## **Timing Pulleys**

**H** Type

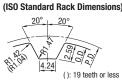
Timing Pulleys / Belts / Keyless Bushings

For Timing Belts, refer to P.1434, Long Timing Belts, refer to P.1444, Keyless Timing Pulleys, refer to P.1394, Idlers with Teeth, refer to P.1418.



Belt Width 19.1 mm (3/4")	Belt Width 25.4 mm (1")	Belt Width 38.1 mm (1.5")	Belt Width 50.8 mm (2")	Materia	al	Surface Treatment
A: 21 W: 26 L: 41	A: 27 W: 32 L: 47	A: 40 W: 45 L: 60	A: 54 W: 59 L: 74	Pulley	Flange	Surface freatment
ATPAH075	ATPAH100	ATPAH150	ATPAH200			Clear Anodize
ATPBH075	ATPBH100	ATPBH150	ATPBH200	Ultra Duralumin- Based Aluminum	Aluminum	Black Anodize
ATPKH075	ATPKH100	ATPKH150	ATPKH200	Allov	Alloy	Hard Clear Anodize*
ATPNH075	ATPNH100	ATPNH150	ATPNH200	Alloy		Electroless Nickel Plating
ATPTH075	ATPTH100	ATPTH150	ATPTH200	1045 Carbon Steel or Equivalent		_
ATPH075	ATPH100	ATPH150	ATPH200		Low Carbon Steel	Black Oxide
ATPPH075	ATPPH100	ATPPH150	ATPPH200		ે ડાઇઇ!	Electroless Nickel Plating

# **Tooth Profile**



Tooth groove dimensions slightly change according to No. of teeth.

#### (Pitch: 12.7 mm)

\*1 t=2.0 for 38–50 toothed pulleys (Cut Flange).
\*2 Shaft Bore Specifications H (Round Hole), V,F (Stepped Hole) and Y (Both Sides Stepped Hole), do not have tapped holes.

Belt Width 19.1 mm (3/4")	Belt Width 25.4 mm (1")	Belt Width 38.1 mm (1.5")	Belt Width 50.8 mm (2")	Materia	al	Cuufaaa Tuaatusaut
A: 21 W: 26 L: 41	A: 27 W: 32 L: 47	A: 40 W: 45 L: 60	A: 54 W: 59 L: 74	Pulley	Flange	Surface Treatment
					. 3	01 4
ATPAH075	ATPAH100	ATPAH150	ATPAH200	Illana Donalonaia		Clear Anodize
ATPBH075	ATPBH100	ATPBH150	ATPBH200	Ultra Duralumin- Based Aluminum	Aluminum	Black Anodize
ATPKH075	ATPKH100	ATPKH150	ATPKH200	Allov	Alloy	Hard Clear Anodize*
ATPNH075	ATPNH100	ATPNH150	ATPNH200	7 1110 9		Electroless Nickel Plating
ATPTH075	ATPTH100	ATPTH150	ATPTH200	1045 0	l 0	_
ATPH075	ATPH100	ATPH150	ATPH200	1045 Carbon Steel or Equivalent	Low Carbon Steel	Black Oxide
ATPPH075	ATPPH100	ATPPH150	ATPPH200	Steel of Equivalent	Sicci	Electroless Nickel Plating
Flanges are installed	d. Set screws are include	ded with P, N & C bore h	nole specification.	*Hard Anodi:	ze Treatment	t: Film Hardness 300 HV min.

### D Shape **Tapped Hole Dimensions** W/2 (Shaft Bore: P / N / C) 13-17 31–46 M8 M8 x 6 47–65 M10 M10 x 8 \*H Dimension H100=11 H150=14

		Number of Teeth																							
mm	14	15	16	17	18	19	20	21	22	24	25	26	28	30	32	34	36	38	40	42	44	48	50	60	72
P.D.	56.60	60.64	64.68	68.72	72.77	76.81	80.85	84.89	88.94	97.01	101.06	105.11	113.19	121.28	129.36	137.45	145.53	153.62	161.70	169.79	177.87	194.04	202.13	242.55	291.06
0.D.	55.22	59.27	63.31	67.35	71.39	75.44	79.48	83.52	87.56	95.65	99.69	103.73	111.82	119.90	127.99	136.07	144.16	152.24	160.33	168.41	176.50	192.67	200.76	241.18	289.69
D	39	45	48	48	50	50	58	58	58	58	63	63	63	63	63	71	71	88	88	88	88	88	88	88	88
F	61	67	70	80	80	87	87	95	95	104	111	111	123	127	135	144	152	165	170	180	190	205	210	_	_
Е	45	50	56	60	60	67	67	75	75	84	90	90	102	105	115	125	130	140 (126)	150 (135)	155 (143)	170 (152)	180 (168)	185 (175)	216	265

