

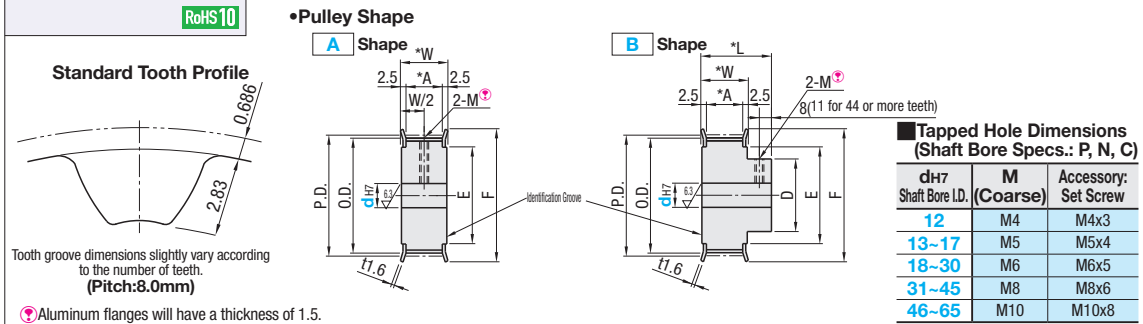
Non-Backlash Timing Pulleys - S8M

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

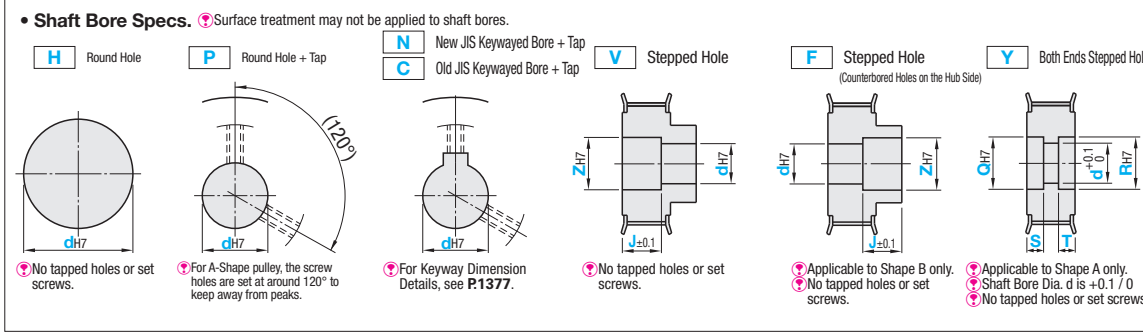
Features: Timing pulleys with significantly reduced backlash compared to the conventional pulleys. Special timing belts are not required. For Timing Belts, see P1465, P1469.

Type	Belt Width				Material *1		Surface Treatment	Accessory *1 Set Screws
	15mm	25mm	30mm	40mm	Pulley	Flange		
BLPA	●	●	●	●	Extra Super Duralumin Aluminum Alloy	Aluminum Alloy	Clear Anodize	EN 1.4301 Equiv.
BLPK	●	●	●	●				
BLPN	●	●	●	●	EN 1.1191 Equiv.	EN 1.0330 Equiv.	Electroless Nickel Plating	EN 1.7220 Equiv. (Black Oxide)
BLPT	●	●	●	●				
BLPM	●	●	●	●				
BLPP	●	●	●	●				

*1 Flange is installed, and set screws are included with Shaft Bores P, N and C. *1 The above material and accessory might be changed to the ones equivalent to the originals. *2 Hard Clear Anodize: Film Hardness 300HV -



Number of Teeth / Dimension		Belt Nominal Width / Dimension	
mm	18 19 20 21 22 24 25 26 28 30 32 34 36 38 40 44 48 50 60	mm	18 19 20 21 22 24 25 26 28 30 32 34 36 38 40 44 48 50 60
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	Nominal	17.0 28.0 33.0 44.0
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	A	22.0 33.0 38.0 49.0
D	32 35 36 40 41 46 48 51 55 60 63 70 75 80 85 90 100 100 100	W	37.0 48.0 53.0 64.0
F	52 55 58 61 61 67 70 74 80 87 87 95 99 104 111 119 127 135 160	L (Number of Teeth 18-40)	42.0 53.0 58.0 69.0
E	36 40 40 45 45 50 56 58 60 67 67 75 80 84 90 100 105 115 140	L (Number of Teeth 44-60)	



