

TIMING PULLEYS & BELTS



EMCO ENGINEERING

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All dimensions in mm unless otherwise stated

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Features of Timing Pulley Drives

Timing belts use teeth that mesh with grooves in a pulley to drive the system. There is no slippage, which will cause speed variations, allowing drives to be timed very accurately. The tensile cord, which could be made of many materials: Fibreglass, Steel, Carbon Fibre, or Kevlar, has minimal stretch so the constant need for take up adjustment is removed.

Unlike chain drives no lubrication is required on timing drives so maintenance is again reduced. Chain drives require some form of lubrication, be it drip, splatter or fully enclosed oil bath. With timing belt drives this is not required, saving on the initial set up cost of NOT installing a lubricating system but also the cost of maintaining it.

Timing drives will work over a very wide range of speed and torques, with some belts being capable of speeds up to 10,000 RPM. Torque ranges of between very light office equipment to heavy duty crushing equipment up to several hundred kW are also capable of being driven by timing drives.

Unlike flat and v-belt drives, timing drives do not rely on friction to produce drive. Slack side tension is very low and the drive side tension is greatly reduced. As a result, the overall bearing loads are reduced and there is a better life expectancy for motors and bearings.

Pulleys are available in a variety of materials such as Steel, Cast Iron, Aluminium and some are available in Plastic. All of the pulleys in the catalogue are kept on the shelf at Naismith Engineering. If you require a special pulley with non-standard number of teeth or a special material, please contact Naismith Engineering and we will make it for you in our own factory.

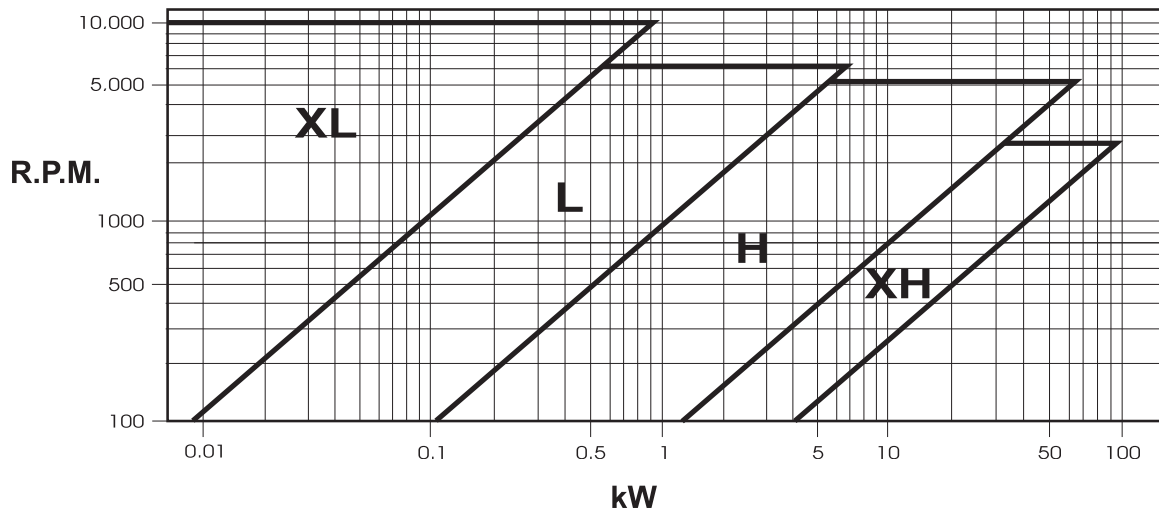
Belts are available in Rubber and Polyurethane depending on the style of belt. Special belts are available upon request. Please contact Naismith Engineering with your enquiries.



Classical Timing Pulley & Belt Drives



Classical timing belts offer a maintenance free and economical alternative to conventional drives like chains and gears. Capable of transmitting up to 100kW and speeds of 10,000 rpm. Classical timing belts can be used in a wide range of applications from light duty office machinery to heavy duty industrial drives. To select a drive it is necessary to know the driver and driven shaft speeds, the demand power, proposed centre distance and duty cycle. The chart below can be used to select the optimum belt size for a drive. For further information or help in selecting a drive contact Naismith Engineering.



Identifying a Pulley

To identify a Classical timing pulley the following information must be known:

BORE - Naismith Engineering carries full stocks of pilot and taper bore pulleys. For Classical pulleys, the taper bore pulleys have a prefix FG.

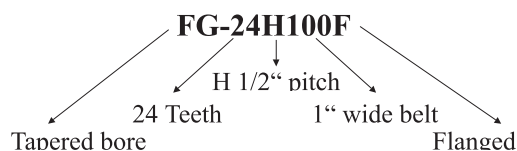
PITCH - This is the distance from the centre of one tooth to the centre of the next tooth. Naismith Engineering stocks 4 pitch sizes of Classical timing pulley:

XL	Pitch	0.200" (5.08mm)
L		0.375" (9.53mm)
H		0.500" (12.70mm)
XH		0.875" (22.23mm)

TEETH - Number of teeth.

WIDTH - The tooth width allows for a clearance of $\frac{1}{8}$ " (3mm) to $\frac{1}{4}$ " (6mm) on the belt. The tooth width code is the belt size width measured in $\frac{1}{100}$ ". So for a belt width of 1.5", the width code becomes 150. Refer to Page 5 for a listing of all sizes.

FLANGES - Pulleys with a small number of teeth are fitted with flanges. The part number for flanged pulleys ends with 'F'. Refer to the pulley tables for more details.



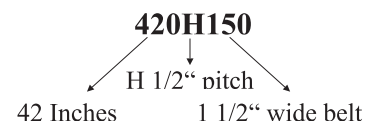
Identifying a belt

To identify a Classical timing belt the following information must be known:

LENGTH - A belt pitch length is determined by the number of teeth multiplied by the pitch. - refer page 5. The length code for a belt is the pitch length in $\frac{1}{10}$ ". So a H section (0.5" pitch) belt with 102 teeth has a pitch length of 51" and a code of 510H.

PITCH - This is the distance from the centre of one tooth to the centre of the next tooth. Naismith Engineering stocks 4 pitch sizes of Classical timing belts.

WIDTH - The belt width measured in $\frac{1}{100}$ " of an inch gives the width code. So a belt width of 1.5", has a width code of 150. Refer to Page 5 for a listing of all sizes.



Classical Timing Belts XL, L, H & XH



	Pitch (inch)	Pitch (mm)	T	B
XL	1/5"	5.08	1.27	2.30
L	3/8"	9.53	1.91	3.50
H	1/2"	12.70	2.29	4.00
XH	7/8"	22.23	6.35	11.00

Code & Pitch	Number of Teeth	Pitch Length mm
60XL	30	152.4
70XL	35	177.8
80XL	40	203.2
90XL	45	228.6
100XL	50	254.0
110XL	55	279.4
120XL	60	304.8
130XL	65	330.2
140XL	70	355.6
150XL	75	381.0
160XL	80	406.4
170XL	85	431.8
180XL	90	457.2
190XL	95	482.6
200XL	100	508.0
210XL	105	533.4
220XL	110	558.8
230XL	115	584.2
240XL	120	609.6
250XL	125	635.0
260XL	130	660.4

Standard widths of:-

6.4mm (1/4") Code = Lenath-XL025

9.5mm (3/8") Code = Lenath-XL037

Off standard widths are available on request.

Lona Lenath up to 12.7mm (1/2") wide is available.

Code & Pitch	Number of Teeth	Pitch Length mm
124L	33	315.0
150L	40	381.0
187L	50	475.0
210L	56	533.4
225L	60	571.5
240L	64	609.6
255L	68	647.7
270L	72	685.8
285L	76	723.9
300L	80	762.0
322L	86	817.9
345L	92	876.3
367L	98	932.2
390L	104	990.6
420L	112	1066.8
450L	120	1143.0
480L	128	1219.2
510L	136	1295.4
540L	144	1371.6
600L	160	1524.0

Standard widths of:-

12.7mm (1/2") Code = Lenath-L050

19.1mm (3/4") Code = Lenath-L075

25.4mm (1") Code = Lenath-L100

Off standard widths are available on request.

Lona Lenath up to 25.4mm (1") wide is available.

Code & Pitch	Number of Teeth	Pitch Length mm
507XH	58	1287.8
560XH	64	1422.4
630XH	72	1600.2
700XH	80	1778.0
770XH	88	1955.8
840XH	96	2133.6
980XH	112	2489.2
1120XH	128	2844.8
1260XH	144	3200.4
1400XH	160	3556.0
1540XH	176	3911.6
1750XH	200	4445.0

Standard widths of:-

50.8mm (2") Code = Lenath-XH200

76.2mm (3") Code = Lenath-XH300

101.6mm (4") Code = Lenath-XH400

Off standard widths are available on request.

Code & Pitch	Number of Teeth	Pitch Length mm
240H	48	609.6
270H	54	685.8
300H	60	762.0
330H	66	838.2
360H	72	914.4
390H	78	990.6
420H	84	1066.8
450H	90	1143.0
480H	96	1219.2
510H	102	1295.4
540H	108	1371.6
570H	114	1447.8
600H	120	1524.0
630H	126	1600.2
660H	132	1676.4
700H	140	1778.0
750H	150	1905.0
800H	160	2032.0
850H	170	2159.0
900H	180	2286.0
1000H	200	2540.0
1100H	220	2794.0
1250H	250	3175.0
1400H	280	3556.0
1700H	340	4318.0

Standard widths of:-

19.1mm (3/4") Code = Lenath-H075

25.4mm (1") Code = Lenath-H100

38.1mm (1.1/2") Code = Lenath-H150

50.8mm (2") Code = Lenath-H200

76.2mm (3") Code = Lenath-H300

Off standard widths are available on request.

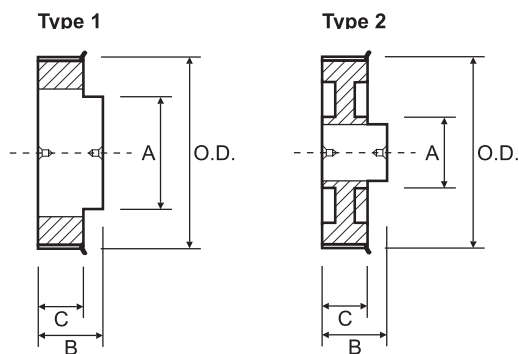
Lona Lenath up to 50.8mm (2") wide is available.

EMCO ENGINEERING

Plastic Timing Pulleys

XL Pitch 0.200"

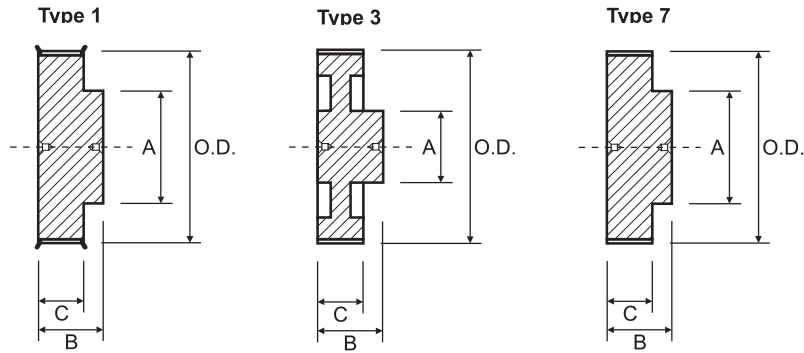
L Pitch 0.375"



XL037					
Suit 9.5mm wide belt (3/8")					
Part No.	O.D.	Type	A	B	C = 13.0
PP11XL037	17.3	1	12.5	21.0	Plastic with an Aluminium hub 1 Flange on boss side only
PP12XL037	18.9	1	12.5	21.0	
PP14XL037	22.1	1	16.0	21.0	
PP15XL037	23.7	1	18.0	25.0	
PP16XL037	25.4	1	18.0	25.0	
PP18XL037	28.6	1	20.0	25.0	
PP20XL037	31.8	1	20.0	25.0	
PP21XL037	33.5	1	20.0	25.0	
PP22XL037	35.1	1	20.0	25.0	
PP24XL037	38.3	1	25.0	25.0	
PP28XL037	44.8	1	25.0	25.0	
PP30XL037	48.0	2	25.0	25.0	
PP32XL037	51.2	2	25.0	25.0	
PP36XL037	57.7	2	35.0	25.0	
PP40XL037	64.2	2	35.0	25.0	
PP42XL037	67.4	2	35.0	25.0	
PP44XL037	70.6	2	35.0	25.0	
PP48XL037	77.1	2	35.0	25.0	
PP50XL037	80.3	2	35.0	25.0	

