

COMPLETE LINE OF CONVEYOR COMPONENTS AND SERVICES

PPI PRODUCTS AND CAPABILITIES



PPI[®]
PRECISION PULLEY & IDLER

PROVIDING EFFECTIVE CONVEYOR SOLUTIONS

Day in and day out operations around the world demand efficiency and reliable systems to keep the business efficient and running at all times. Today's customers are looking to reduce the cost of downtime, outages and system failures. They want components they can count on at the exact time they need them.

Offering an optimal design for your specific needs, you can trust your name in ours with the latest in high performance conveyor components for a wide range of applications, from 1 to 10,000 horsepower.

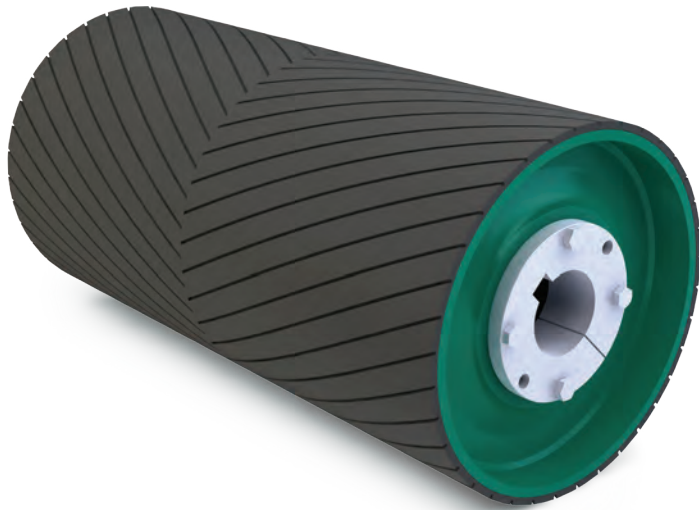
Our promise is simple: Quality products with a competitive price and unbeatable customer service to support your needs around the world.

Whether the requirements of your operation are underground or above ground, PPI is your ally supplying you with components that will perform, outlast and support your productivity goals from beginning to end.

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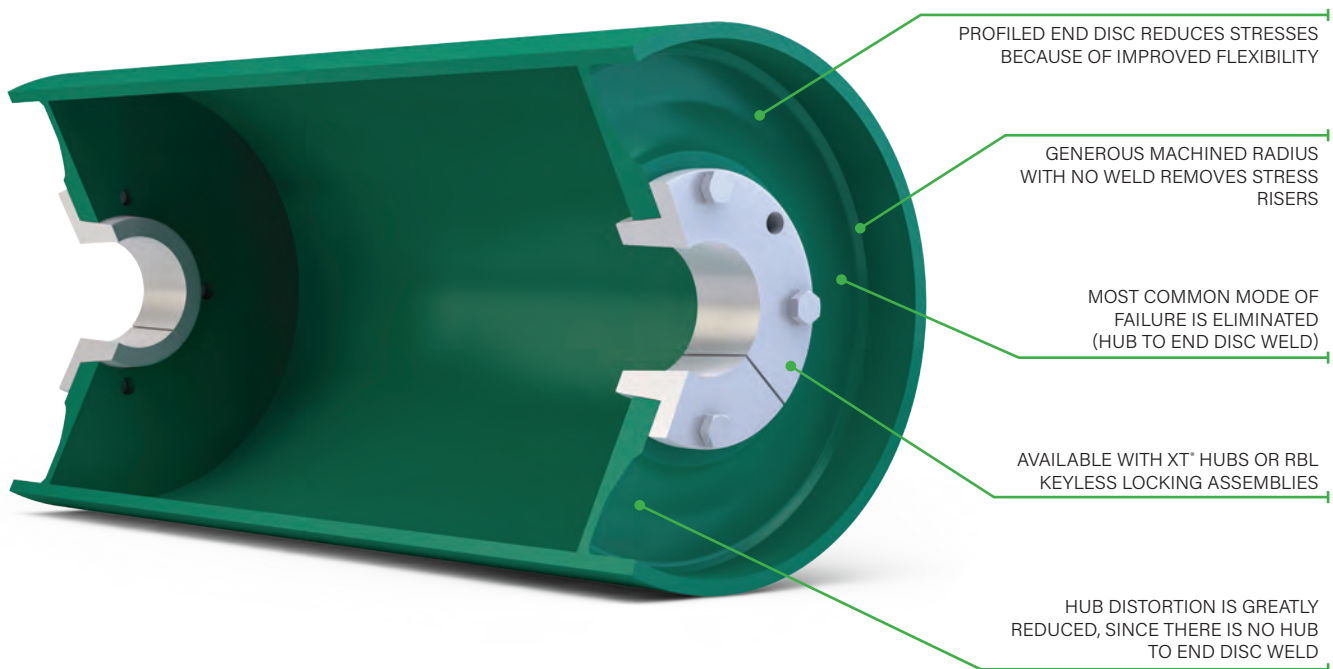


PRO DUTY® DRUM PULLEYS

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.

The Pro Duty drum features profiled end disc technology most commonly used in turbine pulley designs. The profiled end discs are machined from solid steel with an integral hub rather than using a welded hub which conventional pulley construction uses. Removing this welded hub eliminates the most common cause of pulley failure. In addition, the tapered profile end disc shape reduces the bending force transferred from the shaft into the pulley. It also reduces the stress on the bushings and welded joints. These design features all work together to achieve a dramatic increase in service life when compared to a conventional welded hub pulley.

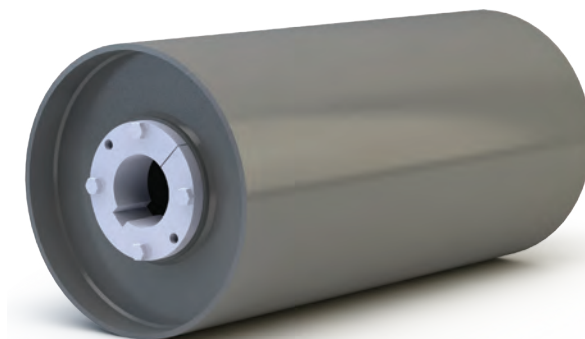
We have so much confidence in the Pro Duty because it was created using Precision Finite Element Analysis (PFEA) and IP Life modeling software. The result is a design with predicted infinite life under full Conveyor Equipment Manufacturers Association (CEMA) loads for the largest shaft size that will fit the pulley. With Pro Duty, you will never question if the drum pulley is strong enough. The only question will be, is the shaft up to the job?



Note: Pro Duty Drums are only available with XT® bushings or keyless locking assemblies.
10 year warranty covers ProDuty Pulley only; lagging, shafting or bearings are not included.

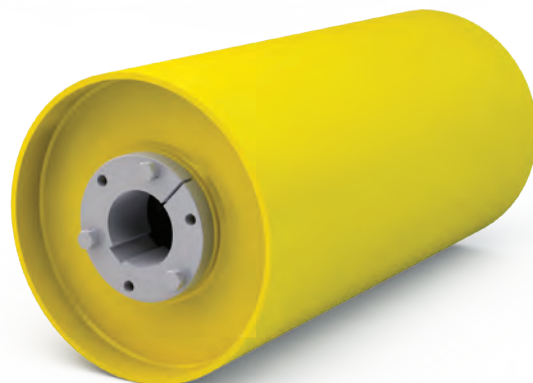
HEAVY DUTY DRUM (HDD) CONVEYOR PULLEY

The toughest conveyor applications require ruggedness offered by a HDD. Steel rims, hubs and discs are fused into an integral component by a continuous submerged arc welded bond that maximizes pulley strength, balance and concentricity. The HDD is available with various hub and bushing systems.



