

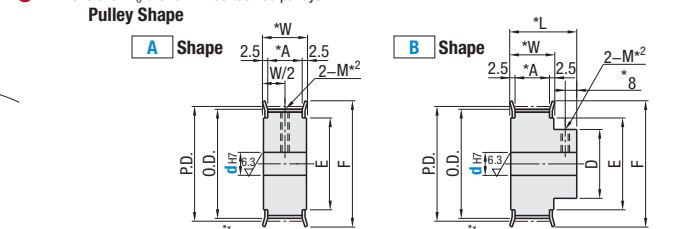
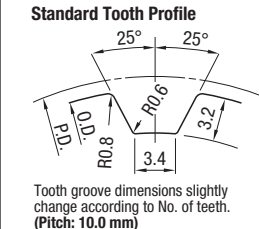
Timing Pulleys

T10 Type

For Timing Belts, refer to P.1441, Long Timing Belts, refer to P.1444, Keyless Timing Pulleys, refer to P.1410, Idlers with Teeth, refer to P.1426.

Timing Pulleys - T10 Type		Belt Width 15 mm	Belt Width 20 mm	Belt Width 25 mm	Belt Width 30 mm	Belt Width 40 mm	Belt Width 50 mm	Material		Surface Treatment	
		A: 17 W: 22 L: 37	A: 22 W: 27 L: 42	A: 27 W: 32 L: 47 (52)	A: 32 W: 37 L: 52 (57)	A: 43 W: 48 L: 61(63)	A: 53 W: 58 L: 70	Pulley	Flange		
TPA	T10150	TPA	T10200	TPA	T10250	TPA	T10300	TPA	T10400	TPA	T10500
TPB	T10150	TPB	T10200	TPB	T10250	TPB	T10300	TPB	T10400	TPB	T10500
TPK	T10150	TPK	T10200	TPK	T10250	TPK	T10300	TPK	T10400	TPK	T10500
TPN	T10150	TPN	T10200	TPN	T10250	TPN	T10300	TPN	T10400	TPN	T10500
TPPT	T10150	TPPT	T10200	TPPT	T10250	TPPT	T10300	TPPT	T10400	TPPT	T10500
TPM	T10150	TPM	T10200	TPM	T10250	TPM	T10300	TPM	T10400	TPM	T10500
TPPP	T10150	TPPP	T10200	TPPP	T10250	TPPP	T10300	TPPP	T10400	TPPP	T10500

Flanges are installed. Set screws are included with P, N & C bore hole specification. L Dimensions in () are for 44-60 toothed pulleys. *Hard Anodize Treatment. Film Hardness 300 HV min.



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

d _{H7} Shaft Bore Inner Dia.	M (Coarse)	Accessory Set Screw
8-12	M4	M4 x 3
13-17	M5	M5 x 4
18-30	M6	M6 x 5
31-45	M8	M8 x 6
46-65	M10	M10 x 8

*1 t=2.0 for 34, 50 and 60 toothed pulleys (Cut Flange). *2 Shaft Bore Specifications H (Round Hole), V,F (Stepped Hole) and Y (Both Sides Stepped Hole), do not have tapped holes. *11 for T10250 and T10300 with 44-60 teeth. (L-W)/2 for T10400 and T10500.

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
HU Inch Round Hole	PU Inch Round Hole + Tap	NU Inch New JIS Key Groove Hole + Tap				
C Old JIS Keywayed Bore + Tap						

* No tapped holes and set screws

* For A Shape pulley, the set screw hole is set at around 120° to keep away from peaks.

* For Keyway Dimension Details, refer to P.1338.

* No tapped holes and set screws

* Applicable to B Shape only. * No tapped holes and set screws.

* Applicable to A Shape only. * Shaft Bore Dia. D is general tolerance. * No tapped holes and set screws. * Q-R>=2 * R-WB>=2

* Applicable to Shape A only. * No tapped holes or set screws. * Q-R>=2 * R-WB>=2

