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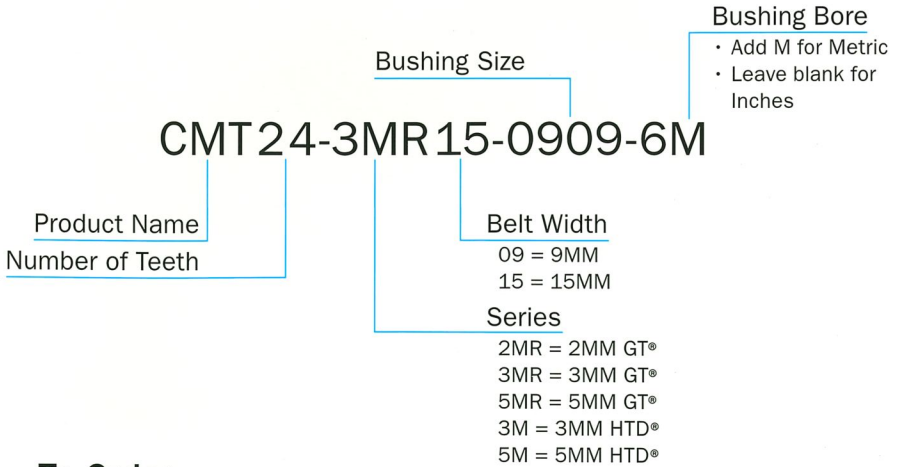
Synchronous Timing Pulleys  
Featuring  
Concentric Maxi Torque  
Bushing System

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# Ordering Information

Part Number Example



## To Order:

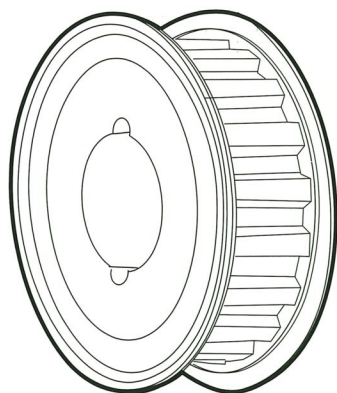
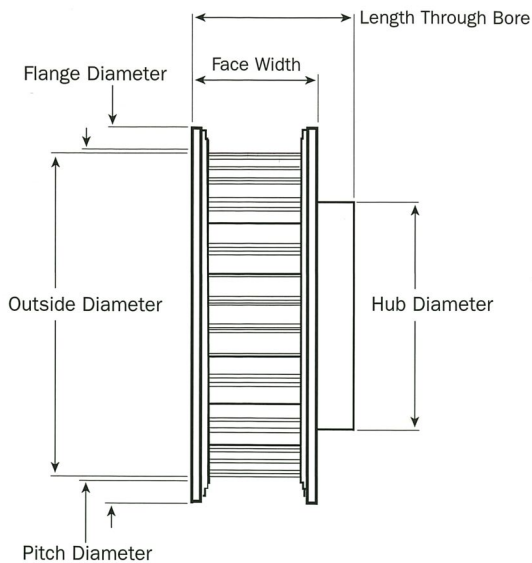
1. Select part number from stock charts
2. Add desired bore size based on bushing size in part number.  
 Refer to chart below for bushing bores available

\*Metric bores available in whole millimeters. Inch bores available in .0625 increments to .750, .125 increments from .750 to 1.000



| CMT Bushing Part Number | Bushing Bore* mm/in |
|-------------------------|---------------------|
| 0606                    | 3-6/ .125-.250      |
| 0609                    | 3-6/ .125-.250      |
| 0909                    | 4-9/ .1875-.375     |
| 0912                    | 5-9/ .1875-.375     |
| 1212                    | 6-12/ .250-.500     |
| 1216                    | 6-12/ .250-.500     |
| 1616                    | 8-16/ .3125-.625    |
| 1620                    | 8-16/ .3125-.625    |
| 2020                    | 10-20/ .4375-.750   |
| 2025                    | 10-20/ .4375-.750   |
| 2530                    | 12-25/ .500-1.000   |

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### Style Codes:

- 3F Flanges both sides, no hub
- 3 No flanges, no hub
- 6F Flanges both sides with hub (as shown)
- 6 No flanges with hub