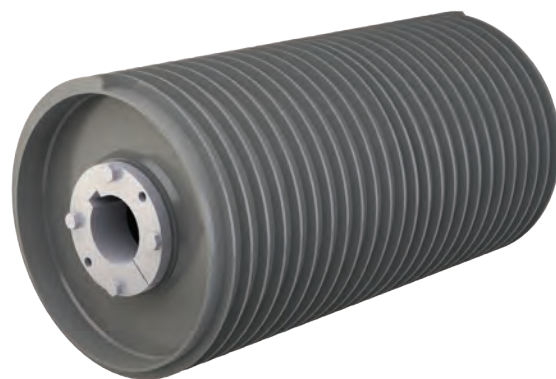
MINE DUTY DRUM (MDD) PULLEY

PPI Mine Duty Drum pulleys incorporate heavier rims and end discs for increased service life and safety. Suited for more demanding applications, such as frequent starts and stops with a loaded belt or where increased reliability is desired.



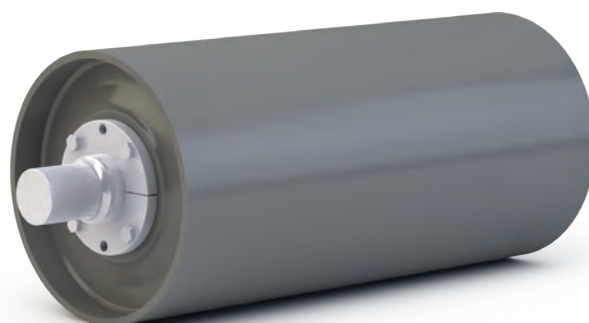
SPIRAL DRUM CONVEYOR PULLEY

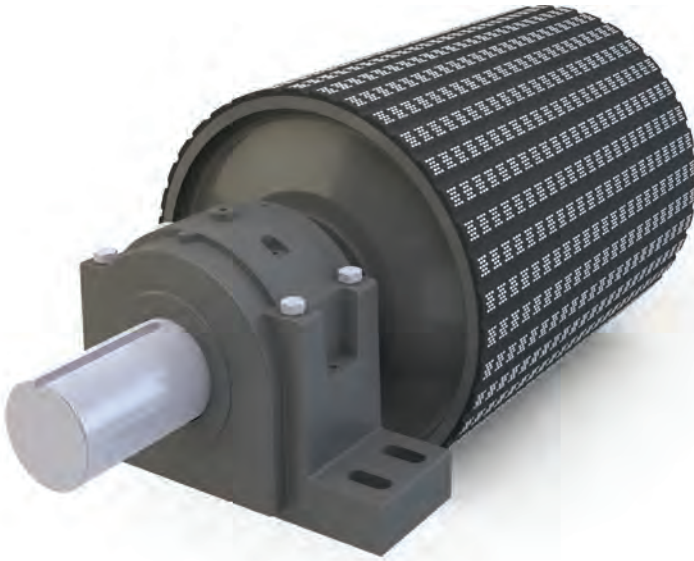
The PPI Spiral Drum pulley is formed by a pair of vertical steel bars helically wound around a Heavy Duty Drum (HDD) pulley. This unique design is frequently used when additional cleaning action is desired without introducing additional belt vibration. Rotation of the pulley automatically starts the cleaning action by discharging foreign material to the side of the conveyor. Available in crown or straight face and also with various hub and bushing systems.



ENGINEERED CLASS DRUM CONVEYOR PULLEY

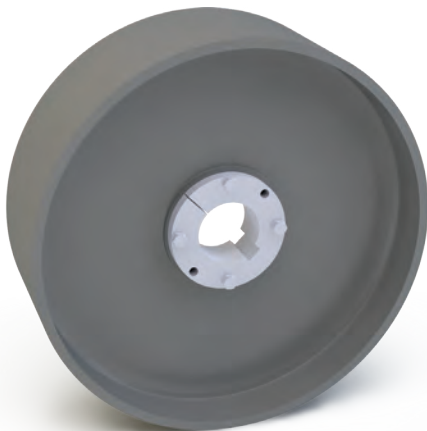
Bulk handling systems are moving to larger conveyors and increased capacities. The high modules, high tension belts require pulleys of much higher capacity and durability than standard units. PPI has the experience, know how, and equipment to custom design and fabricate pulleys for each pulley location and application. PPI Engineered Class Pulleys are supplied with various hub and bushing systems including keyless locking devices which are common on high tension steel cable belt systems.





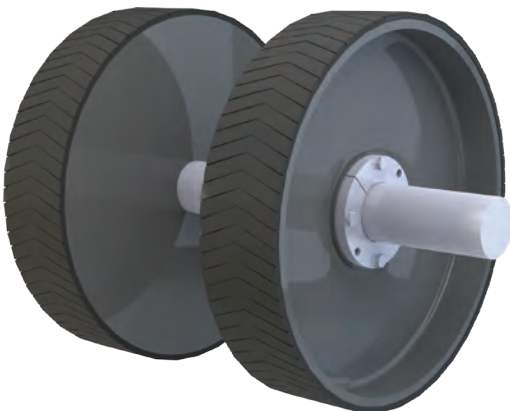
TURBINE PULLEY

Today's efficient high tonnage mines demand dependable long life components. Using state of the art engineering and design techniques, such as Precision Finite Element Analysis, PPI meets these needs by controlling material stress points. Incorporating all of the benefits of PPI's proven experience in heavy mining pulleys, the turbine offers our customers world class performance and reliability.



SINGLE DISC ELEVATOR (SDE) PULLEY

Superior strength best characterizes the SDE Pulley. Used primarily in the grain industry, the SDE Pulley is continuously welded to the rim on both sides of the disc. Its heavy duty construction and a high compression hub and bushing affords a one piece all steel, single disc pulley capable of reducing stress and deflection.

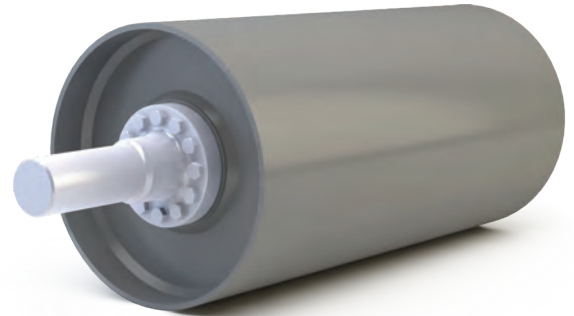


DEFLECTION WHEELS

PPI Deflection Wheels are designed for the deflection of corrugated side wall belting. Cross rigidized base belting with corrugated sidewalls can be deflected from horizontal to any incline and back again with PPI Deflection Wheels. We will build to your specification or we can design it for a given application. Please contact the factory for size range and availability.

