

Keyless High Torque Timing Pulleys

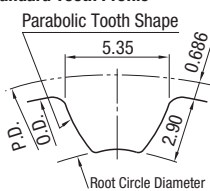
P8M Type

For High Torque Timing Belts, refer to P.1438.

Keyless High Torque Timing Pulleys – P8M Type



Standard Tooth Profile



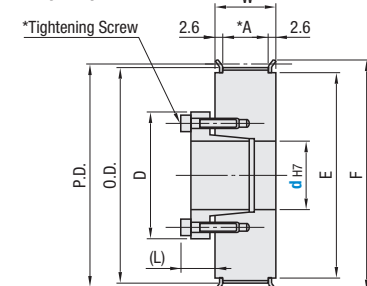
Tooth groove dimensions slightly change according to No. of teeth.
(Pitch: 8.0 mm)

ⓘ The shaft bore may not have surface treatment.

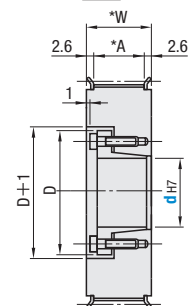
ⓘ Two types of bushings are available: Standard Type (ST Bushings) and Short Type (SH Bushings). Refer to P.1388.

Part Number		Material			Surface Treatment		
Belt Width 15mm A: 16.8 W: 22	Belt Width 25mm A: 27.8 W: 33	Pulley	Flange	Bushing	Pulley	Flange	Bushing
PTLA_P8M150	PTLA_P8M250	7075 Aluminum Alloy	5052 Aluminum Alloy	1045 Carbon Steel or Equivalent	Clear Anodize	—	—
PTLK_P8M150	PTLK_P8M250				Hard Clear Anodize*	—	—
PTLN_P8M150	PTLN_P8M250	1045 Carbon Steel or Equivalent	Low Carbon Steel	1045 Carbon Steel or Equivalent	Electroless Nickel Plating	—	—
—	PTLM_P8M250				Black Oxide	—	—
—	PTLG_P8M250	—	—	—	Electroless Nickel Plating	—	—

E Shape Pulley Shape



F Shape Pulley Shape



*Hard Anodize Treatment:
Film Hardness 300 HV min.

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

Part Number	Type	Teeth	Type, Nominal Width	Pulley Shape	d _{H7} Range (Select Shaft Bore Dia. from Table 1)				P.D.	O.D.	F	E
					P8M150		P8M250					
					E Shape (ST Bushing)	F Shape (ST Bushing)	E Shape (ST Bushing)	F Shape (SH Bushing)				
PTLA PTLK PTLN	P8M150 *A: 16.8 *W: 22	E	E	20	12 14-17	12	12 14-17	12	50.93	49.56	55	40
				22	12 14-17	12	12 14-17	56.02	54.65	61	45	
				24	12 14-20 22	12	12 14-18	61.12	59.74	67	50	
				26	16-20 22 24 25	—	16-20 22 24 25	66.21	64.84	74	58	
				28	16-20 22 24 25	—	16-20 22 24 25	71.30	69.93	80	60	
				30	16-20 22 24 25	—	16-20 22 24 25	76.39	75.02	83	63	
	P8M250 *A: 27.8 *W: 33	F	F	32	16-20 22 24 25 28 30 32 35	—	16-20 22 24 25	81.49	80.12	87	67	
				34	16-20 22 24 25 28 30 32 35	—	16-20 22 24 25 28 30 32 35	86.58	85.21	95	75	
				36	16-20 22 24 25 28 30 32 35	—	16-20 22 24 25 28 30 32 35	91.67	90.30	99	80	
				40	20 22 24 25 28 30 32 35 38 40 42	—	20 22 24 25 28 30 32 35 38 40 42	101.86	100.49	111	90	
				44	20 22 24 25 28 30 32 35 38 40 42	—	20 22 24 25 28 30 32 35 38 40 42	112.05	110.67	119	100	
				48	20 22 24 25 28 30 32 35 38 40 42	—	20 22 24 25 28 30 32 35 38 40 42 45	122.23	120.86	127	105	
50	20 22 24 25 28 30 32 35 38 40 42	—	20 22 24 25 28 30 32 35 38 40 42 45 50	127.32	125.95	135	115					
60	20 22 24 25 28 30 32 35 38 40 42	—	20 22 24 25 28 30 32 35 38 40 42 45 50	152.79	151.42	160	140					

Table 1: Select Shaft Bore Diameter

Part Number	Type	Teeth	Type, Nominal Width	Pulley Shape	d _{H7} Range (Select Shaft Bore Dia. from Table 1)				
					P8M250 / E Shape (ST Bushing)				
PTLM PTLG	E	F	F	26	20 24	66.21	64.84	73	56
				30	20 24-25	76.39	75.02	82	67
				34	20 24-25	86.58	85.21	91	77
				40	20 24-25	101.86	100.49	107	90
				48	20 24-25	122.23	120.86	127	112

d _{H7}	Max. Allowable Torque Nm		D		(L)
	ST Bushing	SH Bushing	ST Bushing	SH Bushing	
12	48	23	32	31	10.5
14	73	—	35	—	12
15	78	—	36	—	—
16	83	—	37	—	13
17	88	—	38	—	—
18	154	—	43	—	—
19	163	—	45	—	14
20	171	—	46	—	—
22	186	—	48	—	—
24	206	—	50	—	15.5
25	216	—	52	—	—
28	353	—	54	—	16.5
30	382	—	57	—	—
32	412	—	59	—	19
35	451	—	63	—	20
38	686	—	70	—	—
40	725	—	71	—	—
42	757	—	74	—	24.5
45	1490	—	84	—	—
48	1600	—	87	—	—
50	1660	—	89	—	—

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

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P8M Type, continued

Part Number Example: PTLA24P8M250 - F - 16

Teeth	Available Types					
	PTLA (x1.0)		PTLK (x1.1)		PTLN (x1.2)	
	P8M150	F Shape	P8M250	F Shape	P8M250	
	E Shape	F Shape	E Shape	F Shape	E Shape	
20	•	•	•	•	—	—
22	•	•	•	•	—	—
24	•	•	•	•	—	—
26	•	•	•	•	•	•
28	•	•	•	•	•	•
30	•	•	•	•	•	•
32	•	•	•	•	•	•
34	•	•	•	•	•	•
36	•	•	•	•	•	•
40	•	•	•	•	•	•
44	•	•	•	•	•	•
48	•	•	•	•	•	•
50	•	•	•	•	•	•
60	•	•	•	•	•	•

Part Number Alterations: PTLA30P8M250 - F - 20 - BMC

Alterations	Flange Cut	Flange Not Swaged	Flange Swaged on One Side	Surface Treatment	Pulley for Replacement (Pulley Only)
Code	FC	NFC	RFC / LFC	BMC / BMR	OP
Spec.	<p>Lowers flange by cutting. FC: 0.5 mm Increment ⓘ 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). ⓘ 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) ⓘ Not applicable to PTLM / PTLG</p>	<p>Pulleys will be shipped individually (no bushings).</p>