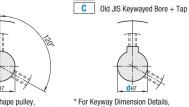
P.D.	56.60	60.64	64.68	68.72	72.77	76.81	80.85	84.89	88.94	97.01	101.06	105.11	113.19	121.28	129.36	137.45	145.53	153.62	161.70	169.79	177.87	194.04	202.13	242.55	291.06	Α	21	27	40	54	80
0.D.	55.22	59.27	63.31	67.35	71.39	75.44	79.48	83.52	87.56	95.65	99.69	103.73	111.82	119.90	127.99	136.07	144.16	152.24	160.33	168.41	176.50	192.67	200.76	241.18	289.69	W	26	32	45	59	85
D	39	45	48	48	50	50	58	58	58	58	63	63	63	63	63	71	71	88	88	88	88	88	88	88	88	L Number of Teeth 14–36	41	47	60	74	100
F	61	67	70	80	80	87	87	95	95	104	111	111	123	127	135	144	152	165	170	180	190	205	210	_	_	L Number of	$\vdash$				
F	45	50	56	60	60	67	67	75	75	84	90	90	102	105	115	125	130	140	150	155	170	180	185	216	265	Teeth 38–60	[ — ]	53	65	-	_
	-																														
① *E	① *E dimension in () are for D Shape with 38–48 teeth.																														
	· · ·																														
Shaft Bore Specs. ① The shaft bore may not have surface treatment.																															
H																															
HU	Inch	Round	Hole	PU	In	ch Rou	ınd Ho	e ± Ta	ın [	III	Inch N	lew .II	S Key (	rnnve	Hole .	⊾ Tan					(coi	intorho	ared h	nlae		Steppe	ed Hole			Hole	



\* No tapped holes and set screws.

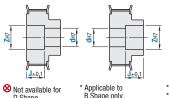














on the hub side)



**Belt Nominal Width / Dimension** 

A only.	
* No tapped holes or	
set screws.	
* Formulas	
* Q-R>=2	
* R-WB>=2	

M4 M4 x 3

M5 M5 x 4

M6 M6 x 5

	Part Nun	nber														ncremer	1t)						
				Shaft	Н	F	P	N A	/ C	Н	U	P	U	N	U			V/F				Y/WB	
Туре	Teeth	Type Nominal	Pulley Shape	Bore Specs					d <sub>H7</sub>							d,	H7	Z	H7	J (0.1 mm Inc.)	d	Q <sub>H7</sub> / R <sub>H7</sub>	S/T
		Width			A B-D	A Shape	B-D Shape	A Shape	B-D Shape	A Shape	B-D Shape	A Shape	B-D Shape	A Shape	B-D Shape	A Shape	B Shape	A Shape	B Shape	A Shape B Shape	A Shape	A Shape	A Shape
7075 Aluminum Alloy ATPA ATPB ATPK ATPN ATPN Carbon Steel ATPT ATPP ATPP	14 15 16 17 18 19 20 21 22 24 25 26 28 30 32 34 36 38	H075 *A:21 *W:26 *L:41 H100 *A:27 *W:32 *L:47 (38-=L:53 72= L:58 *A:40 *W:45 *L:60 (38-=L:65 72= L:70	A B	H HU P PU NU C V F Y	20-84 20-59 20-85 20-59 20-85 20-59 20-85 20-59 20-85 20-60	12-34 12-40 12-44 12-44 14-50 14-57 14-57 16-65 16-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70 120-70	12–36 12–38 12–38 12–38 14–46 14–46 16–49 20–49 20–49 20–49 20–57 20–57	14-47 14-50 14-50 14-50	12–30 12–35 12–35 14–35 14–38 14–38 16–38 16–41 20–41 20–41 20–41 20–42 20–49 20–49 20–55	F-M F-P F-R F-S G-S G-S G-S H-S H-S J-S J-S J-S J-S J-S J-S J-S J-S J-S J			F-K F-L F-M F-M F-M G-Q G-Q H-Q H-Q H-Q H-Q H-Q H-R J-R J-R J-R J-R		G-M G-M H-M H-N J-N J-N J-N J-R J-R	12–54 12–54 14–61 14–61 14–65 14–65 16–74 16–80 20–82 20–83 20–83 20–83 20–83	20-57	14-56 14-56 16-63 16-67 16-67 18-76 18-82 22-84 22-94 22-95 22-95	14-44 14-44 14-46 16-46 16-54 16-54 18-54 18-59 22-59 22-59 22-59 22-59	(For A Shape) 3.0≤J≤ W-3.0 (For B Shape) 3.0≤J≤ L-3.0	14-61 14-65 14-65 16-74 16-80 20-82 20-83 20-83 20-83 20-83 20-83 20-83 20-83	14-46 14-52 14-56 14-56 16-63 16-67 16-67 18-76 18-82 22-84 22-94 22-95	<b>3–28</b> S+T≤W∹
1045 Carbon Steel ATPT ATP ATPP	42 44 48 50 60	<b>H200</b> *A :54 *W :59 *L :74	A D		20-85 20-72 20-85 20-72 20-105 20-72 20-105 20-72 20-105 20-72	2 20-70 2 20-70 2 20-70 2 20-70	20-62 20-62 20-62	20-55 20-55 20-55	20-55 20-55 20-55	J-S J-S J-S J-S	J-S J-S J-S J-S J-S	J-S J-S J-S J-S	J-R J-R J-R J-R J-R	J-R J-R J-R J-R	J-R	20-83 20-103 20-103 20-103	_	22-95 22-125 22-125 22-125	_		20-83 20-105 20-105	20-75 20-100 20-100 20-100	

