

Timing Pulleys - T10

For e-Catalog non-standard products, see P.131.

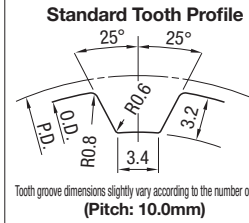
For Timing Belts, see P.1504. For Long Timing Belts, see P.1507. For Keyless High Torque Timing Pulleys, see P.1475, 1476. For Idlers with Teeth, see P.1489.



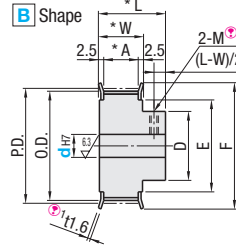
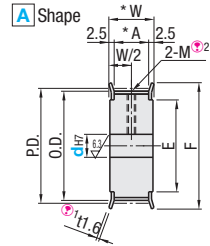
Type	Belt Width						Material ¹		Surface Treatment	Accessory ¹ Set Screws
	15mm	20mm	25mm	30mm	40mm	50mm	Pulley	Flange		
TTPA	●	●	●	●	●	●	Aluminum Alloy	Aluminum Alloy	Clear Anodize Black Anodize Hard Clear Anodize ² Electroless Nickel Plating	SUS304
TTPB	●	●	●	●	●	●				
TTPK	●	●	●	●	●	●				
TTPN	●	●	●	●	●	●				
TTPM	●	●	●	●	●	●	S45C Equivalent	SPCC	Black Oxide Electroless Nickel Plating	SCM435 (Black Oxide)
TTPP	●	●	●	●	●	●				
TTPQ	●	●	●	●	●	●				

Flange is already swaged, and set screws are included with for Shaft Bore P, N and C. ¹The above material and accessory might be changed to the ones equivalent to the originals. ²Hard Clear Anodize: Film Hardness 300HV ~

Pulley Shape



Tooth groove dimensions slightly vary according to the number of teeth. (Pitch: 10.0mm)



Tapped Hole Dimensions (Shaft Bore Specs.: P, N, C)

dH7 Shaft Bore I.D. (Coarse)	M Accessory Set Screw
8~12	M4 M4x3
13~17	M5 M5x4
18~30	M6 M6x5
31~45	M8 M8x6
46~70	M10 M10x8

- Aluminum flanges will have a thickness of 1.5.
- t=2.0 for 34, 50 and 60 toothed pulleys. (Machined Flange)
- Shaft Bore Specs.: H (Round hole), V or F (Stepped Hole), Y (Both Sides Stepped Hole) and WB (Two-stepped Hole) do not have tapped holes.

Number of Teeth / Dimension

mm	Number of Teeth																			
	12	14	15	16	18	20	22	24	25	26	28	30	32	34	36	40	44	48	50	60
P.D.	38.20	44.56	47.75	50.93	57.30	63.66	70.03	76.39	79.58	82.76	89.13	95.49	101.86	108.23	114.59	127.32	140.06	152.79	159.15	190.99
O.D.	36.35	42.70	45.90	49.05	55.45	61.80	68.15	74.55	77.70	80.90	87.25	93.65	100.00	106.40	112.75	125.45	138.20	150.95	157.30	189.10
D	-	32	33	37	40	47	50	60	63	63	70	75	85	90	95	100	100	100	100	100
F	40	48	52	58	61	67	80	87	87	95	104	111	115	123	135	152	160	170	200	
E	27	35	36	40	45	50	60	67	67	75	84	90	95	102	115	130	140	150	175	

Belt Nominal Width / Dimension

mm	Nominal					
	T10150	T10200	T10250	T10300	T10400	T10500
A	17	22	27	32	43	53
W	22	27	32	37	48	58
L Number of Teeth 12-40	37	42	47	52	61	70
L Number of Teeth 44-60	37	42	52	57	63	70

Shaft Bore Specs. Select shaft bore spec mark and each dim. from the table below. Surface treatment may not be applied to shaft bores.

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 or set screws.
For A-Shape pulley, the screw holes are set at around 120° to keep away from peaks.
For Keyway Dimension Details, see P.1413. Specify NK10 when selecting "New JIS Keywayed Bore" + "Shaft Bore Dia. 10" + "Keyway Width 4.0mm (Height 1.8mm)".
No tapped holes or set screws.
Applicable to Shape B only.
Applicable to Shape A only.
Applicable to Shape A only.
Applicable to Shape A only.

