

High Torque Timing Pulleys

P8M Type

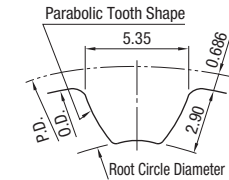
For High Torque Timing Belts, refer to P.1438. Keyless High Torque Timing Pulleys, refer to P.1406. Idlers with Teeth, refer to P.1424.

High Torque Timing Pulleys – P8M Type



Standard Tooth Profile

Tooth groove dimensions slightly change according to No. of teeth.



(Pitch: 8.0 mm)

- * Shaft bore Specifications H (Round hole), V F (Stepped hole) and Y (Both sides stepped hole) do not have tapped holes. It may have a relief in the tapped hole depending on the size.
- ⊖ Flange thickness of Aluminum Alloy is 1.5mm
- ⊖ The tolerance of the tap positional tolerance from the boss/pulley end face is ±0.3

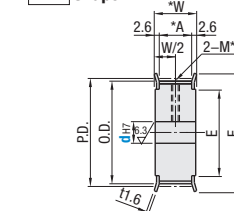
Belt Width 15 mm A: 16.8 W: 22 L: 39 (44)		Belt Width 25 mm A: 27.8 W: 33 L: 50 (55)		Material		Surface Treatment	
Pulley		Flange					
PTPA_P8M150	PTPA_P8M250	Ultra Duralumin-Based Aluminum Alloy	Aluminum Alloy	Clear Anodize	Aluminum Alloy	Hard Clear Anodize*	Electroless Nickel Plating
PTPK_P8M150	PTPK_P8M250						
PTPN_P8M150	PTPN_P8M250						
PTPM_P8M150	PTPM_P8M250	1045 Carbon Steel or Equivalent	Low Carbon Steel	Black Oxide	Low Carbon Steel	Electroless Nickel Plating	
PTPP_P8M150	PTPP_P8M250						

⊖ Flanges are installed. Set screws are included with P, N & C bore hole specification.

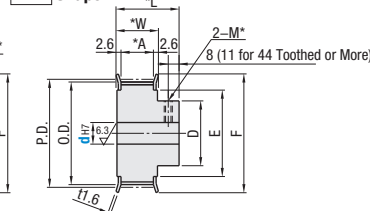
*Hard Anodize Treatment: Film Hardness 300 HV min.

Pulley Shape

A Shape



B Shape

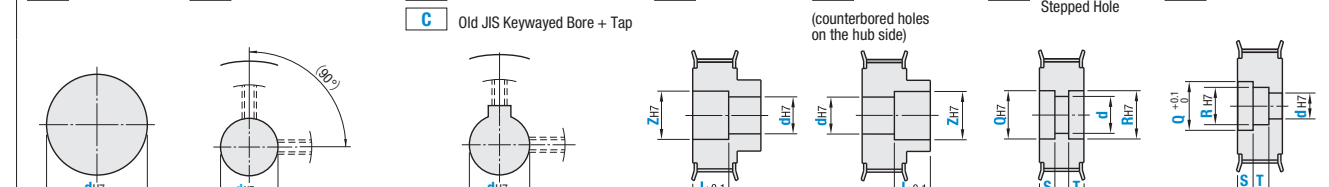


Tapped Hole Dimensions (Shaft Bore: P / N / C)

Shaft Bore Inner Dia.	M (Coarse)	Accessory Set Screw
12	M4	M4 x 3
13-17	M5	M5 x 4
18-30	M6	M6 x 5
31-45	M8	M8 x 6
46-62	M10	M10 x 8

Shaft Bore Specs. ⊖ The shaft bore may not have surface treatment.

- H** Round Hole
- P** Round Hole + Tap
- N** New JIS Keywayed Bore + Tap
- V** Stepped Hole
- F** Stepped Hole (counterbored holes on the hub side)
- Y** Both Ends Stepped Hole
- WB** Two-Stepped Hole
- C** Old JIS Keywayed Bore + Tap



- *No tapped holes and set screws
- *For A Shape the set screws are placed at around 90° to keep away from the tooth peaks.
- *For Keyway Dimension Details, refer to P.1338.
- *No tapped holes and set screws
- ⊖ Not applicable to PTPM, PTPP. *Applicable to B Shape only. *No tapped holes and set screws.
- ⊖ Not applicable to PTPM, PTPP. *Applicable to A Shape only. *No tapped holes and set screws.
- ⊖ Not applicable to PTPM, PTPP. *Applicable to A Shape only. *No tapped holes and set screws.
- *Applicable to Shape A only. *No tapped holes and set screws. ⊖ Q - R ≥ 2 ⊖ Q (R) - Y ≥ 2