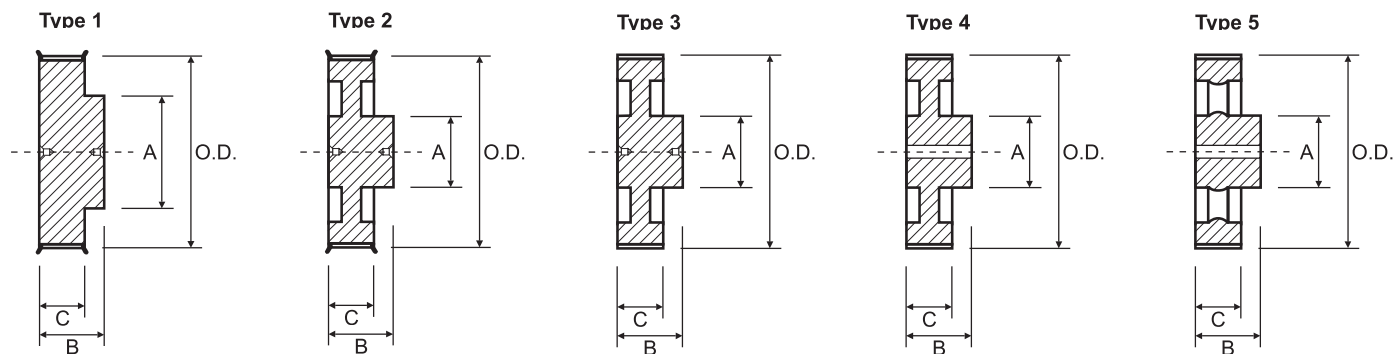
L050					
Suit 12.7mm wide belt (1/2")					
Part No.	O.D.	Type	A	B	C = 17.0
PP10L050	29.6	1	20.0	25.0	Plastic with an Aluminium hub 1 Flange on boss side only
PP12L050	35.6	1	25.0	25.0	
PP14L050	41.7	1	30.0	30.0	
PP16L050	47.8	1	30.0	30.0	
PP18L050	53.8	2	30.0	30.0	
PP20L050	59.9	2	30.0	30.0	
PP22L050	65.9	2	40.0	30.0	
PP24L050	72.0	2	40.0	30.0	
PP26L050	78.1	2	40.0	30.0	
PP28L050	84.1	2	40.0	30.0	
PP30L050	90.2	2	40.0	30.0	
PP32L050	96.3	2	40.0	30.0	
PP36L050	108.4	2	50.0	40.0	
PP40L050	120.5	2	50.0	40.0	
L100					
Suit 25.4mm wide belt (1")					
Part No.	O.D.	Type	A	B	C = 30.0
PP10L100	29.6	1	20.0	40.0	Plastic with a Steel hub 1 Flange on boss side only
PP12L100	35.6	1	25.0	40.0	
PP14L100	41.7	1	30.0	40.0	
PP16L100	47.8	1	30.0	40.0	
PP18L100	53.8	1	40.0	50.0	
PP20L100	59.9	1	40.0	50.0	
PP22L100	65.9	2	40.0	50.0	
PP24L100	72.0	2	40.0	50.0	
PP26L100	78.1	2	40.0	50.0	
PP28L100	84.1	2	48.0	50.0	
PP30L100	90.2	2	48.0	50.0	
PP32L100	96.3	2	48.0	50.0	
PP36L100	108.4	2	57.0	50.0	
PP40L100	120.5	2	57.0	50.0	

XL 0.200" Timing Pulleys



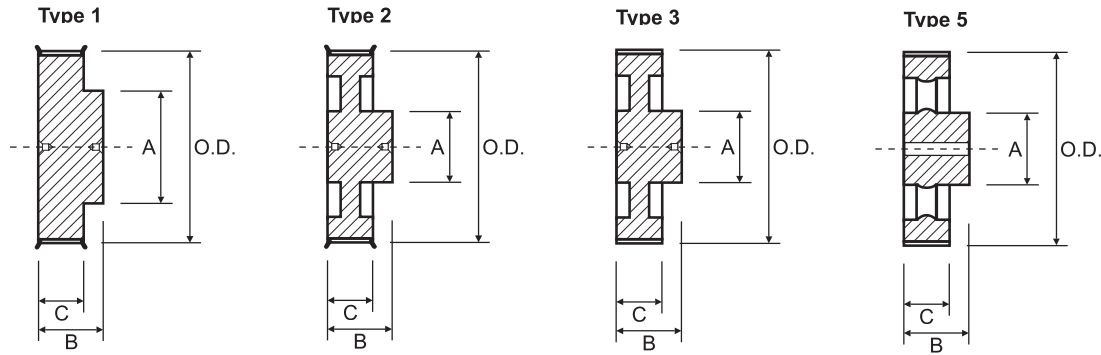
XL037					
Suit 9.5mm wide belt (3/8")					
Part No.	O.D.	Type	A	B	C= 14.3
10XL037F	15.7	1	12.0	25.0	Aluminium Flanged
11XL037F	17.3	1	12.0	25.0	
12XL037F	18.9	1	12.0	25.0	
13XL037F	20.5	1	12.0	25.0	
14XL037F	22.1	1	16.0	25.0	
15XL037F	23.7	1	17.0	25.0	
16XL037F	25.4	1	20.0	25.0	
17XL037F	27.0	1	20.0	25.0	
18XL037F	28.6	1	20.0	25.0	
19XL037F	30.2	1	25.0	25.0	
20XL037F	31.8	1	25.0	25.0	
21XL037F	33.5	1	26.0	25.0	
22XL037F	35.1	1	27.0	25.0	
24XL037F	38.3	1	30.0	25.0	
25XL037F	39.9	1	25.0	22.5	Steel
26XL037F	41.5	1	30.0	25.0	
27XL037F	43.2	1	32.0	25.0	Aluminium No Flanges
28XL037F	44.8	1	34.0	25.0	
30XL037F	48.0	1	38.0	25.0	
32XL037	51.2	7	45.0	25.0	
34XL037	54.5	7	45.0	25.0	
36XL037	57.7	7	52.0	25.0	
40XL037	64.2	7	52.0	25.0	
42XL037	67.4	7	52.0	25.0	
44XL037	70.6	7	52.0	25.0	
48XL037	77.1	7	52.0	25.0	
52XL037	83.8	7	52.0	25.0	
56XL037	90.0	7	52.0	25.0	
60XL037	96.5	3	52.0	25.0	
72XL037	115.9	3	52.0	25.0	

L Pitch 0.375" Timing Pulleys



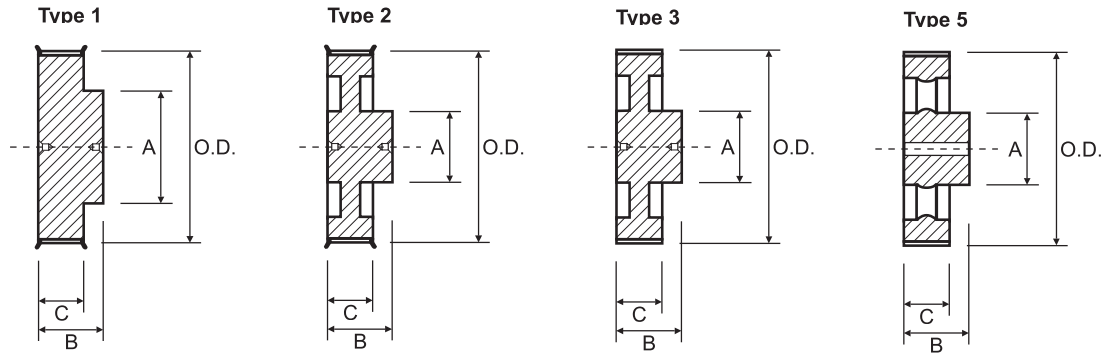
L050						L100					
Suit 12.7mm wide belt (1/2")						Suit 25.4mm wide belt (1")					
Part No.	O.D.	Type	A	B	C = 19.0	Part No.	O.D.	Type	A	B	C = 32.0
10L050F	29.6	1	20.0	30.0	Steel Flanged	10L100F	29.6	1	20.0	46.0	Steel Flanged
11L050F	32.6	1	20.0	30.0		11L100F	32.6	1	20.0	46.0	
12L050F	35.6	1	27.0	30.0		12L100F	35.6	1	27.0	46.0	
13L050F	38.7	1	27.0	30.0		13L100F	38.7	1	27.0	46.0	
14L050F	41.7	1	29.0	30.0		14L100F	41.7	1	29.0	46.0	
15L050F	44.7	1	32.0	30.0		15L100F	44.7	1	32.0	46.0	
16L050F	47.8	1	37.0	30.0		16L100F	47.8	1	37.0	46.0	
17L050F	50.8	1	37.0	30.0		17L100F	50.8	1	37.0	46.0	
18L050F	53.8	1	41.0	30.0		18L100F	53.8	1	41.0	46.0	
19L050F	56.8	1	41.0	30.0		19L100F	56.8	1	41.0	46.0	
20L050F	59.9	1	47.0	30.0		20L100F	59.9	1	47.0	46.0	
21L050F	62.9	1	47.0	30.0		21L100F	62.9	1	47.0	46.0	
22L050F	65.9	1	50.0	30.0		22L100F	65.9	1	50.0	46.0	
23L050F	69.0	1	50.0	30.0		23L100F	69.0	1	50.0	46.0	
24L050F	72.0	1	57.0	32.0		24L100F	72.0	1	57.0	46.0	
25L050F	75.0	1	58.0	32.0		25L100F	75.0	1	58.0	46.0	
26L050F	78.1	1	64.0	32.0	Cast Iron No Flanges	26L100F	78.1	1	64.0	46.0	Cast Iron No Flanges
27L050F	81.1	1	64.0	32.0		27L100F	81.1	1	64.0	46.0	
28L050F	84.1	1	70.0	32.0		28L100F	84.1	1	70.0	46.0	
30L050F	90.2	1	72.0	34.0		30L100F	90.2	1	72.0	46.0	
32L050F	96.3	1	75.0	34.0		32L100F	96.3	1	75.0	46.0	
34L050F	102.3	1	85.0	34.0		34L100F	102.3	1	85.0	46.0	
36L050F	108.4	1	88.0	34.0		36L100F	108.4	1	88.0	46.0	
40L050F	120.5	2	68.0	34.0		40L100F	120.5	2	68.0	46.0	
44L050F	132.6	2	68.0	34.0		44L100F	132.6	2	68.0	46.0	
48L050F	144.8	2	68.0	46.0		48L100F	144.8	2	68.0	50.0	
60L050	181.2	3	68.0	46.0		60L100	181.2	3	75.0	54.0	
72L050	217.5	3	75.0	46.0		72L100	217.5	3	75.0	54.0	
84L050	253.9	3	75.0	46.0		84L100	253.9	3	80.0	54.0	
96L050	290.3	4	80.0	46.0		96L100	290.3	4	80.0	54.0	
120L050	363.1	5	85.0	46.0		120L100	363.1	5	90.0	54.0	

H Pitch 0.500" Timing Pulleys

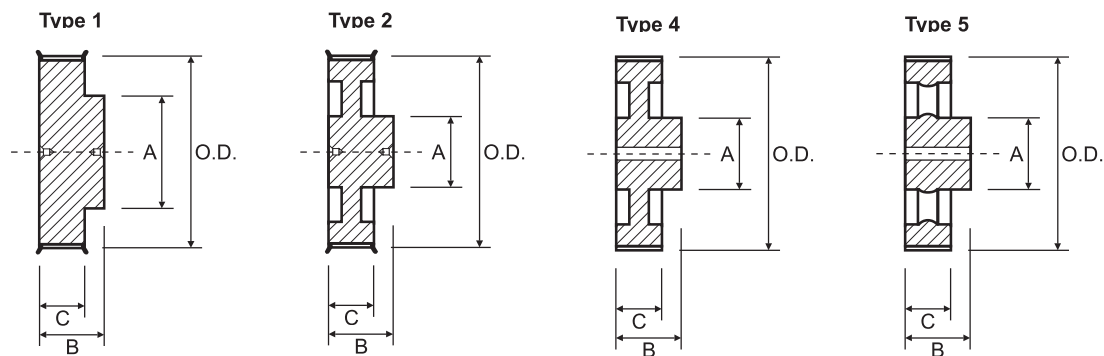


H100						H150					
Suit 25.4mm wide belt (1")						Suit 38.1mm wide belt (1 1/2")					
Part No.	O.D.	Type	A	B	C = 33.0	Part No.	O.D.	Type	A	B	C = 46.0
14H100F	55.2	1	40.0	44.0	Steel	14H150F	55.2	1	40.0	58.0	Steel
15H100F	59.3	1	45.0	44.0		15H150F	59.3	1	45.0	58.0	
16H100F	63.3	1	47.0	44.0		16H150F	63.3	1	47.0	58.0	
17H100F	67.4	1	49.0	44.0		17H150F	67.4	1	49.0	58.0	
18H100F	71.4	1	57.0	44.0		18H150F	71.4	1	57.0	58.0	
19H100F	75.4	1	60.0	44.0		19H150F	75.4	1	60.0	58.0	
20H100F	79.5	1	64.0	44.0		20H150F	79.5	1	64.0	58.0	
21H100F	83.5	1	64.0	44.0		21H150F	83.5	1	64.0	58.0	
22H100F	87.6	1	70.0	44.0		22H150F	87.6	1	70.0	58.0	
23H100F	91.6	1	72.0	44.0		23H150F	91.6	1	72.0	58.0	
24H100F	95.7	1	80.0	44.0		24H150F	95.7	1	80.0	58.0	
25H100F	99.7	1	80.0	44.0		25H150F	99.7	1	80.0	58.0	
26H100F	103.7	1	85.0	44.0	Cast Iron	26H150F	103.7	1	85.0	58.0	Cast Iron
27H100F	107.8	1	88.0	44.0		27H150F	107.8	1	88.0	58.0	
28H100F	111.9	1	94.0	48.0		28H150F	111.9	1	94.0	58.0	
30H100F	119.9	1	104.0	50.0		30H150F	119.9	1	104.0	58.0	
32H100F	128.0	1	112.0	52.0		32H150F	128.0	1	112.0	58.0	
34H100F	136.1	1	118.0	52.0		34H150F	136.1	1	118.0	58.0	
36H100F	144.2	2	75.0	52.0		36H150F	144.2	2	75.0	58.0	
40H100F	160.3	2	75.0	54.0		40H150F	160.3	2	75.0	70.0	
44H100F	176.5	2	75.0	54.0		44H150F	176.5	2	75.0	70.0	
48H100F	192.7	2	75.0	60.0		48H150F	192.7	2	75.0	70.0	
60H100	241.2	3	80.0	60.0	No Flanges	60H150	241.2	3	80.0	70.0	No Flanges
72H100	289.7	3	80.0	60.0		72H150	289.7	3	80.0	70.0	
84H100	338.2	5	90.0	60.0		84H150	338.2	5	90.0	70.0	
96H100	386.7	5	100.0	60.0		96H150	386.7	5	100.0	70.0	
120H100	483.7	5	100.0	60.0		120H150	483.7	5	100.0	70.0	
156H100	629.3	5	120.0	60.0		156H150	629.3	5	120.0	70.0	

