

Timing Pulleys - T5

■ For Timing Belts, see **P.1470** and for Long Timing Belts, see **P.1473**. For Keyless Timing Pulleys, see **P.1439**. For Idlers with Teeth, see **P.1455**.

Type	Belt Width				Material *1		Surface Treatment	Accessory Set Screws
	10mm	15mm	20mm	25mm	Pulley	Flange		
TTPA	●	●	●	●	2000 Aluminum Alloy	Aluminum Alloy	Clear Anodize	EN 1.4301 Equiv.
TTPB	●	●	●	●			Black Anodize	
TTPK	●	●	●	●			Hard Clear Anodize *2	
TTPN	●	●	●	●			Electroless Nickel Plating	
TTPPT	●	●	●	●	EN 1.1191 Equiv.	EN 1.0330 Equiv.	-	EN 1.7220 Equiv. (Black Oxide)
TTPM	●	●	●	●			Black Oxide	
TTPP	●	●	●	●			Electroless Nickel Plating	

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

●Pulley Shape

A Shape **B Shape**

Standard Tooth Profile

Tooth groove dimensions slightly vary according to the number of teeth. (Pitch:5.0mm)

⚠ Aluminum flanges will have a thickness of 1.5.
⚠ Shaft Bore Specs. H (Round hole), V or F (Stepped Hole) and Y (Both Sides 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.	19.10	22.28	23.87	25.46	28.65	31.83	35.01	38.20	39.79	41.38	44.56	47.75	50.93	54.11	57.30	63.66	70.03	76.39	79.58	95.49
O.D.	18.25	21.45	23.05	24.60	27.80	31.00	34.25	37.40	39.00	40.60	43.75	46.95	50.10	53.25	56.45	62.85	69.20	75.55	78.75	94.65
D	-	14	15	17	19	19	24	27	27	31	32	33	37	40	40	47	50	60	63	75
F	24	26	28	32	33	36	40	45	45	48	48	52	55	61	61	67	74	83	87	99
E	12	16	18	20	22	24	27	30	30	35	35	36	40	45	45	50	58	63	67	80

Belt Nominal Width / Dimension				
mm	Nominal			
	T5100	T5150	T5200	T5250
A	11	17	22	27
W	16	22	27	32
L	28	34	39	44

●Shaft Bore Specs. ⚠ Surface treatment may not be applied to shaft bores.

H Round Hole **P** Round Hole + Tap **N** New JIS Keyway Bore + Tap **C** Old JIS Keyway Bore + Tap **V** Stepped Hole **F** Stepped Hole (Counterbored Holes on the Hub Side) **Y** Both Ends Stepped Hole

⚠ 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.1377**. When selecting the shaft bore dia. 10 and the keyway width 4.0mm (height 1.8mm) for New JIS Keyway Bore, specify **NK10**. ⚠ No tapped holes or set screws. ⚠ Applicable to Shape B only. ⚠ No tapped holes or set screws. ⚠ Applicable to Shape A only. ⚠ Shaft Bore Dia. d is +0.1 / 0 ⚠ No tapped holes or set screws.

