High Torque Timing Pulleys - 3GT

Compatible with 3GT Type from Gates Unitta Asia Company.

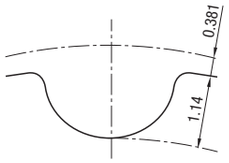
For High Torque Timing Belts, see P.1459 and for Idlers with Teeth, see P.1453

Type	Belt Width 6mm GT3060	9mm GT3090	15mm GT3150	M Material* Pulley	Flange	S Surface Treatment	A Accessory* Set Screws
GPA	●	●	●	2000 Series Aluminum Alloy	Aluminum Alloy	Clear Anodize	EN 1.4301 Equiv.
GPT	●	●	●	EN 1.1191 Equiv.	EN 1.0330 Equiv.	-	Chrome Molybdenum Steel
GPM	●	●	●			Black Oxide	(Black Oxide)

Flange is installed, and set screws are included with Shaft Bores P and N.

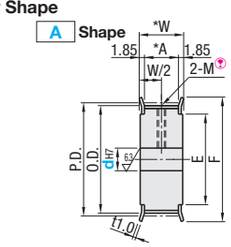
* The above material and accessory might be changed to the ones equivalent to the originals.

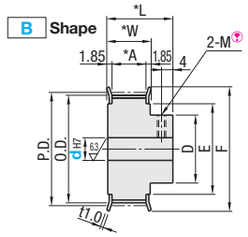
Standard Tooth Profile



Tooth groove dimensions slightly vary according to the number of teeth.
(Pitch:3.0mm)

•Pulley Shape





Shaft Bore Specs. H (Round hole), V or F (Stepped Hole) and Y (Both Sides Stepped Hole) do not have tapped holes.

For Shape B, 20 or less teeth is not selectable.

Tapped Hole Dimensions
(Shaft Bore Specs.: P, N)

dH7 Shaft Bore I.D.	M (Coarse)	Accessory: Set Screw
5	M3	M3x3
6~17	M4	M4x3
18~38	M5	M5x4

Number of Teeth / Dimension

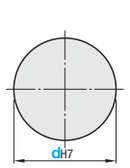
mm	Number of Teeth 16	18	20	22	24	25	26	28	30	32	34	36	40	44	48	50	60
P.D.	15.28	17.19	19.10	21.01	22.92	23.87	24.83	26.74	28.65	30.56	32.47	34.38	38.20	42.02	45.84	47.75	57.30
O.D.	14.52	16.43	18.34	20.25	22.16	23.11	24.07	25.98	27.89	29.80	31.71	33.62	37.44	41.26	45.08	46.99	56.54
D	-	-	-	12	14	14	15	17	19	20	22	24	28	30	32	34	36
F	19	21	23	24	26	27	28	30	32	34	36	38	42	46	49	51	61
E	11	12	14	16	18	18	19	21	23	25	27	29	33	36	40	42	52

Belt Nominal Width / Dimension

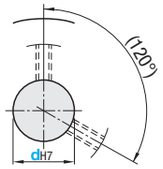
mm	Nominal GT3060	GT3090	GT3150
A	7.3	10.3	16.3
W	11.0	14.0	20.0
L	19.0	22.0	28.0

•Shaft Bore Specs. Surface treatment may not be applied to shaft bores.

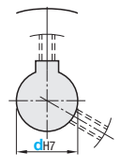
H Round Hole | P Round Hole + Tap | N New JIS Keywayed Bore + Tap | V Stepped Hole | F Stepped Hole (Counterbored Holes on the Hub Side) | Y Both Ends Stepped Hole



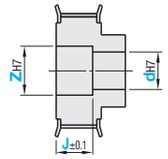
No tapped holes or set screws.



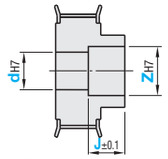
For A-Shape pulley, the screw holes are set at around 120° to keep away from peaks.



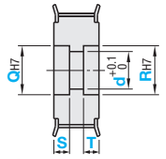
For Keyway Dimension Details, see **P.1377**. When selecting the shaft bore dia. 10 and the keyway width 4.0mm (height 1.8mm), specify **NK10**.



No tapped holes or set screws.



Applicable to Shape B only.
No tapped holes or set screws.



