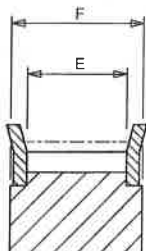


# HTD Timing Pulleys - 3M Belts



Cross & Morse HTD Pulleys are manufactured to close tolerances to ensure concentric running, and have precision generated gear teeth to match the high power and speed capabilities of HTD drive belts. Only high quality materials are used for pulley manufacture; aluminium being selected for 3M and larger 5M pulleys to keep weight and inertia low; all other pulleys machined from medium carbon steel bar or 260 Grade cast iron and finished with zinc phosphate for corrosion protection. Standard pulleys are offered with a large range of tooth sizes in widths to suit all standard HTD belts. Pulleys for 5M, 8M and 14M drives are available with parallel pilot bore for reworking to customers requirements, bored for shaft clamping elements, or with taper bore to be combined with stock taper brushes for the complete off-the-shelf drive. Pulleys of non-standard widths or numbers of teeth can be supplied to order, or teeth can be generated on customers own blanks. Smaller pulleys are fitted with two flanges to retain the drive belt, these being identified in tables by suffix 'F' on pulley type. The flanges are pressed onto pulley body and retained by spin rivetting.

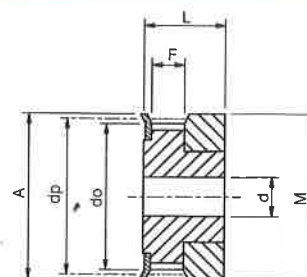


| Belt Size     | 3M   |    | 5M   |      |      | 8M |    |    |    | 14M |    |     |     |     |
|---------------|------|----|------|------|------|----|----|----|----|-----|----|-----|-----|-----|
| Belt Width mm | 9    | 15 | 9    | 15   | 25   | 20 | 30 | 50 | 85 | 40  | 55 | 85  | 115 | 170 |
| E             | 10.2 | 17 | 11.9 | 17.9 | 27.9 | 23 | 33 | 55 | 90 | 47  | 63 | 95  | 126 | 180 |
| F             | 13.4 | 20 | 14.5 | 20.5 | 30.5 | 28 | 38 | 60 | 95 | 54  | 70 | 102 | 133 | 187 |

| Catalogue No.                                          | No. Teeth Z | Pulley Type | Pitch Circle Diameter dp | Min. Bore d | Max Bore d | Outside Diameter do | Flange Diameter A | Pulley Width F | Bore Length L | Hub Diameter M | Approx. Weight kg |
|--------------------------------------------------------|-------------|-------------|--------------------------|-------------|------------|---------------------|-------------------|----------------|---------------|----------------|-------------------|
| <b>3mm Pitch Pulleys for 6mm wide Belts. Ref. 3M06</b> |             |             |                          |             |            |                     |                   |                |               |                |                   |
| 10-3M-06                                               | 10          | OF          | 9.55                     | 4.0         | 4.0        | 8.8                 | 13.0              | 7.2            | 14.5          | 13.0           | .003              |
| 12-3M-06                                               | 12          | OF          | 11.46                    | 4.0         | 6.0        | 10.7                | 15.0              | 7.2            | 14.5          | 15.0           | .005              |
| 14-3M-06                                               | 14          | OF          | 13.37                    | 4.0         | 7.0        | 12.6                | 16.0              | 7.2            | 14.5          | 16.0           | .006              |
| 15-3M-06                                               | 15          | OF          | 14.32                    | 4.0         | 8.0        | 13.6                | 17.5              | 7.2            | 14.5          | 17.5           | .007              |
| 16-3M-06                                               | 16          | 1F          | 15.28                    | 4.0         | 6.5        | 14.5                | 18.0              | 9.8            | 17.5          | 10.0           | .006              |
| 18-3M-06                                               | 18          | 1F          | 17.19                    | 6.0         | 7.0        | 16.4                | 20.0              | 9.8            | 17.5          | 11.0           | .007              |
| 20-3M-06                                               | 20          | 1F          | 19.10                    | 6.0         | 8.0        | 18.3                | 23.0              | 9.8            | 17.5          | 13.0           | .008              |
| 21-3M-06                                               | 21          | 1F          | 20.05                    | 6.0         | 8.5        | 19.3                | 25.0              | 9.8            | 17.5          | 13.0           | .011              |
| 22-3M-06                                               | 22          | 1F          | 21.01                    | 6.0         | 8.5        | 20.3                | 25.0              | 9.8            | 17.5          | 13.0           | .012              |
| 24-3M-06                                               | 24          | 1F          | 22.92                    | 6.0         | 8.5        | 22.2                | 25.0              | 9.8            | 17.5          | 13.0           | .014              |
| 26-3M-06                                               | 26          | 1F          | 24.83                    | 6.0         | 10.5       | 24.1                | 28.0              | 9.8            | 17.5          | 16.0           | .016              |
| 28-3M-06                                               | 28          | 1F          | 26.74                    | 6.0         | 11.5       | 26.0                | 32.0              | 9.8            | 17.5          | 18.0           | .021              |
| 30-3M-06                                               | 30          | 1F          | 28.65                    | 6.0         | 12.7       | 27.9                | 32.0              | 9.8            | 17.5          | 20.0           | .024              |
| 32-3M-06                                               | 32          | 1F          | 30.55                    | 6.0         | 14.0       | 29.8                | 36.0              | 9.8            | 17.5          | 22.0           | .028              |
| 36-3M-06                                               | 36          | 1F          | 34.38                    | 6.0         | 17.0       | 33.6                | 38.0              | 10.3           | 18.0          | 26.0           | .039              |
| 40-3M-06                                               | 40          | 1F          | 38.20                    | 6.0         | 18.5       | 37.4                | 42.0              | 10.3           | 18.0          | 28.0           | .047              |
| 44-3M-06                                               | 44          | 1F          | 42.02                    | 6.0         | 22.5       | 41.3                | 48.0              | 10.3           | 18.0          | 33.0           | .062              |
| 48-3M-06                                               | 48          | 1           | 45.84                    | 8.0         | 22.5       | 45.1                | -                 | 10.3           | 18.6          | 33.0           | .062              |
| 60-3M-06                                               | 60          | 1           | 57.30                    | 8.0         | 22.5       | 56.5                | -                 | 10.3           | 18.6          | 33.0           | .091              |
| 72-3M-06                                               | 72          | 1           | 68.75                    | 8.0         | 22.5       | 68.0                | -                 | 10.3           | 18.6          | 33.0           | .124              |

