


Clamping High Torque Timing Pulleys

S3M, S5M, S8M Type



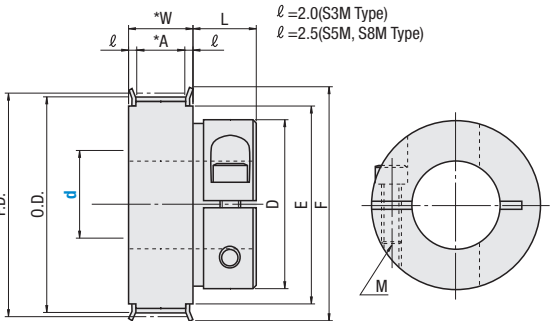
Clamping High Torque Timing Pulleys – S3M, S5M, S8M Type

RoHS10

HTCPA __ **S3M060**
S3M100
Pitch: 3.0 mm

HTCPA __ **S5M100**
S5M150
Pitch: 5.0 mm

HTCPA __ **S8M150**
S8M250
Pitch: 8.0 mm



$\ell = 2.0$ (S3M Type)
 $\ell = 2.5$ (S5M, S8M Type)

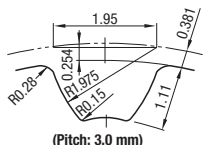
Recommended Shaft Tolerance h7(g6)
Finish surface roughness: Ra = 3.2a or less.

Type	Material	Flange	Surface Treatment
HTCPA	Ultra Duralumin-Based Aluminum Alloy	Aluminum Alloy	Clear Anodize

*Flange attached. Hex socket head cap screws are included.

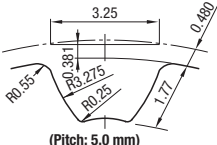
Standard Tooth Profile

S3M Type



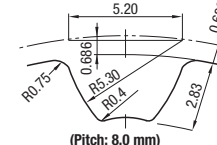
(Pitch: 3.0 mm)

S5M Type



(Pitch: 5.0 mm)

S8M Type



(Pitch: 8.0 mm)

Surface treatment may not be applied to shaft bores. The tooth groove slightly changes according to No. of teeth.

For High Torque Timing Belts, refer to P.1436.

S3M Type

Part Number		d Selection	P.D.	O.D.	D	F	E	L	Clamp Screws	
Type	Teeth								M	Tightening Torque (Nm)
HTCPA	24	4	22.92	22.16	13	25	16	9	2	0.4
	26	4	24.83	24.07		28	18			
	28	4	26.74	25.98		30	20			
	30	6 8	28.65	27.89	20	32	23			
	32	6 8	30.56	29.80		35	25			
	36	6 8	34.38	33.62	26	40	28			
	40	8 10	38.20	37.44		44	32			
	44	8 10	42.02	41.25	31	48	36			
	48	8 10 11 12	45.84	45.07	33	50	38			
	50	8 10 11 12 13 14	47.75	46.98	36	52	40			
60	8 10 11 12 13 14 15 16	57.30	56.53	41	61	46				

S5M Type

Part Number		d Selection	P.D.	O.D.	D	F	E	L	Clamp Screws		Available Types			
Type	Teeth								M	Tightening Torque (Nm)	S5M100		S5M150	
										d ≤ 19	20 ≤ d	d ≤ 19	20 ≤ d	
HTCPA	24	8 10	38.20	37.24	26	45	30	12.5	3	1.5	•	•	•	•
	25	8 10	39.79	38.83							•	•	•	•
	26	8 10	41.38	40.42							•	•	•	•
	28	8 10	44.56	43.60							•	•	•	•
	30	10	47.75	46.79	31	48	35	14	4	3.5	•	•	•	•
	32	10 11 12 13 14	50.93	49.97							36	55	40	•
	34	10 11 12 13 14 15 16	54.11	53.15	41	61	45	15.5	5	6	•	•	•	•
	36	10 11 12 13 14 15 16	57.30	56.34							52	36	•	•
	40	10 11 12 13 14 15 16 17 18 19	63.66	62.70	46	67	50	16.5	6	12	•	•	•	•
	44	12 13 14 15 16 17 18 19	70.03	69.07							55	74	58	•
	48	12 13 14 15 16 17 18 19	76.39	75.43	46	83	63	16.5	6	12	•	•	•	•
	50	20 21 22 23 24 25	79.58	78.62							55	87	67	•
	60	12 13 14 15 16 17 18 19	95.49	94.53	46	99	80	16.5	6	12	•	•	•	•
		20 21 22 23 24 25	55	•							•	•		

Clamping High Torque Timing Pulleys

S3M, S5M, S8M Type, continued

For High Torque Timing Belts, refer to P.1436.

S8M Type

Part Number		d Selection	P.D.	O.D.	D	F	E	L	Clamp Screws	
Type	Teeth								M	Tightening Torque (Nm)
HTCPA	20	12 13 14	50.93	49.56	36	58	40	14	4	3.5
	22	12 13 14 15 16	56.02	54.65	41	61	45			
	24	12 13 14 15 16 17 18 19	61.12	59.74	46	67	50			
	25	12 13 14 15 16 17 18 19	63.66	62.29		70	56			
	28	15 16 17 18 19	71.30	69.93	55	80	60			
	30	20 21 22 23 24 25				46	6			
		15 16 17 18 19	76.39	75.02	55	87	67			
	32	20 21 22 23 24 25								
		18 19	81.49	80.12	55	95	75			
	34	20 21 22 23 24 25								
		18 19	86.58	85.21	55	99	80			
	36	20 21 22 23 24 25								
		18 19	91.67	90.30	55					
		20 21 22 23 24 25								

Allowable Torque (S3M Type)

Type	Teeth	Shaft Diameter	Allowable Torque (Nm)
S3M	24 26 28	4	0.16
	30 32	6	0.95
		8	2.6
	36	6	0.95
		8	2.6
	40	8	2.6
		10	2.6
	44	8	2.6
		10	2.6
	48	8	2.6
		10	
		11	
		12	
	50	8	2.6
10			
11			
12			
13			
14			
60	8	2.6	
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	16		7.6

Allowable Torque (S5M Type)

Type	Teeth	Shaft Diameter	Allowable Torque (Nm)
S5M	24 25	8	2.6
	10		
	26 28	8	2.6
		10	
	32	10	2.6
		11	
		12	
		13	
	34 36	10	2.6
		11	
		12	
		13	
		14	
		15	
40	10	2.6	
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
44 48 50 60	10	7.6	
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
20	48		
21	66		
22	66		
23	95		
24	95		
25	95		

Allowable Torque (S8M Type)

Type	Teeth	Shaft Diameter	Allowable Torque (Nm)
S8M	20	12	2.6
	13		
	22	14	7.6
		12	
		13	
	24 25	12	2.6
		13	
		14	
		15	
		16	
		17	
	28 30	15	7.6
		16	
		17	
18			
19			
20			
21			
22			
23			
24			
32 34 36	15	7.6	
	16		
	17		
	18		
	19		
	20		
21	48		
22	66		
23	66		
24	95		
25	95		

Part Number Example

Part Number: HTCPA40 - S3M060 - 10

Type: HTCPA40 - Teeth: S3M060 - Seal: 10 - Shaft Bore Dia. d