EZ MOUNT PULLEY SYSTEM

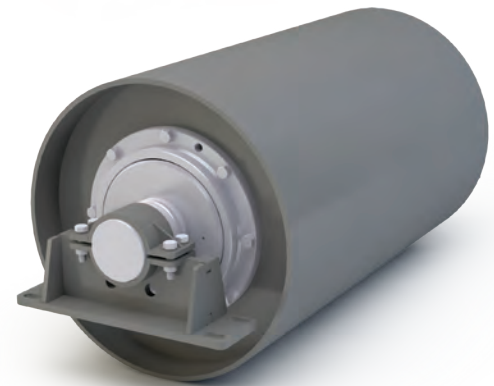
EZ Mount is a unique pulley and shaft system allowing fast and economical bearing and shaft replacement without removing the pulley from the conveyor. It reduces maintenance and replacement time by using rugged engineered stub shafts. The exclusive PPI EZ Mount Pulley and shaft system are manufactured to CEMA standards and Mine Duty specifications.



STATIC SHAFT PULLEY (SSP®)

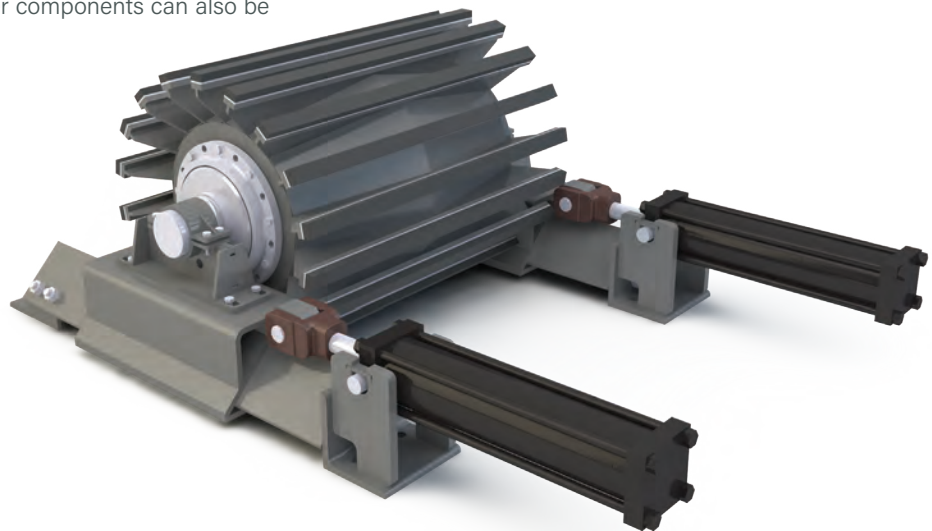
The SSP is a problem-solving solution for pulley applications prone to frequent bearing failure. It uses a 22200 series bearing mounted inside the pulley hub to provide exceptional bearing protection. This patented design also uses a taconite sealing system that provides further protection from contaminants entering the bearing.

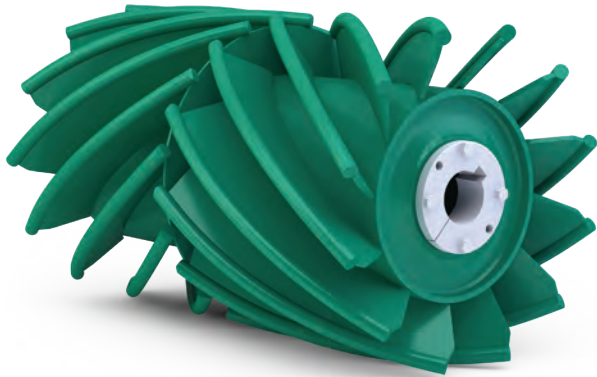
Mounting the bearing inside the pulley hub also eliminates the shaft bending moment stresses that are the primary cause for pulley fatigue and failure.



PULLEY ASSEMBLIES

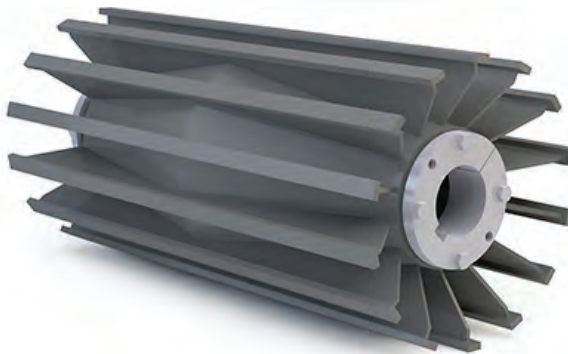
For maximum efficiency and added value, PPI is your single source for conveyor pulley assemblies. PPI can provide pulley lagging, shafting, bearings and Take Up Frames to complete the pulley package. Couplings, backstops and other components can also be mounted upon request.





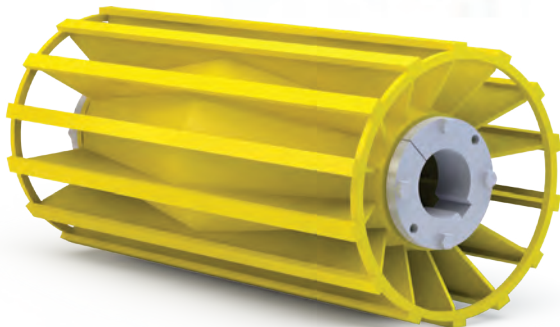
HERRINGBONE WING® CONVEYOR PULLEY

The PPI Herringbone Wing® was designed for applications where conventional wings suffer from excessive material lodging and wing folding. The extreme wing angles of up to 45 degrees use the pulley's rotation to eject material out the sides of the pulley rather than recirculating it, as a conventional wing often does. These extreme angles and optimized wing height, along with a center reinforcement disc, all combine to make an incredibly strong design that excels where others fail.



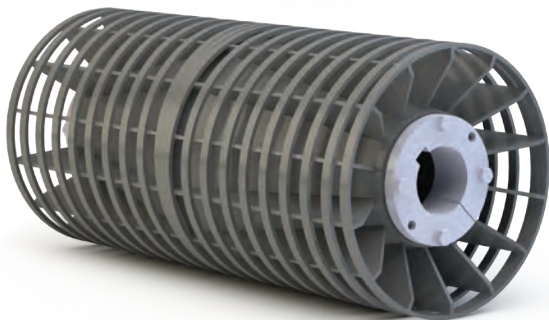
HEAVY DUTY WING (HDW) CONVEYOR PULLEY

Pulley and belt life are extended by the self-cleaning action employed by the PPI Heavy Duty Wing Pulley. Individual, all steel wings and gussets expel excessive buildup of material from the area of belt contact which enhances traction and reduces abrasion of both the belt and pulley. Where abrasion and excessive build up conditions exist, the HDW pulley with self cleaning action provides an excellent alternative to conventional drum style pulleys. Available with various hub and bushing systems.



MINE DUTY WING (MDW) CONVEYOR PULLEY

Demanding wing pulley applications call for PPI Mine Duty Wing Pulleys. Mine Duty Wing Pulleys provide effective self-cleaning action that reduces excessive material build up. The extra heavy duty construction reduces the possibility of metal fatigue and enhances the dependability of the pulley. Ideally suited for harsh applications and for very abrasive conditions.

