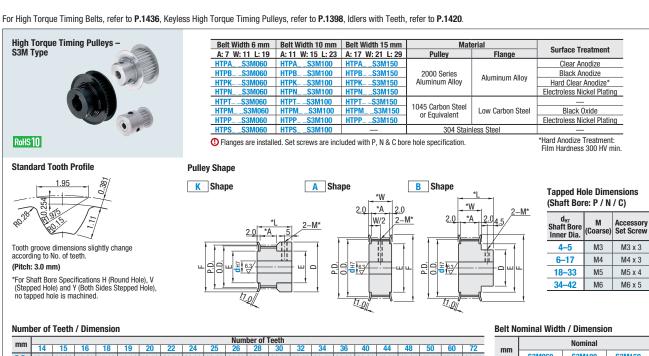
High Torque Timing Pulleys

S3M Type

Timing Pulleys / Belts / Keyless Bushings



mm Number of Teeth																					
1111111	14	15	16	18	19	20	22	24	25	26	28	30	32	34	36	40	44	48	50	60	72
P.D.	13.37	14.32	15.28	17.19	18.14	19.10	21.01	22.92	23.87	24.83	26.74	28.65	30.56	32.47	34.38	38.20	42.02	45.84	47.75	57.30	68.75
0.D.	12.61	13.56	14.52	16.43	17.38	18.34	20.25	22.16	23.11	24.07	25.98	27.89	29.80	31.71	33.62	37.44	41.25	45.07	46.98	56.53	67.99
D	16	18	18	20	22	22	25	14	16	16	18	20	20	26	26	30	32	34	34	39	50
F	16	18	18	20	22	22	25	25	28	28	30	32	35	40	40	44	48	50	52	61	74
E	10	11	11	13	14	14	16	16	18	18	20	23	25	28	28	32	36	38	40	46	58

50	60	72	mm										
	57.30	68.75	"""	S3M060	S3M100	S3M150							
	56.53	67.99	Α	7	11	17							
34	39	50	W	11	15	21							
52	61	74	VV	- ''	10	21							
40	46	58	L	19	23	29							

M Accessory (Coarse) Set Screw M3 M3 x 3

M4 M4 x 3

WB Two-Stepped

* Applicable to Shape

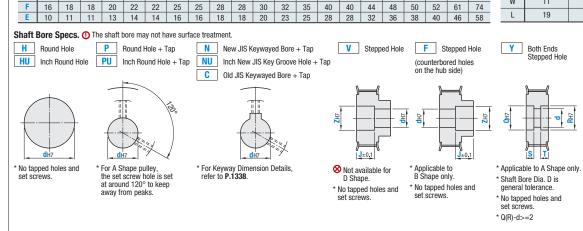
* No tapped holes or

* Formulas

* Q-R>=2

M5 x 4

M5



	Part Nun	nber				Shaft Bore Spec. (1mm Increment)																		
				0	H	ł		•	N/	C	H	U	P	U	N	U			V/F				Y / WB	
Туре	Teeth	Type Nominal	Pulley Shape	Shaft Bore Specs						d _{H7}							d	H7	Z _{H7}		J (0.1 mm Inc.)	d	Q _{H7} / R _{H7}	S /1
		Width		Оросо	A	В-К	A A	В-К	A	В	A	В-К	A	В-К	A	В	A	В	A	В	A Shape	A	A	A
					Shape		Shape		Shape	Snape	Snape	Snape	Snape	Snape	Snape	Snape	Shape	Shape	Shape	Shape	B Shape	Shape	Shape	Shap
2017	14 15				4-6	456	4	4 5 6			В	В	ļ	В			4		6			4	6	
luminum	15						4 4.5 5				B	B	_	B			4 4.5 5		67	ļ		45	67	
Alloy	16 18*	S3M060	Α		4-7	4-7	4 4.5 5 4–6				BC	B C B-D	В	B C B-D			4 4.5 5		67 6-9	-		45	67 6-9	
HTPA	19	*A :7	K		4-9	4-8	4-6	4-8	_	_	B-D B-D	B-D	B	B-D	-	l —	4-7	_		-		4-7	6-10	
НТРВ	20*	*W :11			4-10 4-10	4-8	4-6	4-8 4-8			B-D	B-D	В	B-D			4-8 4-8		6-10 6-10	-		4-8 4-8	6-10	
HTPK	22*	*L :19		H	4-12	4-10	4-8	4-10			B-D	B-E	B-D	B-E			4-10		6-12	-	(For A	4-10	6-12	
HTPN	24*	"L:19		HU	4-12	4-10	4-10	4-10			D_E	B-E	B-E	B-E			4-10	4-8	6-12	6–10	Shape)	4-10	6-12	
	25*			P	4-14	4-10	4-11		8 10 11	Ω	B-E	B-E	B-E	B-F	F	D	4-12	4-10	6-14	6-12	2.0≤J≤	4-12	6-14	
1045	25* 26	S3M100		PU	5-14	5-12	5-11		8 10 11	8	B-E	C-E	C-E	C-F	Ē	n	5-12	5-10	7-14	7-12	W-2.0	5-12	7-14	
Carbon	28*	*A :11		N	5-16	5-14	5-13	5-10	8-13	8	B-F	C-F	C-F	C-F	FF	Ď	5-14	5-12	7-16	7-14	W-2.0	5-14	7-16	3-9
Steel	30*	*W :15		NU	6-19	6-16	6-15	6-12	8-14	8-11	C-F	C-F	Č-F	Č-E	ĒĖ	DΕ	6-17	6-14	8-19	8-16	(For B	6-17	8-19	S+T≤
HTPT	32*	*L :23		C	6-21	6-22	6-17	6-12	8-17	8-11	C-G	C-G	C-G	С-Е	E-G	DE	6-19	6-14	8-21	8-16	Shape)	6-19	8-21	
HTPM	34		Α	V	6-24	6-22	6-18	6-18	8-18	8-15	C-H	C-H	C-G	C-G	E-G	D-F	6-22	6-20	8-24	8-23	2.0≤J≤	6-22	8-24	
HTPP	36*	S3M150	В	F	6-24	8-26	6-18	6-18	8-19	8-15	C-H	C-H	C-G	C-G	E-G	D-F	6-22	6-20	8-24	8-23	L-2.0	6-22	8-24	
	40*	*A :17		Y	8-28	8-24	8-23	8-21	8-23	8-17	E-J	E-J	E-J	E-H	E-J	E-G	8-26	8-24	10-28			8-26	10-28	
304	44	*W :21			8-32	8-28	8-26	8-23	8-25	8-18	E-K	E-K	E-J	E-J	E-J	E-G	8-30	8-26	10-32]	8-30	10-32	
tainless	48	*L :29			8-34	8-30	8-28	8-25	8-27	8-20	E-K	E-K	E-J	E-J	E-J	E-H	8-32	8-28	10-34			8-32	10-34	
Steel	50				8-36	8-30	8-30	8-25	8-29	8-20	E-L	E-K	E-K	E-J	E-K	E-H	8-34	8-28	10-36			8-34	10-36	
HTPS	60				8-42	8-35	8-34	8-30	8-35	8-22	E-M	E-M	E-L	E-K	E-L	E-H	8-40	8-33	10-42	10-35		8-40	10-42	
	72		1	ı	8-54	8_46	8-46	8_38	8-45	8_33	F_S	F_0	F_P	F-N	F-N	F-I	8-52	8-44	10-54	110_/6	1	8-52	10-54	