H Pitch 0.500" Timing Pulleys

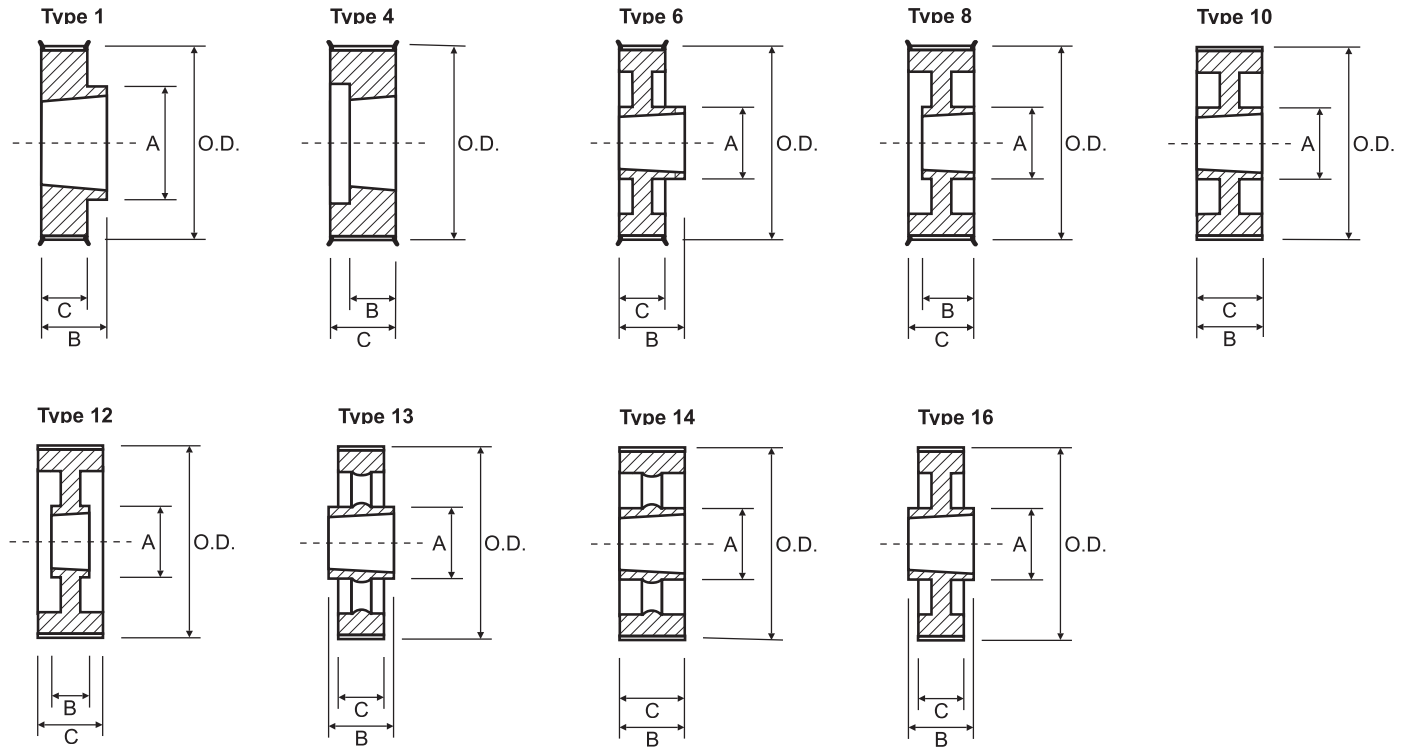


H200						H300					
Suit 50.8mm wide belt (2")						Suit 76.2mm wide belt (3")					
Part No.	O.D.	Type	A	B	C= 59.5	Part No.	O.D.	Type	A	B	C= 85.7
16H200F	63.3	1	47.0	72.0	Steel	18H300F	71.4	1	57.0	98.0	Steel
18H200F	71.4	1	57.0	72.0		20H300F	79.5	1	64.0	98.0	
20H200F	79.5	1	64.0	72.0	Cast Iron	22H300F	87.6	1	70.0	98.0	Flanged
22H200F	87.6	1	70.0	72.0		24H300F	95.7	1	80.0	98.0	
24H200F	95.7	1	80.0	72.0		26H300F	103.7	1	85.0	98.0	
26H200F	103.7	1	85.0	72.0		28H300F	111.9	1	94.0	98.0	
28H200F	111.9	1	94.0	72.0		30H300F	119.9	1	104.0	98.0	
30H200F	119.9	1	104.0	72.0		32H300F	128.0	1	112.0	98.0	
32H200F	128.0	1	112.0	72.0		36H300F	144.2	2	80.0	98.0	
36H200F	144.2	2	80.0	72.0		40H300F	160.3	2	80.0	98.0	
40H200F	160.3	2	80.0	72.0		44H300F	176.5	2	80.0	98.0	
44H200F	176.5	2	80.0	72.0		48H300F	192.7	2	90.0	98.0	
48H200F	192.7	2	80.0	80.0	No Flanges	60H300	241.2	3	100.0	98.0	Cast Iron
60H200	241.2	3	90.0	80.0		72H300	289.7	3	100.0	98.0	
72H200	289.7	3	90.0	80.0		84H300	338.2	5	100.0	98.0	
84H200	338.2	5	100.0	80.0		96H300	386.7	5	110.0	98.0	
96H200	386.7	5	100.0	80.0		120H300	483.7	5	120.0	98.0	
120H200	483.7	5	120.0	80.0		156H300	629.3	5	130.0	98.0	
156H200	629.3	5	130.0	80.0							



XH200						XH300					
Suit 50.8mm wide belt (2")						Suit 76.2mm wide belt (3")					
Part No.	O.D.	Type	A	B	C = 65.0	Part No.	O.D.	Type	A	B	C = 92.0
18XH200F	124.6	1	100.0	80.0	Cast Iron Flanged	18XH300F	124.6	1	100.0	107.0	Cast Iron Flanged
20XH200F	138.7	1	114.0	80.0		20XH300F	138.7	1	114.0	107.0	
22XH200F	152.9	1	128.0	80.0		22XH300F	152.9	1	128.0	107.0	
24XH200F	167.0	1	141.0	80.0		24XH300F	167.0	1	141.0	107.0	
26XH200F	181.2	1	157.0	80.0		26XH300F	181.2	1	157.0	107.0	
28XH200F	195.3	1	169.0	80.0		28XH300F	195.3	1	169.0	107.0	
30XH200F	209.4	2	100.0	80.0		30XH300F	209.4	2	110.0	107.0	
32XH200F	223.6	2	110.0	80.0		32XH300F	223.6	2	110.0	107.0	
40XH200F	280.2	2	120.0	100.0		40XH300F	280.2	2	120.0	100.0	
48XH200	336.8	4	120.0	100.0		48XH300	336.8	4	120.0	100.0	
60XH200	421.7	4	130.0	100.0	No Flanges	60XH300	421.7	4	120.0	100.0	No Flanges
72XH200	506.6	5	140.0	100.0		72XH300	506.6	5	140.0	120.0	
84XH200	591.5	5	150.0	100.0		84XH300	591.5	5	160.0	120.0	

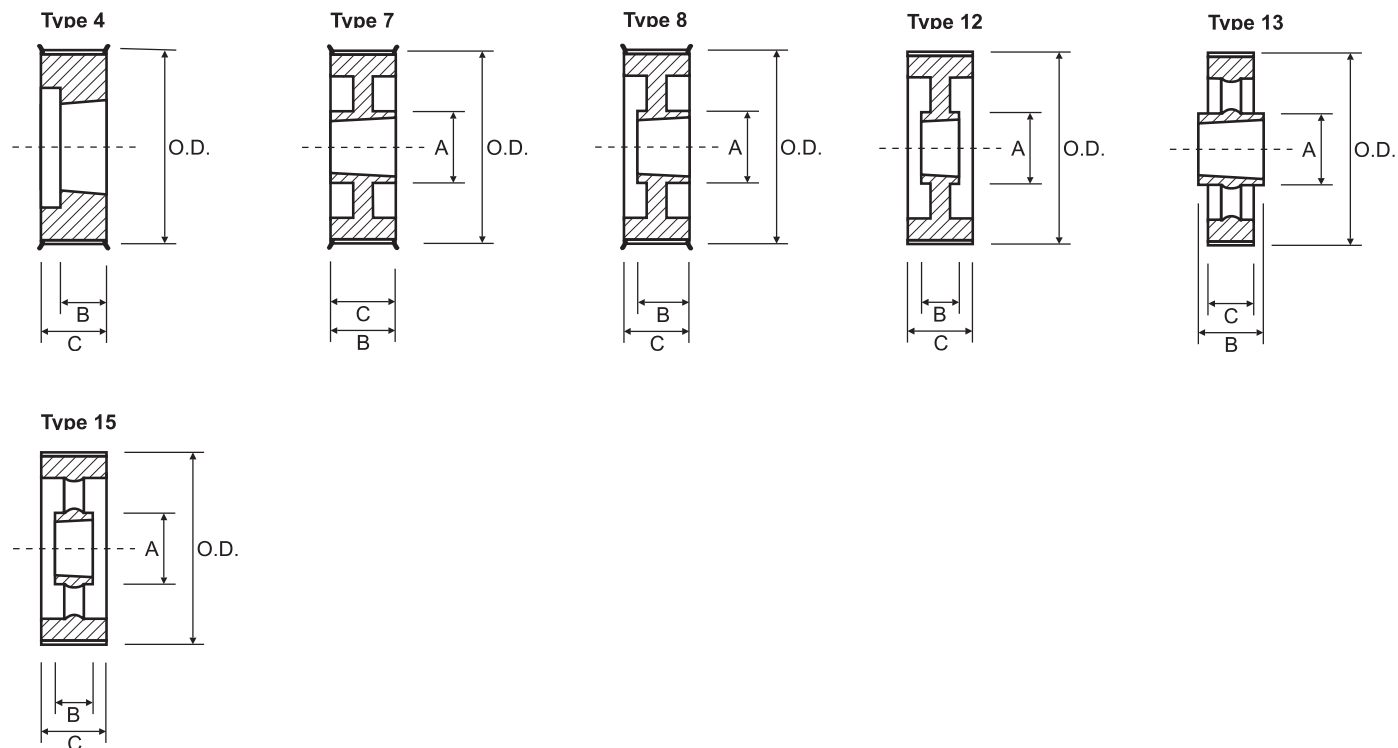
L Pitch 0.375" Timing Pulleys



L050							L100						
Suit 12.7mm wide belt (1/2")							Suit 25.4mm wide belt (1")						
Part No.	O.D.	Type	Bush	A	B	C = 19.0	Part No.	O.D.	Type	Bush	A	B	C = 32.0
FG-18L050F	53.8	1	1108	47.0	22.0	Cast Iron	FG-18L100F	53.8	4	1108	-	22.0	Cast Iron
FG-19L050F	56.8	1	1108	47.0	22.0		FG-19L100F	56.8	4	1108	-	22.0	
FG-20L050F	59.9	1	1108	48.0	22.0		FG-20L100F	59.9	4	1108	-	22.0	
FG-21L050F	62.9	1	1108	48.0	22.0		FG-21L100F	62.9	4	1108	-	22.0	
FG-22L050F	65.9	1	1108	51.0	22.0		FG-22L100F	65.9	4	1108	-	22.0	
FG-23L050F	69.0	1	1108	51.0	22.0		FG-23L100F	69.0	4	1108	-	22.0	
FG-24L050F	72.0	1	1108	58.0	22.0		FG-24L100F	72.0	4	1108	-	22.0	
FG-25L050F	75.0	1	1108	58.0	22.0		FG-25L100F	75.0	4	1108	-	22.0	
FG-26L050F	78.1	1	1108	58.0	22.0		FG-26L100F	78.1	4	1108	-	22.0	
FG-27L050F	81.1	1	1108	58.0	22.0		FG-27L100F	81.1	4	1108	-	22.0	
FG-28L050F	84.1	1	1108	58.0	22.0		FG-28L100F	84.1	4	1108	-	22.0	
FG-30L050F	90.2	1	1108	58.0	22.0		FG-30L100F	90.2	4	1210	-	25.0	
FG-32L050F	96.3	1	1108	58.0	22.0		FG-32L100F	96.3	4	1210	-	25.0	
FG-36L050F	108.4	6	1108	58.0	22.0		FG-36L100F	108.4	4	1610	-	25.0	
FG-40L050F	120.5	1	1610	90.0	25.0		FG-40L100F	120.5	4	1610	-	25.0	
FG-44L050F	132.6	6	1610	90.0	25.0		FG-44L100F	132.6	8	1610	90.0	25.0	
FG-48L050F	144.8	6	1610	90.0	25.0		FG-48L100F	144.8	8	1610	90.0	25.0	
FG-60L050	181.2	16	1610	90.0	25.0	No Flanges	FG-60L100	181.2	12	1610	90.0	25.0	No Flanges
FG-72L050	217.5	13	1610	90.0	25.0		FG-72L100	217.5	10	2012	110.0	32.0	
FG-84L050	253.9	13	1610	90.0	25.0		FG-84L100	253.9	14	2012	110.0	32.0	
FG-96L050	290.3	13	2012	110.0	32.0		FG-96L100	290.3	14	2012	110.0	32.0	
FG120L050	363.1	13	2012	110.0	32.0		FG120L100	363.1	14	2012	110.0	32.0	

