



PCI® Unit Handling Conveyor Drum Pulleys  
FC Series – MC Series

# PRODUCT SHOWCASE



FEATURING...

**PCI**® Trapezoidal Crown Technology

PCI®, ProCal Inc.  
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For over 20 years, PCI has been manufacturing conveyor pulleys with quality and reliability at the forefront. Our FC and MC Series pulley products provide numerous choices for hassle-free selection of proper construction in most unit handling applications. These choices coupled with unique features like PCI's FC Series Trapezoidal Crown technology help ensure that you're receiving the maximum value for your unit handling application.

◆ **What is the difference between an FC Series and an MC Series pulley?**

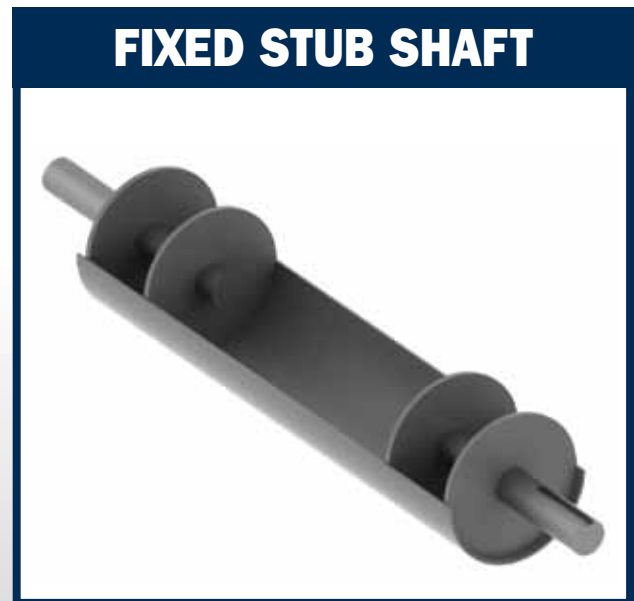
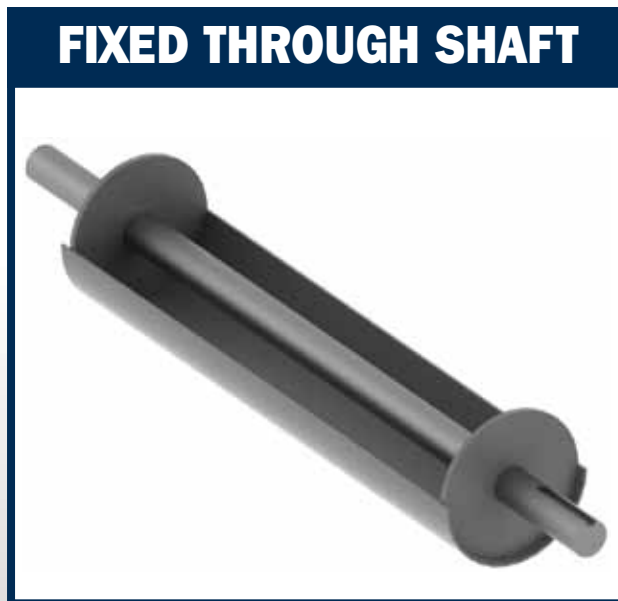
The main difference between these products is the method used to crown the pulley face when a crown profile is specified. FC Series pulleys receive a crown that is formed into the face of the pulley while MC Series pulleys utilize machining operations to accomplish the crowned profile. Because MC Series pulleys require machining, they are typically constructed from thicker materials as well. Both FC and MC Series pulleys ordered with vulcanized lagging would receive a crown machined into the lagging versus a crown provided in the core.

◆ **Are all MC Series pulleys provided with a fully machined face?**

MC Series designates that when a crown is required, the crown is machined into the face of the pulley rather than formed. Flat face pulleys and non-crowned surfaces would not necessarily receive machining unless otherwise specified.

◆ **What is the longest length of unit handling pulley that PCI can offer?**

PCI can manufacture pulleys with face lengths greater than 14 feet. Pulleys of this length require special consideration to account for shaft deflection. Small diameter pulleys of increased face length commonly utilize fixed stub shafts in place of traditional through shaft designs. Fixed stub shafts decrease the likelihood of end disk fatigue as a result of shaft deflection. (For additional information please consult the PCI Pulley Selection Guide)



◆ **Are MC Series pulleys rated to a greater capacity than FC Series pulleys?**

While component thicknesses do contribute to overall pulley capacity, shaft diameter plays the primary role in achieving a desired load capacity. In other words, selecting an MC Series pulley over an FC Series pulley won't necessarily achieve a greater load capacity if the axle is not sized to accommodate the application loads.