Part Number	Type	Teeth	Type Nom. Width	Pulley Shape	Shaft Bore Spec. (1 mm Increment)																								P.D.	O.D.	D	F	E
					Shaft Bore Spec. (1 mm Increment)												Shaft Bore Spec. (1 mm Increment)																
					H		P		N/C		HU		PU		NU		V/F		Y/WB		d _{H7}		Z _{H7}		J (0.1 mm inc.)		d						
		12		A	8-23		8-18		8-18		E-G		E-G		E-G		8-21		10-23				8-21		10-23		38.20	36.35		40	27		
		14	T10150	A	10-31	10-28	10-26	10-22	10-26	10-20	F-K	F-K	F-K	F-H	F-J	F-H	10-29	10-26	12-31	12-27			10-29		12-31		44.56	42.70	32	48	35		
		15		A	10-32	10-29	10-26	10-23	10-26	10-20	F-K	F-K	F-K	F-J	F-K	F-H	10-30	10-27	12-32	12-28			10-30		12-32		47.75	45.90	33	52	36		
		16		A	12-36	12-33	12-30	12-27	12-30	12-22	F-L	F-L	F-K	F-K	F-K	F-H	12-34	12-31	14-36	14-32			12-34		14-36		50.93	49.05	37	58	40		
		18	T10200	A	12-41	12-36	12-30	12-30	12-30	12-25	F-M	F-M	F-K	F-K	F-M	F-J	12-39	12-34	14-41	14-36			12-39		14-41		57.30	55.45	40	61	45		
		20		A	12-46	12-43	12-40	12-35	12-40	12-29	F-P	F-P	F-N	F-M	F-N	F-K	12-44	12-41	14-46	14-42			12-44		14-46		63.66	61.80	47	67	50		
		22	T10250	A	12-56	12-46	12-48	12-38	12-48	12-32	F-S	F-Q	F-R	F-M	F-R	F-L	12-54	12-44	14-56	14-46			12-54		14-56		70.03	68.15	50	80	60		
		24		A	12-63	12-56	12-50	12-46	12-50	12-40	F-S	F-S	F-R	F-Q	F-R	F-L	12-61	12-54	14-63	14-56			12-61		14-63		76.39	74.55	60				
		25		A	12-63	12-59	12-50	12-49	12-50	12-43	F-S	F-S	F-R	F-Q	F-R	F-N	12-61	12-57	14-63	14-59			12-61		14-63		79.58	77.70		87	67		
		26		A	12-63	12-59	12-50	12-49	12-50	12-43	F-S	F-S	F-R	F-Q	F-R	F-P	12-61	12-57	14-63	14-59			12-61		14-63		82.76	80.90		63			
		28	T10300	A	12-68	12-66	12-57	12-56	12-50	12-48	F-S	F-S	F-S	F-S	F-R	F-P	12-66	12-64	14-68	14-66			12-66		14-68		89.13	87.25	70	95	75		
		30		A	12-76	12-71	12-65	12-61	12-55	12-50	F-S	F-S	F-S	F-S	F-R	F-R	12-74	12-69	14-76	14-71			12-74		14-76		95.49	93.65	75	104	84		
		32		A	20-80	20-80	20-70	20-65	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-80	20-79	22-82	22-81			20-80		22-82		101.86	100.00	85	111	90		
		34	T10400	A	20-80	20-84	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-80	20-82	22-92	22-86			20-80		22-92		108.23	106.40	90	115	95		
		36		A	20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-83	20-83	22-94	22-91			20-80		22-94		114.59	112.75	95	123	102		
		40		A	20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-83	20-83	22-95	22-95			20-83		22-95		127.32	125.45		135	115		
		44	T10500	A	20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-83	20-83	22-95	22-95			20-83		22-95		140.06	138.20		152	130		
		48		A	20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-83	20-83	22-95	22-95			20-83		22-95		152.79	150.95	100	160	140		
		50		A	20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-83	20-83	22-95	22-95			20-83		22-95		159.15	157.30		170	150		
		60		A	20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-83	20-83	22-95	22-95			20-83		22-95		190.99	189.10		200	175		

For inch hole dimensions detail information refer to next page. Shaft Bore Dia. 9 and 51 through 55 are not available for Shaft Bore specification N. Z-d=2 for shaft bore specification V and F. Shaft Bore Dia. 8-9, 11, 13-14, 17, 21-50 are not available for Shaft Bore specification C. Q(R)-d=2 for shaft bore specification Y. L Dimensions in () are for 44-60 toothed pulleys. Select NK10 when New JIS Keywayed Bore + Tap with shaft bore diameter of 10 and keyway width 4.0 mm (height 1.8 mm) is requested. P.1338.

Timing Pulleys

T10 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 TTPA14T10500 - A - NK10

Shaft Bore: V / F TTPA48T10500 - B - V20 - Z38 - J23.5

Shaft Bore: Y TTPA24T10250 - A - Y25 - Q37 - R37 - S7 - T7

Inch Hole Specifications

No.	Nominal	Dimension (mm)	No.	Nominal	Dimension (mm)
A	1/8	3.175	K	1	25.400
B	3/16	4.763	L	1-1/4	31.750
C	1/4	6.350	M	1-3/8	34.925
D	5/16	7.938	N	1-1/2	38.100
E	3/8	9.525	P	1-5/8	41.275
F	1/2	12.700	Q	1-3/4	44.450
G	5/8	15.875	R	1-7/8	47.625
H	3/4	19.050	S	2	50.800
J	7/8	22.225			

Part Number Alterations

Part Number - Pulley Shape - Shaft Bore Spec. / Inner Dia. - Z - J - Q - R - S - T - (KC90 / QSC / QFC / QTC / KSC / KFC / KTC / BC / NFC / RFC / LFC / FC / TPC / SLH)

TTPA36T10250 - A - H40 - KSC80 - K10

Alterations	Set Screw Angle	Side Tapped Hole	Side Counterbore Holes	Groove for Retainer Ring	Taper for Retaining Bearing
Code	KC90	QSC / QFC / QTC	ZTC-ZFC-ZSC	SRG	BTC
Spec.	Changes an angle of set screw to 90°. For A shape pulley, the set screw hole is set at around 90° to keep away from peaks.	Machines tapped hole on the side surface of hub side. 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. d=Z when the Shaft Bore Specifications is V. 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.

Timing Pulleys / Belts / Keyless Bushings

Timing Pulleys / Belts / Keyless Bushings