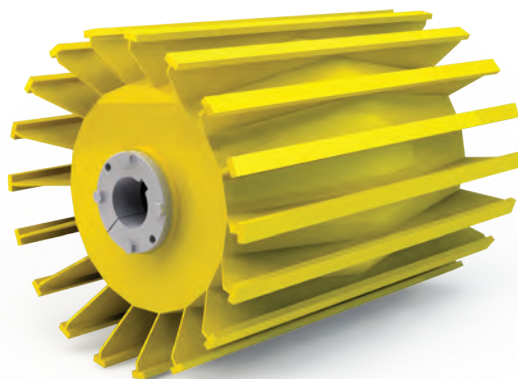


SPIRAL WING CONVEYOR PULLEY

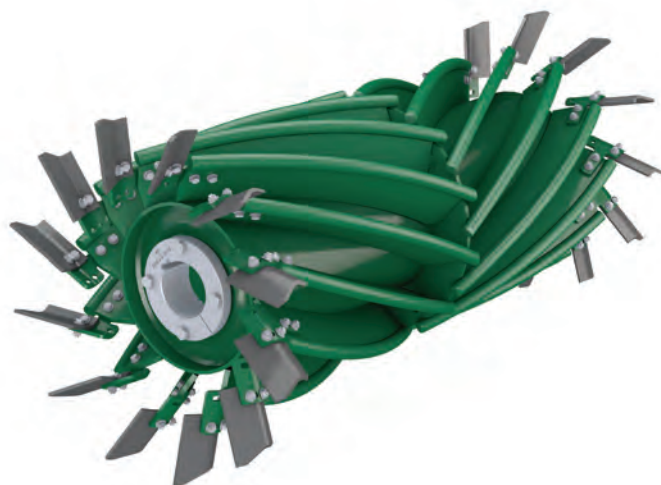
The PPI Spiral Wing and Spiral Plus Wing Pulleys are formed by winding flat bar spirally from the center of a wing pulley to the outside ends. This continuous belt contact design eliminates excessive noise and vibration, while still providing a cleaning effect and allowing a path for debris to escape rather than being trapped between the pulley and belt.

QUARRY MAX DUTY WING CONVEYOR PULLEY

The Quarry Max Duty Wing pulley is made for severe applications where wing folding and abrasion issues are a concern. It has massive contact bars and thick wings. The Quarry Max Duty Wing resists wing folding by utilizing an end disc when necessary to keep wing heights ideal, short enough to resist folding and long enough to provide adequate rigidity. Ideally suited for harsh applications and for very abrasive conditions.

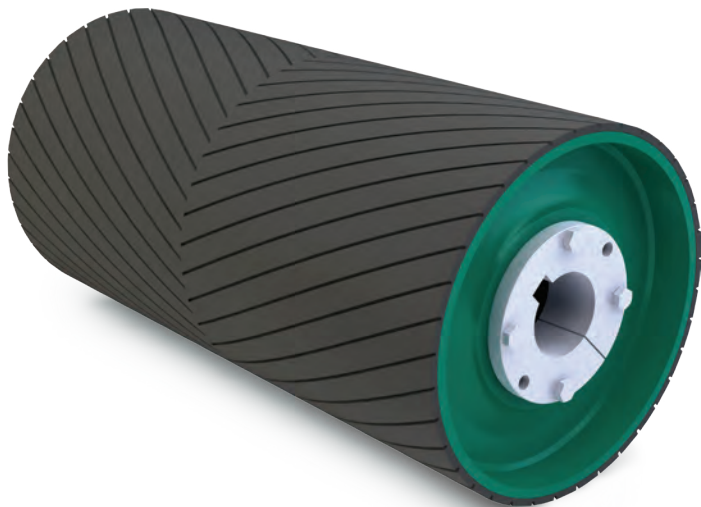
**GRAIN HERRINGBONE WING® CONVEYOR PULLEY**

PPI's Grain Herringbone Wing combines improved wear, quieter operation and gentle grain handling compared to standard wing pulleys. It has more wings to support thin grain belting and it has rubber flappers to lift grain and throw it back onto the belt in enclosed conveyors.

**BOOT HERRINGBONE WING CONVEYOR PULLEY**

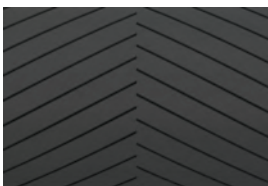
The patented PPI Boot Herringbone Wing® pulley combines improved wear, quieter operation and gentle grain handling, along with a sensor ring for use with proximity or heat sensors.





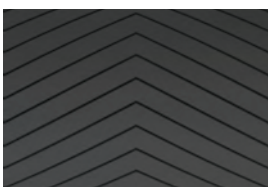
PPI has complete in-house pulley lagging capabilities. Every step of the pulley manufacturing and lagging process is controlled internally, which assures quality, prompt delivery and competitive pricing of lagged pulleys. Available in a wide variety of styles and thicknesses, lagging is primarily used to improve traction capabilities, resist abrasive conditions and extend pulley and belt life. The style of lagging required is usually influenced by operating conditions. While the standard is 60 durometers, it is available in various durometers, with 50 and 70 being the common alternatives. SBR is standard; neoprene and MSHA are available as well as a wide variety of other compounds.

Other lagging is available for specific applications. An example of this is ROUGHTOP LAGGING. This is used for small diameter drive pulleys. It is created by lagging the pulley, but before the rubber is cured, a special mold is applied to the lagging to cause the grooves to be formed in the lagging. It is cured with this form in place. It gives excellent traction, without cutting grooves. By forming the groove in the lagging, PPI can offer ROUGHTOP on thin lagging, such as 1/4". Consult your sales representative for specific requirements.



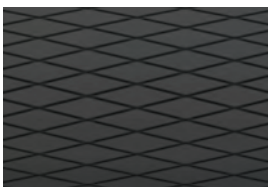
HERRINGBONE GROOVE LAGGING (HBG)

The style of lagging required is usually influenced by operating conditions. This style of grooving is where the points do not meet in the middle. This is normally used in drive pulleys, with the V pointing in the direction of rotation. (3/8" minimum thickness)



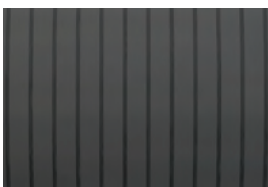
CHEVRON GROOVE LAGGING (CHE)

Similar to the herringbone style, we offer chevron based on customer preference. This is also used primarily on drive pulleys. (3/8" minimum thickness)



DIAMOND GROOVE LAGGING (DIA)

Diamond, or double HBG, or double chevron is primarily used for reversing conveyor drive pulleys. It is also often used for spare pulleys when one doesn't know the direction of rotation. (3/8" minimum thickness)



CIRCUMFERENTIAL GROOVE LAGGING (CIR)

This is used on non-drive pulleys for really wet applications or cold temperatures, which allows the lagging to deflect, keeping material from building up on the lagging. (3/8" minimum thickness)

ALIGNER GROOVE LAGGING (LOR)

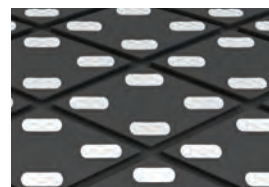
This is a Lorig™ style lagging and is used on flat face pulleys. The lagging is machined flat, then grooves are machined in at an angle. This results in a training action. As the rubber is compressed by the belt, the lagging will deflect towards the center, helping to track the belt. (3/4" normal thickness)

**CERAMIC LAGGING**

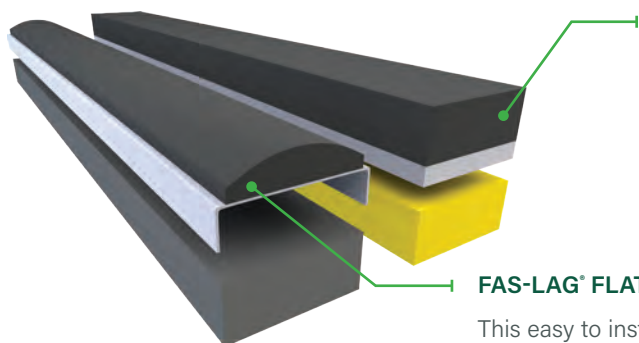
Ceramic lagging has ceramic tiles molded into a rubber compound. This makes for excellent traction, reducing slippage and offering excellent abrasion resistance.