## Concentric Maxi Torque Stock Synchronous Pulley Charts

### 2MM GT® 2 Synchronous Pulleys

9mm (.354 in) Wide Belts (2MR-09) - .530 Face Width

| CMT<br>Part Number | No. of<br>Grooves | Style | Nominal Dimensions |                     |                |                     |                 |
|--------------------|-------------------|-------|--------------------|---------------------|----------------|---------------------|-----------------|
|                    |                   |       | Pitch Diameter     | Outside<br>Diameter | Flange<br>O.D. | Length thru<br>Bore | Hub<br>Diameter |
| CMT26-2MR09-0606   | 26                | 3F    | 0.652              | 0.632               | 0.840          | 0.530               |                 |
| CMT28-2MR09-0609   | 28                | 3F    | 0.702              | 0.682               | 0.895          | 0.530               |                 |
| CMT30-2MR09-0609   | 30                | 3F    | 0.752              | 0.732               | 0.945          | 0.530               |                 |
| CMT32-2MR09-0609   | 32                | 3F    | 0.802              | 0.782               | 1.000          | 0.530               |                 |
| CMT36-2MR09-0909   | 36                | 3F    | 0.902              | 0.882               | 1.105          | 0.530               |                 |
| CMT40-2MR09-0912   | 40                | 3F    | 1.003              | 0.983               | 1.210          | 0.530               |                 |
| CMT45-2MR09-1212   | 45                | 3F    | 1.128              | 1.108               | 1.340          | 0.530               |                 |
| CMT50-2MR09-1212   | 50                | 3F    | 1.253              | 1.233               | 1.470          | 0.530               |                 |
| CMT56-2MR09-1616   | 56                | 6     | 1.404              | 1.384               |                | 0.655               | 1.10            |
| CMT62-2MR09-1616   | 62                | 6     | 1.554              | 1.534               |                | 0.655               | 1.10            |
| CMT68-2MR09-1616   | 68                | 6     | 1.704              | 1.684               |                | 0.655               | 1.10            |
| CMT74-2MR09-1616   | 74                | 6     | 1.855              | 1.835               |                | 0.655               | 1.10            |
| CMT80-2MR09-1616   | 80                | 6     | 2.005              | 1.985               |                | 0.655               | 1.10            |

# Concentric Maxi Torque Stock Synchronous Pulley Charts

## 3MM GT® 2 Synchronous Pulleys

15mm (.591 in) Wide Belts (3MR-15) - .780 Face Width

| CMT Part Number  | No. of Grooves | Style | Nominal Dimensions |                  |             |                  |              |
|------------------|----------------|-------|--------------------|------------------|-------------|------------------|--------------|
|                  |                |       | Pitch Diameter     | Outside Diameter | Flange O.D. | Length thru Bore | Hub Diameter |
| CMT19-3MR15-0606 | 19             | 3F    | 0.714              | 0.684            | 0.827       | 0.780            |              |
| CMT20-3MR15-0609 | 20             | 3F    | 0.752              | 0.722            | 0.895       | 0.780            |              |
| CMT21-3MR15-0609 | 21             | 3F    | 0.790              | 0.760            | 0.895       | 0.780            |              |
| CMT22-3MR15-0609 | 22             | 3F    | 0.827              | 0.797            | 0.945       | 0.780            |              |
| CMT24-3MR15-0909 | 24             | 3F    | 0.902              | 0.872            | 1.025       | 0.780            |              |
| CMT26-3MR15-0912 | 26             | 3F    | 0.977              | 0.947            | 1.105       | 0.780            |              |
| CMT28-3MR15-0912 | 28             | 3F    | 1.053              | 1.023            | 1.173       | 0.780            |              |
| CMT30-3MR15-0912 | 30             | 3F    | 1.128              | 1.098            | 1.250       | 0.780            |              |
| CMT32-3MR15-0912 | 32             | 3F    | 1.203              | 1.173            | 1.323       | 0.780            |              |
| CMT34-3MR15-0912 | 34             | 3F    | 1.278              | 1.248            | 1.398       | 0.780            |              |
| CMT36-3MR15-0912 | 36             | 3F    | 1.353              | 1.323            | 1.478       | 0.780            |              |
| CMT38-3MR15-0912 | 38             | 3F    | 1.429              | 1.399            | 1.549       | 0.780            |              |
| CMT40-3MR15-1616 | 40             | 3F    | 1.504              | 1.474            | 1.625       | 0.780            |              |
| CMT45-3MR15-1616 | 45             | 3F    | 1.692              | 1.662            | 1.775       | 0.780            |              |
| CMT50-3MR15-1616 | 50             | 3     | 1.880              | 1.850            |             | 0.780            |              |
| CMT56-3MR15-1616 | 56             | 3     | 2.105              | 2.075            |             | 0.780            |              |
| CMT62-3MR15-2020 | 62             | 6     | 2.331              | 2.301            |             | 0.827            | 1.63         |
| CMT68-3MR15-2020 | 68             | 6     | 2.557              | 2.527            |             | 0.827            | 1.63         |
| CMT74-3MR15-2020 | 74             | 6     | 2.782              | 2.752            |             | 0.827            | 1.75         |
| CMT80-3MR15-2020 | 80             | 6     | 3.008              | 2.978            |             | 0.827            | 2.00         |