# FC SERIES TRAPEZOIDAL CROWN TECHNOLOGY



PCI FC Series pulleys maximize conveyor belt life and improve conveyor performance because of our unique Trapezoidal Crown package. PCI's proprietary crowning process provides the consistency, performance, and dependability of a Trapezoidal Crown profile in an economic gauge wall construction.

Increased Belt Life

Enhanced Belt Tracking

Improved Runout

Production Run Consistency

Economical Construction

Crown profile has been exaggerated for illustration purposes

## INCREASED BELT LIFE

PCI Trapezoidal Crown pulleys lengthen conveyor belt life by minimizing center stretch commonly associated with single crown profiles. Because of its many performance enhancing features, the trapezoidal crown profile is the preferred crown of many conveyor belt manufacturers.

## ENHANCED BELT TRACKING

A conveyor belt will track towards the high point or largest diameter of a conveyor pulley. Trapezoidal crown pulleys are flat in the center and have tapers on each end providing an even, center located plateau for the conveyor belt to track around.

## IMPROVED RUNOUT

PCI's proprietary crowning process provides improved runout characteristics over alternate methods of forming a crown in gauge wall tubing. Improved runout provides more consistent performance, reducing maintenance costs associated with belt tracking and belt replacement.

## PRODUCTION RUN CONSISTENCY

PCI's proprietary crowning process also provides consistency between production runs. This means that by purchasing a PCI conveyor pulley, you'll receive the same quality product with every purchase.

## ECONOMICAL CONSTRUCTION

Most manufacturers can provide the advantages of a trapezoidal crown by machining it into the face of a heavy wall pulley. By forming the trapezoidal crown into the face of the pulley, our FC Series gauge wall pulley eliminates the cost of machining and excess material, giving you maximum performance at an optimum value.

# FC SERIES CONVEYOR PULLEYS



PCI® FC Series pulleys are designed for standard duty belt conveyor applications where packaged goods are being conveyed. FC Series pulleys are manufactured from gauge wall or light duty tubing to hold tight tolerances for reliable conveyor performance. Standard design features include:

Featuring PCI Formed  
Trapezoidal Crown Technology

Available in Several Hub Styles

Economical Construction

## PRODUCT SPECIFICATIONS

**Diameter:** 2" through 12"  
**Wall Thickness:** 11 gauge (.120"), 10 gauge (.134"), 3/16"  
**End Disk Thickness:** 1/4", 5/16", 3/8"

## HUB STYLES



**Type 1**  
Plain Bore



**Type 1**  
Welded Shaft



**Type 2**  
Keyed Hubs



**Type 3**  
ER Style Internal  
Bearings



**Type 4**  
Compression  
Hubs & Bushings



**Type 5**  
Keyless Locking  
Devices

NOTE: Hub style availability will vary based on pulley configuration.

# MC SERIES CONVEYOR PULLEYS



PCI® MC Series pulleys are designed for standard to medium duty belt conveyor applications where packaged goods are being conveyed. MC Series pulleys are manufactured from medium or heavy wall tube or pipe and receive a machined crown when a crown is specified. Standard design features include:

**Machined Crown Profiles**

**Available in Several Hub Styles**

**Heavier Construction**

## PRODUCT SPECIFICATIONS

**Diameter:** 2" through 12.75"  
**Wall Thickness:** 1/4" through 3/8"  
**End Disk Thickness:** 3/8", 1/2"

## HUB STYLES



**Type 1**  
Plain Bore



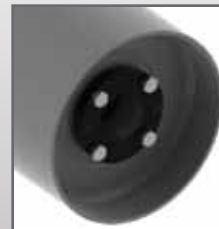
**Type 1**  
Welded Shaft



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ER Style Internal  
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**Type 5**  
Keyless Locking  
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# ADDITIONAL OPTIONS



## V-GROOVES

Conveyor systems which utilize v-guided conveyor belts require pulleys with v-groove profiles. The v-grooved profile in the pulley face is manufactured to allow for clearance of the v-guide around the circumference of the conveyor pulley. V-groove clearances are typically up to 1/4" wider and a 1/16" deeper than v-guide dimensions.



## CONTACT SURFACE OPTIONS

**MACHINING**

**LAGGING**

**KNURLING**



Contact surface impacts a number of application variables within a conveyor system. Unless otherwise specified, pulleys are furnished with a plain steel or mill finish comparable to that of a standard tube or pipe. The most common surface modifications are those designed to increase traction between the pulley and conveyor belt. Alternate contact surfaces may also be utilized to impact a pulley's wear resistance, ease of cleaning, and general aesthetics.

## SHAFTING & CUSTOM MACHINING

PCI® has an extensive capability to provide conveyor pulley shafts and custom shaft detailing for special applications. Standard carbon steel materials include 1018, 1045 and 1144 with additional options such as Turned, Ground and Polished (TG&P) and fully keyed available in many diameters. PCI can custom machine any of these materials to incorporate many details and additional specifications:

