Keyless High Torque Timing Pulleys - S8M

Compatible with S8M type from Mitsuboshi Belting Ltd. as well as Bando Chemical Industries Ltd.

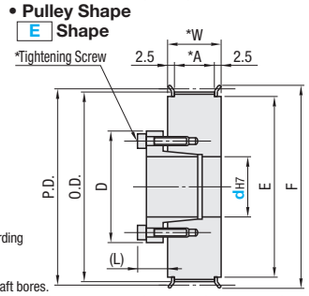
For High Torque Timing Belts, see P.1465. For Open End Belts, see P.1476.

Type	Part Number: Belt Width: 15mm A:17W:22 (S8M150)	Belt Width 25mm A:28W:33 (S8M250)	Belt Width: 30mm A:33W:38 (S8M300)	Belt Width: 40mm A:44W:49 (S8M400)	M Material *1: Pulley	Flange	Bushing	S Surface Treatment: Pulley	Flange	Bushing
HTLA	●	●	●	●	A7075	A5052	S45C	Clear Anodize		-
HTLK	●	●	●	●				Hard Clear Anodize *2		-
HTPL	●	●	●	●	S45C Equivalent	SPCC	S45C	Black Oxide		
HTLG	●	●	●	●				Electroless Nickel Plating		

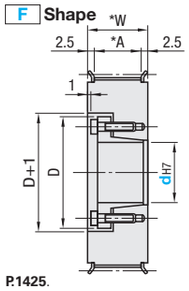
*1. The above material and accessory might be changed to the ones equivalent to the originals. *2. Hard Anodize Treatment: Film Hardness 300HV ~

• Pulley Shape

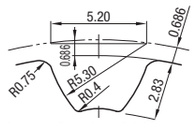
E Shape



F Shape



Standard Tooth Profile



Tooth groove dimensions slightly vary according to the number of teeth.
(Pitch:8.0mm)

Surface treatment may not be applied to shaft bores.
Two types of bushings are available: Standard Type (ST Bushings) and Short Type (SH Bushings). See P.1425.
Machined Flange for 72 Toothed Pulleys. * For quantity and size of tightening screws with flange installed, see P.1425.

Table 1: Select Shaft Bore Dia.

dH7	Max. Allowable Torque N・m: ST Bushing	SH Bushing	D: ST Bushing	SH Bushing	(L)
12	48	23	32	31	10.5
14	73	-	35	-	12
15	78		36		
16	83		37		13
17	88		38		
18	154		43		14
19	163		45		
20	171		46		
22	186		48		
24	206		50		
25	216		52		
28	353		54		15.5
30	382		57		
32	412	163	59	58	16.5
35	451	173	63	61	
38	686	-	70	-	19
40	725		71		
42	757		74		20
45	1490		84		24.5
48	1600		87		
50	1660		89		

Electroless nickel plated bushing (Alterations BMC, BMR) decreases maximum allowable torque and allowable thrust load by 20 ~ 30%.

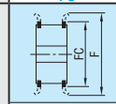
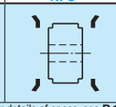
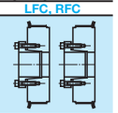
Number of Teeth	18	19	20	21	22	24	25	26	28	30	32	34	36	38	40	44	48	50	60	72
P.D.	45.84	48.38	50.93	53.48	56.02	61.12	63.66	66.21	71.30	76.39	81.49	86.58	91.67	96.77	101.86	112.05	122.23	127.32	152.79	183.35
O.D.	44.46	47.01	49.56	52.10	54.65	59.74	62.29	64.84	69.93	75.02	80.12	85.21	90.30	95.39	100.49	110.67	120.86	125.95	151.42	181.97
F	52	55	58	61	61	67	70	74	80	87	87	95	99	104	111	119	127	135	160	190
E	36	40	40	45	45	50	56	58	60	67	67	75	80	84	90	100	105	115	140	170