## 5MM GT® 2 Synchronous Pulleys

15mm (.591 in) Wide Belts (5MR-15) - .83 Face Width

| CMT Part Number   | No. of Grooves | Style | Nominal Dimensions |                  |             |                  |              |
|-------------------|----------------|-------|--------------------|------------------|-------------|------------------|--------------|
|                   |                |       | Pitch Diameter     | Outside Diameter | Flange O.D. | Length thru Bore | Hub Diameter |
| CMT18-5MR15-1212  | 18             | 3F    | 1.128              | 1.083            | 1.250       | 0.83             |              |
| CMT19-5MR15-1216  | 19             | 3F    | 1.191              | 1.146            | 1.315       | 0.83             |              |
| CMT20-5MR15-1216  | 20             | 3F    | 1.253              | 1.208            | 1.437       | 0.83             |              |
| CMT21-5MR15-1216  | 21             | 3F    | 1.316              | 1.271            | 1.437       | 0.83             |              |
| CMT22-5MR15-1216  | 22             | 3F    | 1.379              | 1.334            | 1.500       | 0.83             |              |
| CMT23-5MR15-1216  | 23             | 3F    | 1.441              | 1.396            | 1.562       | 0.83             |              |
| CMT24-5MR15-1620  | 24             | 3F    | 1.504              | 1.459            | 1.625       | 0.83             |              |
| CMT25-5MR15-1620  | 25             | 3F    | 1.566              | 1.521            | 1.687       | 0.83             |              |
| CMT26-5MR15-1620  | 26             | 3F    | 1.629              | 1.584            | 1.750       | 0.83             |              |
| CMT28-5MR15-1620  | 28             | 3F    | 1.754              | 1.709            | 1.875       | 0.83             |              |
| CMT30-5MR15-1620  | 30             | 3F    | 1.880              | 1.835            | 2.000       | 0.83             |              |
| CMT32-5MR15-1620  | 32             | 3F    | 2.005              | 1.960            | 2.125       | 0.83             |              |
| CMT34-5MR15-1620  | 34             | 3F    | 2.130              | 2.085            | 2.250       | 0.83             |              |
| CMT36-5MR15-2020  | 36             | 3     | 2.256              | 2.211            |             | 0.83             |              |
| CMT38-5MR15-2020  | 38             | 3     | 2.381              | 2.336            |             | 0.83             |              |
| CMT40-5MR15-2020  | 40             | 3     | 2.506              | 2.461            |             | 0.83             |              |
| CMT45-5MR15-2020  | 45             | 3     | 2.820              | 2.775            |             | 0.83             |              |
| CMT50-5MR15-2020  | 50             | 3     | 3.133              | 3.088*           |             | 0.83             |              |
| CMT56-5MR15-2020  | 56             | 3     | 3.509              | 3.464*           |             | 0.83             |              |
| CMT62-5MR15-2020  | 62             | 3     | 3.885              | 3.840*           |             | 0.83             |              |
| CMT68-5MR15-2020  | 68             | 3     | 4.261              | 4.216*           |             | 0.83             |              |
| CMT74-5MR15-2530  | 74             | 6     | 4.637              | 4.592*           |             | 1.24             | 3.63         |
| CMT80-5MR15-2530  | 80             | 6     | 5.013              | 4.968*           |             | 1.24             | 4.00         |
| CMT90-5MR15-2530  | 90             | 6     | 5.639              | 5.594*           |             | 1.24             | 4.50         |
| CMT112-5MR15-2530 | 112            | 6     | 7.018              | 6.973*           |             | 1.24             | 6.00         |

