38-50 toothed pulleys.

Type	Teeth	Part Number	Pulley Shape	d <sub>H7</sub> Range (Select Shaft Bore Dia. from Table 1)								P.D.	O.D.	F	E				
				E Shape				F Shape											
				H075	H100	H150	H200	H075	H100	H150	H200								
MTPLA	14	*A: 21 *W: 26	E	ST Bushing	ST Bushing	ST Bushing	ST Bushing	SH Bushing	ST Bushing	ST Bushing	ST Bushing	12 14-17	15-17	16-17	16-17	56.60	55.22	61	45
	15			12 14-17	12 14-17	15-17	16-17	12 14-17	15-17	16-17	16-17	60.64	59.27	67	50				
	16			14-20	14-20	15-20	16-20	14-20	14-20	15-20	16-20	64.68	63.31	70	56				
	17			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	68.72	67.35	80	60				
	18			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	72.77	71.39	80	60				
	19			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	76.81	75.44	87	67				
	20			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	80.85	79.48	87	67				
	21			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	84.89	83.52	95	75				
	22			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	88.94	87.56	95	75				
	24			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 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	97.02	95.65	104	84				
MTPL	25	*A: 27 *W: 32	E	ST Bushing	ST Bushing	ST Bushing	ST Bushing	SH Bushing	ST Bushing	ST Bushing	ST Bushing	12 14-17	15-17	16-17	101.06	99.69	111	90	
	26			12 14-17	12 14-17	15-17	16-17	12 14-17	15-17	16-17	16-17	105.11	103.73	119	96				
	28			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	113.19	111.82	123	102				
	30			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	121.28	119.90	127	105				
	32			20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	129.36	127.99	135	115				
	34			20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	137.45	136.07	144	125				
	36			20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	20 22 24 25 28 30 32 35 38 40 42 45	145.53	144.16	152	130				
	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	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	153.62	152.24	165	140				
	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	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	161.70	160.33	170	150				
	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	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	169.79	168.41	180	155				
MTPLP	44	*A: 40 *W: 45	F	ST Bushing	ST Bushing	ST Bushing	ST Bushing	SH Bushing	ST Bushing	ST Bushing	12 14-17	15-17	16-17	177.87	176.50	190	170		
	48			12 14-17	12 14-17	15-17	16-17	12 14-17	15-17	16-17	16-17	194.04	192.67	205	180				
	50			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	202.13	200.76	210	185				

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

Table 1: Select Shaft Bore Diameter

d <sub>H7</sub>	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	178	63	61	16.5
38	686	211	70	68	19
40	725	221	71	69	19
42	757	228	74	72	20
45	1490	311	84	82	24.5
48	1600	325	87	85	24.5
50	1660	335	89	87	24.5

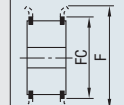

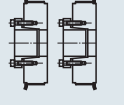
① Electroless nickel plated bushing decreases maximum allowable torque and allowable thrust load by 20-30%

# Keyless Timing Pulleys

## H Type, continued

Teeth	Available Types															
	MTPLA								MTPL (x1.0) MTPLP (x1.1)							
	H075		H100		H150		H200		H075		H100		H150		H200	
	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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

**Part Number Alterations**  
 Part Number: **MTPLA20H100** - Pulley Shape: **E** - Shaft Bore Dia.: **17** - (BMC...etc.): **FC84.5**

Alterations	Flange Cut	Flange Not Swaged	Flange Swaged on One Side	Surface Treatment
	FC	NFC	RFC / LFC	BMC / BMR
Code	FC	NFC	RFC / LFC	BMC / BMR
Spec.	Lowers flange by cutting. FC: 0.5 mm Increment ① No surface treatment applied on flange circumference. 	Flange is not installed. (Flange included) 	Flange installed on the hub side (LFC) or the opposite side (RFC) only prior to shipping. 	Applies electroless nickel plating on a bushing. (Anti-rusting treatment applied to screws). ① Electroless nickel plated bushing decreases allowable torque by 20-30%. BMC: Non-RoHS-compliant (Screw: Dacrotized treatment applied 4137 Alloy Steel) BMR: RoHS-compliant (Screw: GeoMet coating applied 4137 Alloy Steel)