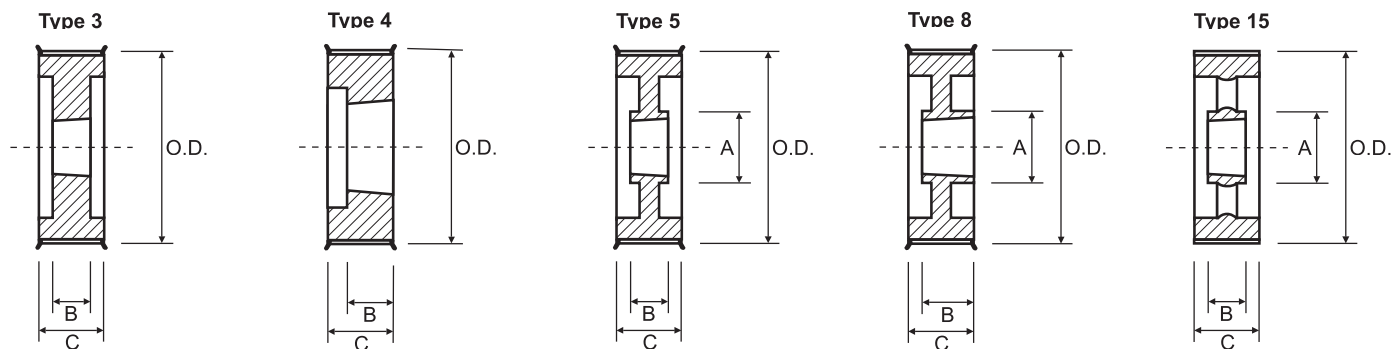
EMCO ENGINEERING

H Pitch 0.500" Timing Pulleys



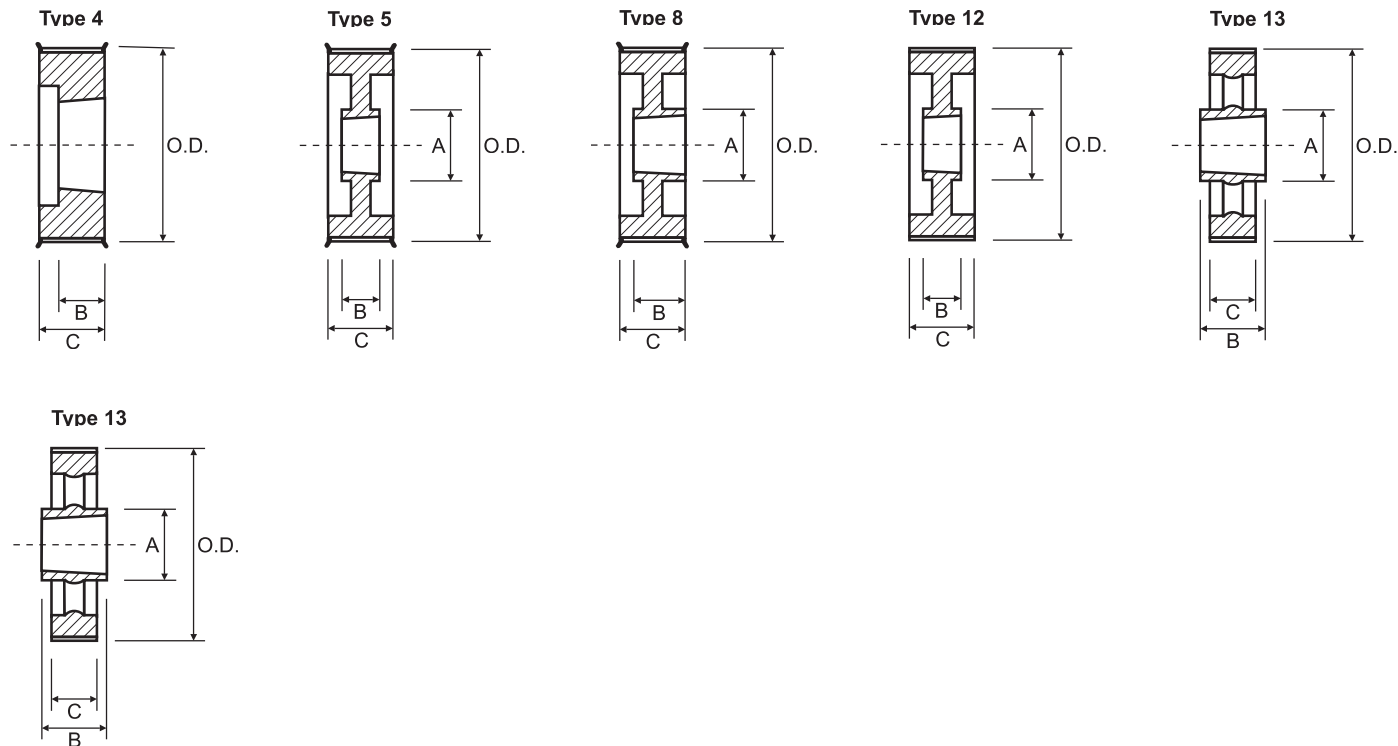
H100 Suit 25.4mm wide belt (1")							H150 Suit 38.1mm wide belt (1 1/2")						
Part No.	O.D.	Type	Bush	A	B	C = 31.0	Part No.	O.D.	Type	Bush	A	B	C = 45.0
FG-14H100F	55.2	4	1108	-	22.0	Cast Iron	FG-14H150F	55.2	4	1108	-	22.0	Cast Iron
FG-15H100F	59.3	4	1108	-	22.0		FG-15H150F	59.3	4	1108	-	22.0	
FG-16H100F	63.3	4	1108	-	22.0		FG-16H150F	63.3	4	1108	-	22.0	
FG-17H100F	67.4	4	1108	-	22.0		FG-17H150F	67.4	4	1108	-	22.0	
FG-18H100F	71.4	4	1210	-	25.0		FG-18H150F	71.4	4	1210	-	25.0	
FG-19H100F	75.4	4	1210	-	25.0		FG-19H150F	75.4	4	1210	-	25.0	
FG-20H100F	79.5	4	1210	-	25.0		FG-20H150F	79.5	4	1210	-	25.0	
FG-21H100F	83.5	4	1210	-	25.0		FG-21H150F	83.5	4	1210	-	25.0	
FG-22H100F	87.6	4	1210	-	25.0		FG-22H150F	87.6	4	1210	-	25.0	
FG-23H100F	91.6	4	1610	-	25.0		FG-23H150F	91.6	4	1610	-	25.0	
FG-24H100F	95.7	4	1610	-	25.0		FG-24H150F	95.7	4	1610	-	25.0	
FG-25H100F	99.7	4	1610	-	25.0		FG-25H150F	99.7	4	1610	-	25.0	
FG-26H100F	103.7	4	1610	-	25.0		FG-26H150F	103.7	4	1610	-	25.0	
FG-27H100F	107.8	4	1610	-	25.0		FG-27H150F	107.8	4	1610	-	25.0	
FG-28H100F	111.9	4	1610	-	25.0		FG-28H150F	111.9	4	1610	-	25.0	
FG-30H100F	120.0	4	1610	-	25.0		FG-30H150F	120.0	4	1610	-	25.0	
FG-32H100F	128.0	8	1610	82.0	25.0		FG-32H150F	128.0	8	1610	82.0	25.0	
FG-36H100F	144.2	8	1610	82.0	25.0		FG-36H150F	144.2	8	1610	82.0	25.0	
FG-40H100F	160.3	8	1610	82.0	32.0		FG-40H150F	160.3	8	1610	82.0	25.0	
FG-44H100F	176.5	7	2012	110.0	32.0		FG-44H150F	176.5	8	2012	110.0	32.0	
FG-48H100F	192.7	7	2012	110.0	32.0		FG-48H150F	192.7	8	2012	110.0	32.0	
FG-60H100	241.2	12	2012	110.0	32.0	No Flanges	FG-60H150	241.2	15	2012	110.0	32.0	No Flanges
FG-72H100	289.7	15	2012	110.0	32.0		FG-72H150	289.7	15	2012	110.0	32.0	
FG-84H100	338.2	15	2012	110.0	32.0		FG-84H150	338.2	15	2012	110.0	32.0	
FG-96H100	386.7	13	2517	120.0	45.0		FG-96H150	386.7	15	2517	120.0	45.0	
FG-120H100	483.7	13	2517	120.0	45.0		FG-120H150	483.7	15	2517	120.0	45.0	

H Pitch 0.500" Timing Pulleys



H200							H300						
Suit 50.8mm wide belt (2")							Suit 76.2mm wide belt (3")						
Part No.	O.D	Type	Bush	A	B	C = 58.0	Part No.	O.D	Type	Bush	A	B	C = 84.0
FG-16H200F	63.3	4	1108	-	22.0	Cast Iron	FG-20H300F	79.5	3	1615	-	38.0	Cast Iron
FG-18H200F	71.4	4	1210	-	25.0		FG-22H300F	87.6	3	1615	-	38.0	
FG-20H200F	79.5	4	1610	-	25.0		FG-24H300F	95.7	3	1615	-	38.0	
FG-22H200F	87.6	4	1610	-	25.0		FG-26H300F	103.7	3	1615	-	38.0	
FG-24H200F	95.7	4	1610	-	25.0		FG-28H300F	111.9	3	2012	-	32.0	
FG-26H200F	103.7	4	1610	-	25.0		FG-30H300F	119.9	3	2012	-	32.0	
FG-28H200F	111.9	4	1610	-	25.0		FG-32H300F	128.0	3	2517	-	45.0	
FG-30H200F	119.9	4	1610	-	25.0		FG-36H300F	144.2	3	2517	-	45.0	
FG-32H200F	128.0	4	2012	-	32.0		FG-40H300F	160.3	5	2517	120.0	45.0	
FG-36H200F	144.2	8	2012	102.0	32.0		FG-44H300F	176.5	5	2517	120.0	45.0	
FG-40H200F	160.3	8	2012	110.0	32.0		FG-48H300F	192.7	5	2517	120.0	45.0	
FG-44H200F	176.5	8	2012	110.0	32.0		FG-60H300	241.2	15	2517	120.0	45.0	
FG-48H200F	192.7	8	2517	120.0	45.0		FG-72H300	289.7	15	2517	120.0	45.0	
FG-60H200	241.2	15	2517	120.0	45.0		FG-84H300	338.2	15	2517	120.0	45.0	
FG-72H200	289.7	15	2517	120.0	45.0		FG-96H300	386.7	15	3030	146.0	76.0	
FG-84H200	338.2	15	2517	120.0	45.0	No Flanges	FG-120H300	483.7	15	3030	146.0	76.0	No Flanges
FG-96H200	386.7	15	2517	120.0	45.0								
FG-120H200	483.7	15	2517	120.0	45.0								

XH Pitch 0.875" Timing Pulleys



XH200

Suit 50.8mm wide belt (2")

Part No. O.D. Type Bush A B C = 64.0

FG-18XH200F	124.6	4	2517	-	45.0
FG-20XH200F	138.7	4	2517	-	45.0
FG-22XH200F	152.9	4	2517	-	45.0
FG-24XH200F	167.0	4	2517	-	45.0
FG-26XH200F	181.2	4	2517	-	45.0
FG-28XH200F	195.3	5	2517	120.0	45.0
FG-30XH200F	209.4	5	2517	120.0	45.0
FG-32XH200F	223.6	5	2517	120.0	45.0
FG-40XH200F	280.2	5	3020	146.0	51.0
FG-48XH200	336.8	15	3020	146.0	51.0
FG-60XH200	421.7	13	3535	178.0	89.0
FG-72XH200	506.6	13	3535	178.0	89.0
FG-84XH200	591.5	13	3535	178.0	89.0

Cast Iron

Flanged

No Flanges

XH300

Suit 76.2mm wide belt (3")

Part No. O.D. Type Bush A B C = 90.0

FG-18XH300F	124.6	4	2517	-	45.0
FG-20XH300F	138.7	4	2517	-	45.0
FG-22XH300F	152.9	4	2517	-	45.0
FG-24XH300F	167.0	4	2517	-	45.0
FG-26XH300F	181.2	4	2517	-	45.0
FG-28XH300F	195.3	8	3020	146.0	51.0
FG-30XH300F	209.4	8	3020	146.0	51.0
FG-32XH300F	223.6	8	3020	146.0	51.0
FG-40XH300F	280.2	5	3020	146.0	51.0
FG-48XH300	336.8	12	3020	146.0	51.0
FG-60XH300	421.7	12	3535	178.0	89.0
FG-72XH300	506.6	15	3535	178.0	89.0
FG-84XH300	591.5	13	4040	215.0	102.0

Cast Iron

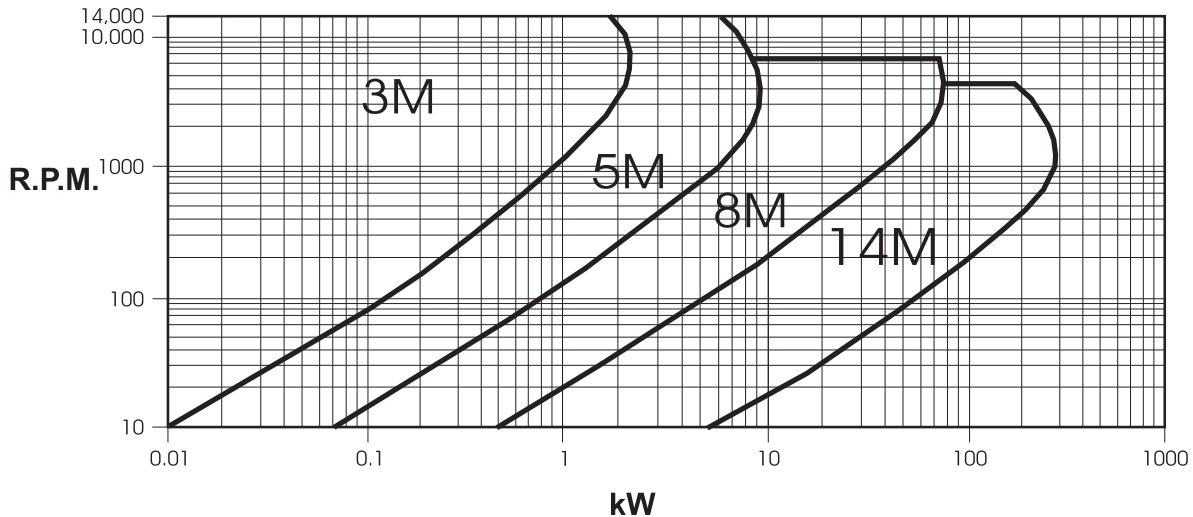
Flanged

No Flanges

HTD Pulley & Belt Drives



HTD timing belts offer optimised load distribution through the rounded tooth form, guaranteeing high power transmission in low speed and high torque applications. Capable of transmitting up to 300kW and speeds of 14,000 rpm. HTD timing belts can be used in a wide range of applications from minimum drives like electronic power tools to heavy duty machinery where durability and low maintenance is required. To select a drive it is necessary to know the driver and driven shaft speeds, the demand power, proposed centre distance and duty cycle. The chart below can be used to select the optimum belt size for a drive. For further information or help in selecting a drive contact Naismith Engineering.