## 3MM Pitch HTD® Synchronous Pulleys

9mm (.354 in) Wide Belts (3M-09) - .550 Face Width

| CMT Part Number | No. of Grooves | Style | Nominal Dimensions |                  |             |                  |              |
|-----------------|----------------|-------|--------------------|------------------|-------------|------------------|--------------|
|                 |                |       | Pitch Diameter     | Outside Diameter | Flange O.D. | Length thru Bore | Hub Diameter |
| CMT18-3M09-0606 | 18             | 3F    | 0.677              | 0.647            | 0.790       | 0.550            |              |
| CMT19-3M09-0609 | 19             | 3F    | 0.714              | 0.684            | 0.827       | 0.550            |              |
| CMT20-3M09-0609 | 20             | 3F    | 0.752              | 0.722            | 0.895       | 0.550            |              |
| CMT22-3M09-0609 | 22             | 3F    | 0.827              | 0.797            | 0.945       | 0.550            |              |
| CMT24-3M09-0909 | 24             | 3F    | 0.902              | 0.872            | 1.025       | 0.550            |              |
| CMT26-3M09-0909 | 26             | 3F    | 0.977              | 0.947            | 1.105       | 0.550            |              |
| CMT28-3M09-0909 | 28             | 3F    | 1.053              | 1.023            | 1.173       | 0.550            |              |
| CMT30-3M09-1212 | 30             | 3F    | 1.128              | 1.098            | 1.250       | 0.550            |              |
| CMT32-3M09-1212 | 32             | 3F    | 1.203              | 1.173            | 1.323       | 0.550            |              |
| CMT34-3M09-1212 | 34             | 3F    | 1.278              | 1.248            | 1.398       | 0.550            |              |
| CMT36-3M09-1212 | 36             | 3F    | 1.353              | 1.324            | 1.470       | 0.550            |              |
| CMT38-3M09-1212 | 38             | 3F    | 1.429              | 1.399            | 1.549       | 0.550            |              |
| CMT40-3M09-1212 | 40             | 3F    | 1.504              | 1.474            | 1.625       | 0.550            |              |
| CMT44-3M09-1212 | 44             | 3F    | 1.654              | 1.624            | 1.775       | 0.550            |              |
| CMT50-3M09-1616 | 50             | 6     | 1.880              | 1.850            |             | 0.700            | 1.25         |
| CMT56-3M09-1616 | 56             | 6     | 2.105              | 2.075            |             | 0.700            | 1.25         |
| CMT62-3M09-1616 | 62             | 6     | 2.331              | 2.301            |             | 0.700            | 1.25         |
| CMT72-3M09-1616 | 72             | 6     | 2.707              | 2.677            |             | 0.700            | 1.63         |

## 5MM HTD® Synchronous Pulleys

15mm (.591 in) Wide Belts (5M-15) - .78 Face Width

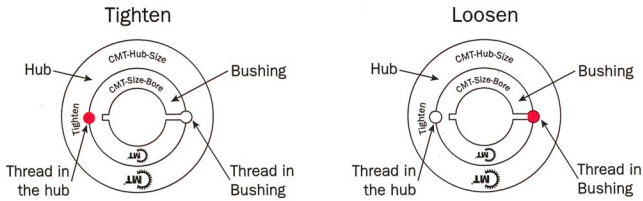
| CMT Part Number | No. of Grooves | Style | Nominal Dimensions |                  |             |                  |              |
|-----------------|----------------|-------|--------------------|------------------|-------------|------------------|--------------|
|                 |                |       | Pitch Diameter     | Outside Diameter | Flange O.D. | Length thru Bore | Hub Diameter |
| CMT14-5M15-0909 | 14             | 3F    | 0.877              | 0.832            | 1.000       | 0.78             |              |
| CMT15-5M15-0912 | 15             | 3F    | 0.940              | 0.895            | 1.063       | 0.78             |              |
| CMT16-5M15-0912 | 16             | 3F    | 1.003              | 0.958            | 1.080       | 0.78             |              |
| CMT17-5M15-0912 | 17             | 3F    | 1.065              | 1.020            | 1.187       | 0.78             |              |
| CMT18-5M15-0912 | 18             | 3F    | 1.128              | 1.083            | 1.250       | 0.78             |              |
| CMT19-5M15-1212 | 19             | 3F    | 1.191              | 1.146            | 1.312       | 0.78             |              |
| CMT20-5M15-1216 | 20             | 3F    | 1.253              | 1.208            | 1.437       | 0.78             |              |
| CMT22-5M15-1216 | 22             | 3F    | 1.379              | 1.334            | 1.500       | 0.78             |              |
| CMT24-5M15-1216 | 24             | 3F    | 1.504              | 1.459            | 1.625       | 0.78             |              |
| CMT26-5M15-1216 | 26             | 3F    | 1.629              | 1.584            | 1.750       | 0.78             |              |
| CMT28-5M15-1620 | 28             | 6F    | 1.754              | 1.709            | 1.875       | 0.82             | 1.25         |
| CMT30-5M15-1620 | 30             | 6F    | 1.880              | 1.835            | 2.000       | 0.82             | 1.32         |
| CMT32-5M15-1620 | 32             | 6F    | 2.005              | 1.960            | 2.125       | 0.82             | 1.45         |
| CMT34-5M15-2025 | 34             | 6F    | 2.130              | 2.085            | 2.250       | 1.05             | 1.58         |
| CMT36-5M15-2025 | 36             | 6     | 2.256              | 2.211            |             | 1.05             | 1.58         |
| CMT38-5M15-2025 | 38             | 6     | 2.381              | 2.336            |             | 1.05             | 1.58         |
| CMT40-5M15-2025 | 40             | 6     | 2.506              | 2.461            |             | 1.05             | 1.58         |
| CMT44-5M15-2025 | 44             | 6     | 2.757              | 2.712            |             | 1.05             | 1.75         |
| CMT50-5M15-2025 | 50             | 6     | 3.133              | 3.088*           |             | 1.05             | 2.25         |
| CMT56-5M15-2025 | 56             | 6     | 3.509              | 3.464*           |             | 1.05             | 2.50         |
| CMT62-5M15-2025 | 62             | 6     | 3.885              | 3.840*           |             | 1.05             | 2.75         |
| CMT72-5M15-2025 | 72             | 6     | 4.511              | 4.466*           |             | 1.05             | 3.37         |

Pulleys are clear anodized

\*Pulleys larger than 3 inches are not clear anodized

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# Assembly Instructions



**TO TIGHTEN:** insert bushing in hub as shown with half threaded hole in hub aligned with half plain hole in bushing. Insert set screw and torque to recommended value.