Part Number	Type	Number of Teeth	Type Nominal Width	Pulley Shape																			
				Shaft Bore Specs. "A": 1mm Increments						Shaft Bore Specs. "B": 1mm Increments													
				H(d) Round Hole	P(d) Round Hole + Tap	N(d), C(d) Keyway + Tap	V(d) Stepped Hole	Y(d) Both Ends Stepped Hole	WB(d) Two-stepped Hole	H(d) Round Hole	P(d) Round Hole + Tap	N(d), C(d) Keyway + Tap	V(d) Stepped Hole	Y(d) Both Ends Stepped Hole	WB(d) Two-stepped Hole								
Aluminum	TTPA	12	T10150	8-23	8-18	8-18	8-21	10-23															
		14		10-31	10-26	10-26	10-26	10-29	12-31														
		15		10-32	10-26	10-26	10-30	12-32															
		16		12-36	12-30	12-30	12-34	14-36															
		18		12-41	12-30	12-30	12-39	14-41															
		20		12-46	12-40	12-40	12-44	14-46															
	Steel	TTPM	22	T10200	12-56	12-48	12-48	12-54	14-56														
			24		12-63	12-50	12-50	12-61	14-63														
			25		12-63	12-50	12-50	12-61	14-63														
		TTPN	26	T10250	12-63	12-50	12-50	12-61	14-63														
			28		12-68	12-57	12-50	12-66	14-68														
			30		12-76	12-65	12-55	12-74	14-76														

Shaft Bore Dia. 9, 51-54 are not available for Shaft Bore Specs. N. Shaft Bore Dia. 8, 11, 13, 14, 17, 21-55 are not available for Shaft Bore Spec. C.

Ordering Example: Part Number - Pulley Shape - Shaft Bore Specs., I.D. - Z - J - Q - R - S - T

(Shaft Bore Specs.: H, P, N, C) TTPA14T10500 - A - NK10

(Shaft Bore Specs.: V, F) TTPA48T10500 - B - V20 - Z38 - J23.5

(Shaft Bore Specs.: Y, WB) TTPA24T10250 - A - Y25 - Q37 - R37 - S7 - T7

Number of Teeth	Body Price												Shaft Bore Machining Charge (Body Price +)							
	TTPA (x1.0)			TTPB, TTPK (x1.1)			TTPN (x1.2)			TTPM (x1.05)				TTPP (x1.15)						
	T10150	T10200	T10250	T10300	T10400	T10500	T10150	T10200	T10250	T10300	T10400	T10500		T10150	T10200	T10250				
12																				
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60																				

Alterations: Part Number - Pulley Shape - Shaft Bore Specs., I.D. - Z - J - Q - R - S - T - (KC90... etc.)

TTPA36T10250 - A - H40 - KC80 - K10

Alterations	Set Screw Angle	Flange Not Swaged	Flange Swaged on One Side	Flange Cut
Code	KC90	NFC	RFC, LFC	FC
Spec.	Changes an angle of set screw to 90°. For A-Shape pulley, the screw holes are set at around 90° to keep away from peaks.	(Flange 2 pcs. included) Ordering Code: NFC	(Flange 1 pc. included) Ordering Code: RFC	Cut the flange O.D. in 0.5mm increment. Ordering Code: FC17

Alterations	Retaining Ring Groove	Adds taper for retaining bearing	Hub Shortening	Tapped Hole Dimensions
Code	SRG	BTC	BC	TPC
Spec.	Retaining Ring Groove applicable to the shaft dia. of stepped hole is machined. Retaining Ring Groove Dim. P.1413 (Specify SRG) 2.5-49.5mm (0.5mm Increments) Minimum Thickness: 2mm Applicable to Shaft Bore Specs. V and F only. Standards of retaining ring groove for Z dim. is applied. Ordering Code: SRG7	Add taper for retaining bearing inner ring. Ordering Code: BTC12-TL3 (Application Notes) Applicable to Shape A only. Applicable to Shaft Bore Specs. H and P only. TL<L-W	Cuts the hub length in 0.5mm increment. Ordering Code: BC6.5 (Application Notes) Shaft Bore Specs. H, V, F: 3:BC<L-W Shaft Bore Specs. P, N, C: M+3:BC<L-W Not available for Shape A.	Ordering Code: TPC5 (Application Notes) Applicable to Shaft Bore Specs. P, N, C only. Set Screws: SLH10 Applicable to Shaft Bore Specs. P, N, C only.

Alterations	Side Tapped Hole	Side Through Hole	Side Counterbored
Code	QTC, QFC, QSC	KTC, KFC, KSC	ZTC, ZFC, ZSC
Spec.	Machines tapped hole on the side surface of hub side. Ordering Code: QTC28-M4 Q.C Selection Specify the hole position (P. C. D. dim.). M Selection M3, M4, M5, M6, M8 Minimum Thickness: 2mm Formula P.1414 Conditions may vary depending on the shaft bore specs. P.1414	Machines through hole on the side surface. Ordering Code: KTC28-K4.5 K.C Selection Specify the hole position (P. C. D. dim.). Code K K4.0 ~ 13.0 (0.5mm Increments) Minimum Thickness: 2mm Formula P.1414 Conditions may vary depending on the shaft bore specs. P.1414	Machines counterbored hole on the side surface. Ordering Code: ZTC28-Z4 Z.C Selection Specify the hole position (P. C. D. dim.). Z Selection ZM3, ZM4, ZM5, ZM6, ZM8 Minimum Thickness: 2mm Formula P.1414 Conditions may vary depending on the shaft bore specs. P.1414

For details, see Shaft Alteration Overview. P.1414