

High Torque Timing Pulleys

S8M Type

For Non-Backlash Timing Pulleys, refer to P.1372, Super High Torque Timing Belts, refer to P.1440, High Torque Timing Belts, refer to P.1436, Keyless High Torque Timing Pulleys, refer to P.1402 Idlers with Teeth, refer to P.1422.

High Torque Timing Pulleys – S8M Type



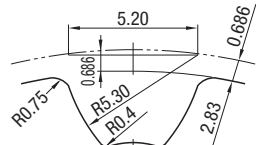
RoHS 10

Belt Width 15 mm				Belt Width 25 mm				Belt Width 30 mm				Belt Width 40 mm				Material		Surface Treatment
A: 17 W: 22 L: 37(42)				A: 28 W: 33 L: 48(53)				A: 33 W: 38 L: 53(58)				A: 44 W: 49 L: 64(69)				Pulley	Flange	Surface Treatment
HTPA	S8M150	HTPA	S8M250	HTPA	S8M300	HTPA	S8M400	Ultra Duralumin-Based Aluminum Alloy	Aluminum Alloy	Clear Anodize								
HTPB	S8M150	HTPB	S8M250	HTPB	S8M300	HTPB	S8M400	1045 Carbon Steel or Equivalent	Low Carbon Steel	Black Anodize								
HTPK	S8M150	HTPK	S8M250	HTPK	S8M300	HTPK	S8M400			Hard Clear Anodize*								
HTPN	S8M150	HTPN	S8M250	HTPN	S8M300	HTPN	S8M400			Electroless Nickel Plating								
HTPT	S8M150	HTPT	S8M250	HTPT	S8M300	HTPT	S8M400											
HTPM	S8M150	HTPM	S8M250	HTPM	S8M300	HTPM	S8M400			Black Oxide								
HTPP	S8M150	HTPP	S8M250	HTPP	S8M300	HTPP	S8M400			Electroless Nickel Plating								

Ⓛ Flanges are installed. Set screws are included with P, N & C bore hole specification.
Ⓛ L Dimensions in () are for 44-72 toothed pulleys.

*Hard Anodize Treatment: Film Hardness 300 HV min.

Standard Tooth Profile



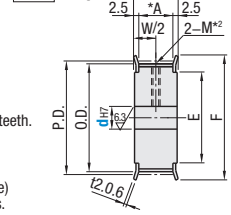
Tooth groove dimensions slightly change according to No. of teeth.
(Pitch: 8.0 mm)

*1 t=2.0 for 72 toothed pulleys (Cut Flange).

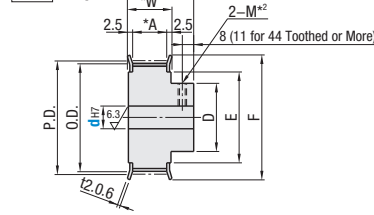
*2 Shaft Bore Specifications H (Round Hole), V,F (Stepped Hole) and Y (Both Sides Stepped Hole), do not have tapped holes.

Pulley Shape

A Shape



B Shape

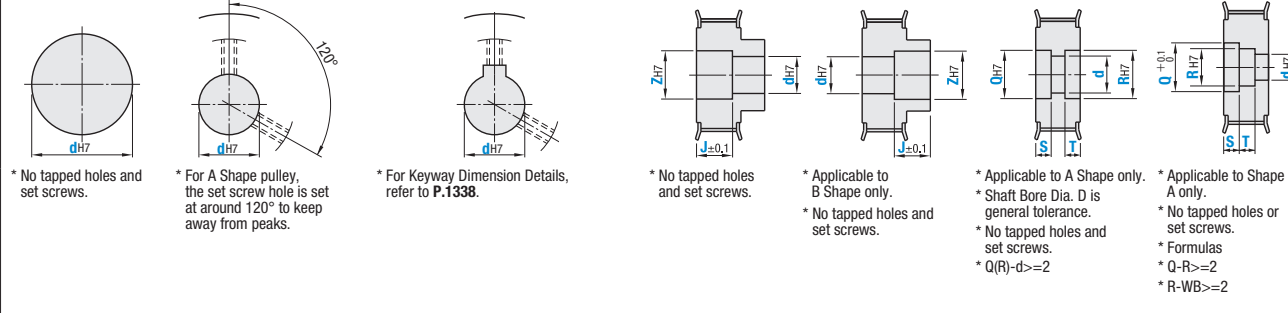


Tapped Hole Dimensions (Shaft Bore: P / N / C)

d _{H7} Shaft Bore Inner Dia.	M (Coarse)	Accessories Set Screw
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