**TO LOOSEN:** insert set screw in hole opposite tightening position and torque until bushing breaks free from hub.

**WARNING:** Before working on any machinery be sure proper lockout and tag out procedures have been followed. Failure to follow these procedures may result in serious bodily injury.

## TO INSTALL

Clean shaft, bore of bushing, outside of bushing and hub bore of all oil, paint and dirt. Make sure there are no sharp edges and remove all burrs.

**CAUTION:** Do not lubricate any of the components during assembly. Doing so may result in less than desirable results and possible breakage of the components. All parts should slide together without lubrication.

Insert the bushing in the hub so that one half of a threaded hole lines up with one half of a non threaded hole in the mating part.

Insert the supplied set screw into the hole that has the threads on the hub component. This hole is opposite the half threaded bushing hole with the slit in it.

**CAUTION:** Only use the set screw that is supplied with the bushing. It has been specifically designed and machined to work in the bushing system. Failure to use the correct screw may prevent the components from being disassembled or achieving the proper holding torque.

Tighten the set screw loosely until the two components come together and then back the screw off two full turns. The bushing should be free to float in the hub but will not fall out.

Position the assembly on the shaft in its approximate final location. Tighten the set screw loosely until the bushing begins to grip the shaft. Move the component to its final axial and rotational position and finish tightening the set screw to the recommended tightening torque in the chart below to provide the drive torque.

**CAUTION:** The shaft must be of proper size and tolerance (h6), for the bushing bore (H7) being used. Failure to assure the proper size shaft is being used could result in component failure, reduction of holding torque, or the inability to assemble the components.

\*Do not over tighten the set screw. Over tightening will not necessarily produce more torque, but it could deform the components, cause problems disassembling the components, and may cause component failure.

Recheck set screw torque after initial run in and periodically thereafter. Retighten if necessary.

## TO REMOVE

Remove the set screw from the assembly hole and reinsert it in the hole opposite the assembly hole.

Continue turning the screw with a hex wrench until the bushing is pushed out of the hub thereby releasing it from the shaft. This may require torques greater than the installation torque.

**WARNING:** Because of the possible danger to person(s) or property from accidents which may result from the improper use of products it is important that the correct procedures be followed. Products must be used in accordance with their engineering information in the catalog. Proper installation, maintenance and operation procedures and instructions must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided. Such devices are neither provided by Custom Machine & Tool Co., Inc. nor are the responsibility of Custom Machine & Tool Co., Inc. This product must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and potential hazards involved.

| Screw Size | in-lbs* | Nm*   |
|------------|---------|-------|
| M2.5       | 6.0     | .68   |
| M3         | 9.0     | 1.00  |
| M4         | 19.0    | 2.10  |
| M5         | 42.0    | 4.70  |
| M6         | 68.0    | 7.70  |
| M8         | 158.0   | 17.80 |

\*Maximum torques

# Concentric Maxi Torque - Maximum Transmission Torques (in-lbs)

| S    | Bushing Size | Shaft Diameter in Inches |      |      |      |      |      |      |      |      |      |      |      |      |      |       |  |
|------|--------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--|
|      |              | .125                     | .188 | .250 | .313 | .375 | .438 | .500 | .563 | .625 | .688 | .750 | .813 | .875 | .938 | 1.000 |  |
| M2.5 | 0606         | 14                       | 24   | 33   |      |      |      |      |      |      |      |      |      |      |      |       |  |
| M3   | 0609         | 16                       | 28   | 37   |      |      |      |      |      |      |      |      |      |      |      |       |  |
| M3   | 0909         |                          | 33   | 43   | 54   | 65   |      |      |      |      |      |      |      |      |      |       |  |
| M4   | 0912         |                          | 68   | 79   | 98   | 117  |      |      |      |      |      |      |      |      |      |       |  |
| M4   | 1212         |                          |      | 79   | 98   | 117  | 120  | 138  |      |      |      |      |      |      |      |       |  |
| M5   | 1216         |                          |      | 138  | 173  | 207  | 242  | 345  |      |      |      |      |      |      |      |       |  |
| M5   | 1616         |                          |      |      | 168  | 208  | 243  | 348  | 392  | 436  |      |      |      |      |      |       |  |
| M5   | 1620         |                          |      |      | 389  | 468  | 530  | 698  | 752  | 875  |      |      |      |      |      |       |  |
| M6   | 2020         |                          |      |      |      |      | 531  | 698  | 755  | 879  | 975  | 1100 |      |      |      |       |  |
| M6   | 2025         |                          |      |      |      |      | 538  | 703  | 760  | 885  | 980  | 1120 |      |      |      |       |  |
| M8   | 2530         |                          |      |      |      |      |      | 1115 | 1327 | 1416 | 1504 | 1593 | 1875 | 2053 | 2200 | 2347  |  |

