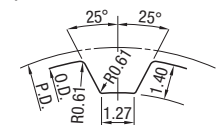


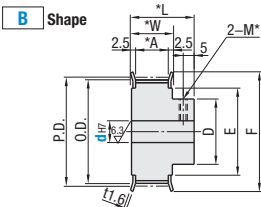
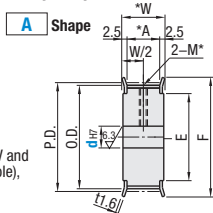
XL Type

Timing Pulleys / Belts / Keyless Bushings



*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

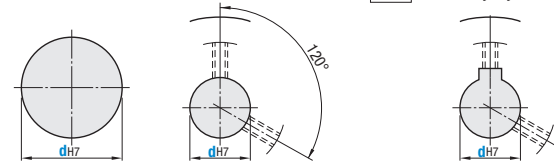


d _{HT} Shaft Bore Inner Dia.	M (Coarse)	Accessory Set Screw
4	M3	M3 x 3
5-12	M4	M4 x 3
13-17	M5	M5 x 4
18-30	M6	M6 x 5

mm	Nominal			
	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

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

H	Round Hole	P	Round Hole + Tap	N	New JIS Keywayed Bore + Tap
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

⊗ A Shape with 15 or less teeth and nominal width 025 has keywayed bores only, not tapped holes

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

 Not available for D Shape

* Applicable to B Shape only

* Applicable to A Shape only
* Shaft Bore Dia. D

* Applicable to Shape A only.

- * No tapped holes or set screws.
- * Formulas
- * $Q-R \geq 2$
- * $R-WB \geq 2$

[illegible]

- ① 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.
 ① STP is available for * marked No. of teeth only. ⓧ Shaft Bore Dia. 9 is not available for Shaft Bore specification N.
 ① 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.
 ① Z-d2 for Shaft Bore Specification Y. ① Q(R)-d2 for shaft bore specification Y. ① Shaft Bore Dia. 6.35 is selectable for Shaft Bore specifications H, P, V and F.
 ① Select NK10 when New JIS Keywaved Bore + Tap with shaft bore diameter of 10 and keyway width 4.0 mm (height 1.8 mm) is requested. **P.1338.**

XL Type, *continued*

Part Number	Pulley Shape	Shaft Bore Spec. / Inner Dia.	Z	J	Q	R	S	T
Shaft Bore : H / P / N / C ATP24XL037	B	N10						
Shaft Bore: V / F ATP60XL050	A	V20	- Z28	- J16.0				
Shaft Bore: Y ATP40XL050	A	Y20			- Q32	- R32	- S7	- T7


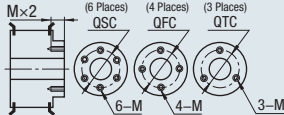
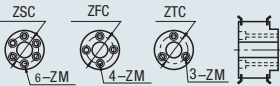
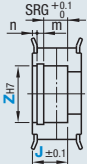
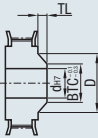
No.	Nominal	Dimension (mm)
A	1/8	3.175
B	3/16	4.763
C	1/4	6.350
D	5/16	7.938
E	3/8	9.525
F	1/2	12.700
G	5/8	15.875
H	3/4	19.050
J	7/8	22.225

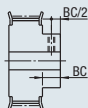

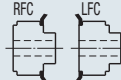

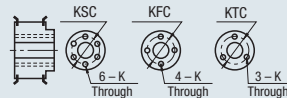
No.	Nominal	Dimension (mm)
K	1	25.400
L	1-1/4	31.750
M	1-3/8	34.925
N	1-1/2	38.100
P	1-5/8	41.275
Q	1-3/4	44.450
R	1-7/8	47.625
S	2	50.800



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)

