

# Timing Pulleys

## XL Type

For Timing Belts, refer to P.1434, Keyless Timing Pulleys, refer to P.1389, Idlers with Teeth, refer to P.1416.

### Timing Pulleys – XL Type

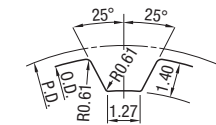


RoHS 10

Belt Width 6.4 mm (1/4")		Belt Width 7.9 mm (5/16")		Belt Width 9.5 mm (3/8")		Belt Width 12.7 mm (1/2")		Material		Surface Treatment
A: 7.5 W: 12.5 L: 21	A: 9 W: 14 L: 23	A: 11 W: 16 L: 25	A: 14 W: 19 L: 28	Pulley		Flange				
ATP_XL025	ATP_XL031	ATP_XL037	ATP_XL050	2000 Series Aluminum Alloy	Aluminum Alloy				Clear Anodize	
BTP_XL025	BTP_XL031	BTP_XL037	BTP_XL050							
KTP_XL025	KTP_XL031	KTP_XL037	KTP_XL050							
NTP_XL025	NTP_XL031	NTP_XL037	NTP_XL050							
MTP_XL025		MTP_XL037	MTP_XL050	1045 Carbon Steel or Equivalent	Low Carbon Steel			Black Oxide		
MTPB_XL025		MTPB_XL037	MTPB_XL050							
MTPP_XL025		MTPP_XL037	MTPP_XL050							
STP_XL025		STP_XL037	STP_XL050	304 Stainless Steel	304 Stainless Steel				Electroless Nickel Plating	

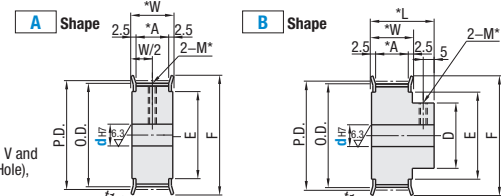
Flanges are installed. Set screws are included with P, N & C bore hole specification. \*Hard Anodize Treatment: Film Hardness 300 HV min.

### Tooth Profile (ISO Standard Rack Dimensions)



\*For Shaft Bore Specifications H (Round Hole), V and F (Stepped Hole) and Y (Both Sides Stepped Hole), no tapped hole is machined.

### Pulley Shape



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

d <sub>H7</sub> Shaft Bore Inner Dia.	M (Coarse)	Accessory Set Screw
4	M3	M3 x 3
5-12	M4	M4 x 3
13-17	M5	M5 x 4
18-30	M6	M6 x 5