Part Number: Type	Number of Teeth	Type, Nominal Width: Nominal Width	Pulley Shape	dH7 Range (,): Select the former or latter, (~): Specify in 1mm Increment — Shape E: S8M150 ST Bushing	S8M250 ST Bushing	S8M300 ST Bushing	S8M400 ST Bushing	Shape F: S8M150 SH Bushing	S8M250 ST Bushing: 12~30, SH Bushing: 32, 35	S8M300 ST Bushing: 15~32, SH Bushing: 35	S8M400 ST Bushing
HTLA HTLK HTPL HTLG	18	S8M150 *A:17 *W:22	E F	12	12	-	-	-	12	-	-
	19			12, 14, 15	12, 14, 15	15	-	12	12, 14, 15	15	-
	20			12, 14~17	12, 14~17	15~17	-	12	12, 14, 15	15	-
	21			12, 14~17	12, 14~17	15~17	16, 17	12	12, 14~17	15~17	16, 17
	22										
	24										
	25	S8M250 *A:28 *W:33		12, 14~20, 22, 24, 25	15-20, 22, 24, 25	16-20, 22, 24, 25		12	12, 14-20, 22, 24, 25	15-20, 22, 24, 25	16~20, 22, 24, 25
	26			14~20, 22, 24, 25	14~20, 22, 24, 25	15~20, 22, 24, 25	16~20, 22, 24, 25	-	14~20, 22, 24, 25	15~20, 22, 24, 25	16~20, 22, 24, 25
	28										
	30			14~20, 22, 24, 25, 28, 30, 32	14~20, 22, 24, 25, 28, 30, 32	15~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32	-	14~20, 22, 24, 25, 28, 30, 32	15~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32
	32	S8M300 *A:33 *W:38									
	34			16~20, 22, 24, 25, 28, 30, 32, 35				-	16~20, 22, 24, 25, 28, 30, 32, 35	16~20, 22, 24, 25, 28, 30, 32, 35	16~20, 22, 24, 25, 28, 30, 32, 35
	36			16~20, 22, 24, 25, 28, 30, 32, 35, 38							16~20, 22, 24, 25, 28, 30, 32, 35, 38
	38			16~20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42							16-20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42
	40	S8M400 *A:44 *W:49		20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42				-	20, 22, 24, 25, 28, 30, 32, 35	20, 22, 24, 25, 28, 30, 32, 35	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42
	44										
	48										
	50			20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50				-	20, 22, 24, 25, 28, 30, 32, 35	20, 22, 24, 25, 28, 30, 32, 35	20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42
	60										
	72			20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50				-	20, 22, 24, 25, 28, 30, 32, 35		20, 22, 24, 25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50

Ordering Example: Part Number - Pulley Shape - Shaft Bore Dia.
HTPL 60S8M300 - E - 40

Alterations: Part Number - Pulley Shape - Shaft Bore Dia. - (BMC···etc.)
HTLA25S8M250 - F - 25 - FC65

Alterations	Surface Treatment
Code	BMC, BMR
Spec.	Applies electroless nickel plating on a bushing. (Antirusting treatment is applied to screws.) Electroless nickel plated bushing decreases allowable torque by 20 ~ 30%. BMC: Not RoHS Compliant (Screw: SCM435 Dacrotized Treatment) BMR: RoHS Compliant (Screw: SCM435 GeoMet Coating)

Alterations	Flange Cut	Flange Not Swaged	Flange Swaged on One Side
Code	FC	NFC	LFC, RFC
Spec.			

For details of specs, see P.1190.

Number of Teeth	Unit Price: HTLA (x1.0) S8M150 Shape E	HTLA (x1.0) S8M150 Shape F	HTLA (x1.0) S8M250 Shape E	HTLA (x1.0) S8M250 Shape F	HTLK (x1.1) S8M300 Shape E	HTLK (x1.1) S8M300 Shape F	HTLK (x1.1) S8M400 Shape E	HTLK (x1.1) S8M400 Shape F	HTPL (x1.0) HTLG (x1.1) S8M150 Shape E	HTPL (x1.0) HTLG (x1.1) S8M150 Shape F	HTPL (x1.0) HTLG (x1.1) S8M250 Shape E	HTPL (x1.0) HTLG (x1.1) S8M250 Shape F	HTPL (x1.0) HTLG (x1.1) S8M300 Shape E	HTPL (x1.0) HTLG (x1.1) S8M300 Shape F	HTPL (x1.0) HTLG (x1.1) S8M400 Shape E	HTPL (x1.0) HTLG (x1.1) S8M400 Shape F
18		-			-	-	-	-		-			-	-	-	-
19							-	-							-	-
20							-	-							-	-
21																
22																
24																
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26																
28																
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32																
34																
36																
38		-								-						
40																
44																
48																
50																
60																
72																

Keyless High Torque Timing Pulleys - S8M

MechaLock Standard Type Incorporated (with Centering Function)

Compatible with S8M type from Mitsuboshi Belting Ltd. as well as Bando Chemical Industries Ltd.

