Timing Pulleys –XL–

–Pitch:0.200"– (1/5")

These Timing Pulleys are for use with XL standard Timing Belts with 0.200 inch tooth pitch, in 1/4 inch, 3/8 inch, or 1/2 inch width belts. The pulleys are available in aluminum and steel. We offer various configuration and modification options so the pulleys are ready to use when they arrive. See P.309 for matching Timing Belts. See application examples on P.292.

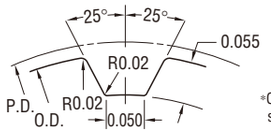
U-ATP□□XL025 XL037 XL050

U-MTP□□XL025 XL037 XL050

Material		Surface Treatment	Type
Pulley	Flange		
2017 Aluminum	5052 Aluminum	Clear Anodizing	U-ATP
1045 Steel	Cold Rolled Steel	-	U-MTP

Material Characteristics P.628, 629

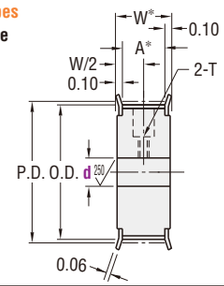
Tooth Shape (ISO Standard Rack Dimension)



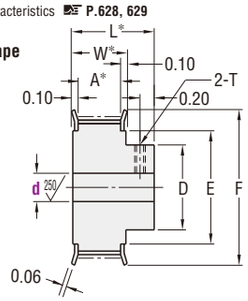
*Crimped flanges and set screws included.

Pulley Shapes

A Shape

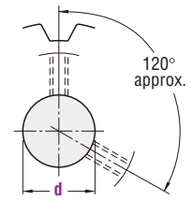


B Shape

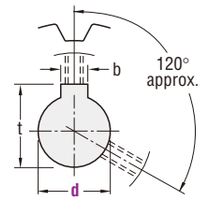


Bore Configurations Bore may not be plated.

P Straight Bore



S Keyed Bore (ANSI B17.1-1989)



※In case of shape A pulleys, the set screw holes are angled at approx. 120° in order to avoid peaks.

P Straight Bore

d (Bore Diameter)				T (Set Screw Size)
Callout	Nominal	Tolerance		
0.25	1/4	0.2506	0.2500	#8-32
0.31	5/16	0.3131	0.3125	#8-32
0.38	3/8	0.3756	0.3750	#8-32
0.50	1/2	0.5007	0.5000	#8-32
0.63	5/8	0.6257	0.6250	#10-32
0.75	3/4	0.7508	0.7500	#10-32
0.88	7/8	0.8758	0.8750	1/4-20
1.00	1"	1.0008	1.0000	1/4-20

S Keyed Bore

d	b			t			Applicable Square Key Size*
	Width	Tolerance		Height	Tolerance		
0.31	3/32	0.094	0.096	0.352	0.352	0.362	3/32
0.38	3/32	0.094	0.096	0.416	0.416	0.426	3/32
0.50	1/8	0.125	0.127	0.560	0.560	0.570	1/8
0.63	3/16	0.188	0.190	0.709	0.709	0.719	3/16
0.75	3/16	0.188	0.190	0.837	0.837	0.847	3/16
0.88	3/16	0.188	0.190	0.964	0.964	0.974	3/16
1.00	1/4	0.250	0.252	1.114	1.114	1.124	1/4

*ANSI B17.1-1989

Keyed bore is not available for d = 0.25

Part No.			Pulley Shapes	Bore Configurations	d															
Type	Number of Teeth	Belt Type & Width			Bore Diameter Selection (Pulley Shape A)								Bore Diameter Selection (Pulley Shape B)							
					1/4	5/16	3/8	1/2	5/8	3/4	7/8	1"	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1"
U-ATP / U-MTP	10	XL025 *A : 0.295 *W: 0.492 *L : 0.827	B	P Straight bore with 2 set screws at 120 deg.									0.25							
	11		B										0.25							
	12		B										0.25							
	14		B										0.25							
	15		B										0.25	0.31	0.38					
	16		A B		0.25	0.31	0.38	0.50					0.25	0.31	0.38					
	18		A B		0.25	0.31	0.38	0.50	0.63				0.25	0.31	0.38					
	19		A B		0.25	0.31	0.38	0.50	0.63				0.25	0.31	0.38					
	20		A B			0.31	0.38	0.50	0.63						0.38	0.50				
	21		A B			0.31	0.38	0.50	0.63						0.38	0.50				
	22		A B			0.31	0.38	0.50	0.63	0.75					0.38	0.50				
	24		A B			0.31	0.38	0.50	0.63	0.75	0.88				0.38	0.50				
	25	XL037 *A : 0.433 *W: 0.630 *L : 0.984	A B			0.31	0.38	0.50	0.63	0.75	0.88				0.38	0.50	0.63			
	26		A B			0.31	0.38	0.50	0.63	0.75	0.88	1.00			0.38	0.50	0.63			
	28		A B			0.31	0.38	0.50	0.63	0.75	0.88	1.00			0.38	0.50	0.63	0.75		
	30		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75		
	32		A B	S ANSI Std. Keyed bore with 2 set screws at 120 deg.				0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	34		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	36		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	38		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	40	XL050 *A : 0.551 *W: 0.748 *L : 1.102	A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	42		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	44		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	46		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	48		A B	* Bore Config. can be found at the top of next page.				0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	50		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	60		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00
	72		A B					0.50	0.63	0.75	0.88	1.00				0.50	0.63	0.75	0.88	1.00

