

# High Torque Timing Pulleys

## 8YU Type

**Feature:** Circular Tooth Profile Pulleys with little backlash, suitable for positioning. For Super High Torque Timing Belts (compatible with EV8YU belts), **P.1432**, for Idlers with Teeth **P.1424**.

### High Torque Timing Pulleys – 8YU Type



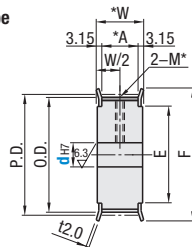
RoHS 10

Belt Width 15 mm			Belt Width 20 mm			Belt Width 25 mm			Material				
A: 16.7 W: 23.0 L: 43.0			A: 21.7 W: 28.0 L: 48.0			A: 26.7 W: 33.0 L: 53.0			Pulley	Flange	Surface Treatment	Accessories Set Screws	
GPA_YU8150			GPA_YU8200			GPA_YU8250			2000 Series Aluminum Alloy	Aluminum Alloy	Clear Anodize	304 Stainless Steel	
GPT_YU8150			GPT_YU8200			GPT_YU8250			1045 Carbon Steel or Equivalent	Low Carbon Steel	—	Chrome Molybdenum Steel (Black Oxide)	
GPM_YU8150			GPM_YU8200			GPM_YU8250					Black Oxide		

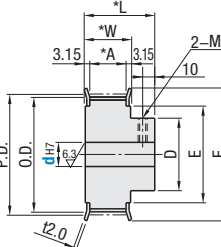
Ⓢ Flanges are installed. Set screws are included with P & N bore hole specification.

### Pulley Shape

#### A Shape



#### B Shape



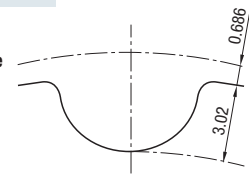
### Belt Nominal Width / Dimension

mm	YU8150	YU8200	YU8250
A	16.7	21.7	26.7
W	23.0	28.0	33.0
L	43.0	48.0	53.0

### Tapped Hole Dimensions (Shaft Bore: P, N)

d <sub>H7</sub> Shaft Bore Inner Dia.	M (Coarse)	Accessories Set Screw
16-17	M5	M5 x 4
18-30	M6	M6 x 5
31-45	M8	M8 x 6
46-65	M10	M10 x 8

### Standard Tooth Profile



Tooth groove dimensions slightly change according to No. of teeth. (Pitch: 8.0 mm)

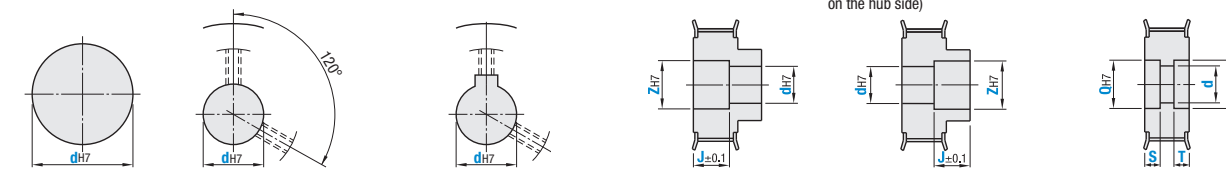
\*For Shaft Bore Specifications H (Round Hole), V and F (Stepped Hole) and Y (Both Sides Stepped Hole), no tapped hole is machined.

