

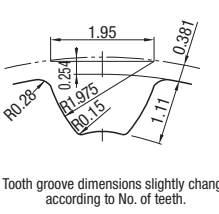
# High Torque Timing Pulleys S3M Type

For High Torque Timing Belts, refer to **P.1179**, for Keyless High Torque Timing Pulleys, refer to **P.1143**, for Idlers with Teeth, refer to **P.1163**



RoHS

**Standard Tooth Profile**



Tooth groove dimensions slightly change according to No. of teeth.

(Pitch: 3.0mm)

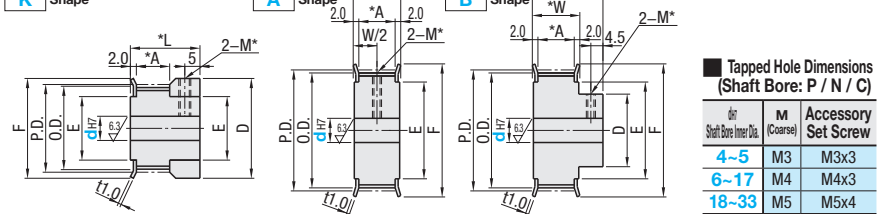
\*For Shaft Bore Specifications H (Round Hole), V (Stepped Hole) and Y (Both Sides Stepped Hole), no tapped hole is machined.

Part Number			Material		Surface Treatment	
Belt Width 6mm	Belt Width 10mm	Belt Width 15mm	Pulley	Flange	Surface Treatment	
A: 7 W: 11 L: 19	A: 11 W: 15 L: 23	A: 17 W: 21 L: 29	2017 Aluminum Alloy (Duralumin)	5052 Aluminum Alloy	Clear Anodize	
HTPA S3M060	HTPA S3M100	HTPA S3M150	1045 Carbon Steel	Low Carbon Steel	Black Oxide	
HTPB S3M060	HTPB S3M100	HTPB S3M150	304 Stainless Steel	304 Stainless Steel	Electroless Nickel Plating	
HTPK S3M060	HTPK S3M100	HTPK S3M150				
HTPN S3M060	HTPN S3M100	HTPN S3M150				
HTPT S3M060	HTPT S3M100	HTPT S3M150				
HTPM S3M060	HTPM S3M100	HTPM S3M150				
HTPP S3M060	HTPP S3M100	HTPP S3M150				
HTPS S3M060	HTPS S3M100	HTPS S3M150				

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

**Pulley Shape**

**K Shape**

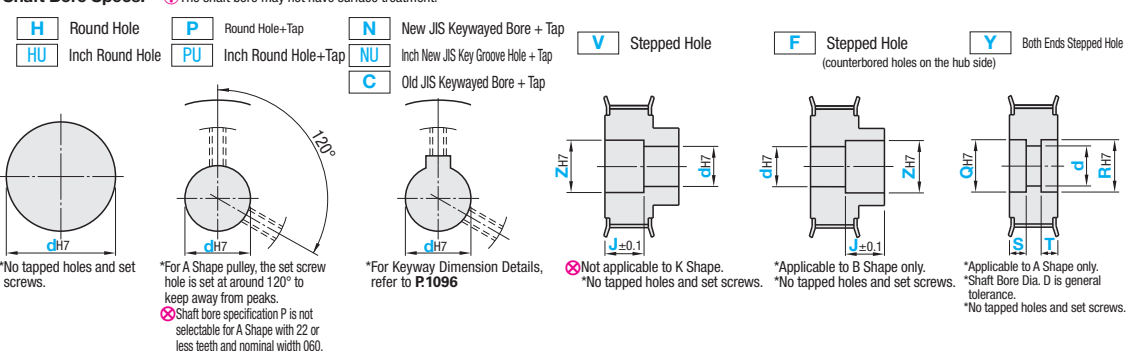


**Tapped Hole Dimensions (Shaft Bore: P / N / C)**

Shaft Bore Inner Dia.	M (Coarse)	Accessory Set Screw
4~5	M3	M3x3
6~17	M4	M4x3
18~33	M5	M5x4
34~42	M6	M6x5

**Shaft Bore Specs.**

The shaft bore may not have surface treatment.