Identifying a Pulley

To identify a HTD timing pulley the following information must be known:

BORE - Naismith Engineering carries full stocks of pilot and taper bore pulleys. For HTD pulleys, the taper bore pulleys have a prefix P.

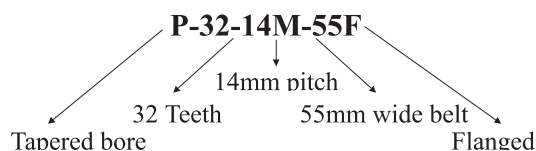
PITCH - This is the distance from the centre of one tooth to the centre of the next tooth. Naismith Engineering stocks 4 pitch sizes of HTD timing pulley:

3M	Pitch	3mm
5M		5mm
8M		8mm
14M		14mm

TEETH - Number of teeth.

WIDTH - The tooth width allows for a clearance of 3mm to 6mm on the belt. The tooth width code is the belt size width measured in mm. So for a belt width of 50mm, the width code becomes 50. Refer to Page 17 & 18 for a listing of all sizes.

FLANGES - Pulleys with a small number of teeth are fitted with flanges. The part number for flanged pulleys ends with 'F'. Refer to the pulley tables for more details.



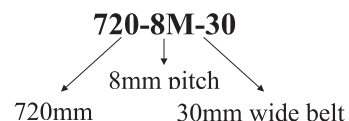
Identifying a belt

To identify a HTD timing belt the following information must be known:

LENGTH - A belt pitch length is determined by the number of teeth multiplied by the pitch. – refer page 17 & 18. The length code for a belt is the pitch length in mm. So a 8M section (8mm pitch) belt with 90 teeth has a pitch length of 720mm and a code of 720-8M.

PITCH - This is the distance from the centre of one tooth to the centre of the next tooth. Naismith Engineering stocks 4 pitch sizes of HTD timing belts.

WIDTH - The belt width measured in mm and gives the width code. So a belt width of 30mm, has a width code of 30. Refer to Page 17 & 18 for a listing of all sizes.



HTD Timing Belts 3M & 5M



	Pitch (mm)	T	B
3M	3mm	1.10	2.40
5M	5mm	2.10	3.80

Code & Pitch	Number of Teeth	Pitch Length mm
150-3M	50	150.0
156-3M	52	156.0
159-3M	53	159.0
210-3M	70	210.0
225-3M	75	225.0
255-3M	85	255.0
285-3M	95	285.0
288-3M	96	288.0
291-3M	97	291.0
300-3M	100	300.0
306-3M	102	306.0
312-3M	104	312.0
330-3M	110	330.0
345-3M	115	345.0
357-3M	119	357.0
384-3M	128	384.0
420-3M	140	420.0
447-3M	149	447.0
513-3M	171	513.0
531-3M	177	531.0
564-3M	188	564.0
633-3M	211	633.0
669-3M	223	669.0
711-3M	237	711.0
804-3M	268	804.0
1500-3M	500	1500.0

Standard widths of:-

9mm Code = Lenath-3M-09

15mm Code = Lenath-3M-15

Long Lenath up to 15mm wide is available.

Code & Pitch	Number of Teeth	Pitch Length mm
120-5M	24	120.0
180-5M	36	180.0
225-5M	45	225.0
255-5M	51	255.0
265-5M	53	265.0
270-5M	54	270.0
280-5M	56	280.0
295-5M	59	295.0
300-5M	60	300.0
305-5M	61	305.0
325-5M	65	325.0
330-5M	66	330.0
340-5M	68	340.0
345-5M	69	345.0
350-5M	70	350.0
360-5M	72	360.0
370-5M	74	370.0
375-5M	75	375.0
400-5M	80	400.0
425-5M	85	425.0
450-5M	90	450.0
475-5M	95	475.0
500-5M	100	500.0
520-5M	104	520.0
525-5M	105	525.0
535-5M	107	535.0

Code & Pitch	Number of Teeth	Pitch Length mm
560-5M	112	560.0
575-5M	115	575.0
580-5M	116	580.0
600-5M	120	600.0
610-5M	122	610.0
615-5M	123	615.0
635-5M	127	635.0
640-5M	128	640.0
645-5M	129	645.0
670-5M	134	670.0
700-5M	140	700.0
750-5M	150	750.0
800-5M	160	800.0
825-5M	165	825.0
835-5M	167	835.0
860-5M	172	860.0
890-5M	178	890.0
900-5M	180	900.0
935-5M	187	935.0
950-5M	190	950.0
980-5M	196	980.0
1035-5M	207	1035.0
1100-5M	220	1100.0

Standard widths of:-

9mm Code = Lenath-5M-09

15mm Code = Lenath-5M-15

25mm Code = Lenath-5M-25

Long Lenath up to 25mm wide is available.

HTD Timing Belts 8M & 14M



	Pitch (mm)	T	B
8M	8mm	3.40	6.00
14M	14mm	6.00	10.00

Code & Pitch	Number of Teeth	Pitch Lenath mm
480-8M	60	480.0
560-8M	70	560.0
600-8M	75	600.0
640-8M	80	640.0
720-8M	90	720.0
800-8M	100	800.0
880-8M	110	880.0
960-8M	120	960.0
1040-8M	130	1040.0
1120-8M	140	1120.0
1200-8M	150	1200.0
1280-8M	160	1280.0
1440-8M	180	1440.0
1600-8M	200	1600.0
1760-8M	220	1760.0
1800-8M	225	1800.0
2000-8M	250	2000.0
2400-8M	300	2400.0
2600-8M	325	2600.0
2800-8M	350	2800.0

Standard widths of:-

20mm Code = Lenath-8M-20

30mm Code = Lenath-8M-30

55mm Code = Lenath-8M-50

85mm Code = Lenath-8M-85

Off standard widths are available on request.

Lona Lenath up to 85mm wide is available.

Code & Pitch	Number of Teeth	Pitch Lenath mm
966-14M	69	966.0
1190-14M	85	1190.0
1400-14M	100	1400.0
1610-14M	115	1610.0
1778-14M	127	1778.0
1890-14M	135	1890.0
2100-14M	150	2100.0
2310-14M	165	2310.0
2450-14M	175	2450.0
2590-14M	185	2590.0
2800-14M	200	2800.0
3150-14M	225	3150.0
3500-14M	250	3500.0
3850-14M	275	3850.0
4326-14M	309	4326.0
4578-14M	327	4578.0

Standard widths of:-

40mm Code = Lenath-14M-40

55mm Code = Lenath-14M-55

85mm Code = Lenath-14M-85

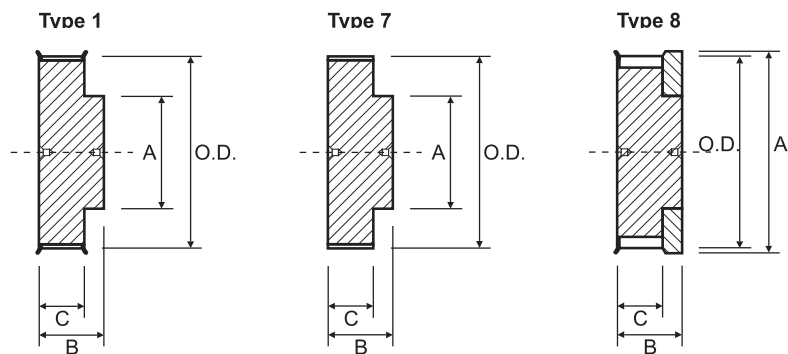
115mm Code = Lenath-14M-115

170mm Code = Lenath-14M-170

Off standard widths are available on request.

Lona Lenath up to 85mm wide is available.

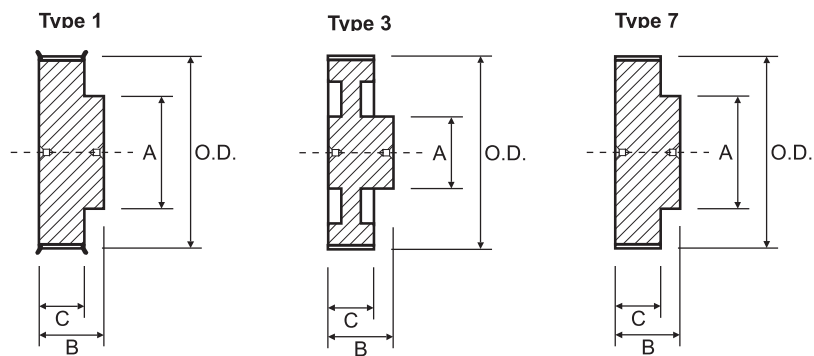
3M HTD Timing Pulleys



3M-9						3M-15					
Suit 9mm wide belt						Suit 15mm wide belt					
Part No.	O.D.	Type	A	B	C	Part No.	O.D.	Type	A	B	C
10-3M-9F	8.8	8	12.0	17.5	10.2	10-3M-15F	8.8	8	12.0	26.0	17.0
12-3M-9F	10.7	8	15.0	17.5	10.2	12-3M-15F	10.7	8	15.0	26.0	17.0
14-3M-9F	12.6	8	18.0	17.5	10.2	14-3M-15F	12.6	8	18.0	26.0	17.0
15-3M-9F	13.6	8	18.0	17.5	10.2	15-3M-15F	13.6	8	18.0	26.0	17.0
16-3M-9F	14.5	1	10.0	20.6	12.8	16-3M-15F	14.5	1	10.0	26.0	19.5
18-3M-9F	16.4	1	11.0	20.6	12.8	18-3M-15F	16.4	1	11.0	26.0	19.5
20-3M-9F	18.3	1	13.0	20.6	12.8	20-3M-15F	18.3	1	13.0	26.0	19.5
21-3M-9F	19.3	1	14.0	20.6	12.8	21-3M-15F	19.3	1	14.0	26.0	19.5
22-3M-9F	20.1	1	14.0	20.6	12.8	22-3M-15F	20.1	1	14.0	26.0	19.5
24-3M-9F	22.2	1	14.0	20.6	12.8	24-3M-15F	22.2	1	14.0	26.0	19.5
26-3M-9F	24.1	1	16.0	20.6	12.8	26-3M-15F	24.1	1	16.0	26.0	19.5
28-3M-9F	26.0	1	18.0	20.6	12.8	28-3M-15F	26.0	1	18.0	26.0	19.5
30-3M-9F	27.9	1	20.0	20.6	12.8	30-3M-15F	27.9	1	20.0	26.0	19.5
32-3M-9F	29.8	1	22.0	20.6	12.8	32-3M-15F	29.8	1	22.0	26.0	19.5
36-3M-9F	33.6	1	26.0	22.2	13.4	36-3M-15F	33.6	1	26.0	30.0	20.0
40-3M-9F	37.4	1	28.0	22.2	13.4	40-3M-15F	37.4	1	28.0	30.0	20.0
44-3M-9F	41.3	1	33.0	22.2	13.4	44-3M-15F	41.3	1	33.0	30.0	20.0
48-3M-9	45.1	7	33.0	22.2	13.4	48-3M-15	45.1	7	33.0	30.0	20.0
60-3M-9	56.5	7	33.0	22.2	13.4	60-3M-15	56.5	7	33.0	30.0	20.0
72-3M-9	68.0	7	33.0	22.2	13.4	72-3M-15	68.0	7	33.0	30.0	20.0