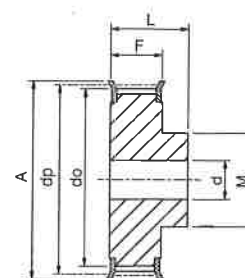
|                                                        |    |    |       |     |      |      |      |      |      |      |      |
|--------------------------------------------------------|----|----|-------|-----|------|------|------|------|------|------|------|
| <b>3mm Pitch Pulleys for 9mm wide Belts. Ref. 3M09</b> |    |    |       |     |      |      |      |      |      |      |      |
| 10-3M-09                                               | 10 | OF | 9.55  | 4.0 | 4.0  | 8.8  | 13.0 | 10.2 | 17.5 | 13.0 | .004 |
| 12-3M-09                                               | 12 | OF | 11.46 | 4.0 | 6.0  | 10.7 | 15.0 | 10.2 | 17.5 | 15.0 | .006 |
| 14-3M-09                                               | 14 | OF | 13.37 | 4.0 | 7.0  | 12.6 | 16.0 | 10.2 | 17.5 | 16.0 | .007 |
| 15-3M-09                                               | 15 | OF | 14.32 | 4.0 | 8.0  | 13.6 | 17.5 | 10.2 | 17.5 | 17.5 | .008 |
| 16-3M-09                                               | 16 | 1F | 15.28 | 4.0 | 6.5  | 14.5 | 18.0 | 12.8 | 20.6 | 10.0 | .007 |
| 18-3M-09                                               | 18 | 1F | 17.19 | 6.0 | 7.0  | 16.4 | 20.0 | 12.8 | 20.6 | 11.0 | .008 |
| 20-3M-09                                               | 20 | 1F | 19.10 | 6.0 | 8.0  | 18.3 | 23.0 | 12.8 | 20.6 | 13.0 | .010 |
| 21-3M-09                                               | 21 | 1F | 20.05 | 6.0 | 8.5  | 19.3 | 25.0 | 12.8 | 20.6 | 13.0 | .013 |
| 22-3M-09                                               | 22 | 1F | 21.01 | 6.0 | 8.5  | 20.3 | 25.0 | 12.8 | 20.6 | 13.0 | .014 |
| 24-3M-09                                               | 24 | 1F | 22.92 | 6.0 | 8.5  | 22.2 | 25.0 | 12.8 | 20.6 | 13.0 | .016 |
| 26-3M-09                                               | 26 | 1F | 24.83 | 6.0 | 10.5 | 24.1 | 28.0 | 12.8 | 20.6 | 16.0 | .018 |
| 28-3M-09                                               | 28 | 1F | 26.74 | 6.0 | 11.5 | 26.0 | 32.0 | 12.8 | 20.6 | 18.0 | .024 |
| 30-3M-09                                               | 30 | 1F | 28.65 | 6.0 | 12.7 | 27.9 | 32.0 | 12.8 | 20.6 | 20.0 | .028 |
| 32-3M-09                                               | 32 | 1F | 30.55 | 6.0 | 14.0 | 29.8 | 36.0 | 12.8 | 20.6 | 22.0 | .032 |
| 36-3M-09                                               | 36 | 1F | 34.38 | 6.0 | 17.0 | 33.6 | 38.0 | 13.4 | 22.2 | 26.0 | .045 |
| 40-3M-09                                               | 40 | 1F | 38.20 | 6.0 | 18.5 | 37.4 | 42.0 | 13.4 | 22.2 | 28.0 | .055 |
| 44-3M-09                                               | 44 | 1F | 42.02 | 6.0 | 22.5 | 41.3 | 48.0 | 13.4 | 22.2 | 33.0 | .074 |
| 48-3M-09                                               | 48 | 1  | 45.84 | 8.0 | 22.5 | 45.1 | -    | 13.4 | 22.2 | 33.0 | .074 |
| 60-3M-09                                               | 60 | 1  | 57.30 | 8.0 | 22.5 | 56.5 | -    | 13.4 | 22.2 | 33.0 | .106 |
| 72-3M-09                                               | 72 | 1  | 68.75 | 8.0 | 22.5 | 68.0 | -    | 13.4 | 22.2 | 33.0 | .145 |