Part Number	Teeth	Type, Nominal Width	Pulley Shape																P.D.	O.D.	D	F	E								
			A								B K																				
			#-#: 1mm increments, no "-": only selection of visible numbers.								#-#: 1mm increments, no "-": only selection of visible numbers.																				
7075 Aluminum Alloy PTPA PTPK PTPN	20	P8M150 *A: 16.8 *W: 22 *L: 39 (L: 44)	H	P	N	V	Y	S+T	H	P	N	V	Y	S+T	H	P	N	V	Y	S+T	Alum.	Steel	Alum.	Steel	50.93	49.56	36	55	55	40	42.5
																									56.02	54.65	41	61	62	45	45
																									61.12	59.74	46	67	66	50	50
																									66.21	64.84	51	74	73	58	56
																									71.30	69.93	55	80	79	60	63
																									76.39	75.02	60	83	82	63	67
																									81.49	80.12	65	87	86	67	71
																									86.58	85.21	70	95	91	75	77
																									91.67	90.30	75	99	97	80	80
																									101.86	100.49	85	111	107	90	90
1035 Carbon Steel Equiv. PTPM PTPP	36	P8M250 *A: 27.8 *W: 33 *L: 50 (L: 55)	H	P	N	V	Y	S+T	H	P	N	V	Y	S+T	H	P	N	V	Y	S+T	Alum.	Steel	Alum.	Steel	112.05	110.67	90	119	119	100	102
																									122.23	120.86	127	127	105	112	
																									127.32	125.95	100	135	135	115	120
																									152.79	151.42	160	158	140	140	

- ⊖ Shaft Bore Dia. 13, 14, 17, 21-50 are not available for Shaft Bore specification C.
- ⊖ L Dimensions in () are for 44-60 toothed pulleys.

High Torque Timing Pulleys

P8M Type, continued

Part Number Example	Part Number	Pulley Shape	Shaft Bore Spec. / Inner Dia.	Z	J	Q	R	S	T
Shaft Bore: H / P / N / C	PTPA50P8M250	A	H50						
Shaft Bore: V / F	PTPA48P8M250	B	V25	Z43	J25				
Shaft Bore: Y	PTPA36P8M150	A	Y20			Q32	R37	S7	T9

Part Number Alterations	Part Number	Pulley Shape	Shaft Bore Spec. / Inner Dia.	Z	J	Q	R	S	T	(KC120 / QSC / QFC / QTC / KSC / KFC / KTC / BC / NFC / RFC / LFC / FC / TPC / SLH)
	PTPA50P8M250	A	H60							QSC80 - MB

Alterations	Set Screw Angle	Side Tapped Hole	Side Counterbore Holes	Groove for Retainer Ring	Taper for Retaining Bearing
Code	KC120	QSC / QFC / QTC	ZTC-ZFC-ZSC	SRG	BTC
Spec.	Changes an angle of set screw to 120°. ⊖ For A shape pulley, the set screw hole is set at around 120° to keep away from peaks.	Machines tapped hole on the side surface of hub side. (QSC, QFC, QTC: 1 mm Increment) ⊖ Thickness required: minimum 2 mm A Shape: d+M+4≤QSC(QFC / QTC)≤E-(M+4) B Shape: d+M+4≤QSC(QFC / QTC)≤D-(M+4) ⊖ Specify KC90 when selecting QFC for the Shaft Bore specifications P and N. ⊖ The pilot hole for tapping may go through. ⊖ Not applicable to Shaft Bore Specifications F or Y. ⊖ QSC is not applicable to the Shaft Bore Specification P and N. M Selection: M3, M4, M5, M6, M8 Ordering Code: QFC28-M4	Machines counterbore holes on the side surface of the hub side. Ordering Code: ZTC28-ZM4 Z/C Selection: Please specify the hole's manufacturing position (P.C.D.) ZM Selection: ZM3, ZM4, ZM5, ZM6, ZM8 Application Notes ⊖ Not applicable for 1.5GT ⊖ Minimum thickness is 2mm ⊖ Conditions vary depending on the shaft hole specifications	Machines groove for retainer ring in line with the stepped hole of the shaft SRG Specification: 2.5-36.5mm (0.5mm increments) Application Notes ⊖ Minimum thickness is 2mm ⊖ Applicable to shaft bore specifications V, F only. ⊖ Use retainer ring groove standards for Z dimension ⊖ n ≤ J-SRG-m Ordering Code: SRG7	Add taper for retaining bearing inner ring. Ordering Code: BTC8-TL1.5 Application Notes ⊖ Applicable to Shape A only. ⊖ Applicable to shaft bore specifications H, P only. ⊖ TL < L-W

Alterations	Hub Shortening	Flange Not Swaged	Flange Swaged on One Side	Flange Cut	Tapped Hole Dimensions	Set Screw Length	Side Through Holes
Code	BC	NFC	RFC / LFC	FC	TPC	SLH	KSC-KTC-KFC
Spec.	Cuts the hub length in 0.5mm increments Ordering Code: BC6.5 Application Notes ⊖ Shaft bore specification H, V, F: 3≤BC≤L-W ⊖ Shaft bore specification P, N, C: M+3≤BC≤L-W ⊖ Not available for K, A shape	Flange is not installed. (Flange included)	Flange installed on the hub side (RFC) or the opposite side (LFC) only. ⊖ Same on A Shape	Cuts the outer diameter of the flange in 0.5mm increments Ordering Code: FC17 Application Notes ⊖ FC ≥ (O.D.) + 1 ⊖ FC ≤ F - 2 ⊖ No surface treatment applied on flange circumference.	Changes the tapped hole dimension. ⊖ Applicable to Shaft Bore specification P, N, C only.	Changes the length of the included set screws. ⊖ Applicable to Shaft Bore specification P, N, C only.	Machines through hole on the side surface of hub side. Ordering Code: KTC28-K4.5 K, C Selection: Please specify the hole's manufacturing position (P.C.D.) K Specification: K4.0-11.0 (0.5mm increments) Application Notes ⊖ Not available for K shape