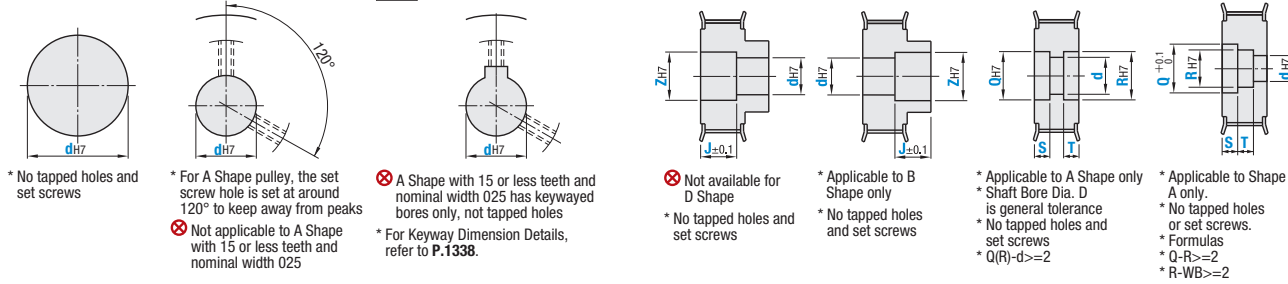
### Belt Nominal Width / Dimension

mm	XL025	XL031	XL037	XL050
A	7.5	9.0	11.0	14.0
W	12.5	14.0	16.0	19.0
L	21.0	23.0	25.0	28.0

### Number of Teeth / Dimension

mm	Number of Teeth																											
	10	11	12	14	15	16	18	19	20	21	22	24	25	26	28	30	32	34	36	38	40	42	44	46	48	50	60	72
P.D.	16.17	17.79	19.40	22.64	24.26	25.87	29.11	30.72	32.34	33.96	35.57	38.81	40.43	42.01	45.28	48.51	51.74	54.98	58.21	61.45	64.68	67.91	71.15	74.38	77.62	80.85	97.01	116.43
O.D.	15.66	17.28	18.90	22.13	23.75	25.36	28.60	30.22	31.83	33.45	35.07	38.30	39.92	41.53	44.77	48.00	51.24	54.47	57.70	60.94	64.17	67.41	70.64	73.87	77.11	80.34	96.51	115.92
D	10	10	12	15	17	17	21	21	24	24	26	26	30	30	35	35	40	40	40	40	40	40	40	40	40	40	40	40
F	24	24	25	28	32	32	36	36	40	40	45	45	48	48	55	55	61	61	67	67	74	74	80	80	87	87	104	123
E	12	12	15	18	20	20	24	24	27	27	30	30	35	35	40	40	45	45	50	50	58	58	60	60	67	67	84	102

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



Part Number	Type	Teeth	Type Nominal Width	Pulley Shape	Shaft Bore Specs	Shaft Bore Spec. (1mm Increment)																															
						H				P				N / C				HU				PU				NU				V / F				Y / WB			
						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 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 Shape				
2017 Aluminum Alloy	ATP	10	XL025	A	H	4-8	4-5	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6								
1045 Carbon Steel or Equivalent	MTP	10	XL037	A	A	10-36	10-35	10-30	10-30	10-30	10-30	10-25	F-M	F-M	F-K	F-K	F-K	F-K	F-L	F-L	F-L	F-L	10-39	10-34	12-41	12-36	10-34	12-41	10-34	12-41							
304 Stainless Steel	STP	10	XL050	A	A	10-54	10-36	10-35	10-30	10-35	10-25	F-S	F-M	F-K	F-K	F-K	F-K	F-L	F-L	F-L	F-L	10-52	10-34	12-54	12-36	10-54	12-54	10-54	12-54								

For inch hole dimensions detail information refer to next page. Shaft Bore Dia. 8, 9, 11, 13, 14, 17, 20-35 are not available for Shaft Bore specification C. STP is available for \* marked No. of teeth only. Shaft Bore Dia. 9 is not available for Shaft Bore specification N. A Shape with 15 or less teeth and nominal width 025 is not available for shaft bore specification P, and no tapped holes for shaft bore specifications N and C. Z-ds=2 for Shaft Bore Specification V. Q(R)-ds=2 for shaft bore specification Y. Shaft Bore Dia. 6.35 is selectable for Shaft Bore specifications H, P, V and F. 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

## XL Type, continued

Part Number Example: ATP24XL037 - B - N10 - Z28 - J16.0 - Q32 - R32 - S7 - T7

Part Number: ATP60XL050 - A - V20 - Z28 - J16.0 - Q32 - R32 - S7 - T7

Part Number: ATP40XL050 - A - Y20 - Z28 - J16.0 - Q32 - R32 - 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: ATP36XL037 - B - H15 - Z - J - Q - R - S - T - (KC90 / QSC / QFC / QTC / KSC / KFC / KTC / BC / NFC / RFC / LFC / FC / TPC / SLH) - KSC25 - K5

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. (QSC, QFC, QTC: 1 mm Increment) 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. The pilot hole for tapping may go through. 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. M TPC M3 M4 M4 M3, M5 M5 M4, M6 M6 M5 Ordering Code: TPC5	Changes the length of the included set screws. Applicable to Shaft Bore specification P, N, C only. Not applicable to Stainless. Set Screw SLH M3 x 3 6 M4 x 3 5.8 M5 x 4 6.10 M6 x 5 10 Ordering Code: SLH10	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.