- For inch hole dimensions detail information refer to next page. Shaft Bore Dia. 9 is not available for Shaft Bore specification N. HTPS is available for * marked No. of teeth only.
- Shaft Bore Dia. 8, 9, 11, 13, 14, 17, 21–45 are not available for Shaft Bore specification C. O Z-d≥2 for shaft bore specification V and F. O Q(R)-d≥2 for shaft bore specification V.
- Shaft bore specification P is not selectable for A Shape with 22 or less teeth and nominal width 060.

 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.

High Torque Timing Pulleys

S3M Type, continued



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

Inch Hole Specifications

No.	Nominal	Dimension (mm)
Α	1/8	3.175
В	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
Н	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



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°. ① 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. (OSC, OFC, OTC: 1 mm Increment) Thickness required: minimum 2 mm A Shape: d+M+4≤OSC(OFC / OTC)=E-(M+4) B Shape: d+M+4≤OSC(OFC / OTC)=D-(M+4) Specify KC90 when selecting OFC 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. SQSC is not applicable to the Shaft Bore Specification P and N. Not applicable to K Shape. M Selection: M3, M4, M5, M6, M8 Ordering Code: OFC28-M4 M×2 (6 Places) (6 Places) OFC OTC OTC OTC 3-Maces) 3-Maces) 3-Maces) 3-Maces) 3-Maces) 3-Maces) 3-Maces) 3-Maces)	Machines countbore 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 O Conditions vary depending on the shaft hole specifications ZSC ZFC ZFC ZTC ZFC ZTC ZSC ZFC ZTC ZGC ZTC ZGC ZGC ZTC ZGC ZGC ZGC ZGC ZGC ZGC ZGC ZGC ZGC Z	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 $\textcircled{Minimum thickness}$ is 2mm $\textcircled{Mplicable to shaft bore specifications V, F only.}$ Use retainer ring groove standards for Z dimension $\textcircled{n} \land J$ —SRG— \textcircled{m} Ordering Code: SRG7	Add taper for retaining bearing inner ring Ordering Code: BTC8-TL1.5 Application Notes O Applicable to Shape A 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: 3-8C-L-W Shaft Bore specification P, N, C: M+3-8C-SL-W Not available for K, A shape BC/2 BC/2	, ,	Flange installed on the hub side (RFC) or the opposite side (LFC) only. Same on A Shape Not applicable to K Shape.	Cuts the outer diameter of the flange in 0.5mm increments Ordering Code: FC17 Application Notes ① FC ≥ (0.D.) + 1 ① FC ≤ F - 2 ② No surface treatment applied on flange circumference.	Changes the tapped hole dimension. ① Applicable to Shaft Bore specification P, N, C only. M TPC M3 M4 M4 M3, M5 M5 M4 Ordering Code: TPC5	Changes the length of the included set screws. O Applicable to Shaft Bore specification P, N, C only. Set Screw SLH M3 x 3 6 M4 x 3 5, 8 M5 x 4 6, 10 M6 x 5 10 Ordering Code:	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 KSC KFC A-K Through KTC 3-K Through

① 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.