

# CONVEYOR PULLEYS

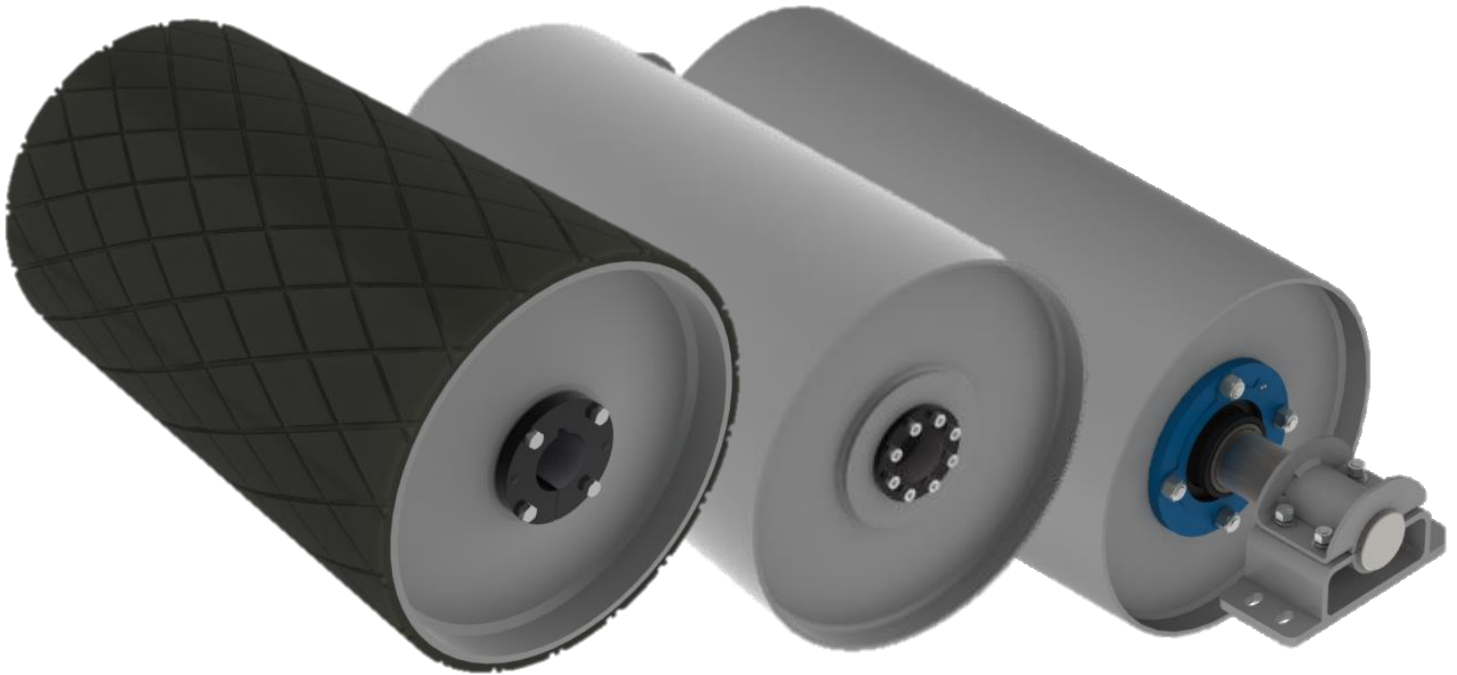
## Drum Pulleys – Heavy / Mine Duty



989.358.6149

www.pcimfg.com

PCI® Heavy Duty and Mine Duty drum conveyor pulleys are designed to meet or exceed CEMA construction standards for belt conveyor applications where bulk goods are being conveyed. PCI Heavy & Mine Duty drum pulleys feature PCI's Contoured Integral End Disks, which maximize pulley life by reducing the risk of failure from end disk fatigue



### DIAMETERS AVAILABLE

14" through 60"

THICKNESSES	WALL	END DISKS
Heavy Duty	1/4" (min)	1/4" (min)
Mine Duty	5/16" (min)	5/8" (min)

### HUB STYLES AVAILABLE

- \*Plain Bore or Welded Shaft (Type 1/Type A)
- \*Keyed Hubs (Type 2/Type B/Type D)
- Welded Compression Hubs/Bushings (Type 4)
- Contoured Integral End Disks/Bushings
- Keyless Locking Devices
- Dead Shaft Assembly

\*Available in Heavy Duty Only

Hub style availability will vary based on pulley construction.

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## Focus Flyer - Contoured Integral End Disks

PCI® Contoured Integral End Disks are designed to maximize conveyor pulley life by reducing the risk of failure from end disk fatigue. PCI's design eliminates the need for a hub-to-disk weld by machining a hub directly into the surface of the end disk. In addition, PCI's special contour optimizes the surface stress of the end disk by allowing for adequate flexibility not provided by flat disk designs.