### Note

- S=Bushing set screw size.
- Refer to Assembly Instructions for screw assembly torque
- Chart torque is the maximum modeled torque before slippage under ideal conditions.
- Actual torque will vary based on operating conditions screw torque and shaft size.
- Appropriate service factors should be applied based on consideration of all operating conditions.

### Service factors to be used with the above chart

- 1.0 Light starting and intermittent running
- 1.2 Light starting and steady running
- 1.5 Light starting and uneven running
- 2.0 Fairly heavy starting and steady or uneven running
- 2.5 Light or heavy starting and moderate shock running
- 3.0 Light or heavy starting and severe shock running, or reversing loads



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Precise. Reliable. Trusted.







# Concentric Maxi Torque

Revolutionary Keyless Hub-to-Shaft Connection System

## CMT Experience

### Maintenance, Vibration and Runout Vastly Reduced



**Customer Situation:** GBR Systems Corp., a manufacturer of paper handling equipment, was using set screws to connect a high-speed drive pulley, running a Gates Polyflex JB belt, to a 3/8 in. shaft. The set screws would loosen during clutching and breaking at high RPMs, causing the machine to malfunction and damage to the belt. Constantly tightening the set screws resulted in loss of machine productivity and increased maintenance costs.

**CMT Solution:** After investigating the cost of alternative connection methods, GBR turned to CMT and the Concentric Maxi Torque system. GBR concluded that the CMT system provided a positive connection that eliminated the need for secondary machining of the shaft, decreased vibration and reduced runout. Maintenance costs and down time were dramatically reduced due to the benefits of the CMT system.

Since its introduction in 2000, the Concentric Maxi Torque system has **NEVER** failed a customer.

- ▶ Superior concentricity and flexible positioning
- ▶ Twelve sizes cover bores from .125 in. (2mm) to 1.1875 in. (30mm)
- ▶ Outperforms set screws, keyways, pins, clamp collars, etc.
- ▶ Perfect for timing pulleys, gears, sprockets, pinch rollers, couplings and more...

**Innovative.** CMT's patented keyless hub to shaft connection system enables customers to easily phase, install, adjust and remove drive components, all while offering precise component positioning.

**Concentric.** With radial runout less than .001/.026mm as assembled, the CMT system enables customers to attain higher drive speeds, reduce unwanted vibration and maintain concentricity, offering a superior connection solution.

**Reliable.** The mechanical shrink fit accomplished by the CMT system provides torque capacity which far exceeds that of two set screws arranged perpendicular to the shaft, offering the most reliable connection in the industry.

**Economical.** The compact design eliminates the need for the extended hubs used to accommodate set screws, allowing motion systems engineers to design drives which are lighter and use less space. Additionally, the shaft damage and added expense of shaft modification often associated with the use of set screws or pins is eliminated.

**Versatile.** The Concentric Maxi Torque system is currently being manufactured for synchronous belt drives in standard inch and metric pitches, for shaft sizes ranging from .125 in. (2mm) to 1.1875 in. (30mm). Other drive systems, including gears, sprockets, bearing assemblies, couplings, etc., will be quoted upon request.

Details at [www.cmtco.com](http://www.cmtco.com) - Click on **Concentric Maxi Torque**

**Join the Revolution! Design the CMT system into your next project.**



Call our Engineering Department, 1-800-355-5949, for free application assistance.



# Custom Synchronous Drives

Precise. Reliable. Cost Effective.

**CMT is your source for custom and unique timing pulleys. We've been providing superior manufacturing solutions since 1964.**

- ▶ Inch/Metric pitch pulleys and belts
- ▶ Manufactured to the latest industry standards
- ▶ Flexible delivery to meet your requirements
- ▶ Split deliveries, Kanban, JIT, etc.

**Precise.** In today's high performance driven world there's no room for error when manufacturing a custom designed product. CMT has been manufacturing precise, reliable custom designed components for the PT/MC industry for over 43 years. Our investment in state-of-the-art CNC machines, coupled with the expertise of our seasoned machinists, enable us to consistently machine parts to within 50 millionths of an inch.

