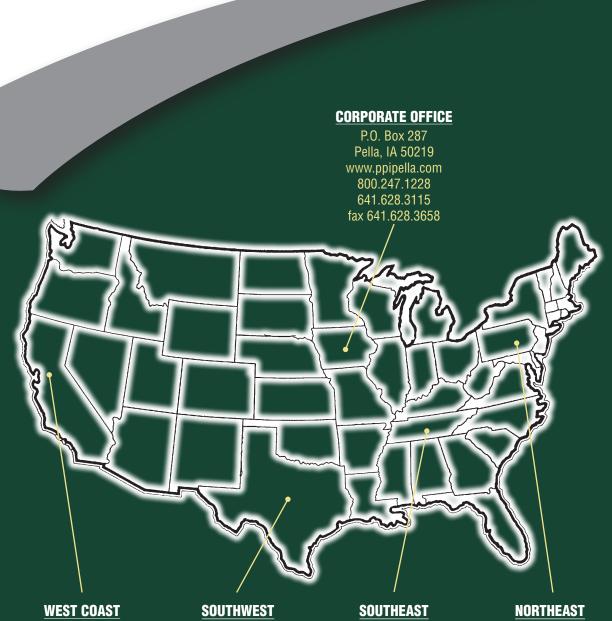


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## technical knowledge of design and manufacturing methods. Here are just a few of the projects that we have supplied products on: **Albian Oil Sands**

experience and unsurpassed

PPI products are trusted in mining applications throughout the world. We have over 30 years of

Aurora

**Consol Coal** 

Henderson

Morenci

**Kennecott, Utah Copper** 

**Syncrude** 

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El Abra

**Escondida Norte** 

**Peabody Coal** 

Collahuasi

**El Teniente** 

Chuquicamata

**Spence- BHP Billiton** 

**Los Pelambres** 

**Radomiro Tomic** 

HEAVY MINING
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# HEAVENING CONVEYOR COMPONENTS

# **PULLEYS**

Available in Mine Duty, 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.

### PFEA

PFEA has brought new understanding to the dynamics of a conveyor pulley. IP-Life Model Analysis predicts Pulley Life. This unique combination of PFEA and IP-Life Analysis gives PPI Engineers state of the art tools to design World Class Heavy Mining Pulleys.

### **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** - Machining of the end disc reduces its stiffness and consequently the loads on the rim weld and 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.

### 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 AWS specification.

### THERMAL STRESS RELIEF -----

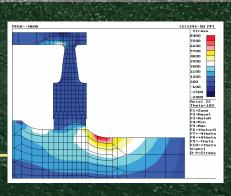
Precision Testing has shown a significant increase in life for pulleys that are thermally stress relieved.

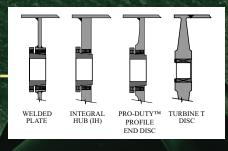
This cost-effective option has proven to be of such value that PPI has installed a thermal stress relief oven in our factory.

### 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.











# E-IDLER

Extra heavy-duty frame.

Designed with minimal roll gaps

Extremely low T.I.R. or runout.

Full thickness tubing for the length of the roll.

Weld protected from wear by the full thickness of the heavy wall tubing -8 ga. standard (1/4" optional).

Solid steel shaft reduces deflection and increases load capacity.

Large diameter, high quality ball bearings to handle the big loads with no regular maintenance.

Proven LXT seal provides unmatched roll life:

- 1) Outer Dust Shield protects seal arrangement.
- 2) Large diameter stationary outer seal eliminates rocks from getting caught between frame and seal!
- 3) Centrifugal Seal ejects contaminates before they can get inside!
- 4) Labyrinth Seal to trap contaminates.
- 5) Nitrile Contact Seal to seal out contaminates.
- 6) Bearing manufacturer's contact seal keeps grease in.
- 7) Interior contact seal keeps grease out of roll and in the bearing. Sealed for Life Reduce maintenance costs today & tomorrow.

# 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" catalog sizes for full range of pillow block bearings from 1½" 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.

# TIS - TRUE IMPACT SYSTEM

Triple Action Shock Absorption - Extends the life of your belt.

- 1) Belt flexes over rolls, absorbing minor impacts.
- 2) Tapered rubber discs with double the impact absorption of flat discs.
- 3) Internal rubber springs cushion large impacts.

Standard 5 foot length - optional 2 foot lengths.

½" thick UHMW for skirt board sealing.

½" steel plate construction.

Reinforced frames for increased strength.

Wings fold down for ease of maintenance.