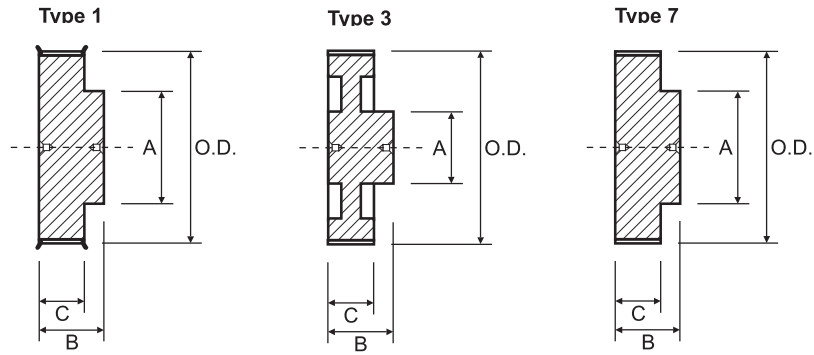
N.F. - No Flanges

5M HTD Timing Pulleys



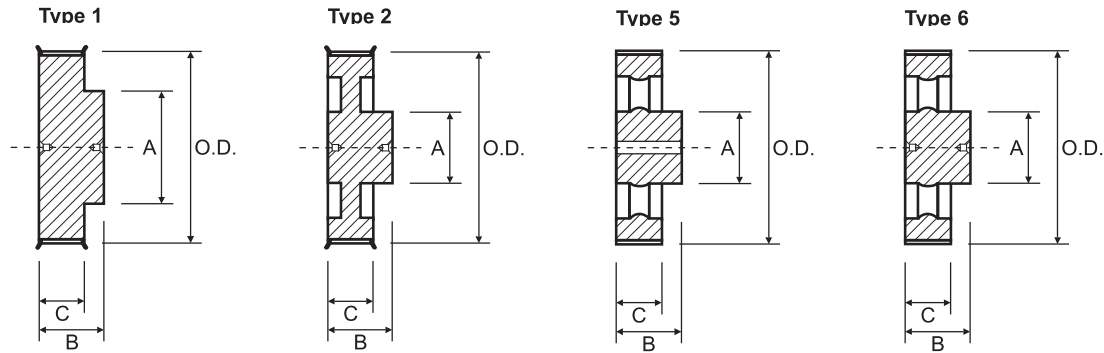
5M-9						5M-15					
Suit 9mm wide belt						Suit 15mm wide belt					
Part No.	O.D.	Type	A	B	C = 14.5	Part No.	O.D.	Type	A	B	C = 20.0
12-5M-9F	18.0	1	13.0	20.0	Steel Flanged	12-5M-15F	18.0	1	13.0	26.0	Steel Flanged
14-5M-9F	21.1	1	14.0	20.0		14-5M-15F	21.1	1	14.0	26.0	
15-5M-9F	22.7	1	16.0	20.0		15-5M-15F	22.7	1	16.0	26.0	
16-5M-9F	24.3	1	16.5	20.0		16-5M-15F	24.3	1	16.5	26.0	
18-5M-9F	27.5	1	20.0	20.0		18-5M-15F	27.5	1	20.0	26.0	
20-5M-9F	30.7	1	23.0	22.5		20-5M-15F	30.7	1	23.0	26.0	
21-5M-9F	32.3	1	24.0	22.5		21-5M-15F	32.3	1	24.0	26.0	
22-5M-9F	33.9	1	25.0	22.5		22-5M-15F	33.9	1	25.5	26.0	
24-5M-9F	37.1	1	27.0	22.5		24-5M-15F	37.1	1	27.0	28.0	
26-5M-9F	40.2	1	30.0	22.5		26-5M-15F	40.2	1	30.0	28.0	
28-5M-9F	43.4	1	30.5	22.5		28-5M-15F	43.4	1	30.5	28.0	
30-5M-9F	46.6	1	35.0	22.5		30-5M-15F	46.6	1	35.0	28.0	
32-5M-9F	49.8	1	38.0	22.5		32-5M-15F	49.8	1	38.0	28.0	
36-5M-9F	56.2	1	38.0	22.5		36-5M-15F	56.2	1	38.0	28.0	
40-5M-9F	62.5	1	38.0	22.5		40-5M-15F	62.5	1	38.0	28.0	
44-5M-9	68.9	7	38.0	25.5	Aluminium No Flanges	44-5M-15	68.9	7	38.0	30.0	Aluminium No Flanges
48-5M-9	75.3	7	45.0	25.5		48-5M-15	75.3	7	38.0	30.0	
60-5M-9	94.4	7	45.0	25.5		60-5M-15	94.4	7	50.0	30.0	
72-5M-9	113.5	3	45.0	25.5		72-5M-15	113.5	3	50.0	30.0	

5M HTD Timing Pulleys



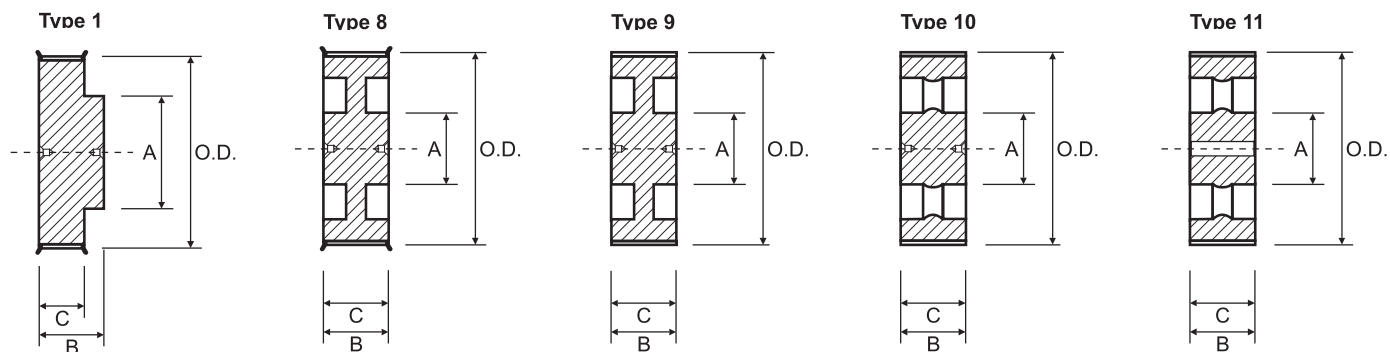
5M-25					
Suit 25mm wide belt					
Part No.	O.D.	Type	A	B	C = 30.0
12-5M-25F	18.0	1	13.0	36.0	Steel Flanged
14-5M-25F	21.1	1	14.0	36.0	
15-5M-25F	22.7	1	16.0	36.0	
16-5M-25F	24.3	1	16.0	36.0	
18-5M-25F	27.5	1	16.0	36.0	
20-5M-25F	30.7	1	16.0	36.0	
21-5M-25F	32.3	1	16.0	38.0	
22-5M-25F	33.9	1	16.0	38.0	
24-5M-25F	37.1	1	16.0	38.0	
26-5M-25F	40.2	1	16.0	38.0	
28-5M-25F	43.4	1	16.0	38.0	
30-5M-25F	46.6	1	16.0	38.0	
32-5M-25F	49.8	1	16.0	38.0	
36-5M-25F	56.2	1	16.0	38.0	
40-5M-25F	62.5	1	16.0	38.0	
44-5M-25	68.9	7	16.0	40.0	Aluminium No Flanges
48-5M-25	75.3	7	16.0	40.0	
60-5M-25	94.4	7	16.0	40.0	
72-5M-25	113.5	3	16.0	40.0	

8M HTD Timing Pulleys



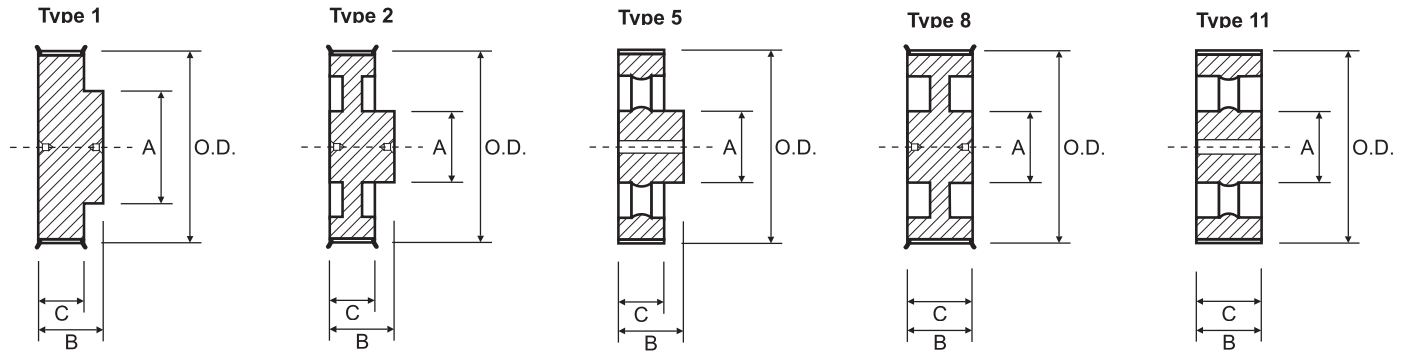
8M-20							8M-30								
Suit 20mm wide belt							Suit 30mm wide belt								
Part No.	O.D.	Type	A	B	C = 28.0		Part No.	O.D.	Type	A	B	C = 38.0			
18-8M-20F	44.5	1	32.0	38.0	Steel	Flanged	18-8M-30F	44.5	1	32.0	48.0	Steel			
20-8M-20F	49.6	1	36.0	38.0			20-8M-30F	49.6	1	36.0	48.0				
22-8M-20F	54.7	1	43.0	38.0			22-8M-30F	54.7	1	43.0	48.0				
24-8M-20F	59.7	1	49.0	38.0			24-8M-30F	59.7	1	49.0	48.0				
26-8M-20F	64.8	1	50.0	38.0			26-8M-30F	64.8	1	50.0	48.0				
28-8M-20F	69.9	1	55.0	38.0			28-8M-30F	69.9	1	55.0	48.0				
30-8M-20F	75.0	1	60.0	38.0			30-8M-30F	75.0	1	60.0	48.0				
32-8M-20F	80.1	1	64.0	38.0			32-8M-30F	80.1	1	64.0	48.0				
34-8M-20F	85.2	1	70.0	38.0			34-8M-30F	85.2	1	70.0	48.0				
36-8M-20F	90.3	1	75.0	38.0			36-8M-30F	90.3	1	75.0	48.0				
38-8M-20F	95.4	1	80.0	38.0			38-8M-30F	95.4	1	80.0	48.0				
40-8M-20F	100.5	1	85.0	38.0			40-8M-30F	100.5	1	85.0	48.0				
44-8M-20F	110.7	1	96.0	38.0	Cast Iron	N.F.	44-8M-30F	110.7	1	96.0	48.0	Cast Iron			
48-8M-20F	120.9	1	104.0	38.0			48-8M-30F	120.9	1	104.0	48.0				
56-8M-20F	141.2	2	80.0	38.0			56-8M-30F	141.2	2	90.0	48.0				
64-8M-20F	161.6	2	80.0	38.0			64-8M-30F	161.6	2	90.0	48.0				
72-8M-20F	182.0	2	80.0	38.0			72-8M-30F	182.0	2	95.0	48.0				
80-8M-20	202.4	6	90.0	38.0			80-8M-30	202.4	6	100.0	48.0				
90-8M-20	227.8	6	90.0	38.0			90-8M-30	227.8	6	100.0	48.0				
N.F. - No Flanges							112-8M-30	283.8	5	100.0	48.0		N.F.		
							144-8M-30	365.3	5	100.0	48.0				

8M HTD Timing Pulleys



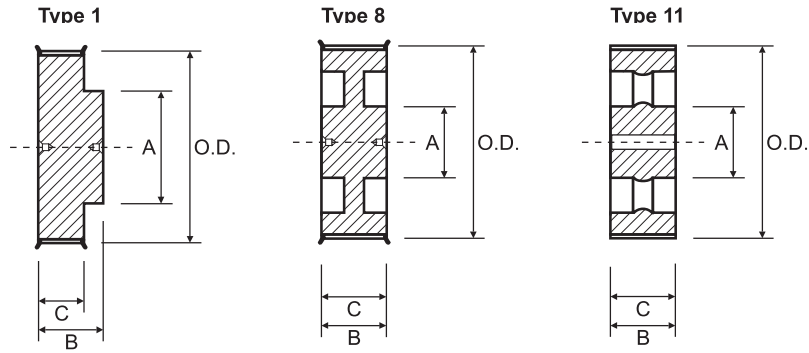
8M-50						8M-85					
Suit 50mm wide belt						Suit 85mm wide belt					
Part No.	O.D.	Type	A	B	C = 60.0	Part No.	O.D.	Type	A	B	C = 95.0
18-8M-50F	44.5	1	32.0	70.0	Steel Flanged	22-8M-85F	54.7	1	43.0	105.0	Steel Flanged
20-8M-50F	49.6	1	36.0	70.0		24-8M-85F	59.7	1	49.0	105.0	
22-8M-50F	54.7	1	43.0	70.0		26-8M-85F	64.8	1	50.0	105.0	
24-8M-50F	59.7	1	49.0	70.0		28-8M-85F	69.9	1	55.0	105.0	
26-8M-50F	64.8	1	50.0	70.0		30-8M-85F	75.0	1	60.0	105.0	
28-8M-50F	69.9	1	55.0	70.0		32-8M-85F	80.1	1	64.0	105.0	
30-8M-50F	75.0	1	60.0	70.0		34-8M-85F	85.2	1	70.0	105.0	
32-8M-50F	80.1	1	64.0	70.0		36-8M-85F	90.3	1	75.0	105.0	
34-8M-50F	85.2	1	70.0	70.0		38-8M-85F	95.4	1	80.0	105.0	
36-8M-50F	90.3	1	75.0	70.0		40-8M-85F	100.5	1	85.0	105.0	
38-8M-50F	95.4	1	80.0	70.0		44-8M-85F	110.7	1	96.0	105.0	
40-8M-50F	100.5	1	85.0	70.0	Cast Iron No Flanges	48-8M-85F	120.9	1	104.0	105.0	Cast Iron No Flanges
44-8M-50F	110.7	1	96.0	70.0		56-8M-85F	141.2	1	107.0	105.0	
48-8M-50F	120.9	1	104.0	70.0		64-8M-85F	161.6	8	100.0	95.0	
56-8M-50F	141.2	8	90.0	60.0		72-8M-85F	182.0	8	110.0	95.0	
64-8M-50F	161.6	8	100.0	60.0		80-8M-85	202.4	9	110.0	95.0	
72-8M-50F	182.0	8	100.0	60.0		90-8M-85	227.8	10	110.0	95.0	
80-8M-50	202.4	9	110.0	60.0		112-8M-85	283.8	11	110.0	95.0	
90-8M-50	227.8	10	110.0	60.0		144-8M-85	365.3	11	120.0	95.0	
112-8M-50	283.8	11	110.0	60.0		168-8M-85	426.4	11	120.0	95.0	
144-8M-50	365.3	11	110.0	60.0		192-8M-85	487.5	11	130.0	95.0	
168-8M-50	426.4	11	120.0	60.0							
192-8M-50	487.5	11	130.0	60.0							