**VULCANIZED ENGINEERED CERAMIC LAGGING (VEC)**

Our patented VEC Lagging starts with SBR or neoprene lagging that is hot vulcanized on a pulley. Our uniquely designed tiles are then embedded in the vulcanized lagging. This design eliminates seams, where failures often start. This process allows flexibility in tile coverage and grooving patterns as well.

**CRAFT-LAG®**

Craft-Lag is bonded to rigid backing, then formed to a specific diameter. Craft-Lag can be used with or without retainers and is ideal for mining, crushed stone, sand and gravel, cement, agriculture, food processing, coal mining, power plants, feed and grain and general industry.

**XHD FAS-LAG® REPLACEABLE LAGGING**

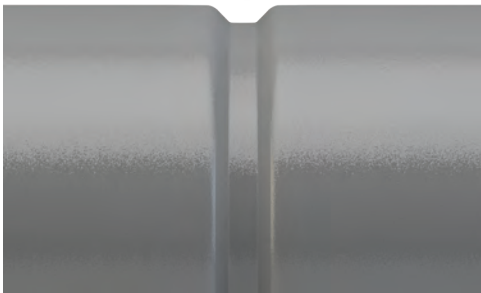
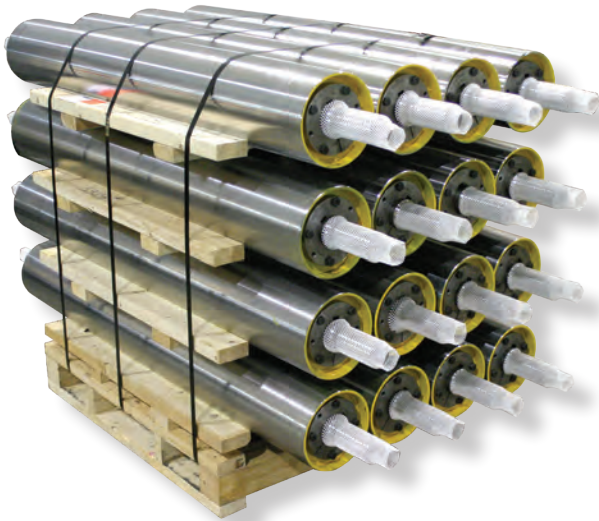
This easy to install wing pulley lagging system is designed for the Quarry Max Duty Wing pulley. It is welded to the flat contact bar to provide additional traction with the belt and added protection for the contact bar and protection for the mechanical splice. The lagging is 2" wide by 1" thick to provide an extended life. The standard is black 60 durometer SBR.

FAS-LAG® FLAT REPLACEABLE LAGGING

This easy to install wing pulley lagging system is designed for original pulley lagging. It is welded to flat contact bar to provide additional traction with the belt and added protection for the contact bar and protection for the mechanical splice. The standard is black 60 durometer SBR. It can be provided with other compounds and colors.

PULLEYS AND ROLLERS

Unit Handling applications typically have a diameter range of 2" through 12", although larger diameters are occasionally required. For moderate loads, 7- through 14-gauge tubing can provide strong construction with economical pricing. For heavier loads, 3/16" through 1/2" thick wall tubing is available.



PPI V-GROOVE PULLEY

For applications where belt tracking requires a V-guide in the surface of the pulley



TYPE A:

Plain bore without hub



ADAPTER TYPE:

Detachable tapered bushing



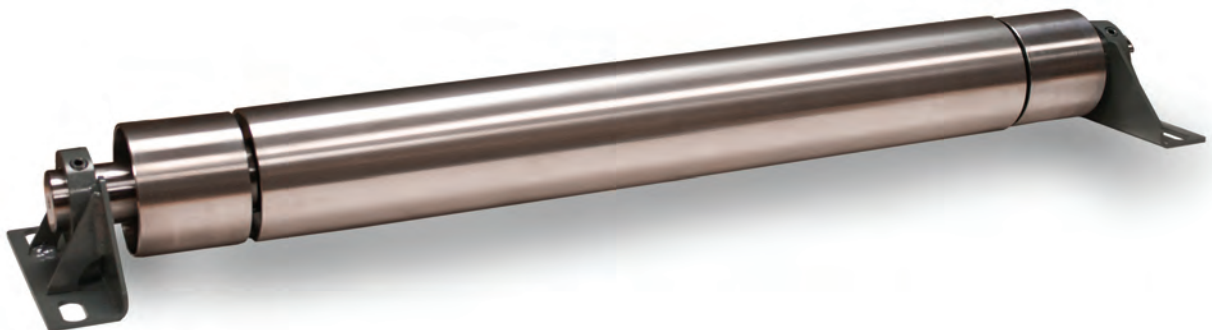
TYPE C:

Sealed ball bearing cartridge with set screw lock



TYPE D:

Finished fixed bore hub with standard key seat



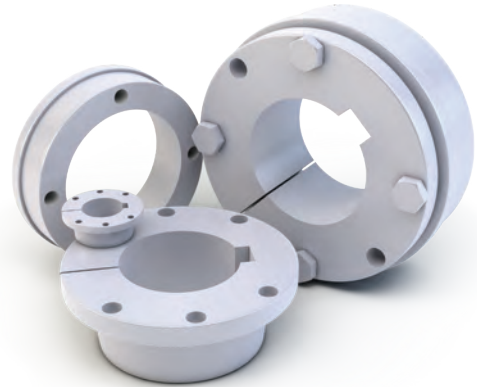
STATIC END ROLLER TUBE

Static end design eliminates potential pinch points between the belt and roller. Solid oil filled double row spherical roller bearings do not require re-lubing. Stringent machining tolerances minimize runout.

- Static design eliminates pinch points between belt and roller
- Solid oil filled double row spherical roller bearings do not require re-lubing
- Bolts onto many present systems
- Many shaft end details available (contact your PPI representative for details)
- Tube is machined to stringent tolerances, minimizing runout

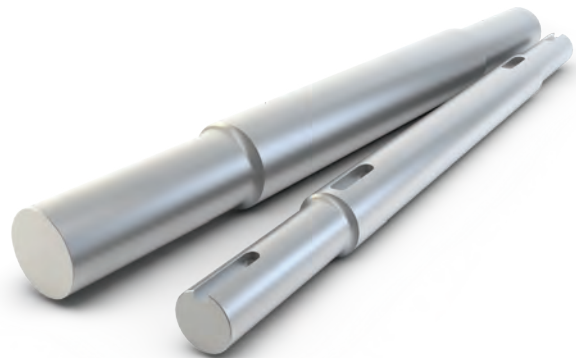
HUBS AND BUSHINGS

PPI offers a wide range of hub and bushing systems for proper mounting of pulley to shaft, including XT® hubs and bushings (maximum bore 12"), QD® hubs and bushings (maximum bore 12") and keyless locking assemblies up to 23.622". Other options, such as press fit and solid bore mounting are available upon request. Hubs and bushings are also available separately.