### Number of Teeth, Dimension: 8YU

mm	Number of Teeth															
	20	22	24	25	26	28	30	32	34	36	38	40	44	48	50	60
P.D.	50.93	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
O.D.	49.56	54.65	59.75	62.29	64.84	69.93	75.02	80.12	85.21	90.30	95.40	100.49	110.68	120.86	125.95	151.42
D	36	40	44	46	48	52	56	60	64	68	72	74	78	80	82	88
F	62	64	70	72	75	80	85	90	95	100	105	110	121	131	136	161
E	40	45	50	52	54	59	64	69	74	79	84	89	99	109	114	140

### Shaft Bore Specs. Ⓢ The shaft bore may not have surface treatment.

- H** Round Hole
- P** Round Hole + Tap
- N** New JIS Keywayed Bore + Tap
- V** Stepped Hole
- F** Stepped Hole (counterbored holes on the hub side)
- Y** Both Ends Stepped Hole



\*No tapped holes and set screws  
 \*For A Shape pulley, the set screw hole is set at around 120° to keep away from peaks  
 \*For Keyway Dimension Details, refer to P.1338.  
 Ⓢ GPA is not applicable, \*No tapped holes and set screws  
 Ⓢ GPA is not applicable, \*Applicable to B Shape only \*No tapped holes and set screws  
 Ⓢ GPA is not applicable, \*Applicable to A Shape only \*Shaft Bore Dia. D is general tolerance \*No tapped holes and set screws \*Q(R)-Y≥2

Part Number			Pulley Shape																	
Type	Number of Teeth	Type Nominal Width	Specify in 1mm Increment																	
			A							B										
			H Round Hole	P Round Hole + Tap	N Keyway + Tap	V Stepped Hole * Available for GPT, GPM Only			Y Both Ends Stepped * Available for GPT, GPM Only				H Round Hole	P Round Hole + Tap	N Keyway + Tap	V, F Stepped Hole * Available for GPT, GPM Only				
Aluminum GPA Steel GPT GPM	20	YU8150 YU8200 YU8250	A B	16-32	16-28	16-21	16-30	18-32	16-30	18-32	16-32	16-20	16-18	16-30	18-32	16-32	16-20	16-18	16-30	18-32
	22			16-37	16-29	16-26	16-35	18-37	16-35	18-37	16-37	16-24	16-22	16-32	18-34	16-37	16-24	16-22	16-32	18-34
	24			16-42	16-34	16-30	16-40	18-42	16-40	18-42	16-40	16-28	16-24	16-38	18-40	16-40	16-28	16-24	16-38	18-40
	25			16-48	16-36	16-30	16-46	18-48	16-46	18-48	16-42	16-30	16-26	16-40	18-42	16-42	16-30	16-26	16-40	18-42
	26			16-50	16-38	16-30	16-48	18-50	16-48	18-50	16-42	16-32	16-28	16-43	18-45	16-42	16-32	16-28	16-43	18-45
	28			16-52	16-42	16-30	16-50	18-52	16-50	18-52	16-47	16-35	16-30	16-44	18-46	16-47	16-35	16-30	16-44	18-46
	30			16-59	16-45	16-30	16-57	18-59	16-57	18-59	16-50	16-39	16-30	16-48	18-50	16-50	16-39	16-30	16-48	18-50
	32			20-59	20-48	20-30	20-57	22-59	20-57	22-59	20-55	20-42	20-30	20-48	22-50	20-55	20-42	20-30	20-48	22-50
	34			20-67	20-52	20-30	20-65	22-67	20-65	22-67	20-58	20-45	20-30	20-54	22-56	20-58	20-45	20-30	20-54	22-56
	36			20-72	20-58	20-30	20-70	22-72	20-70	22-72	20-64	20-48	20-30	20-60	22-62	20-64	20-48	20-30	20-60	22-62
	38			20-76	20-62	20-30	20-74	22-76	20-74	22-76	20-68	20-52	20-30	20-62	22-64	20-68	20-52	20-30	20-62	22-64
	40			25-80	25-65	25-30	25-80	27-82	25-75	27-82	25-70	25-54	25-30	25-64	27-66	25-70	25-54	25-30	25-64	27-66
	44			25-80	25-65	25-30	25-80	27-92	25-75	27-92	25-72	25-56	25-30	25-66	27-68	25-72	25-56	25-30	25-66	27-68
	48			25-80	25-65	25-30	25-80	27-95	25-75	27-95	25-74	25-58	25-30	25-68	27-70	25-74	25-58	25-30	25-68	27-70
	50			25-80	25-65	25-30	25-80	27-95	25-75	27-95	25-76	25-60	25-30	25-70	27-72	25-76	25-60	25-30	25-70	27-72
	60			30-80	30-65	30	30-80	32-95	30-75	32-95	30-80	30-65	30	30-72	32-74	30-80	30-65	30	30-72	32-74