Part Number			Pulley Shape	Pulley Shape															
Type	Number of Teeth	Type Nominal Width		A								B							
				Shaft Bore Specifications (-): Specify in 1mm Increment, (,): Select the former or latter								Shaft Bore Specifications (-): Specify in 1mm Increment, (,): Select the former or latter							
			H Round Hole	P Round Hole + Tap	N, C Keyway + Tap	Stepped Hole			Both Ends Stepped			H Round Hole	P Round Hole + Tap	N, C Keyway + Tap	Stepped Hole				
						V	Z	J	Y	Q, R	S, T				V, F	Z	J		
							D-2sd	(0.1mm Increment)		Q/R	d-2						(0.1mm Increment)		
Aluminum	12	T5100	A	5, 6, 6.35, 7, 8	5, 6, 6.35, 7, 8	8	-	-	-	5, 6	7, 8	-	5, 6, 6.35, 7, 10	5, 6, 6.35, 7, 8	-	5, 6	7, 8		
	14			5, 6, 6.35, 7-10	5, 6, 6.35, 7-10	8, 10, NK10	5, 6	7, 8	5, 6	7-10	5, 6, 6.35, 7-10	5, 6, 6.35, 7-10	-	5, 6	7, 8				
	15			5, 6, 6.35, 7-10	5, 6, 6.35, 7-10	8, 10, NK10	5-8	7-10	5-8	7-10	5, 6, 6.35, 7-10	5, 6, 6.35, 7-10	-	5-8	7-10				
	16			6, 6.35, 7-12	6, 6.35, 7-12	8, 10, NK10, 11, 12	6-10	8-12	6-10	8-12	6, 6.35, 7-12	6, 6.35, 7-12	8	6-10	8-12				
	18			6, 6.35, 7-14	6, 6.35, 7-12	8, 10, NK10, 11, 12	6-12	8-14	6-12	8-14	6, 6.35, 7-14	6, 6.35, 7-11	8, 10, NK10	6-12	8-14				
	20			6, 6.35, 7-16	6, 6.35, 7-16	8, 10, NK10, 11-16	6-14	8-16	6-14	8-16	6, 6.35, 7-15	6, 6.35, 7-12	8, 10, NK10	6-13	8-15				
	22			7-19	7-18	8, 10, NK10, 11-18	7-17	9-19	7-17	9-19	7-19	7-15	8, 10, NK10, 11, 12	7-17	9-19				
	24			7-22	7-20	8, 10, NK10, 11-20	7-20	9-23	7-20	9-22	7-22	7-17	8, 10, NK10, 11-13	7-20	9-23				
	25			7-22	7-20	8, 10, NK10, 11-20	7-20	9-23	7-20	9-22	7-22	7-18	8, 10, NK10, 11-15	7-20	9-23				
	26			8-27	8-22	8, 10, NK10, 11-22	8-25	10-27	8-25	10-27	8-27	8-21	8, 10, NK10, 11-17	8-25	10-27				
Steel	28	T5200	B	8-27	8-24	8, 10, NK10, 11-24	8-25	10-27	8-25	10-27	8-27	8-22	8, 10, NK10, 11-18	8-25	10-27				
	30			10-28	10-26	8, 10, NK10, 11-26	10-26	12-28	10-26	12-28	8-28	8-23	10, NK10, 11-18	10-26	10-30				
	32			10-32	10-28	8, 10, NK10, 11-28	10-30	12-32	10-30	12-32	10-32	10-27	10, NK10, 11-22	10-30	12-35				
	34			10-37	10-30	10, NK10, 11-30	10-35	12-37	10-35	12-37	10-36	10-30	10, NK10, 11-25	10-34	12-36				
	36			10-37	10-30	10, NK10, 11-30	10-35	12-37	10-35	12-37	10-36	10-30	10, NK10, 11-25	10-34	12-36				
	40			10-42	10-38	10, NK10, 11-38	10-40	12-42	10-40	12-42	10-42	10-37	10, NK10, 11-29	10-40	12-42				
	44			12-50	12-42	12-40	12-48	14-50	12-48	14-50	12-46	12-40	12-42	12-44	14-46				
	48			12-55	12-45	12-40	12-53	14-55	12-53	14-55	12-55	12-45	12-40	12-53	14-55				
	50			12-59	12-45	12-43	12-57	14-59	12-57	14-59	12-59	12-45	12-43	12-57	14-59				
	60			12-72	12-45	12-45	12-70	14-72	12-70	14-72	12-71	12-45	12-45	12-69	14-71				

Ordering Example (Shaft Bore Specs.: H, P, N, C) **Part Number** - **Pulley Shape** - **Shaft Bore Specs., I.D.** - **Z** - **J** - **Q** - **R** - **S** - **T**

(Shaft Bore Specs.: V, F) **TTPA18T5100** - **A** - **NK10**

(Shaft Bore Specs.: Y) **TTPA30T5200** - **A** - **V10** - **Z23** - **J16.0**

TTPA48T5150 - **A** - **Y25** - **Q42** - **R37** - **S9** - **T7**

Example

Combination of these app. examples can be selected on our website.

Details about Selection Procedure **P.87**

TTBU (Timing Belt)

TTPA18T5100 (Timing Pulleys)

AHTF18T5100 (Idlers with Teeth)

Number of Teeth	Body Price																Shaft Bore Machining Charge (Body Price +)		
	TTPA (x1.0)		TTPB, TTPK (x1.1)		TTPN (x1.2)		TTPPT (x1.0)		TTPM (x1.05)		TTPP (x1.15)								
	Shape A	Shape B	Shape A	Shape B	Shape A	Shape B	Shape A	Shape B	Shape A	Shape B	Shape A	Shape B	Shape A	Shape B	P Hole	N, C, V, F Hole	Y Hole		
12		-		-		-		-		-		-		-					
14																			
15																			
16																			
18																			
20																			
22																			
24																			
25																			
26																			
28																			
30																			
32																			
34																			
36																			
40																			
44																			
48																			
50																			
60																			

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

TTPA25T5100 - **A** - **H10** - **QSC18** - **M4**

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) ⚠ For A-Shape pulley, the screw holes are set at around 90° to keep away from peaks.	(Flange 1 pc. Included) ⚠ For A-Shape pulley, the screw holes are set at around 90° to keep away from peaks.	Cut the flange O.D. in 0.5mm increment. ⚠ For A-Shape pulley, the screw holes are set at around 90° to keep away from peaks.

Alterations	Adds taper for retaining bearing	Hub Shortening	Tapped Hole Dimensions	Changes the length of the included set screws.
Code	BTC	BC	TPC	SLH
Spec.	Add taper for retaining bearing inner ring. ⚠ Applicable to Shape A only. ⚠ Available for Shaft Bore Specs. H, P only. ⚠ TL<L-W	Cuts the hub length in 0.5mm increment. ⚠ Applicable to Shape A only. ⚠ 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.	⚠ Applicable to Shaft Bore Specs. P, N, C only.	⚠ Applicable to Shaft Bore Specs. P, N, C only.

Alterations	Side Through Hole / Side Tapped Hole, 3 places	Side Through Hole / Side Tapped Hole, 4 places	Side Through Hole / Side Tapped Hole, 6 places
Code	KTC, QTC	KFC, QFC	KSC, QSC</