Days to Ship

Standard	Express
6 Days	4 Days (Specify Express A) $ 8.00/piece

Non-Returnable P.30

A flat charge of $21.60 for 3 or more identical pieces. P.30

Optional Modifications

Part No. – Pulley Shapes – Bore config. + d – (Ordering code) (STC, KC90, MTC…etc)

Type: U-ATP | Number of Teeth: 24 | Belt Type & Width: XL 037 – B – S 0.50 – KC 90

Optional Modifications	Set Screw Angle Modification	Disassembled Flanges	Surface Treatment Modification	
Ordering Code	KC90	NFC	STC	MTC
Details	Changes the set screw angle to 90°. In case of shape A pulleys, the set screw holes are angled at approx. 90° in order to avoid peaks.	Ships the flanges disassembled.	Applies Black Oxide on U-MTP type pulleys. Not available for U-ATP.	Applies Electroless Nickel Plating on U-MTP type pulleys. Not available for U-ATP.
$ Price Adder	Free of Charge	Free of Charge	3.00	5.00

When using Optional Modifications,add the "Price Adder" to the standard "Unit Price".

Price

Quantity Discount Rate

Quantity	1~4	5~9	10~19	20~
Rate	—	5%	10%	15%

For larger quantity orders "Days to Ship" may differ from published catalog term. P.29

Quantity discount rate only applies to the main body price.

Bore Config. S (Keyed Bore): For total pulley price, please add the Bore Config. Price Adder to the main body with P Bore price.

Number of Teeth	U-ATP Main Body with P Bore : $ Price (Qty. 1~4)						U-MTP Main Body with P Bore : $ Price (Qty. 1~4)						$ Bore Config. Price Adder
	XL025		XL037		XL050		XL025		XL037		XL050		
	A Shape	B Shape	A Shape	B Shape	A Shape	B Shape	A Shape	B Shape	A Shape	B Shape	A Shape	B Shape	S Bore
10	-	14.10	-	15.50	-	19.50	-	15.30	-	17.00	-	21.30	-
11	-	14.10	-	15.50	-	19.60	-	15.40	-	17.00	-	21.30	-
12	-	14.50	-	16.00	-	20.10	-	15.90	-	17.50	-	21.90	-
14	-	15.10	-	16.70	-	20.80	-	16.60	-	18.10	-	22.50	-
15	-	15.80	-	17.30	-	21.30	-	17.10	-	18.70	-	23.00	1.60
16	13.90	15.80	15.30	17.30	19.50	21.30	15.20	17.10	16.90	18.70	21.20	23.00	1.60
18	14.50	16.20	15.90	17.70	20.00	21.70	15.80	17.50	17.40	19.20	21.70	23.50	1.60
19	15.00	16.40	16.40	17.80	20.50	22.00	16.30	17.80	17.80	19.40	22.20	23.70	1.60
20	15.20	17.00	16.60	18.40	20.70	22.40	16.50	18.20	18.00	19.80	22.40	24.20	1.80
21	15.20	17.20	16.60	18.80	20.70	22.80	16.50	18.50	18.00	20.20	22.40	24.50	1.80
22	15.70	17.70	17.30	19.10	21.40	23.30	17.20	19.10	18.70	20.70	23.10	25.00	1.90
24	15.70	18.50	17.30	19.90	21.40	24.00	17.20	19.80	18.70	21.50	23.10	25.80	1.90
25	16.20	19.70	17.60	21.10	21.70	25.20	17.40	20.90	19.20	22.60	23.50	26.90	2.00
26	16.20	20.00	17.60	21.50	21.70	25.40	17.40	21.20	19.20	22.90	23.50	27.20	2.00
28	16.80	21.30	18.20	22.80	22.30	27.00	18.00	22.80	19.60	24.30	24.00	28.60	2.10
30	16.80	22.30	18.20	23.70	22.30	27.80	18.00	23.60	19.60	25.20	24.00	29.50	2.30
32	17.00	23.30	18.50	24.80	22.50	28.80	18.30	24.60	20.00	26.30	24.30	30.60	2.40
34	17.00	24.00	18.50	25.60	22.50	29.70	18.20	25.40	20.00	27.00	24.30	31.40	2.40
36	17.80	25.00	19.20	26.40	23.30	30.50	19.10	26.30	20.70	27.90	25.00	32.20	2.60
38	17.80	25.70	19.20	27.30	23.30	31.20	19.10	27.00	20.70	28.70	25.00	33.00	2.60
40	19.60	26.50	21.10	27.90	25.20	32.00	21.00	27.70	22.50	29.50	26.80	33.80	2.60
42	19.60	27.90	21.10	29.50	25.20	33.40	21.00	29.20	22.50	30.90	26.80	35.20	2.60
44	20.90	29.90	22.30	31.40	26.40	35.40	22.10	31.20	23.80	32.90	28.10	37.20	2.90
46	20.90	30.60	22.30	32.00	26.40	36.10	22.10	31.90	23.80	33.50	28.10	37.80	2.90
48	23.70	32.40	25.20	33.90	29.20	38.00	25.00	33.70	26.60	35.40	30.90	39.70	3.10
50	23.70	33.00	25.20	34.40	29.20	38.50	25.00	34.20	26.60	35.80	30.90	40.20	3.10
60	30.20	37.90	31.70	39.40	35.80	43.40	31.40	39.10	33.10	40.90	37.40	45.20	3.60
72	33.30	45.20	34.80	46.60	39.00	50.70	34.60	46.50	36.30	48.10	40.60	52.40	4.60