**Part Number Example**

Part Number	GPA30YU8150	-	A	-	P25	-	Z	-	J	-	Q	-	R	-	S	-	T
Shaft Bore: H / P / N	GPA30YU8150	-	A	-	P25	-	Z24	-	J20.0	-	Q34	-	R38	-	S10	-	T15
Shaft Bore: V / F	GPT36YU8200	-	B	-	V20	-	Z24	-	J20.0	-	Q34	-	R38	-	S10	-	T15
Shaft Bore: Y	GPM40YU8250	-	A	-	Y30	-	Z24	-	J20.0	-	Q34	-	R38	-	S10	-	T15

# High Torque Timing Pulleys

## 8YU Type, continued

**Part Number Alterations**

Part Number	GPA30YU8150	-	A	-	P25	-	Z	-	J	-	Q	-	R	-	S	-	T
Part Number	GPA30YU8150	-	A	-	P25	-	Z24	-	J20.0	-	Q34	-	R38	-	S10	-	T15

Alterations	Set Screw Angle	Side Tapped Hole	Side Through Hole
<b>Code</b>	<b>KC90</b>	<b>QSC / QFC / QTC</b>	<b>KSC / KFC / KTC</b>
<b>Spec.</b>	Changes an angle of set screw to 90°. Ⓢ For 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. (QSC, QFC, QTC: 1 mm Increment) Ⓢ Thickness required: minimum 2 mm A Shape: d+M+4≤QSC(QFC / QTC)≤E-(M+4) B Shape: d+M+4≤QSC(QFC / QTC)≤D-(M+4) Ⓢ Specify KC90 when selecting QFC for the Shaft Bore specifications P and N. Ⓢ The pilot hole for tapping may go through. Ⓢ Not applicable to Shaft Bore Specifications F or Y. Ⓢ QSC is not applicable to the Shaft Bore Specification P and N. M Selection: M3, M4, M5, M6, M8 Ordering Code: QFC28-M4	Machines through hole on the side surface. (KSC, KFC, KTC: 1 mm Increment) Ⓢ Thickness required: minimum 2 mm A Shape: d+K+4≤KSC(KFC / KTC)≤E-(K+4) B Shape: d+K+4≤KSC(KFC / KTC)≤D-(K+4) Ⓢ Specify KC90 when selecting KFC for Shaft Bore specifications P and N. Ⓢ Not applicable to Shaft Bore Specifications F or Y. Ⓢ KSC is not applicable to the Shaft Bore Specification P and N. K (Through Hole Dia.) Selection: K4.0-K13.0 (0.5 mm Increment) Ordering Code: KSC20-K5

Alterations	Boss Cut	Flange Not Swaged	Flange Swaged on One Side	Flange Cut
<b>Code</b>	<b>BC</b>	<b>NFC</b>	<b>RFC / LFC</b>	<b>FC</b>
<b>Spec.</b>	Cuts the hub length in 0.5 mm increment. Ⓢ Shaft Bore specification: H, V, F: 3≤BC≤L-W Ⓢ Shaft Bore P, N: M+3≤BC≤L-W Ordering Code: BC6.5 Ⓢ Clear anodized products may not have surface treatment on the embossed plane. Ⓢ Not available for A Shape.	Flange is not installed. (Flange included)	Flange installed on the hub side (RFC) or the opposite side (LFC) only. Ⓢ Same on A Shape	Lowers flange by cutting. FC: 0.5 mm Increment Ⓢ No surface treatment applied on flange circumference. Ⓢ FC≥(O.D.)+2 Ⓢ FC≤F-2 Ordering Code: FC55