SHAFTING

PPI conveyor pulley shafting is a vital part of the total pulley assembly. Standard PPI shafting is AISI 1045. The higher carbon content is an AISI 1045 results in a very strong steel that machines to a smooth finish. Normally, PPI uses T&P for shafting up through 5-15/16". Hot rolled and/or forged shafting (depending upon size, availability and specifications) is used above a 6" diameter.



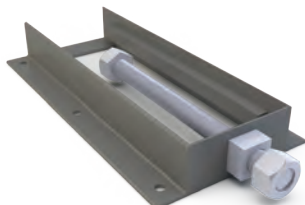
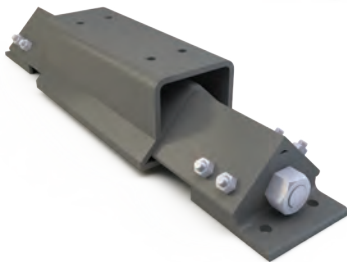
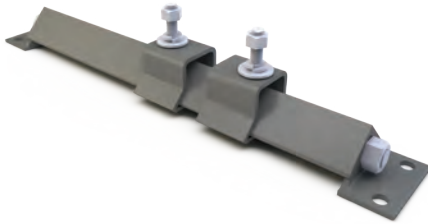
BEARINGS

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 ± 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.





LIGHT DUTY (PLD) TAKE-UP FRAMES

PPI Light Duty Take-Up Frames give the convenience of use with ball, spherical and sleeve bearings. The adjusting screw is protected from falling material by the steel angle. The adjusting screw is always in tension regardless of direction of bearing load.

MEDIUM DUTY (PMD) TAKE-UP FRAMES

PPI Medium Duty Take-Up Frames give the convenience of use with ball, spherical and sleeve bearings, but use a one-piece saddle for extra strength. The adjusting screw is protected from falling material by the steel angle. The adjusting screw is always in tension regardless of direction of the bearing load.

HEAVY DUTY (PHD) TAKE-UP FRAMES

Heavy Duty Take-Up Frames are of welded and bolted steel construction. The adjusting screw, which is fully protected, offers maximum strength and ease of adjustment. Also available in extra heavy duty construction.

TOP ANGLE (PTA) TAKE-UP FRAMES

PPI Top Angle Take-Up Frames are of welded steel construction. The adjusting screw is plated to resist corrosion and is protected by the top angle from falling material. Top Angle Take-Up Frames may be used with sleeve type, ball or tapered roller bearings (where the housing fits a round bottom frame).

PROTECTED ANGLE (PPA) TAKE-UP FRAMES

PPI Protected Angle Take-Up Frames are of welded steel construction. The adjusting screw is plated to resist corrosion and is protected by the top angle from falling material. Top Angle Take-Up Frames may be used with sleeve type, ball or tapered roller bearings (that fit a channel bottom frame).

SLIDE TUBE (PST) TAKE-UP FRAMES

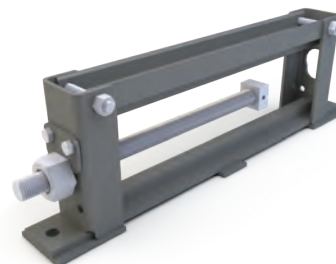
The PPI Slide Tube frame provides a compact and economical frame that will accept all manufacturers' pillow blocks. This frame is especially useful on packaging and other lightweight special conveyors.

WIDE SLOT (PWS) TAKE-UP FRAMES

The PPI Wide Slot frame provides a compact and economical frame that will accept all manufacturers' ball bearing cartridge. This frame is especially useful on packaging and other lightweight special conveyors.

CENTER PULL (PCP) TAKE UP FRAMES

Center Pull Take-Up Frames use welded steel construction with reinforced steel end plates. The bolted cap rail allows easy access for quick and easy bearing installation.



HEAVY DUTY HYDRAULIC (PHYD) TAKE UP FRAMES

Hydraulic Heavy Duty Take-Up Frames are of welded and bolted steel construction. The adjusting screw, which is fully protected, offers maximum strength and locks the saddle into place. The hydraulic cylinder provides ease of adjustment and accuracy of tightening.



HYDRAULIC CYLINDER (HYD)

- Rod end trunnion mount; NFPA style MT1
- Standard Series 2HD cylinder with clevis and pin for PHYD
- Standard cylinders have lip seals, breathers and SAE ports



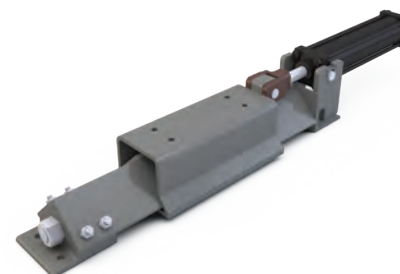
HYDRAULIC HAND PUMP

- Double action set – 2 Stage Hand Pump. Includes fittings, pump, valves, tank and quick connects
- Select hose kit (all include quick connects)
- For 5" and smaller cylinders – includes quick connects
- For 6" and 7" cylinders – includes quick connects
- For 8" cylinders – includes quick connects



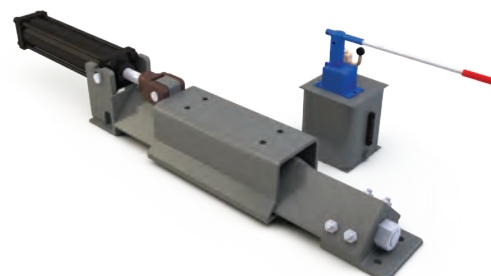
HYDRAULIC CYLINDER KITS

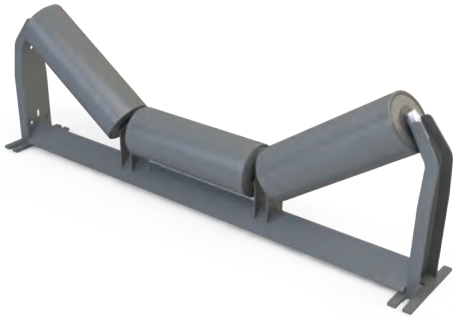
- PPI will match frames and cylinders for each application
- Cylinders are shipped separately for their protection
- Cylinders are mounted with a simple keeper plate and pin



HYDRAULIC CYLINDER KITS WITH PUMP

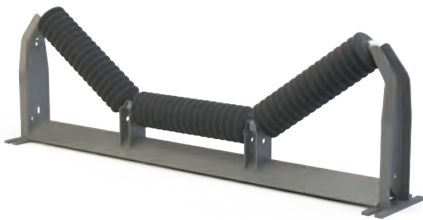
- PPI will supply frame, cylinder and hand pump
- One hose kit for each pair of frames
- Pumps are needed for 1 to 4 sets of frames
- Pumps and cylinders are shipped separately





TROUGHING IDLERS (TE)

PPI Idlers are available in CEMA B, CEMA C, CEMA D, CEMA E and CEMA F series. The "B" series are available in 4" and 5" diameter rolls with 17 mm ball bearings. CEMA C series idlers are available in 4", 5" and 6" diameter rolls with 19 mm ball bearings. CEMA D series idlers are available in 5" and 6" diameter rolls with 25 mm ball bearings. CEMA E series idlers are available in 6" and 7" diameter rolls with 35mm ball bearings. For more extreme loading, our E-Plus idlers are available in 6" and 7" diameter rolls with 40mm ball bearings. Our CEMA F series are available in 6", 7" and 8" diameter rolls with a 50mm ball bearing to handle even larger loads.