ATP36XL037 - B - H15 - KSC25 - K5

Alterations	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.	<p>Changes an angle of set screw to 90°.</p> <p>① For A shape pulley, the set screw hole is set at around 90° to keep away from peaks.</p> 	<p>Machines tapped hole on the side surface of hub side.</p> <p>(QSC, QFC, QTC: 1 mm Increment)</p> <p>① Thickness required: minimum 2 mm</p> <p>A Shape: $d+M+4 \leq QSC(QFC / QTC) \leq E-(M+4)$ B Shape: $d+M+4 \leq QSC(QFC / QTC) \leq D-(M+4)$</p> <p>① Specify KC90 when selecting QFC for the Shaft Bore Specifications P and N.</p> <p>① $d=Z$ when the Shaft Bore Specifications is V.</p> <p>① The pilot hole for tapping may go through.</p> <p>⊗ Not applicable to Shaft Bore Specifications F or Y.</p> <p>⊗ QSC is not applicable to the Shaft Bore Specification P and N.</p> <p>M Selection: M3, M4, M5, M6, M8 Ordering Code: QFC28-M4</p> 	<p>Machines countbore holes on the side surface of the hub side.</p> <p>Ordering Code: ZTC28-ZM4</p> <p>Z/C Selection: Please specify the hole's manufacturing position (P.C.D.)</p> <p>ZM Selection: ZM3, ZM4, ZM5, ZM6, ZM8</p> <p>Application Notes</p> <p>⊗ Not applicable for 1.5GT</p> <p>① Minimum thickness is 2mm</p> <p>① Conditions vary depending on the shaft hole specifications</p> 	<p>Machines groove for retainer ring in line with the stepped hole of the shaft</p> <p>SRG Specification: 2.5-36.5mm (0.5mm increments)</p> <p>Application Notes</p> <p>① Minimum thickness is 2mm</p> <p>① Applicable to shaft bore specifications V, F only.</p> <p>① Use retainer ring groove standards for Z dimension</p> <p>① $n \leq J-SRG-m$</p> <p>Ordering Code: SRG7</p> 	<p>Add taper for retaining bearing inner ring</p> <p>Ordering Code: BTC8-TL1.5</p> <p>Application Notes</p> <p>① Applicable to Shape A only.</p> <p>① Applicable to shaft bore specifications H, P only.</p> <p>① $TL < L-W$</p> 

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.	<p>Cuts the hub length in 0.5mm increments</p> <p>Ordering Code: BC6.5</p> <p>Application Notes</p> <p>① Shaft Bore specification H, V, F: $3 \leq BC \leq L - W$</p> <p>① Shaft Bore specification P, N, C: $M + 3 \leq BC \leq L - W$</p> <p>✗ Not available for K, A shape</p> 	<p>Flange is not installed. (Flange included)</p> 	<p>Flange installed on the hub side (RFC) or the opposite side (LFC) only.</p> <p>① Same on A Shape</p> 	<p>Cuts the outer diameter of the flange in 0.5mm increments</p> <p>Ordering Code: FC17</p> <p>Application Notes</p> <p>① $FC \geq (O.D.) + 1$</p> <p>① $FC \leq F - 2$</p> <p>① No surface treatment applied on flange circumference.</p> 	<p>Changes the tapped hole dimension.</p> <p>① Applicable to Shaft Bore specification P, N, C only.</p> <table border="1"><thead><tr><th>M</th><th>TPC</th></tr></thead><tbody><tr><td>M3</td><td>M4</td></tr><tr><td>M4</td><td>M3, M5</td></tr><tr><td>M5</td><td>M4, M6</td></tr><tr><td>M6</td><td>M5</td></tr></tbody></table> <p>Ordering Code: TPC5</p>	M	TPC	M3	M4	M4	M3, M5	M5	M4, M6	M6	M5	<p>Changes the length of the included set screws.</p> <p>① Applicable to Shaft Bore specification P, N, C only.</p> <p>✗ Not applicable to Stainless</p> <table border="1"><thead><tr><th>Set Screw</th><th>SLH</th></tr></thead><tbody><tr><td>M3 x 3</td><td>6</td></tr><tr><td>M4 x 3</td><td>5, 8</td></tr><tr><td>M5 x 4</td><td>6, 10</td></tr><tr><td>M6 x 5</td><td>10</td></tr></tbody></table> <p>Ordering Code: SLH10</p>	Set Screw	SLH	M3 x 3	6	M4 x 3	5, 8	M5 x 4	6, 10	M6 x 5	10	<p>Machines through hole on the side surface of hub side.</p> <p>Ordering Code: KTC28-K4.5</p> <p>K, C Selection: Please specify the hole's manufacturing position (P.C.D.)</p> <p>K Specification: K4.0-11.0 (0.5mm increments)</p> <p>Application Notes</p> <p>✗ Not available for K shape</p> 
	M	TPC																									
M3	M4																										
M4	M3, M5																										
M5	M4, M6																										
M6	M5																										
Set Screw	SLH																										
M3 x 3	6																										
M4 x 3	5, 8																										
M5 x 4	6, 10																										
M6 x 5	10																										