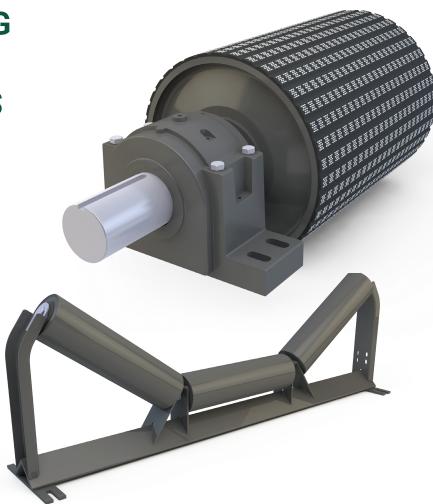


# HEAVY MINING CONVEYOR COMPONENTS



PPI is world renowned for providing effective conveyor solutions which has enabled the company to supply pulleys, idlers and accessories to a wide diversity of projects where reliability is vital.

When it comes to manufacturing methods, we are continually evaluating state-of-the-art technology, equipment and the most qualified employees to assure we remain the leaders in providing the highest quality products with the shortest lead times in the industry.

### **IN HOUSE CAPABILITIES**

- Shaft machining up to 28" in diameter and 315" long
- Vulcanized lagging up to 72" diameter and 192" face width
- · Special surface protection available
- · Casting urethane lagging
- Total Indicator Run-out (TIR) and roll drag testing for idlers
- PPI performs and supplies reports for customer directed inspections

## ENGINEERING AND TECHNICAL SUPPORT

Robust engineering group available utilizing state of the art design tools such as proprietary software PFEA and P-FLEX to optimize each and every design

# FIELD TECHNICAL SUPPORT

Specialized group to assist with troubleshooting, surveys and site visits to provide complete service from beginning to end

### **PRODUCT DESIGN**

Offering Profile Disc and Turbine T designs for maximum product predictability and strength as well as custom products to fulfill conveyor requirements

## **PULLEYS**

Available in engineered class and turbines. Not one design but a full range of designs, as each conveyor is unique with its own issues. PPI has the tools to look at every option and choose the right one for your application.

#### **PRO DUTY DRUM PULLEYS**

The Pro Duty drum pulley represents a revolutionary change in the conveyor pulley industry. It is a single drum pulley line that can be used everywhere from the everyday light aggregate conveyor to the toughest Quarry Duty application. You no longer have to guess which pulley you need because the Pro Duty covers them all.

#### **PULLEY DESIGNS**

Welded Plate - using PFEA & IP-Life, these designs can provide good value.

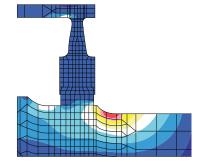
Integral Hub - Removes the welded connection between the hub and end disc.

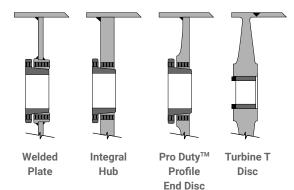
**Profile Disc** – This takes the Integral Hub and improves upon it. Further machining creates a tapered profile to the end disc that improves flexibility and reduces stresses on the bushing.

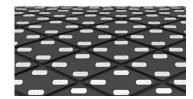
**Turbine-T** – This is the ultimate in reliability. It is a smooth machined end disc from a solid piece of steel. This design moves the rim weld away from the stress concentrations in the rim-end disc connection to an area of lower stress.

#### LAGGING

PPI has complete in-house pulley lagging capabilities. Every step of the pulley manufacturing and lagging process is controlled internally, which assures quality, prompt delivery, and competitive pricing of lagged pulleys. Available in a wide variety of styles and thicknesses, lagging is primarily used to improve traction capacity, resist abrasive conditions and extend pulley and belt life. The style of lagging required is usually influenced by operating conditions. SBR is the standard lagging material, however neoprene and MSHA are available as well as many other compounds to suit a variety of applications.