|                                                         |    |    |       |     |      |      |      |      |      |      |      |
|---------------------------------------------------------|----|----|-------|-----|------|------|------|------|------|------|------|
| <b>3mm Pitch Pulleys for 15mm wide Belts. Ref. 3M15</b> |    |    |       |     |      |      |      |      |      |      |      |
| 10-3M-15                                                | 10 | OF | 9.55  | 4.0 | 4.0  | 8.8  | 13.0 | 17.0 | 26.0 | 13.0 | .006 |
| 12-3M-15                                                | 12 | OF | 11.46 | 4.0 | 6.0  | 10.7 | 15.0 | 17.0 | 26.0 | 15.0 | .008 |
| 14-3M-15                                                | 14 | OF | 13.37 | 4.0 | 7.0  | 12.6 | 16.0 | 17.0 | 26.0 | 16.0 | .010 |
| 15-3M-15                                                | 15 | OF | 14.32 | 4.0 | 8.0  | 13.6 | 17.5 | 17.0 | 26.0 | 17.5 | .012 |
| 16-3M-15                                                | 16 | 1F | 15.28 | 4.0 | 6.5  | 14.5 | 18.0 | 19.5 | 26.0 | 10.0 | .010 |
| 18-3M-15                                                | 18 | 1F | 17.19 | 6.0 | 7.0  | 16.4 | 20.0 | 19.5 | 26.0 | 11.0 | .012 |
| 20-3M-15                                                | 20 | 1F | 19.10 | 6.0 | 8.0  | 18.3 | 23.0 | 19.5 | 26.0 | 13.0 | .014 |
| 21-3M-15                                                | 21 | 1F | 20.05 | 6.0 | 8.5  | 19.3 | 25.0 | 19.5 | 26.0 | 13.0 | .016 |
| 22-3M-15                                                | 22 | 1F | 21.01 | 6.0 | 8.5  | 20.3 | 25.0 | 19.5 | 26.0 | 13.0 | .018 |
| 24-3M-15                                                | 24 | 1F | 22.92 | 6.0 | 8.5  | 22.2 | 25.0 | 19.5 | 26.0 | 13.0 | .020 |
| 26-3M-15                                                | 26 | 1F | 24.83 | 6.0 | 10.5 | 24.1 | 28.0 | 19.5 | 26.0 | 16.0 | .027 |
| 28-3M-15                                                | 28 | 1F | 26.74 | 6.0 | 11.5 | 26.0 | 32.0 | 19.5 | 26.0 | 18.0 | .030 |
| 30-3M-15                                                | 30 | 1F | 28.65 | 6.0 | 12.7 | 27.9 | 32.0 | 19.5 | 26.0 | 20.0 | .038 |
| 32-3M-15                                                | 32 | 1F | 30.55 | 6.0 | 14.0 | 29.8 | 36.0 | 19.5 | 26.0 | 22.0 | .045 |
| 36-3M-15                                                | 36 | 1F | 34.38 | 6.0 | 17.0 | 33.6 | 38.0 | 20.0 | 30.0 | 26.0 | .060 |
| 40-3M-15                                                | 40 | 1F | 38.20 | 6.0 | 18.5 | 37.4 | 42.0 | 20.0 | 30.0 | 28.0 | .075 |
| 44-3M-15                                                | 44 | 1F | 42.02 | 6.0 | 22.5 | 41.3 | 48.0 | 20.0 | 30.0 | 33.0 | .095 |
| 48-3M-15                                                | 48 | 1  | 45.84 | 8.0 | 22.5 | 45.1 | -    | 20.0 | 30.0 | 33.0 | .103 |
| 60-3M-15                                                | 60 | 1  | 57.30 | 8.0 | 22.5 | 56.5 | -    | 20.0 | 30.0 | 33.0 | .150 |
| 72-3M-15                                                | 72 | 1  | 68.75 | 8.0 | 22.5 | 68.0 | -    | 20.0 | 30.0 | 33.0 | .210 |



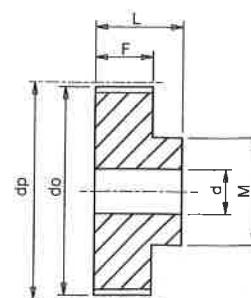
**Type OF**

Material: Aluminium



**Type 1F**

Material: Aluminium



**Type 1**

Material: Aluminium

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