Order Example

The part number consists only of the fields with blue characters.

Please refer to the table below for technical information.

Part No. – Pulley Shapes – Bore Config. + d

Type: U-ATP | Number of Teeth: 24 | Belt Type & Width: XL 037 – B – S 0.50

For compatible Timing Belts, refer to P.309.

Technical Information

Number of Teeth	P.D. (Pitch Diameter)	O.D. (Outer Diameter)	D		F		E	
			Inch	mm	Inch	mm	Inch	mm
10	0.637	0.617	0.39	10	0.94	24	0.47	12
11	0.700	0.680	0.39	10	0.94	24	0.47	12
12	0.764	0.744	0.47	12	0.98	25	0.59	15
14	0.891	0.871	0.59	15	1.10	28	0.71	18
15	0.955	0.935	0.67	17	1.26	32	0.79	20
16	1.019	0.999	0.67	17	1.26	32	0.79	20
18	1.146	1.126	0.83	21	1.42	36	0.94	24
19	1.210	1.190	0.83	21	1.42	36	0.94	24
20	1.273	1.253	0.94	24	1.57	40	1.06	27
21	1.337	1.317	0.94	24	1.57	40	1.06	27
22	1.401	1.381	1.02	26	1.77	45	1.18	30
24	1.528	1.508	1.02	26	1.77	45	1.18	30
25	1.592	1.572	1.18	30	1.89	48	1.38	35
26	1.655	1.635	1.18	30	1.89	48	1.38	35
28	1.783	1.763	1.38	35	2.17	55	1.57	40
30	1.910	1.890	1.38	35	2.17	55	1.57	40
32	2.037	2.017	1.57	40	2.40	61	1.77	45
34	2.165	2.145	1.57	40	2.40	61	1.77	45
36	2.292	2.272	1.57	40	2.64	67	1.97	50
38	2.419	2.399	1.57	40	2.64	67	1.97	50
40	2.546	2.526	1.57	40	2.91	74	2.28	58
42	2.674	2.654	1.57	40	2.91	74	2.28	58
44	2.801	2.781	1.57	40	3.15	80	2.36	60
46	2.928	2.908	1.57	40	3.15	80	2.36	60
48	3.056	3.036	1.57	40	3.43	87	2.64	67
50	3.183	3.163	1.57	40	3.43	87	2.64	67
60	3.820	3.800	1.57	40	4.09	104	3.31	84
72	4.584	4.564	1.57	40	4.84	123	4.02	102

Bore Selection Table

d		P	S
Callout	Nominal	Straignt Bore	Keyed Bore
0.25	1/4	○	N/A
0.31	5/16	○	○
0.38	3/8	○	○
0.50	1/2	○	○
0.63	5/8	○	○
0.75	3/4	○	○
0.88	7/8	○	○
1.00	1"	○	○