Applicable to Shape A only.
Shaft Bore Dia. d is +0.1 / 0
No tapped holes or set screws.

Part Number: Type	Number of Teeth	Type Nominal Width	Pulley Shape	Pulley Shape A: H Round Hole	P Round Hole + Tap	N Keyway + Tap	V Stepped Hole: V	Z Z-d≥2	J (0.1mm Increment)	Y Both Ends Stepped: Y	Q, R Q(R)-d≥2	S, T	Pulley Shape B: H Round Hole	P Round Hole + Tap	N Keyway + Tap	V, F Stepped Hole: V, F	Z Z-d≥2	J (0.1mm Increment)
				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 GPA, Steel GPT GPM	16	GT3060	A	4~6, 6.35, 7	-	-	4, 5	6, 7	2.0≤J≤W-2.0	4, 5	6, 7	3~9 S+T≤W-3	-	-	-	-	-	2.0≤J≤L-2.0
	18			5, 6, 6.35, 7, 8	5		5, 6	7, 8		5, 6	7, 8							
	20			5, 6, 6.35, 7~9	5, 6		5~7	7~9		5~7	7~9							
	22			6, 6.35, 7~10	6, 6.35, 7		6~7	8~9		6~7	8~9		6, 6.35, 7, 8					
	24	GT3090	A	6, 6.35, 7~10	6, 6.35, 7, 8	-	6~7	8~9		6~7	8~9		6, 6.35, 7~10	6	-	6	8	
	25			6, 6.35, 7~11	6, 6.35, 7~10		6~8	8~11		6~8	8~11		6, 6.35, 7~10	6		6~8	8~10	
	26			6, 6.35, 7~11	6, 6.35, 7~11	8	6~8	8~11		6~8	8~11		6, 6.35, 7~11	6		6~8	8~10	
	28			6, 6.35, 7~13	6, 6.35, 7~13	8, 10, NK10	6~10	8~12		6~10	8~12		6, 6.35, 7~13	6, 6.35, 7, 8		6~10	8~12	
	30			6, 6.35, 7~15	6, 6.35, 7~14	8, 10, NK10	6~13	8~15		6~13	8~15		6, 6.35, 7~15	6, 6.35, 7~10	8	6~13	8~15	
	32	GT3150	A	6, 6.35, 7~17	6, 6.35, 7~14	8, 10, NK10, 11, 12	6~15	8~17		6~15	8~17		6, 6.35, 7~16	6, 6.35, 7~10	8	6~14	8~16	
	34			8~20	8~16	8, 10, NK10, 11~13	8~18	10~23		8~18	10~20		8~20	8~12	8, 10, NK10	8~18	10~18	
	36		B	8~20	8~18	8, 10, NK10, 11~14	8~18	10~23		8~18	10~20		8~20	8~14	8, 10, NK10, 11, 12	8~18	10~20	
	40			8~24	8~23	8, 10, NK10, 11~17	8~22	10~24		8~22	10~24		8~24	8~18	8, 10, NK10, 11~15	8~22	10~24	
	44			10~28	10~25	10, NK10, 11~20	10~26	12~28		10~26	12~28		10~26	10~20	10, NK10, 11~15	10~26	12~26	
	48			10~30	10~25	10, NK10, 11~23	10~28	12~30		10~28	12~30		10~28	10~22	10, NK10, 11~17	10~26	12~28	
	50			10~32	10~28	10, NK10, 11~24	10~30	12~32		10~30	12~32		10~30	10~23	10, NK10, 11~18	10~28	12~30	
	60			12~38	12~38	12~30	12~36	14~38		12~36	14~38		12~32	12~24	12~20	12~30	14~32	

Ordering Example

	Part Number	-	Pulley Shape	-	Shaft Bore Specs., I.D.	-	Z	-	J	-	Q	-	R	-	S	-	T
(Shaft Bore Specs.: H, P, N)	GPA30GT3060	-	A	-	H10												
(Shaft Bore Specs.: V, F)	GPA40GT3150	-	B	-	V12	-	Z14	-	J18.0								
(Shaft Bore Specs: Y)	GPA36GT3090	-	A	-	Y15					-	Q18	-	R20	-	S3	-	T4