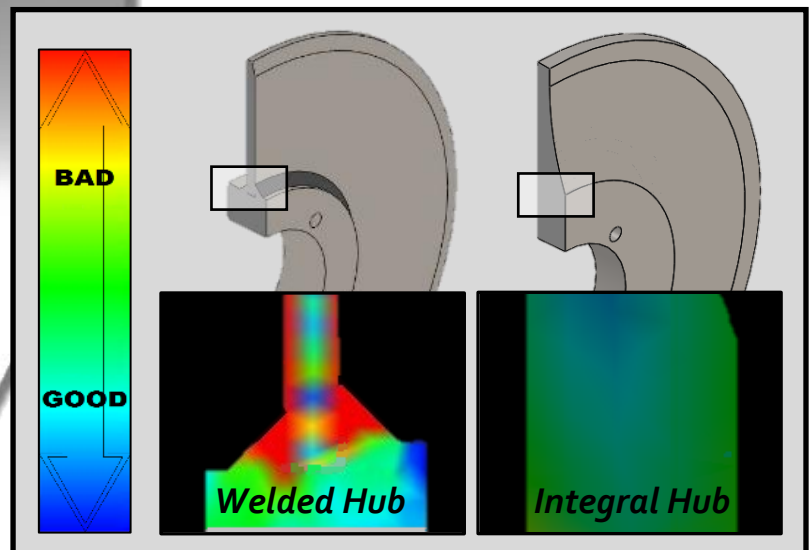
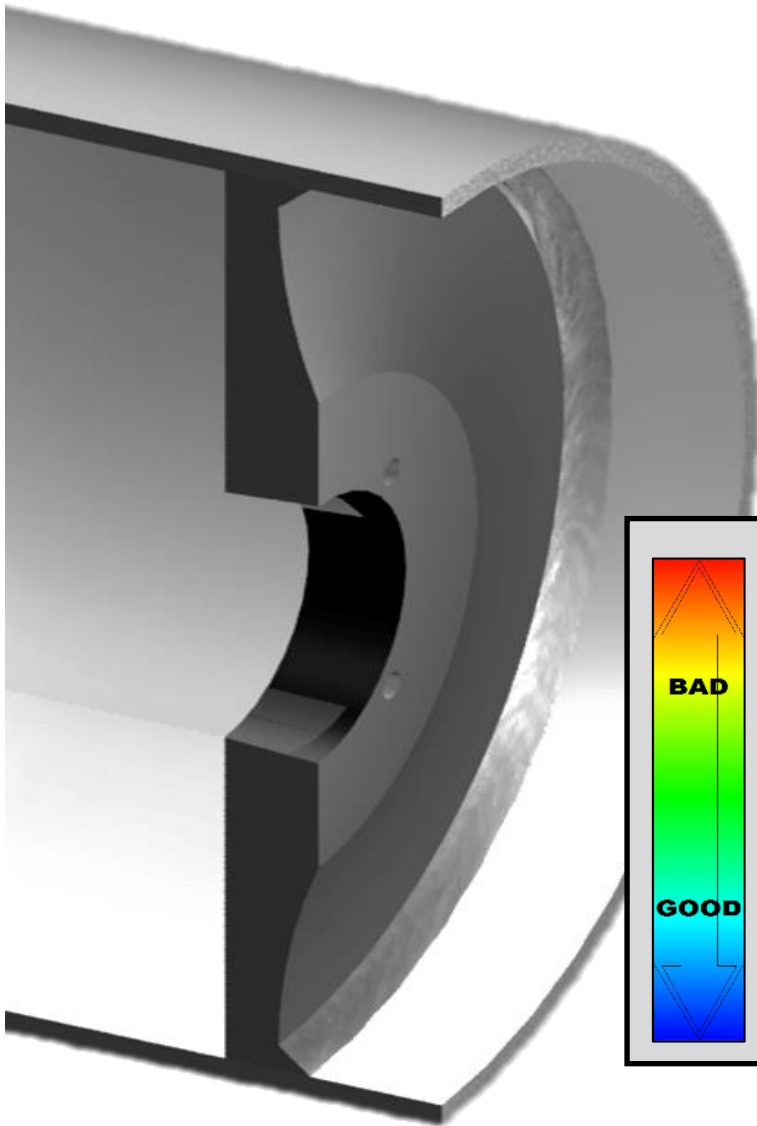
### **DESIGN BENEFITS**

*Even Distribution of Stress*

*Improved Bore Alignment*

*Eliminates Weld Stresses*

*Optimized Flexibility*



**Machined Integral Hub:** The leading cause of premature pulley failure is end disk fatigue. End disk fatigue causes a pulley to fail at the weakest point on the end disk, the area near the weld between the hub and disk. The sudden change in geometry between the flat disk and the cylindrical hub produces an area of increased stress concentration. Additionally, welding also distorts the end disk causing hub bores to misalign from end to end. An integral style hub machined directly into the end disk eliminates the need for a weld between a hub and disk, thereby greatly reducing the risk of premature pulley failure.

**Contoured Profile:** Flat end disk designs discourage proper flexing of the end disk, thereby increasing the amount of stress induced in vulnerable areas. PCI's contoured profile allows for adequate flexibility under load by increasing thickness where it benefits load accommodation and decreasing thickness where the disk should be allowed to flex.