Part Number	Pulley Shape	Shaft Bore Spec.	Shaft Bore Spec. (1mm Increment)												P.D.	O.D.	D	F	E		
			H	P	N/C	HU	PU	NU	V/F	Y	dH7	dH7	dH7	dH7							
14	A	K	4.5/6	4.5/6	4.5/6	B	B	B	B	B	B	4	6	13.37	12.61	16	16	10			
15			4.5/6	4.5/6	4.5/6	B	B	B	B	B	B	B	4	6	14.32	13.56	18	18	11		
16			4.7	4.7	4.7	B-C	B-C	B-C	B-C	B-C	B-C	B-C	4.5	6.7	15.28	14.52	18	18	11		
18*			4.8	4.8	4.5	4-8	B-D	B-D	B-D	B-D	B-D	B-D	4.5/6	6.7, 8	17.19	16.43	20	20	13		
19			4.9	4.8	4.5	4-8	B-D	B-D	B-D	B-D	B-D	B-D	4.5/6	6.7, 8	18.14	17.38	22	22	14		
20*			4.9	4.8	4.5	4-8	B-D	B-D	B-D	B-D	B-D	B-D	4.7	6.9	19.10	18.34	22	22	14		
22*			4.10	4.10	4.8	4-10	B-E	B-E	B-D	B-E	B-E	B-E	4.7	6.9	21.01	20.25	25	25	16		
24*			4.10	4.10	4.8	4-10	B-E	B-E	B-E	B-E	B-E	B-E	4.7	6.9	22.92	22.16	14	25	16		
25*			4.11	4.11	4.11	4-10	8.10, 11	8	B-E	B-E	B-E	E	D	4-8	6-11	23.87	23.11	16	10	10	
26			5.11	5.11	5.11	5-10	8.10, 11	8	B-E	C-E	C-E	C-E	E	D	5-8	5-8	24.83	24.07	16	28	18
28*			5.13	5.13	5.13	5-10	8-13	8	B-F	C-F	C-F	C-E	E	F	D	5-10	5-10	7-11	7-10	20	
30*			6.15	6.15	6.14	6-12	8-14	8-11	C-F	C-F	C-F	C-F	D	E	6-13	6-13	8-15	8-15	32	23	
32*			6.17	6.16	6.16	6-12	8-16	8-11	C-G	C-G	C-G	C-G	E-G	D	E	6-15	6-14	8-17	8-16	30	
34*			6.20	6.20	6.18	6-18	8-18	8-13	C-H	C-H	C-G	C-G	D-F	6-18	6-18	8-23	8-23	32.47	31.71	20	
36*	6.20	6.20	6.18	6-18	8-18	8-13	C-H	C-H	C-G	C-G	D-F	6-18	6-18	8-23	8-23	34.38	33.62	26	40	28	
40*	8.24	8.24	8.23	8-21	8-23	8-16	E-J	E-J	E-J	E-J	E-G	8-22	8-22	10-24	10-24	38.20	37.44	30	44	32	
44	8.28	8.28	8.25	8-23	8-25	8-18	E-K	E-K	E-J	E-J	E-G	8-26	8-26	10-28	10-28	42.02	41.25	32	48	36	
48	8.30	8.30	8.25	8-25	8-25	8-20	E-K	E-K	E-J	E-J	E-G	8-28	8-28	10-30	10-30	45.84	45.07	34	50	38	
50	8.32	8.30	8.28	8-25	8-28	8-20	E-L	E-K	E-K	E-K	E-H	8-30	8-28	10-32	10-30	47.75	46.98	34	52	40	
60	8.38	8.35	8.33	8-30	8-32	8-22	E-M	E-M	E-L	E-K	E-L	8-36	8-33	10-38	10-35	57.30	56.53	39	61	46	
72	8.50	8.46	8.42	8-38	8-40	8-32	E-S	E-Q	E-P	E-N	E-N	8-48	8-44	10-50	10-46	68.75	67.99	50	74	58	