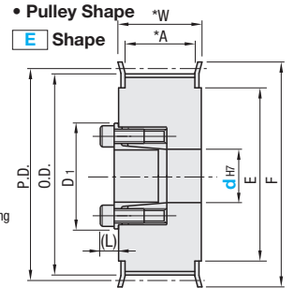
Features: MechaLock Standard Type (P.1491) Incorporated Timing Pulleys. It tolerates an average of 1.2 times and 2.5 times greater torque compared to the conventional ST bushing and SH bushing respectively.

Type	Part Number: Belt Width: 15mm A:17 W:22 (S8M150)	Belt Width 25mm A:28 W:33 (S8M250)	Belt Width: 30mm A:33 W:38 (S8M300)	Belt Width: 40mm A:44 W:49 (S8M400)	M Material *1: Pulley	Flange	MechaLock	S Surface Treatment: Pulley	Flange	MechaLock
HHTA	●	●	●	●	A7075	A5052	S45C	Clear Anodize		-
HHTK	●	●	●	●				Hard Clear Anodize *2		-
HHTN	●	●	●	●				Electroless Nickel Plating		-
HHTT	●	●	●	●	S45C Equivalent	SPCC	S45C	-		
HHTM	●	●	●	●				Black Oxide		
HHTP	●	●	●	●				Electroless Nickel Plating		

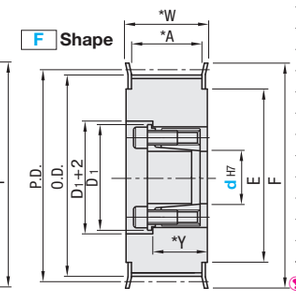
*1. The above material and accessory might be changed to the ones equivalent to the originals. *2. Hard Anodize Treatment: Film Hardness 300HV ~

• Pulley Shape

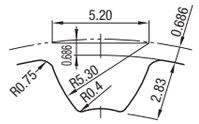
E Shape



F Shape



Standard Tooth Profile



Tooth groove dimensions slightly vary according to the number of teeth.
(Pitch:8.0mm)

Table 1: Select Shaft Bore Dia.

dH7	Max. Allowable Torque (N・m): HHTA, HHTK HHTN, HHTT HHTM	HHTP	D1	(L)
12	44.1	36.2	28.5	6.5
14	63.7	50.9	30.5	
15	80.4	54.8	31.5	
16	83.3	58.8	33.0	
17	92.2	76.4	33.5	
18	95.1	80.3	34.5	
19	98.1	85.2	35.5	
20	216.0	183.0	42.0	8
22	255.0	201.0	44.0	
24	363.0	252.0	46.0	
25	392.0	264.0	47.0	
28	441.0	295.0	50.0	8.5
30	500.0	396.0	52.0	
32	530.0	423.0	54.0	
35	883.0	548.0	62.0	10
40	1079.0	779.0	67.0	
45	1285.0	882.0	72.0	
50	1706.0	1362.0	77.0	10.5

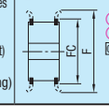
Surface treatment may not be applied to shaft bores.
Machined Flange for 72 Toothed Pulleys.
Flange is installed.
For installation, see P.1489. For details of MechaLock, see P.1491.
Y dimensions in ( ) require the shaft bore diameter of 24 or more.