① For inch hole dimensions detail information refer to next page. ① \*E dimension in () are for D Shape with 38–48 teeth. ① Z-d≥2 for Shaft Bore Specification V.

Shaft Bore Dia. 13, 14, 17, 21–55 are not available for Shaft Bore specification C. ♥ Q(R)-d≥2 for shaft bore specification Y. ♠ Available number of teeth with nominal width H075 and H200 is up to 36.

⊗ For shaft hole specification N, shaft hole diameters 9, and 51-54 can not be manufactured.

## **MISUMI**

## **Timing Pulleys**

H Type, continued



Part Numb	er	] -	Pulley Shape	-	Shaft Bore Spec. / Inner Dia.	-	Z	-	J	-	Q	-[	R	-[	S	-[	T
Shaft Bore: H/P/N/C	ATP18H150	-	В	-	N20												
Shaft Bore: V / F	ATP20H100	-	Α	-	V20	-	<b>Z38</b>	-	J23.0								
Shaft Bore: Y	ATP30H150	-	Α	-	Y25					-	Q42	-	<b>R42</b>	-	<b>S9</b>	-	<b>T9</b>

### **Inch Hole Specifications**

Nominal	Dimension (mm)
1/8	3.175
3/16	4.763
1/4	6.350
5/16	7.938
3/8	9.525
1/2	12.700
5/8	15.875
3/4	19.050
7/8	22.225
	Nominal  1/8  3/16  1/4  5/16  3/8  1/2  5/8  3/4

_			
	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
se	Changes an angle of set screw to 90°.  Or 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)  ① Thickness required: minimum 2 mm A Shape: d+M+d=GSC(OFC / OTC)=E-(M+4) B Shape: d+M+d=QSC(OFC / OTC)=D-(M+4) ① Specify KC90 when selecting DFC for the Shaft Bore specifications P and N. ① d=Z when the Shaft Bore Specifications is V. ② The pilot hole for tapping may go through. ② OSC is not applicable to Shaft Bore Specifications F or Y. ③ OSC is not applicable to the Shaft Bore Specification P and N.  M Selection: M3, M4, M5, M6, M8  Ordering Code: DFC28-M4  M×2  (6 Places)  (14 Places)  (3 Places)  OFC  OTC  OTC  OTC  A-M  3-M	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  Conditions vary depending on the shaft hole specifications	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  Minimum thickness is 2mm  Applicable to shaft bore specifications V, F only.  Use retainer ring groove standards for Z dimension  In s J-SRG-m  Ordering Code:  SRG7	Add taper for retaining bearing inner ring  Ordering Code: BTC8-TL1.5 Application Notes  ① Applicable to Shape A only. ① Applicable to shaft bore specifications H, P only. ② 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  ① Shaft Bore specification H, V, F: 3≤BC≤L-W  ① Shaft Bore specification P, N, C: M+3≤BC≤L-W  Not available for K, A shape	, ,	Flange installed on the hub side (RFC) or the opposite side (LFC) only.  Same on A Shape  RFC  LFC	Cuts the outer diameter of the flange in 0.5mm increments  Ordering Code: FC17  Application Notes  ↑ FC ≥ (0.D.) + 1  ↑ FC ≤ F - 2  ↑ No surface treatment applied on flange circumference.	Changes the tapped hole dimension.  • Applicable to Shaft Bore specification P, N, C only.  • M TPC  • M4 M3, M5  • M5 M4, M6  • M6 M5, M8  • M8 M6, M10  • M10 M8  • Ordering Code: TPC5	Changes the length of the included set screws.  ① Applicable to Shaft Bore specification P, N, C only.  Set Screw SLH  M4 x 3 5, 8  M5 x 4 6, 10  M6 x 5 10  M8 x 6 10, 12  M10 x 8 12, 15  Ordering Code: SLH15	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 KTC  Through Through