For inch hole dimensions detail information refer to next page.  
 HTPS is available for \* marked No. of teeth only.  
 Z-d=2 for shaft bore specification V and F.  
 Q(R)-d=2 for shaft bore specification Y.  
 Shaft Bore Dia. 6.35 is selectable for Shaft Bore specifications H, P, V and F.Q (R)-d=2 for shaft bore specification Y.  
 Select NK10 when New JIS Keywayed Bore + Tap with shaft bore diameter of 10 and keyway width 4.0mm (height 1.8mm) is requested. **P.1096**

**Order Example**

Part Number	-	Pulley Shape	-	Shaft Bore Spec./Inner Dia.	-	Z	-	J	-	Q	-	R	-	S	-	T
(Shaft Bore: H / P / N / C)	HTPA32S3M100	A	C16													
(Shaft Bore: V / F)	HTPA48S3M150	A	V12	Z26	J17.0											
(Shaft Bore: Y)	HTPA36S3M100	A	Y10			Q19	R15	S5	T4							

**Inch Hole Specifications**

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
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



**Volume Discount Rate**

Quantity	1~4	5~9	10~14	15~29	30~50
Rate	Unit Price				
Days to Ship	Standard				+12 Days

The prices of HTPM is the body price in the table multiplied by 1.05, while the prices of HTPB and HTPK are multiplied by 1.1, the prices of HTPP are multiplied by 1.15, and the price of HTPN is multiplied by 1.2.  
 Product price is the sum of body price and shaft bore machining charge.  
 H, HU bore machining is free of charge.

Teeth	Body Price										Shaft Bore Machining Charge (Body Price+)			
	HTPA(x1.0)	HTPB / HTPK(x1.1)	HTPN(x1.2)	HTPT(x1.0)	HTPM(x1.05)	HTPP(x1.15)	HTPS(x1.0)	HTPA / HTPB / HTPK / HTPN	HTPT / HTPM / HTPP	HTPS	P/PU	N/NU	C/V/F	Y
14	S3M060	S3M100	S3M150	S3M060	S3M100	S3M150	S3M060	S3M100	S3M150					
15														
16														
18														
19														
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48														
50														
60														
72														

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)  
 HTPA60S3M100 - A - H16 - Z - J - Q - R - S - T - KC25 - K4

Alterations	Set Screw Angle	Side Tapped Hole			Side Through Hole		
		QSC / QFC / QTC	KSC / KFC / KTC	BC	NFC	RFC / LFC	FC
Code	KC90	QSC / QFC / QTC			KSC / KFC / KTC		
Spec.	Changes an angle of set screw to 30°. 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: 1mm Increment) 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) d=Z when the Shaft Bore Specifications is V. M Selection: M3, M4, M5, M6, M8 Ordering Code: QFC28-M4			Machines through hole on the side surface of hub side. (KSC, KFC, KTC: 1mm Increment) Thickness required: minimum 2mm A Shape: d+K+4<KSC(KFC / KTC)<E-(K+4) B Shape: d+K+4<KSC(KFC / KTC)<D-(K+4) d=Z when the Shaft Bore Specifications is V. When the Shaft Bore Specifications are P, N or C, KSC is not applicable. When the Shaft Bore Specifications are P, N or C, KFC is not applicable. When the Shaft Bore Specifications are P, N or C, KTC is not applicable. K4.0~K13.0 (0.5mm Increment) Ordering Code: KSC20-K5		
Price Adder							
Alterations		BC	NFC	RFC / LFC	FC	TPC	SLH
Code		BC	NFC	RFC / LFC	FC	TPC	SLH
Spec.		Cuts the hub length in 0.5mm increment. Shaft Bore specification H, V, F, 3-BC-L-W Shaft Bore specification: P, N, C, M-3-BC-L-W	Flange is not installed. (Flange included)	Flange installed on the hub side (RFC) or the opposite side (LFC) only. Same on A Shape. Not applicable to K Shape.	Lowers flange by cutting. FC: 0.5mm increment. Not available for Stainless Steel Type. 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.
Price Adder							