### **PULLEY REFURBISHMENT**

PPI will refurbish conveyor pulleys from all around the world, even if they are not built by PPI. Our refurbishment program consists of a series of steps intended to re-build the pulley to like new condition, and ensure the pulley meets PPI quality standards. All critical components are dis-assembled and inspected by trained PPI staff to ensure seamless recommissioning. Our refurbishment services include:

- · Complete dis-assembly and cleaning of parts
- Removal of old lagging



### WELDING

Each weld is carefully optimized in the design phase with PFEA. From joint preparation through pre-heat and welding, each is done to the appropriate American Welding Society (AWS) specification.





### **THERMAL STRESS RELIEF**

Testing has shown a significant increase in life for pulleys that are thermally stress relieved. This cost-effective option has proven to be so valuable for the longevity of the product, that PPI has installed a thermal stress relief oven in their manufacturing facilities.

- Re-lagging
- · Re-assembly of pulley and bearings



### SHAFTING

Shaft deflection and shaft bending stress are fundamental elements of each Pulley System. Their design and their limits are based on CEMA recommendations and/or customer specifications.

# HEAVY MINING CONVEYOR COMPONENTS

#### E, E+ & F IDLERS

- · Designed and manufactured for a long troublefree life with no greasing
- · Heavy duty frame and brackets built to last
- Conforms to CEMA standards for dimensions and meets or exceeds CEMA load ratings
- · Designed with 6", 7" and 8" diameter rolls (other sizes available)
- · Designed with minimal roll gaps and low TIR
- · Large diameter stationary outer seal
- · Highly effective radial & labyrinth seals
- · Long lasting nitrile contact seal protected from the environment
- · Steel shaft reduces deflection
- · High quality, large diameter ball bearings with factory installed contact seals
- · Available in 20°, 35°, 40°, & 45° trough angles and 36" 120" belt widths

#### PHD/PHYD

- · Heavy Duty Roller Bearing Frame.
- · Bearing mounting hole pattern drilled to match bearing.
- Extra Heavy Duty 800 & 1000 uses thick wall square tubing for extra capacity.
- Standard sizes for full range of pillow block bearings from 1<sup>1</sup>/<sub>2</sub>" to 12".
- PHYD same as PHD but with hydraulic assist.
- · Designed for push and pull applications.
- · Uses standard 2HD series rod end trunnion mount cylinder.

#### **TRUE IMPACT SYSTEM (TIS)**

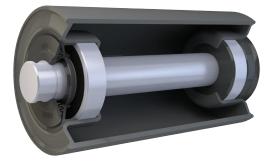
- · Multiple action shock absorption to extend the life of your belt
- · Center rolls with tapered discs give increased impact absorption
- 1/2" thick UHMW for skirt board sealing
- · Manufactured using heavy 1/2" steel plate construction
- · Reinforced frames for increased strength
- · Fold-down wings for ease of maintenance
- · Lift strap helps guide rolls into position
- · Available in 2' and 5' lengths
- · Available in Channel Mount version

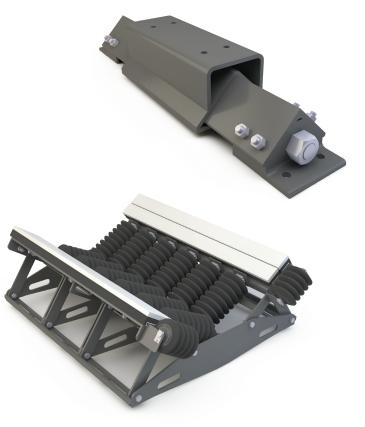
#### **BEARINGS**

We had severe conveyor conditions in mind when developing our line of PPI pillow block bearings. That's why we designed our PPI Type E bearing with a double row spherical bearing that allows a misalignment of  $\pm 2$  degrees, and a double lip nitrile contact seal that effectively protects from contaminant entry.

Our heavy duty SAF, SDAF, SN and SD adapter mount pillow block bearings are ideally suited for heavy conveyor applications. They use large double row spherical bearings, robust housings in various materials such as cast iron, ductile iron and cast steel, along with different seal options.

For those applications where a more economical ball bearing pillow block is called for, we have a durable SCM bearing with a nitrile contact seal that has proven effective in the contaminated environments that are common in our industry.







# HEAVY MINING CONVEYOR COMPONENTS



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