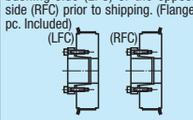
Number of Teeth	19	20	21	22	24	25	26	28	30	32	34	36	38	40	44	48	50	60	72
P.D.	48.38	50.93	53.48	56.02	61.12	63.66	66.21	71.30	76.39	81.49	86.58	91.67	96.77	101.86	112.05	122.23	127.32	152.79	183.35
O.D.	47.01	49.56	52.10	54.65	59.74	62.29	64.84	69.93	75.02	80.12	85.21	90.30	95.39	100.49	110.67	120.86	125.95	151.42	181.97
F	55	58	61	61	67	70	74	80	87	87	95	99	104	111	119	127	135	160	190
E	40	40	45	45	50	56	58	60	67	67	75	80	84	90	100	105	115	140	170

Part Number: Type	Number of Teeth	Type, Nominal Width	Pulley Shape	dH7 Range (,): Select the former or latter, (~): Specify in 1mm Increment — Shape E: S8M150	S8M250	S8M300	S8M400	Shape F: S8M250	S8M300	S8M400
HHTA HHTK HHTN HHTT HHTM HHTP	19	S8M150 *A:17 *W:22 S8M250 *A:28 *W:33 *Y:22 (d24~30:Y=24) (d32~:Y=24.5) S8M300 *A:33 *W:38 *Y:24 (d24~32:Y=25) (d35~:Y=28) S8M400 *A:44 *W:49 *Y:30 (d24~32:Y=31) (d35~:Y=34)	E F	12, 14	12, 14	12, 14	12, 14	12, 14	12, 14	12, 14
	20									
	21			12, 14~16	12, 14~16	12, 14~16	12, 14~16	12, 14~16	12, 14~16	12, 14~16
	22									
	24			12, 14~19	12, 14~19	12, 14~19	12, 14~19	12, 14~19	12, 14~19	12, 14~19
	25			12, 14~20	12, 14~20	12, 14~20	12, 14~20	12, 14~20	12, 14~20	12, 14~20
	26			14~20, 22	14~20, 22	14~20, 22	14~20, 22	14~20, 22	14~20, 22	14~20, 22
	28									
	30			14~20, 22	14~20, 22, 24, 25, 28	14~20, 22, 24, 25, 28	14~20, 22, 24, 25, 28	14~20, 22, 24, 25, 28	14~20, 22, 24, 25, 28	14~20, 22, 24, 25, 28
	32									
	34			16~20, 22	16~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32	16~20, 22, 24, 25, 28, 30, 32
	36									
	38									
	40			20, 22	20, 22, 24, 25, 28, 30, 32, 35			20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35	
	44									
	48			20, 22	20, 22, 24, 25, 28, 30, 32, 35, 40, 45			20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35, 40, 45	
	50			20, 22	20, 22, 24, 25, 28, 30, 32, 35, 40, 45, 50			20, 22, 24, 25, 28, 30, 32	20, 22, 24, 25, 28, 30, 32, 35, 40, 45, 50	
	60									
	72									

Ordering Example: Part Number - Pulley Shape - Shaft Bore Dia.
HHTA 60S8M300 - F - 40

Alterations: Part Number - Pulley Shape - Shaft Bore Dia. - (BMC···etc)
HHTA 60S8M300 - E - 40 - BMC

Alterations	Surface Treatment	Flange Cut
Code	BMC, BMR	FC
Spec.	Applies electroless nickel plating on a MechaLock. (Antirusting treatment is applied to screws.) Electroless nickel plated bushing decreases allowable torque by 20 ~ 30%. BMC:Not RoHS Compliant (Screw: SCM435 Dacrotized Treatment) BMR:RoHS Compliant (Screw: SCM435 GeoMet Coating)	Lowers flange by cutting. FC: 0.5mm Increment. No surface treatment is applied on flange circumference.  FC≥(O. D.)+1 FC≤F-2 Ordering Code FC35

Alterations	Flange Not Swaged	Flange Swaged on One Side
Code	NFC	LFC, RFC
Spec.	Flange is not installed. (Flange Included)	Flange is installed on either the bushing side (LFC) or the opposite side (RFC) prior to shipping. (Flange 1 pc. Included) 

Number of Teeth	Body Price 1 ~ 10 pc(s.): HHTA (x1.0) S8M150	HHTK (x1.1) S8M250	HHTN (x1.2) S8M300	S8M400	HHTT (x1.0) S8M150	HHTM (x1.05) S8M250	HHTP (x1.15) S8M300	S8M400
19								
20								
21								
22								
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25								
26								
28								
30								
32								
34								
36								
38								
40								
44								
48								
50								
60								
72								

dH7	MechaLock Incorporation Charge (+ Body Price)
12	
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For orders larger than indicated quantity, please request a quotation.