**Comprehensive.** We provide our customers with a full range of timing pulleys, timing belts, timing pulley stock, and timing pulley flanges in aluminum, stainless steel, steel, plastic, brass and bronze for both stock and custom applications. CMT precision generates its pulley teeth one part at a time, ensuring the lowest possible runout and best tooth profile. We also produce custom v-ribbed pulleys, tapered bushings, sprockets, assemblies, idler bearings, and other industrial power transmission components.

**Performance.** CMT supplements its manufacturing capabilities with many additional value added services including, product assembly, kanban, just-in-time inventory, drop shipments, custom packaging and laser engraving.

Details at [www.cmtco.com](http://www.cmtco.com) - Click on **Product Catalog**

**Buy the best. Buy CMT.**



For additional information.

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**Hanover, MA 02339**

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**(800) 355-4490**

## CMT Experience

### Precision, Concentricity and Reduced Runout



**Customer Situation:** MarquipWardUnited, a manufacturer of finishing equipment for the corrugated machinery was bolting two idler pulleys of different widths and diameters together in an effort to run two drive belts within close proximity of each other. The bolted pulleys were unable to maintain concentricity and were a costly attempt at solving the problem.

**CMT Solution:** By designing and manufacturing a dual idler pulley from one piece of material CMT was able to supply a precision product that held concentricity and reduced runout, extending the life of the product and the machine while saving the customer time and money.

Send us your drawing for a prompt quote



# Timing Pulley Stock

CMT® Pulley Stock - Guaranteed When You Need It!\*

## CMT offers the best quality and service in the industry. Period.

- ▶ 72 hour guaranteed delivery on 5 pieces or less\*
- ▶ Any pitch and number of teeth
- ▶ Matching flanges and belts also available
- ▶ Volume purchase price breaks

**Trusted.** CMT has been the preferred choice for pulley stock at OEM's for over 30 years. We now have a pricing and delivery program for distributors that will increase profits and deliver product quicker than anyone in the pulley stock business.

**Inclusive.** Our experience working with distributors has helped us create helpful tools that make finding and ordering the parts you need both quick and easy. The CMT website offers a complete list of pulley stock that includes all popular pitch types and tooth counts, as well as a complete list of matching flanges, providing you with a one-stop solution for all your pulley stock needs.

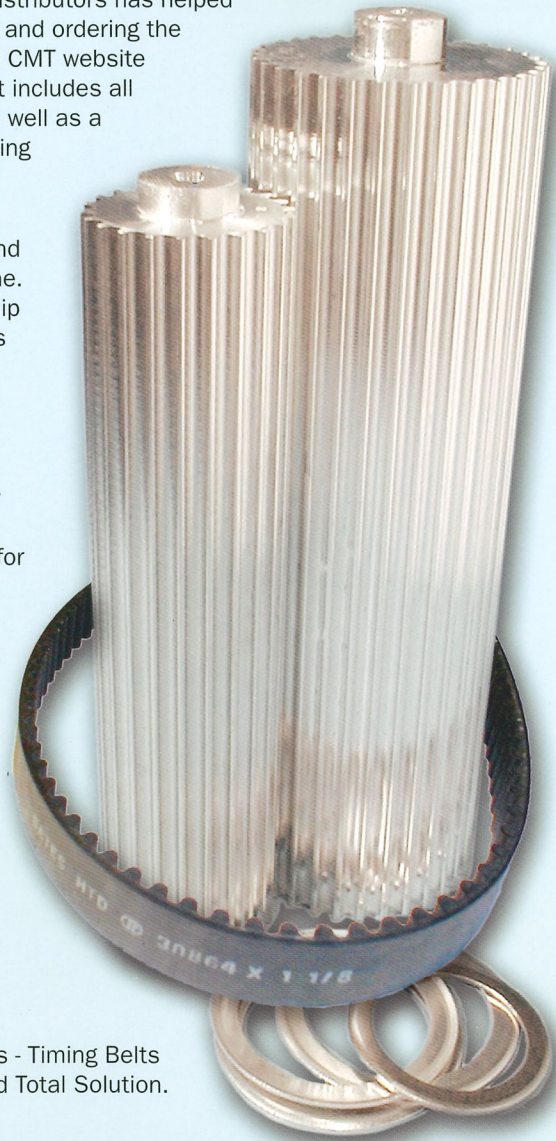
**Available.** Call us at 1-800-355-5949 and we'll give you a quote right over the phone. Then, upon receipt of your order, we'll ship your product within 72 hours (3 business days) guaranteed or we'll pay the freight. Visit [www.cmtco.com](http://www.cmtco.com) for details.

**Affordable.** Offering the best product, service and price to our customers enables you to increase profits and grow your business. The next time you need timing pulley stock, make sure you look for the CMT logo to ensure you've got the best product for your customer.