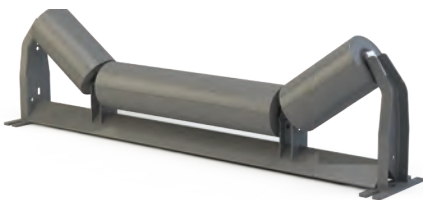
IMPACT TROUGHING IDLERS (TEI)

PPI Impact Idlers are built with heavy duty frames to withstand shock at the loading zone. The rubber discs used on impact idlers are made of natural molded rubber ideal for absorbing impacts in loading zones.



SELF-ALIGNING TROUGHING IDLERS (TESA)

PPI Self Aligning Idlers are built to the same specifications as troughing idlers. The frame is mounted on a separate base with tapered roller bearings and is free to swivel within controlled limits. The side guide rolls can be universally mounted on either side for belt travel in either direction or centered at the roll ends for reversing belts.



UNEQUAL TROUGHING IDLERS (TU)

PPI Unequal Idlers (or picking idlers) are available for special conveyors where the product is spread over a flat belt with the side turned up to prevent spillage.



UNEQUAL IMPACT TROUGHING IDLERS (TUI)

PPI Unequal Impact Idlers are built to withstand the shock at the loading zone. The rubber discs used on impact idlers are made of natural molded rubber which is ideal for shock absorbing and shedding sticky material.



TRANSITION EQUAL TROUGHER IDLER (TET)

Providing a smooth transition from a flat belt to a troughed belt or vice versa is critical in promoting long life of the components in the transition area and most importantly, extending belt-life. PPI's adjustable Transition Troughing Idlers provide precise adjustment in 2.5 degree increments, allowing the user to fine tune the trough angle in the transition area.

HDPE IDLER ROLLS (PL)

High Density Polyethylene (HDPE) rolls have found a niche in the market by offering several key benefits: significant weight reductions compared to their steel equivalents; great corrosion resistance; excellent wear and abrasion characteristics; and reduction in noise levels. PPI's HDPE roll incorporates our field proven seal system that provides outstanding contamination resistance extending the life of the roll.

SPINWELD HDPE IDLER ROLLS

Spinweld High Density Polyethylene (HDPE) rolls serve the market by offering several key benefits: significant weight reductions compared to their steel equivalents; great corrosion resistance; excellent wear and abrasion characteristics; and reduction in noise levels. PPI's spinweld production process provides a bond between the tube and bearing housing that is superior to other designs that utilize adhesives or interference-fit to hold rolls together.

SPINWELD NYLON IDLER ROLLS

Nylon rolls offer many of the same characteristics as other polymer rolls such as: significant weight reductions compared to their steel equivalents; great corrosion resistance; excellent wear and abrasion characteristics; and reduction in noise levels. However based, on the composition of nylon tubing it allows these rolls to handle heavier loads than some other polymer rolls on the market.

RETRACTABLE FRAME IDLERS (RET)

PPI's Retractable Frame Idlers are an excellent choice for impact zones where frequent roll change-out is required. The retractable frame design allows for easy roll change in all roll positions, minimizing downtime. Retractable frame idlers are available in CEMA C, D, and E with steel or impact rolls.

REMOVABLE END BRACKET

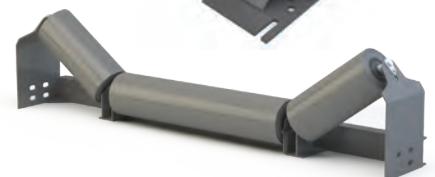
Roll maintenance and replacement can be a very challenging task with traditional troughing idler frames. Incorporating PPI's removable end bracket frames to high wear areas—like loading zones—can ease the job by allowing the user better access to idler rolls in a congested area.

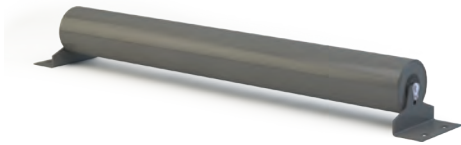
GRAIN IDLER

Designed to protect the lightweight belting that is typically used in the grain industry, PPI's Grain Idler incorporates an offset center roll design. By offsetting the center roll relative to the wing rolls it eliminates the pinch point, protecting the most expensive piece of the conveyor system, the belt.

CHANNEL INSET TROUGHING IDLERS (CIT)

Designed for between frame mounting, PPI offers this frame for use where vertical clearance is minimal. This style meets CEMA load requirements and is available in both CEMA B (14"-48") and CEMA C (24"-60") with 4" and 5" diameter rolls.





FLAT CARRIER IDLERS (F)

PPI Flat Carrier Idlers are constructed to the same specifications as the troughing idlers. The support bracket's strength is equal to or greater than the idler load rating. PPI furnishes 4 1/2" end stands as standard. If a different height is required, please contact your sales representative.



RUBBER DISC FLAT CARRIER IDLERS (FRD)

Rubber Disc Flat Carrier Idlers are made of abrasion resistant, synthetic rubber with a compression fit between a heavy wall tube and the disc. Generally used for applications where sticky material builds up on traditional steel idlers.



RETURN IDLERS (R)

PPI Return Idlers are available with 4 1/2" drop brackets unless 1 1/2" drop brackets are requested.



RUBBER DISC RETURN IDLERS (RRD)

Rubber Disc Return Idlers are constructed from abrasion resistant, synthetic rubber discs. Generally used for applications where sticky material builds up on traditional steel idlers.



RETURN RUBBER GROOVED IDLERS (RRG)

Possessing the same material shedding characteristics and wear properties of traditional rubber disc rolls, the Return Rubber Groove Roll (RRG) improves on an already great product. Built on the same steel tube as standard rubber disc returns the RRG is a single piece of rubber that is vulcanized onto the steel tube with grooves machined into it. The single piece of rubber eliminates disc movement on the tube ensuring proper disc spacing the entire life of the roll.



LIVE SHAFT IMPACT IDLER (LSI)

Extremely rough applications call for an extremely rugged idler, PPI's Live Shaft Impact Idler. This idler consists of our rubber disc mounted on a solid steel shaft. Pillow block bearings are mounted on the turn down ends. PPI can provide pillow block bearings with the live shaft rolls.



BEATER BAR RETURN

Providing a vibratory belt cleaning action PPI's Beater Bar Return Roll knocks off material carryback from the conveyor belt. Keeping the belt clean minimizes the chance of material building up on return idlers causing the belt to wander.