14M HTD Timing Pulleys



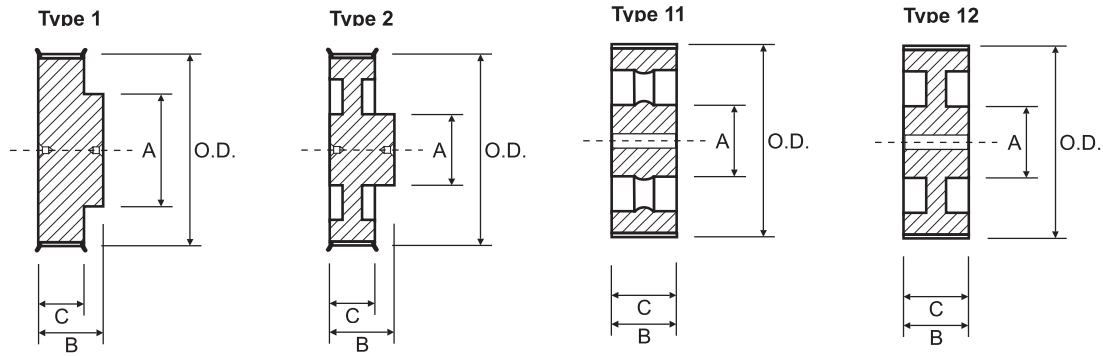
14M-40						14M-55					
Suit 40mm wide belt						Suit 55mm wide belt					
Part No.	O.D.	Type	A	B	C = 54.0	Part No.	O.D.	Type	A	B	C = 70.0
28-14M-40F	122.1	1	100.0	69.0	Cast Iron	28-14M-55F	122.1	1	100.0	85.0	Cast Iron
29-14M-40F	126.6	1	107.0	69.0		29-14M-55F	126.6	1	107.0	85.0	
30-14M-40F	131.0	1	107.0	69.0		30-14M-55F	131.0	1	107.0	85.0	
32-14M-40F	139.9	1	114.0	69.0		32-14M-55F	139.9	1	114.0	85.0	
34-14M-40F	148.8	1	122.0	69.0		34-14M-55F	148.8	1	122.0	85.0	
36-14M-40F	157.7	1	128.0	69.0		36-14M-55F	157.7	1	128.0	85.0	
38-14M-40F	166.6	1	141.0	69.0		38-14M-55F	166.6	1	141.0	85.0	
40-14M-40F	175.5	1	148.0	69.0		40-14M-55F	175.5	1	148.0	85.0	
44-14M-40F	193.3	2	120.0	69.0		44-14M-55F	193.3	2	120.0	85.0	
48-14M-40F	211.1	2	135.0	69.0		48-14M-55F	211.1	8	135.0	70.0	
56-14M-40F	246.8	2	135.0	69.0		56-14M-55F	246.8	8	135.0	70.0	
64-14M-40F	282.4	2	135.0	69.0		64-14M-55F	282.4	8	135.0	70.0	
72-14M-40	318.1	5	135.0	69.0	No Flanges	72-14M-55	318.1	11	135.0	70.0	No Flanges
80-14M-40	353.7	5	135.0	69.0		80-14M-55	353.7	11	135.0	70.0	
90-14M-40	398.3	5	135.0	69.0		90-14M-55	398.3	11	135.0	70.0	
112-14M-40	496.3	5	135.0	69.0		112-14M-55	496.3	11	135.0	70.0	
144-14M-40	638.9	5	135.0	69.0		144-14M-55	638.9	11	135.0	70.0	

14M HTD Timing Pulleys



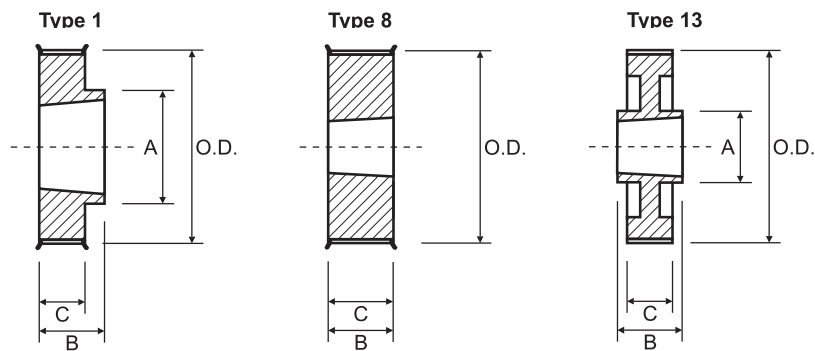
14M-85						14M-115					
Suit 85mm wide belt						Suit 115mm wide belt					
Part No.	O.D.	Type	A	B	C=102.0	Part No.	O.D.	Type	A	B	C=133.0
28-14M-85F	122.1	1	100.0	117.0	Cast Iron	28-14M-115F	122.1	1	100.0	148.0	Cast Iron
29-14M-85F	126.6	1	107.0	117.0		29-14M-115F	126.6	1	107.0	148.0	
30-14M-85F	131.0	1	107.0	117.0		30-14M-115F	131.0	1	107.0	148.0	
32-14M-85F	139.9	1	114.0	117.0		32-14M-115F	139.9	1	114.0	148.0	
34-14M-85F	148.8	1	122.0	117.0		34-14M-115F	148.8	1	122.0	148.0	
36-14M-85F	157.7	1	128.0	117.0		36-14M-115F	157.7	1	128.0	148.0	
38-14M-85F	166.6	1	141.0	117.0		38-14M-115F	166.6	1	141.0	148.0	
40-14M-85F	175.5	1	148.0	117.0		40-14M-115F	175.5	1	148.0	148.0	
44-14M-85F	193.3	1	169.0	117.0		44-14M-115F	193.3	1	169.0	148.0	
48-14M-85F	211.1	1	186.0	117.0		48-14M-115F	211.1	1	186.0	148.0	
56-14M-85F	246.8	8	150.0	102.0	No Flanges	56-14M-115F	246.8	8	150.0	133.0	No Flanges
64-14M-85F	282.4	8	150.0	102.0		64-14M-115F	282.4	8	150.0	133.0	
72-14M-85	318.1	11	150.0	102.0		72-14M-115	318.1	11	150.0	133.0	
80-14M-85	353.7	11	150.0	102.0		80-14M-115	353.7	11	150.0	133.0	
90-14M-85	398.3	11	150.0	102.0		90-14M-115	398.3	11	150.0	133.0	
112-14M-85	496.3	11	150.0	102.0		112-14M-115	496.3	11	150.0	133.0	
144-14M-85	638.9	11	150.0	102.0		144-14M-115	638.9	11	150.0	133.0	

14M HTD Timing Pulleys



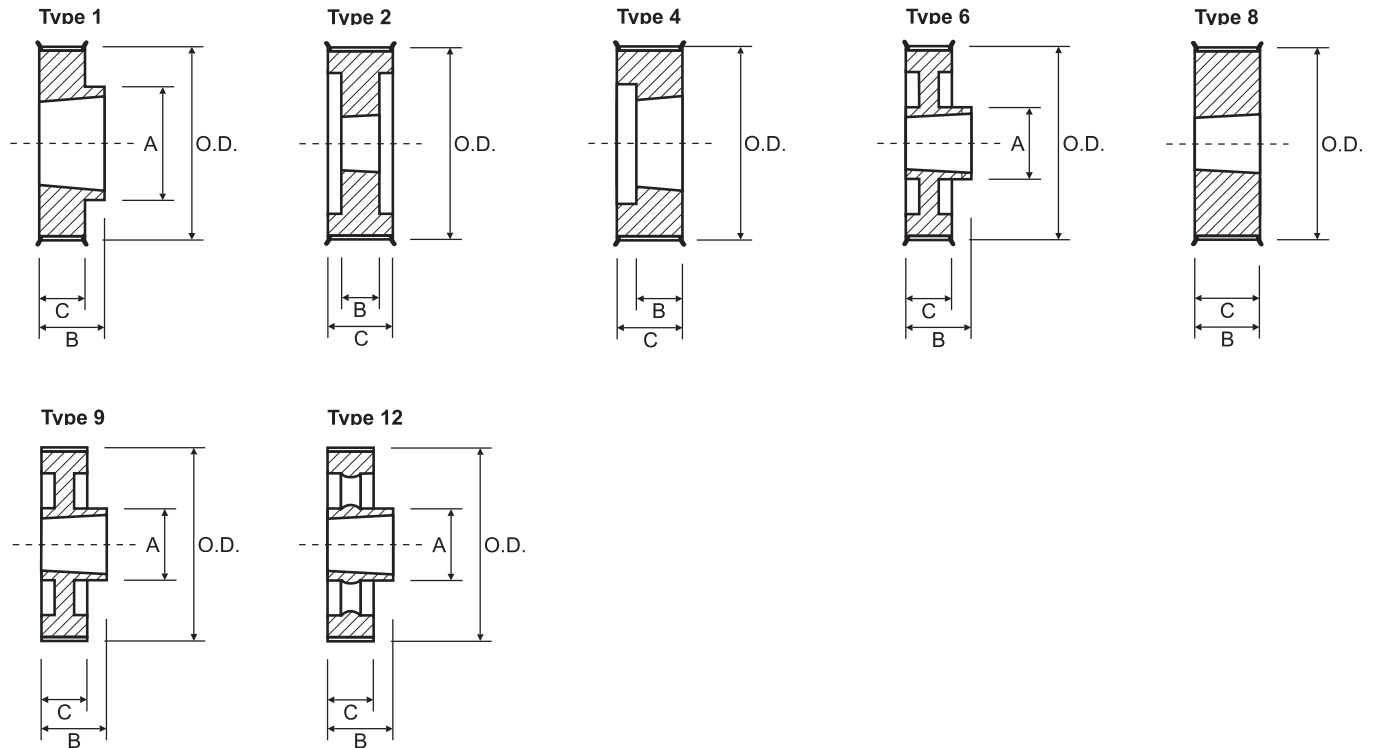
14M-170					
Suit 170mm wide belt					
Part No.	O.D.	Type	A	B	C = 187.0
28-14M-170F	122.1	1	100.0	202.0	Cast Iron
29-14M-170F	126.6	1	107.0	202.0	
30-14M-170F	131.0	1	107.0	202.0	
32-14M-170F	139.9	1	114.0	202.0	
34-14M-170F	148.8	1	122.0	202.0	
36-14M-170F	157.7	1	128.0	202.0	
38-14M-170F	166.6	1	141.0	202.0	
40-14M-170F	175.5	1	148.0	202.0	
44-14M-170F	193.3	1	169.0	202.0	
48-14M-170F	211.1	1	186.0	202.0	
56-14M-170F	246.8	2	160.0	202.0	No Flanges
64-14M-170F	282.4	2	180.0	202.0	
72-14M-170	318.1	12	180.0	187.0	
80-14M-170	353.7	12	180.0	187.0	
90-14M-170	398.3	11	180.0	187.0	
112-14M-170	496.3	11	200.0	187.0	
144-14M-170	638.9	11	200.0	187.0	

5M HTD Timing Pulleys



5M-15						
Suit 15mm wide belt						
Part No.	O.D	Type	Bush	A	B	C = 22.0
P-34-5M-15F	53.0	8	1008	-	22.0	Steel Flanged
P-36-5M-15F	56.2	8	1108	-	22.0	
P-38-5M-15F	59.3	8	1108	-	22.0	
P-40-5M-15F	62.5	8	1108	-	22.0	
P-44-5M-15F	68.9	8	1108	-	22.0	
P-48-5M-15F	72.3	1	1210	64.0	25.0	
P-56-5M-15F	88.0	1	1210	70.0	25.0	Cast Iron No Flanges
P-64-5M-15F	100.7	1	1210	78.0	25.0	
P-72-5M-15F	113.5	1	1610	90.0	25.0	
P-80-5M-15F	126.2	1	1610	92.0	25.0	
P-90-5M-15	142.1	13	1610	92.0	25.0	
P112-5M-15	177.1	13	1610	92.0	25.0	
P136-5M-15	215.3	13	2012	110.0	32.0	Cast Iron No Flanges
P150-5M-15	237.6	13	2012	110.0	32.0	

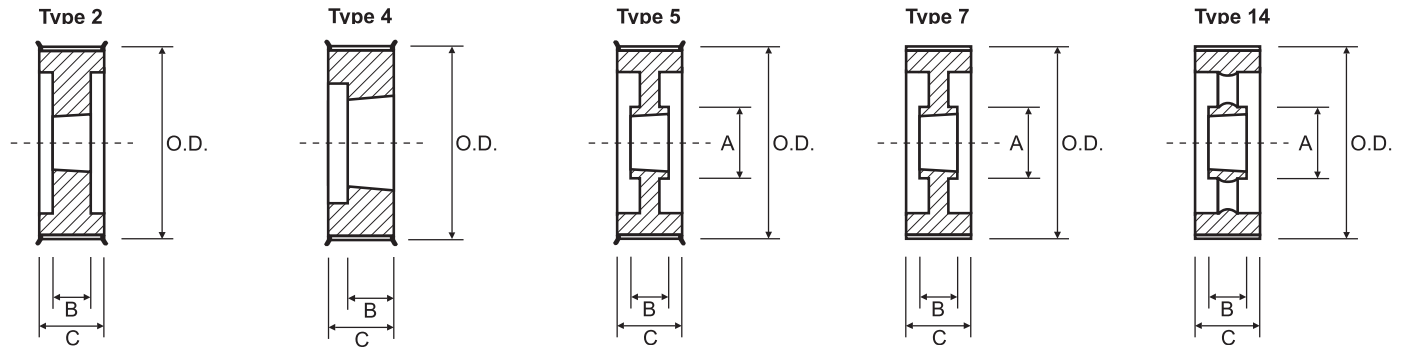
8M HTD Timing Pulleys



8M-20							8M-30						
Suit 20mm wide belt							Suit 30mm wide belt						
Part No.	O.D	Type	Bush	A	B	C = 28.0	Part No.	O.D	Type	Bush	A	B	C = 38.0
P-22-8M-20F	54.7	4	1008	-	22.0	Cast Iron	P-22-8M-30F	54.7	4	1008	-	22.0	Cast Iron
P-24-8M-20F	59.7	4	1108	-	22.0		P-24-8M-30F	59.7	4	1108	-	22.0	
P-26-8M-20F	64.8	4	1108	-	22.0		P-26-8M-30F	64.8	4	1108	-	22.0	
P-28-8M-20F	69.9	4	1108	-	22.0		P-28-8M-30F	69.9	4	1108	-	22.0	
P-30-8M-20F	75.0	4	1108	-	22.0		P-30-8M-30F	75.0	8	1615	-	38.0	
P-32-8M-20F	80.1	4	1610	-	25.0		P-32-8M-30F	80.1	8	1615	-	38.0	
P-34-8M-20F	85.2	4	1610	-	25.0		P-34-8M-30F	85.2	8	1615	-	38.0	
P-36-8M-20F	90.3	4	1610	-	25.0		P-36-8M-30F	90.3	8	1615	-	38.0	
P-38-8M-20F	95.4	4	1610	-	25.0		P-38-8M-30F	95.4	8	1615	-	38.0	
P-40-8M-20F	100.5	4	1610	-	25.0		P-40-8M-30F	100.5	8	1615	-	38.0	
P-44-8M-20F	110.7	1	2012	99.0	32.0		P-44-8M-30F	110.7	2	2012	-	32.0	
P-48-8M-20F	120.9	1	2012	105.0	32.0		P-48-8M-30F	120.9	2	2012	-	32.0	
P-56-8M-20F	141.2	1	2012	105.0	32.0		P-56-8M-30F	141.2	2	2012	-	32.0	
P-64-8M-20F	161.6	6	2012	110.0	32.0		P-64-8M-30F	161.6	1	2517	115.0	45.0	
P-72-8M-20F	182.0	6	2012	110.0	32.0		P-72-8M-30F	182.0	6	2517	120.0	45.0	
P-80-8M-20	202.4	9	2012	110.0	32.0	N.F.	P-80-8M-30	202.4	9	2517	120.0	45.0	No Flanges
P-90-8M-20	227.8	12	2012	110.0	32.0		P-90-8M-30	227.8	12	2517	120.0	45.0	
							P112-8M-30	283.8	12	2517	120.0	45.0	
							P144-8M-30	365.3	12	2517	120.0	45.0	