Number of Teeth	Body Price: 2000 Aluminum Alloy (Clear Anodize) GT3060 Shape A	GT3060 Shape B	GT3090 Shape A	GT3090 Shape B	GT3150 Shape A	GT3150 Shape B	EN 1.1191 Equiv. GT3060 Shape A	GT3060 Shape B	GT3090 Shape A	GT3090 Shape B	GT3150 Shape A	GT3150 Shape B	EN 1.1191 Equiv. (Black Oxide) GT3060 Shape A	GT3060 Shape B	GT3090 Shape A	GT3090 Shape B	GT3150 Shape A	GT3150 Shape B	Shaft Bore Machining Charge (Body Price +) P Hole	N, V, F Hole	Y Hole
16																					
18		-		-		-		-		-		-		-		-		-			
20																					
22																					
24																					
25																					
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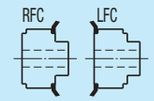
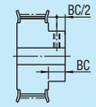
48																					
50																					
60																					

Alterations

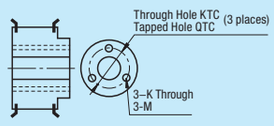
	Part Number	-	Pulley Shape	-	Shaft Bore Specs., I.D.	-	Z	-	J	-	Q	-	R	-	S	-	T	-	(KC90…etc.)
	GPA30GT3090	-	A	-	H10													-	FC30.0

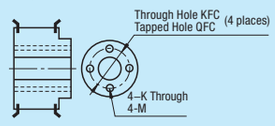
Alterations / Code	Set Screw Angle KC90	Flange Not Swaged NFC	Flange Swaged on One Side RFC, LFC	Flange Cut FC	Hub Shortening BC
Spec.	Changes an angle of set screw to 90°. For A-Shape pulley, the screw holes are set at around 90° to keep away from peaks.	(Flange 2 pcs. Included) Ordering Code NFC	(Flange 1 pc. Included) Ordering Code RFC	Cut the flange O.D. in 0.5mm increment. Ordering Code FC17 Application Notes FC≥(O. D.)+1 FC≤F-2 No surface treatment is applied on flange circumference.	Cuts the hub length in 0.5mm increment. Ordering Code BC6.5 Application Notes Shaft Bore Specs. H, V, F: 3≤BC≤L-W Shaft Bore Specs. P, N: M+3≤BC≤L-W Not available for Shape A. For details, see the "Timing Pulley Alterations - Overview" section P.1378.

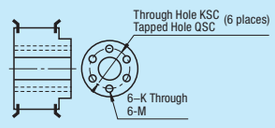




Alterations / Code	Side Through Hole / Side Tapped Hole, 3 places KTC, QTC	Side Through Hole / Side Tapped Hole, 4 places KFC, QFC	Side Through Hole / Side Tapped Hole, 6 places KSC, QSC
Spec.	Machines through hole / tapped hole on the side surface. Ordering Code (Through Hole) KTC20-K5.0 Ordering Code (Tapped Hole) QTC28-M4 Selection (Through Hole) K Selection K4.0~K13.0 (0.5mm Increment) Selection (Tapped Hole) M Selection M3,M4,M5,M6,M8 Application Notes Not applicable to Shaft Bore Specs. F or Y. When KTC/QTC is selected for Shaft Bore Specs. P and N, KC90 is not available.	Machines through hole / tapped hole on the side surface. Ordering Code (Through Hole) KFC20-K5.0 Ordering Code (Tapped Hole) QFC28-M4 Selection (Through Hole) K Selection K4.0~K13.0 (0.5mm Increment) Selection (Tapped Hole) M Selection M3,M4,M5,M6,M8 Application Notes Not applicable to Shaft Bore Specs. F or Y. Specify KC90 when selecting KFC/QFC for Shaft Bore Specs. P and N. Side holes and tooth side tapped holes might interfere with each other. For details, see the relevant CAD data.	Machines through hole / tapped hole on the side surface. Ordering Code (Through Hole) KSC20-K5.0 Ordering Code (Tapped Hole) QSC28-M4 Selection (Through Hole) K Selection K4.0~K13.0 (0.5mm Increment) Selection (Tapped Hole) M Selection M3,M4,M5,M6,M8 Application Notes Not applicable to Shaft Bore Specs. F or Y. KSC/QSC is not applicable to the Shaft Bore Specs. P and N.







For details, see the "Timing Pulley Alterations - Overview" section P.1378.