\*Details at [www.cmtco.com](http://www.cmtco.com)  
- Click on **Pulley Stock Program**

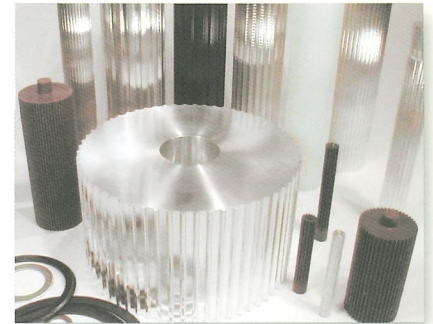
**We want your pulley stock business and we're out to prove it!**

Pulley Stock - Flanges - Timing Belts  
CMT is Your Quick and Total Solution.



## CMT Experience

### Guarantee Assures Customer Delivery Demands



**Customer Situation:** Innovative Robotics, a manufacturer of SCARA Robots, used in semiconductor fabrication facilities, needed a source for quick availability of pulley stock based on their customer's short product notification lead times. Current sources were unable to meet the lead time requirements, making it difficult for Innovative Robotics to meet their customer's needs.

**CMT Solution:** After searching for a more responsive source for pulley stock, Innovative Robotics contacted CMT upon learning about our 72-hour delivery guarantee. CMT's Pulley Stock Promise now enables them to take customer order's with confidence, knowing they have a source that can meet their required lead times.

Authorized Gates Distributor



A Tomkins Company

CMT is a full line Gates Industrial Power Transmission System Distribution Partner.

Pulley Stock with a promise!

# CMT Experience

Making Your Products Better™

## Increased Product Life and Efficiency

**Customer Situation:** A global manufacturer of mail sorting equipment was using bulky, unreliable clamp collars to connect multiple drive rollers to a shaft within a paper handling system. The clamp collars added weight, contributing to performance problems due to increased inertia.

**Cmt Solution:** CMT redesigned the rollers to include the Concentric Maxi Torque connection system, eliminating the need for clamp collars and reducing the weight of the component. This resulted in a dramatic decrease in inertia and amp draw, enabling the machine to run more efficiently and lengthening the life of the product.

## Zero Loss of Registration Plus Cost Effectiveness

**Customer Situation:** Gerber Scientific, a manufacturer of ophthalmic lens processing equipment, was working with a unique cable spool and pulley assembly, consisting of eleven separate components and unreliable fasteners that caused the pulley to separate from the spool and lose registration during operation.

**Cmt Solution:** CMT's engineering team redesigned the component, eliminating the fasteners and integrating the pulley and spool as a single component. The new design was substantially more cost effective and provided perfect registration during operation.


## Improved Concentricity and Positional Accuracy

**Customer Situation:** KMC Systems Inc., a designer of precision automated medical instruments, was having trouble with a pulley-to-shaft connection within an automated analyzer. Positional accuracy is extremely important in this application, but loosening set screws and other connection methods proved unreliable, and constant rework and repairs were difficult and costly.

**CMT Solution:** After deciding that a better connection system was needed, the designers discovered the Concentric Maxi Torque system. By integrating the CMT connection system, they were able to improve concentricity, which in turn, improved positional accuracy. The CMT system also eliminated the need for flats on the mating shaft, providing a more cost effective AND reliable solution.



Over 40 years of manufacturing exceptional power transmission and motion control components have shown us that your success is our success.

**CMT**<sup>®</sup>  
Manufacturers of Power Transmission  
and Motion Control Components



is a US manufacturer of timing pulleys, drive systems and components for the motion control and power transmission markets in operation since 1964.

Our product offering contains all popular timing pulley tooth designs including Trapezoidal inch and metric, AT metric, HTD® metric curvilinear, and Gates PowerGrip® GT, and Zero Backlash.

Our state of the art facility enables us to provide a full range of timing pulleys, timing belts, timing pulley stock, and timing pulley flanges, in a variety of materials, for both stock and custom applications.

We also produce sprockets, custom v-ribbed pulleys, tapered bushings, idler bearings, assemblies and other industrial power transmission components, and offer value added services such as kanban and JIT delivery options and laser engraving services.

CMT has developed and patented (US patent #6,568,063) a new and revolutionary hub to shaft connection device, which allows for precise component positioning and tight runout control on demanding applications. At the same time it is easy to install and remove, and is economical to manufacture.

Our keyless hub to shaft connection device has superior features and benefits compared to other connection systems such as keyways, pins, set screws, clamp collars, and other tapered shaft locking devices.

The new system, called Concentric Maxi Torque, is available for immediate inclusion in our full offering of timing belt pulleys and can be designed into any custom application.

We are confident that you will not find another hub to shaft locking connection system device or system that provides a better solution to your motion control and power transmission shaft attachment requirements.

American Engineering  
American Made

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