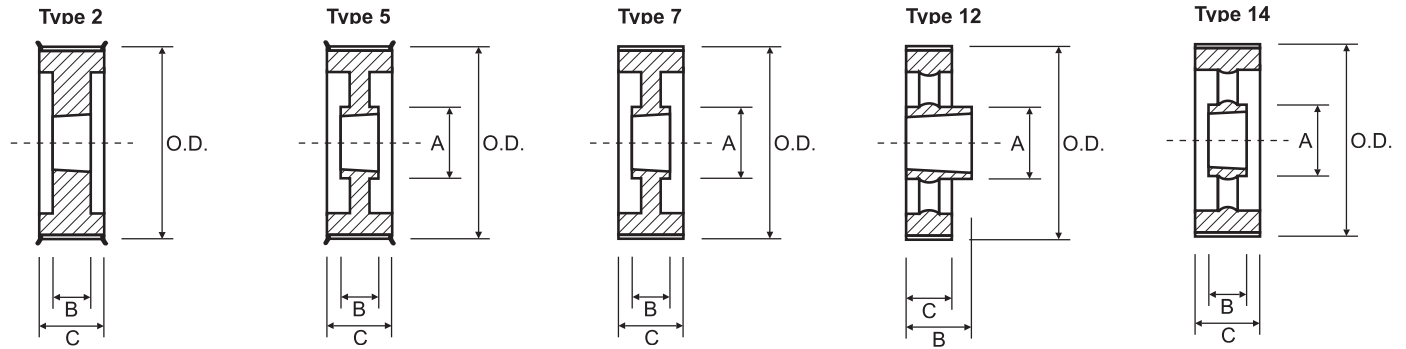
N.F. - No Flanges

8M HTD Timing Pulleys



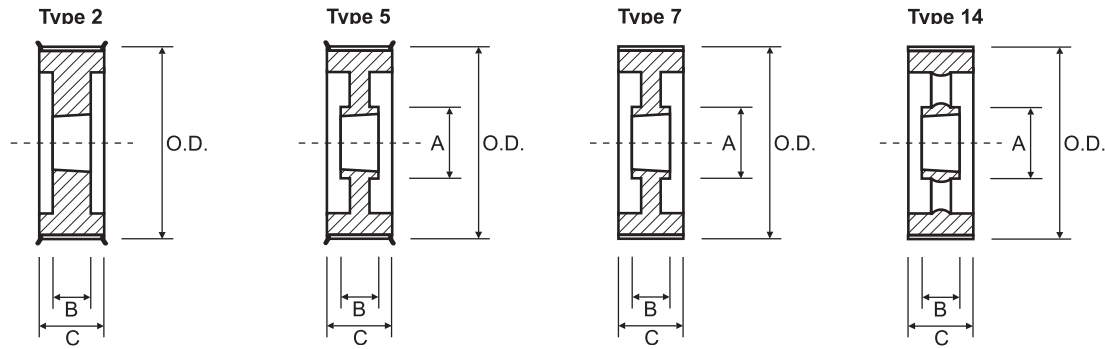
8M-50							8M-85						
Suit 50mm wide belt							Suit 85mm wide belt						
Part No.	O.D	Tvpe	Bush	A	B	C = 60.0	Part No.	O.D	Tvpe	Bush	A	B	C = 95.0
P-28-8M-50F	69.9	2	1108	-	22.0	Cast Iron	P-34-8M-85F	85.2	2	1615	-	38.0	Cast Iron
P-30-8M-50F	75.0	4	1615	-	38.0		P-36-8M-85F	90.3	2	1615	-	38.0	
P-32-8M-50F	80.1	4	1615	-	38.0		P-38-8M-85F	95.4	2	1615	-	38.0	
P-34-8M-50F	85.2	4	1615	-	38.0		P-40-8M-85F	100.5	2	2012	-	32.0	
P-36-8M-50F	90.3	4	1615	-	38.0		P-44-8M-85F	110.7	2	2012	-	32.0	
P-38-8M-50F	95.4	4	1615	-	38.0		P-48-8M-85F	120.9	2	2517	-	45.0	
P-40-8M-50F	100.5	2	2012	-	32.0		P-56-8M-85F	141.2	2	2517	-	45.0	
P-44-8M-50F	110.7	2	2012	-	32.0		P-64-8M-85F	161.6	2	2517	-	45.0	
P-48-8M-50F	120.9	2	2012	-	32.0		P-72-8M-85F	182.0	2	3020	-	51.0	
P-56-8M-50F	141.2	2	2517	-	45.0		P-80-8M-85	202.4	7	3020	140.0	51.0	
P-64-8M-50F	161.6	5	2517	115.0	45.0		P-90-8M-85	227.8	7	3020	146.0	51.0	
P-72-8M-50F	182.0	5	2517	120.0	45.0		P112-8M-85	283.8	14	3020	146.0	51.0	
P-80-8M-50	202.4	7	3020	140.0	51.0		P144-8M-85	365.3	14	3030	140.0	76.0	
P-90-8M-50	227.8	7	3020	146.0	51.0	P168-8M-85	426.4	14	3030	140.0	76.0		
P112-8M-50	283.8	14	3020	146.0	51.0	P192-8M-85	487.5	14	3030	140.0	76.0		
P144-8M-50	365.3	14	3020	146.0	51.0								
P168-8M-50	426.4	14	3020	146.0	51.0								
P192-8M-50	487.5	14	3020	146.0	51.0								

14M HTD Timing Pulleys



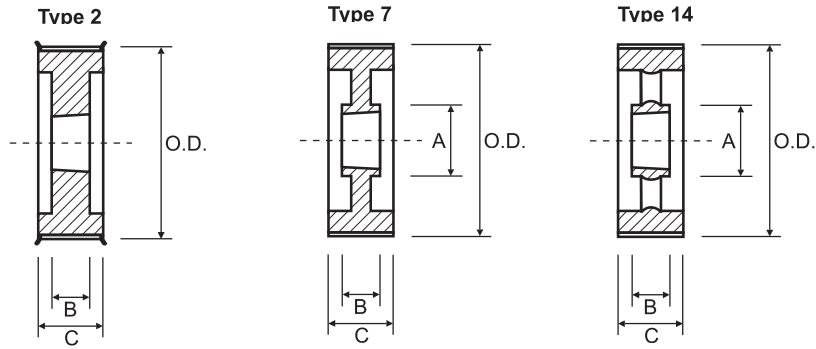
14M-40							14M-55						
Suit 40mm wide belt							Suit 55mm wide belt						
Part No.	O.D	Type	Bush	A	B	C = 54.0	Part No.	O.D	Type	Bush	A	B	C = 70.0
P-28-14M-40F	122.1	2	2012	-	32.0	Cast Iron	P-28-14M-55F	122.1	2	2012	-	32.0	Cast Iron
P-29-14M-40F	126.6	2	2012	-	32.0		P-29-14M-55F	126.6	2	2012	-	32.0	
P-30-14M-40F	131.0	2	2012	-	32.0		P-30-14M-55F	131.0	2	2517	-	45.0	
P-32-14M-40F	139.9	2	2012	-	32.0		P-32-14M-55F	139.9	2	2517	-	45.0	
P-34-14M-40F	148.8	2	2517	-	45.0		P-34-14M-55F	148.8	2	2517	-	45.0	
P-36-14M-40F	157.7	2	2517	-	45.0		P-36-14M-55F	157.7	2	2517	-	45.0	
P-38-14M-40F	166.6	2	2517	-	45.0		P-38-14M-55F	166.6	2	2517	-	45.0	
P-40-14M-40F	175.5	2	2517	-	45.0		P-40-14M-55F	175.5	2	2517	-	45.0	
P-44-14M-40F	193.3	2	3020	-	51.0		P-44-14M-55F	193.3	2	3020	-	51.0	
P-48-14M-40F	211.1	2	3020	-	51.0		P-48-14M-55F	211.1	2	3020	-	51.0	
P-56-14M-40F	246.8	5	3020	146.0	51.0		P-56-14M-55F	246.8	5	3020	146.0	51.0	
P-64-14M-40F	282.4	5	3020	146.0	51.0		P-64-14M-55F	282.4	5	3020	146.0	51.0	
P-72-14M-40	318.1	7	3020	146.0	51.0		P-72-14M-55	318.1	7	3020	146.0	51.0	
P-80-14M-40	353.7	14	3020	146.0	51.0		P-80-14M-55	353.7	14	3020	146.0	51.0	
P-90-14M-40	398.3	14	3020	146.0	51.0	No Flanges	P-90-14M-55	398.3	14	3020	146.0	51.0	No Flanges
P112-14M-40	496.3	14	3020	146.0	51.0		P112-14M-55	496.3	14	3020	146.0	51.0	
P144-14M-40	638.9	14	3020	146.0	51.0		P144-14M-55	638.9	14	3020	146.0	51.0	
							P168-14M-55	745.9	14	3020	146.0	51.0	
							P192-14M-55	852.8	12	3535	178.0	89.0	

14M HTD Timing Pulleys



14M-85							14M-115						
Suit 85mm wide belt							Suit 115mm wide belt						
Part No.	O.D	Type	Bush	A	B	C = 102.0	Part No.	O.D	Type	Bush	A	B	C = 133.0
P-28-14M-85F	122.1	2	2517	-	45.0	Cast Iron	P-28-14M-115F	122.1	2	2517	-	45.0	Cast Iron
P-29-14M-85F	126.6	2	2517	-	45.0		P-29-14M-115F	126.6	2	2517	-	45.0	
P-30-14M-85F	131.0	2	2517	-	45.0		P-30-14M-115F	131.0	2	2517	-	45.0	
P-32-14M-85F	139.9	2	2517	-	45.0		P-32-14M-115F	139.9	2	2517	-	45.0	
P-34-14M-85F	148.8	2	2517	-	45.0		P-34-14M-115F	148.8	2	2517	-	45.0	
P-36-14M-85F	157.7	2	3020	-	51.0		P-36-14M-115F	157.7	2	3020	-	51.0	
P-38-14M-85F	166.6	2	3020	-	51.0		P-38-14M-115F	166.6	2	3020	-	51.0	
P-40-14M-85F	175.5	2	3020	-	51.0		P-40-14M-115F	175.5	2	3020	-	51.0	
P-44-14M-85F	193.3	2	3030	-	76.0		P-44-14M-115F	193.3	2	3030	-	76.0	
P-48-14M-85F	211.1	2	3030	-	76.0		P-48-14M-115F	211.1	2	3030	-	76.0	
P-56-14M-85F	246.8	2	3535	-	89.0		P-56-14M-115F	246.8	2	3535	-	89.0	
P-64-14M-85F	282.4	5	3535	178.0	89.0		P-64-14M-115F	282.4	5	3535	178.0	89.0	
P-72-14M-85	318.1	7	3535	178.0	89.0		P-72-14M-115	318.1	7	3535	178.0	89.0	
P-80-14M-85	353.7	14	3535	178.0	89.0		P-80-14M-115	353.7	14	3535	178.0	89.0	
P-90-14M-85	398.3	14	3535	178.0	89.0	No Flanges	P-90-14M-115	398.3	14	3535	178.0	89.0	No Flanges
P112-14M-85	496.3	14	3535	178.0	89.0		P112-14M-115	496.3	14	3535	178.0	89.0	
P144-14M-85	638.9	14	3535	178.0	89.0		P144-14M-115	638.9	14	4040	215.0	102.0	
P149-14M-85	661.2	14	3535	195.0	89.0		P168-14M-115	745.9	14	4040	215.0	102.0	
P168-14M-85	745.9	14	3535	178.0	89.0		P192-14M-115	852.8	14	4040	215.0	102.0	
P192-14M-85	852.8	14	4040	215.0	102.0		P216-14M-115	959.8	14	4040	215.0	102.0	
P216-14M-85	959.8	14	4040	215.0	102.0								

14M HTD Timing Pulleys



14M-170							
Suit 170mm wide belt							
Part No.	O.D.	Type	Bush	A	B	C = 187.0	
P38-14M-170F	166.6	2	3030	-	76.0	Cast Iron	Flanged
P40-14M-170F	175.5	2	3030	-	76.0		
P44-14M-170F	193.3	2	3535	-	89.0		
P48-14M-170F	211.1	2	3535	-	89.0		
P56-14M-170F	246.8	2	3535	-	89.0		
P64-14M-170F	282.4	2	4040	-	102.0		
P72-14M-170	318.1	7	4040	215.0	102.0	Cast Iron	No Flanges
P80-14M-170	353.7	7	4040	215.0	102.0		
P90-14M-170	398.3	14	4040	215.0	102.0		
P112-14M-170	496.3	14	5050	267.0	127.0		
P144-14M-170	638.9	14	5050	267.0	127.0		
P168-14M-170	745.9	14	5050	267.0	127.0		
P192-14M-170	852.8	14	5050	267.0	127.0		
P216-14M-170	959.8	14	5050	267.0	127.0		