Type	Number of Teeth	Type Nominal Width	Pulley Shape										
			A	B									
			Shaft Bore Specifications (-): Specify in 1mm Increment, (:): Select the former or latter	Shaft Bore Specifications (-): Specify in 1mm Increment, (:): Select the former or latter									
Aluminum	18	S8M150	H Round Hole	12-28	12-26	12-26	12-26	14-28	12-28	12-22	12-20	12-26	14-28
	19		P Round Hole + Tap	12-32	12-28	12-28	12-30	14-32	12-31	12-25	12-20	12-29	14-31
	20		N,C Keyway + Tap	12-32	12-30	12-30	12-30	14-32	12-32	12-26	12-22	12-30	14-32
	21		V Stepped Hole	12-37	12-32	12-32	12-35	14-37	12-35	12-30	12-24	12-34	14-36
	22		Y Both Ends Stepped	12-37	12-34	12-34	12-35	14-37	12-37	12-30	12-25	12-35	14-37
	24		F Stepped Hole	12-42	12-40	12-40	12-40	14-42	12-40	12-34	12-28	12-40	14-42
	25		Y Both Ends Stepped	12-48	12-40	12-40	12-48	14-48	12-46	12-36	12-28	12-42	14-44
	26		F Stepped Hole	14-50	14-45	14-45	14-48	16-50	14-48	14-39	14-31	14-45	16-47
	28		Y Both Ends Stepped	14-52	14-48	14-48	14-50	16-52	14-50	14-43	14-35	14-49	16-51
	30		F Stepped Hole	14-59	14-50	14-50	14-57	16-59	14-56	14-46	14-38	14-54	16-56
	32		Y Both Ends Stepped	14-59	14-55	14-55	14-57	16-59	14-57	14-49	14-45	14-57	16-59
	Steel		34	S8M300	H Round Hole	16-67	16-60	16-50	16-65	18-67	16-66	16-56	16-48
36		P Round Hole + Tap	16-72		16-65	16-50	16-70	18-72	16-71	16-61	16-50	16-69	18-71
38		N,C Keyway + Tap	16-76		16-65	16-50	16-74	18-76	16-74	16-65	16-50	16-74	18-76
40		V Stepped Hole	20-80		20-65	20-50	20-80	22-82	20-75	22-82	20-79	22-81	
44		Y Both Ends Stepped	20-80		20-65	20-50	20-80	22-92	20-75	22-92	20-80	22-86	
48		F Stepped Hole	20-80		20-65	20-50	20-80	22-95	20-75	22-95	20-80	22-89	
50		Y Both Ends Stepped	20-80		20-65	20-50	20-80	22-95	20-75	22-95	20-80	22-89	
60		F Stepped Hole	20-80		20-65	20-50	20-80	22-95	20-75	22-95	20-80	22-89	

* Shaft Bore Dia. 13, 14, 17 or 21-50 are not available for Shaft Bore Specs. C.

Ordering Example

Part Number - Pulley Shape - Shaft Bore Specs., I.D. - Z - J - Q - R - S - T

(Shaft Bore Specs.: H, P, N, C) BLPA40S8M150 - A - N30

(Shaft Bore Specs.: V, F) BLPK60S8M400 - B - F40 - Z60 - J25.0

(Shaft Bore Specs.: Y) BLPA20S8M250 - A - Y15 - Q20 - R23 - S3 - T15

Number of Teeth	Body Price								Shaft Bore Machining Charge (Body Price +)
	BLPA (x1.0)	BLPK (x1.1)	BLPN (x1.2)	BLPT (x1.0)	BLPM (x1.05)	BLPP (x1.15)			
18									
19									
20									
21									
22									
24									
25									
26									
28									
30									
32									
34									
36									
38									
40									
44									
48									
50									
60									

Alterations: Part Number - Pulley Shape - Shaft Bore Specs., I.D. - Z - J - Q - R - S - T - (KC90...etc.)

BLPA36S8M250 - A - H65 - NFC

Alterations	Set Screw Angle	Flange Not Swaged	Flange Swaged on One Side	Flange Cut
Code	KC90	NFC	RFC, LFC	FC
Spec.	Changes an angle of set screw to 90°. For A-Shape pulley, the screw holes are set at around 90° to keep away from peaks.	(Flange 2 pcs. Included) [Ordering Code] NFC	(Flange 1 pc. Included) [Ordering Code] RFC	Cut the flange O.D. in 0.5mm increment. [Ordering Code] FC17

Alterations	Adds taper for retaining bearing	Hub Shortening	Tapped Hole Dimensions	Changes the length of the included set screws.
Code	BTC	BC	TPC	SLH
Spec.	Add taper for retaining bearing inner ring [Ordering Code] BTC12-TL3	Cuts the hub length in 0.5mm increment. [Ordering Code] BC6.5	[Ordering Code] TPC5	[Ordering Code] SLH10

Alterations	Side Through Hole / Side Tapped Hole, 3 places	Side Through Hole / Side Tapped Hole, 4 places	Side Through Hole / Side Tapped Hole, 6 places
Code	KTC, QTC	KFC, QFC	KSC, QSC
Spec.	Machine Through Hole / Tapped Hole on the side surface of hub side [Ordering Code (Through Hole)] KTC20-K5.0 [Ordering Code (Tapped Hole)] QTC28-M4	Machine Through Hole / Tapped Hole on the side surface of hub side [Ordering Code (Through Hole)] KFC20-K5.0 [Ordering Code (Tapped Hole)] QFC28-M4	Machine Through Hole / Tapped Hole on the side surface of hub side [Ordering Code (Through Hole)] KSC20-K5.0 [Ordering Code (Tapped Hole)] QSC28-M4

Features of Non-backlash Pulleys (S8M)

- Non-backlash pulley has reduced backlash compared to conventional type to work with high accuracy positioning mechanism.
- Backlash is significantly smaller than standard S8M pulleys. (The amount reduced depends on applications.)
- Use regular S8M timing belt.

Reference: Comparison of Deviation Angles between Non-Backlash Pulleys and Standard Pulleys

Test Conditions: Belt Type : S8M, Belt Width : 25mm, Pulley Size : 30 Toothed (P.D.76.39mm), Tension T1 : 382N