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				



Catalog No.	Type	Teeth	Type Nom. Width	Pulley Shape	Shaft Bore Spec. (1 mm Increment)																					P.D.	O.D.	D	F	E																			
					H												P				N/C				HU						PU				NU				V/F				Y/WB						
					A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A						B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
18		18		H	12-32	12-28	12-26	12-22	12-26	12-20	F-K	F-K	F-K	F-H	F-K	F-H	12-30	12-26	14-32	14-28	12-30	14-32	45.84	44.46	32	52	36																						
19		19		H	12-36	12-31	12-28	12-25	12-28	12-20	F-L	F-K	F-K	F-J	F-K	F-H	12-34	12-29	14-36	14-31	12-34	14-36	48.38	47.01	35	55	40																						
20		20		H	12-36	12-32	12-28	12-26	12-30	12-22	F-L	F-L	F-K	F-K	F-H	12-34	12-30	14-36	14-32	12-34	14-36	50.93	49.56	36	58																								
21	S8M150	21	*A: 17	H	12-41	12-36	12-32	12-30	12-32	12-24	F-M	F-M	F-L	F-K	F-L	F-J	12-39	12-34	14-41	14-36	12-39	14-41	53.48	52.10	40	61	45																						
22		22	*W: 22	HU	12-41	12-37	12-34	12-30	12-34	12-25	F-M	F-M	F-L	F-K	F-L	F-J	12-39	12-35	14-41	14-37	12-39	14-41	56.02	54.65	41	61	45																						
24		24	*L: 37 (L: 42)	P	12-46	12-42	12-40	12-34	12-40	12-28	F-P	F-P	F-N	F-L	F-N	F-K	12-44	12-40	14-46	14-42	12-44	14-46	61.12	59.74	46	67	50																						
25	S8M250	25	*A: 28	P	12-52	12-44	12-40	12-36	12-40	12-28	F-R	F-P	F-N	F-M	F-N	F-K	12-50	12-42	14-52	14-44	12-50	14-52	63.66	62.29	48	70	56																						
26		26	*W: 33	PU	14-54	14-47	14-45	14-43	14-45	14-31	G-R	G-Q	G-N	G-N	G-K	14-52	14-45	16-54	16-47	14-52	16-54	66.21	64.84	51	74	58																							
28		28	*L: 48 (L: 53)	A	14-56	14-51	14-48	14-43	14-48	14-35	G-S	G-S	G-R	G-P	G-R	G-M	14-54	14-49	16-56	16-51	14-54	16-56	71.30	69.93	55	80	60																						
30		30		N	14-63	14-56	14-50	14-46	14-50	14-38	G-S	G-S	G-R	G-Q	G-R	G-M	14-61	14-54	16-63	16-56	14-61	16-63	76.39	75.02	60	87	67																						
32	S8M300	32	*A: 33	NU	14-63	14-59	14-55	14-49	14-55	14-45	G-S	G-S	G-S	G-R	G-R	G-Q	14-61	14-57	16-63	16-59	14-61	16-63	81.49	80.12	63	87	67																						
34		34	*W: 38	B	16-67	16-66	16-60	16-56	16-55	16-48	H-S	H-S	H-S	H-S	H-R	H-R	16-65	16-64	18-67	18-66	16-65	18-67	86.58	85.21	70	95	75																						
36		36	*L: 53 (L: 58)	C	16-72	16-71	16-65	16-61	16-55	16-50	H-S	H-S	H-S	H-S	H-R	H-R	16-70	16-69	18-72	18-71	16-70	18-72	91.67	90.30	75	99	80																						
38		38		V	16-76	16-76	16-65	16-65	16-55	16-50	H-S	H-S	H-S	H-S	H-R	H-R	16-74	16-74	18-76	18-76	16-74	18-76	96.77	95.39	80	104	84																						
40	S8M400	40	*A: 44	F	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	100.49	85	111	90																						
44		44	*W: 49	Y	20-85	20-80	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-85	20-84	22-92	22-86	20-85	22-92	112.05	110.67	90	119	100																						
48		48	*L: 64 (L: 69)		20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-85	20-85	22-95	22-95	20-85	22-95	122.23	120.86	100	135	115																						
50		50			20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-85	20-85	22-95	22-95	20-85	22-95	127.32	125.95	100	135	115																						
60		60			20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-85	20-85	22-95	22-95	20-85	22-95	152.79	151.42	100	160	140																						
72		72			20-85	20-85	20-70	20-70	20-55	20-55	J-S	J-S	J-S	J-S	J-R	J-R	20-85	20-85	22-95	22-95	20-85	22-95	183.35	181.97	100	190	170																						

Ⓛ For inch hole dimensions detail information refer to next page. Ⓛ Shaft Bore Dia. 13-14, 17, 21-55 are not available for Shaft Bore specification C. Ⓛ Z-d≥2 for shaft bore specification V and F.
Ⓛ Q(R)-d≥2 for shaft bore specification Y. Ⓛ L Dimensions in () are for 44-72 toothed pulleys. Ⓛ For shaft hole specification N, shaft hole diameters 51 to 54 can not be manufactured.

High Torque Timing Pulleys

S8M Type, continued



Part Number	Part Number	Pulley Shape	Shaft Bore Spec. / Inner Dia.	Z	J	Q	R	S	T
Example	Shaft Bore: H / P / N / C HTPA36S8M250	A	H65						
	Shaft Bore: V / F HTPA30S8M300	B	V20	Z38	J23.0				
	Shaft Bore: Y HTPA40S8M250	A	Y30				Q62	R47	S16
									T9

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	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)
HTPM60S8M250	A	H65							KSC80 - K8

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 2mm. 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 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