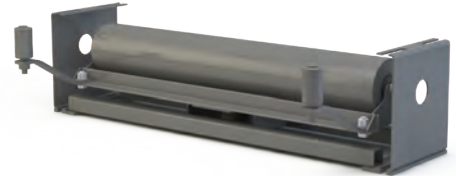
REVERSE SELF-ALIGNING IDLER

Traditional guide arm self-aligners will not function properly in reversing belt applications due to the guide arms being belt direction sensitive. PPI's Reversible Self Aligner is equipped with either a slider plate style or a guide roller version, both configurations operate under the same principle, as the belt wanders off of centerline it engages the actuators causing the trainer to steer the belt back to center.



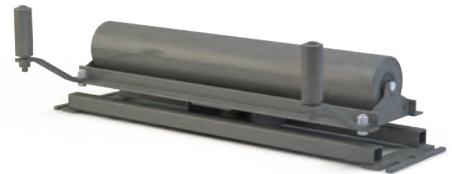
SELF-ALIGNING RETURN IDLERS (RSA)

PPI Self Aligning Return Idlers are comprised of a two piece frame with tapered roller bearings, and are free to swivel within controlled limits. The side guide rolls can be universally mounted on either side for belt travel in either direction.



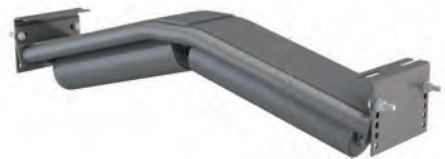
SELF-ALIGNING FLAT CARRIER IDLERS (FSA)

All of the features that are designed into the Self Aligning Troughing Idlers will be found in this idler.



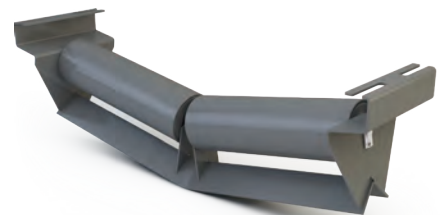
INVERTED V-RETURN (IVR)

Inverted V-Return Idlers are used to positively track the belt on the return side of the conveyor. The IVR is adjustable to increase the displacement and the resulting tracking force on the belt. Operating on the clean side of the belt ensures material buildup on the rolls does not adversely affect the belt training.



V-RETURN (VR)

PPI's V-Return Idlers are available with 4.5" and 7" drop heights and are built with a 10° two roll trough configuration that allows gravity to naturally keep the belt centered. The shorter two roll design enables the user to implement much lighter rolls than the traditional single roll configurations.



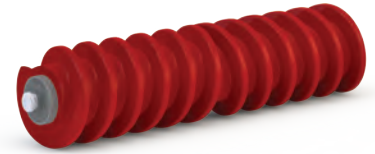
PRO TRAINER

Pro Trainer was designed to actively train a conveyor belt while operating on the clean side of the belt. Training a belt on the clean side offers significant advantages compared to traditional return self-aligners by eliminating the potential of material carry back building up on the roll negating the training characteristics. Clean side training combined with guide rolls positioned in such a way to minimize belt misalignment before engaging the lagged training roll, provides unmatched belt alignment.



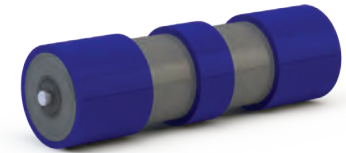
SPIRAL URETHANE ROLL

PPI's Spiral Urethane Rolls provide an ever-changing point of contact on the belt surface that allows cleaning action without beating the belt. The spiral design is made out of urethane which promotes extended wear qualities and abrasion resistance.



URETHANE SLEEVE ROLL

Utilizing PPI's standard steel return rolls, urethane sleeves are pressed on to the roll to provide an abrasion resistant surface for the return path of the belt. Material carryback on the belt often causes standard steel rolls build up with debris causing belt tracking issues and can lead to premature wear. Urethane material properties promote excellent abrasion resistance and its slick surface prevents material build up.



RETURN ROLL GUARD (RG)

The PPI Return Roll Guard provides a barricade at the pinch point created by the belt passing over a return roll. The 1 1/2" or 4 1/2" mounting brackets provide easy installation on 4", 5" or 6" rolls utilizing the return bracket's mounting bolts. While normally used on return rolls with seven feet or less vertical clearance from the ground or decking, it may be used on any return roll.



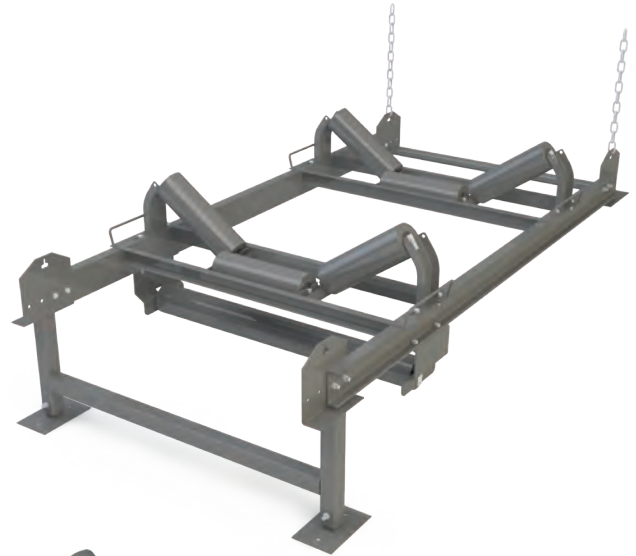
RETURN ROLL CAGE

Safety is so important for mining operations. PPI's Return Roll Cage provides protection to property and personnel from suspended idler rolls. As belts misalign, they may cut drop brackets of suspended return rolls causing the roll to fall. Installing a Return Roll Cage alleviates that risk by catching any dislodged roll.



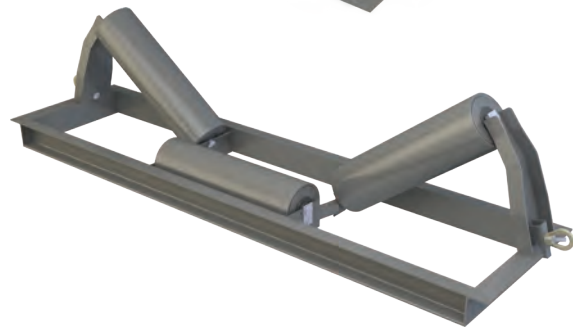
RIGID RAIL STRUCTURE

PPI is proud to offer conveyor structure to accompany our variety of loading capabilities. With bolt on or clamp on styles available, PPI is sure to have a product to meet your needs. Both structure types are available in CEMA C, D and E, and 30" to 60" belt widths. For wider belts, please call for application assistance.



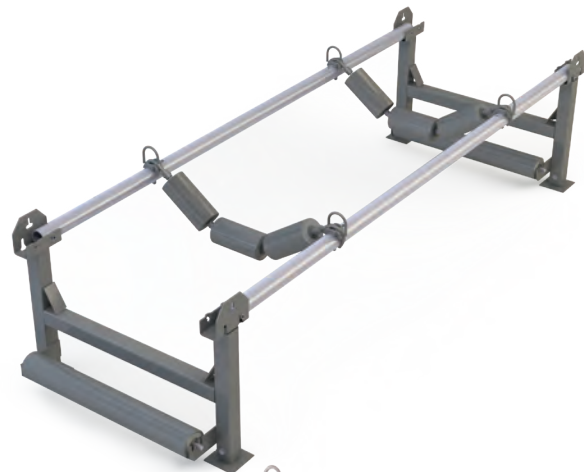
WIRE ROPE IDLERS

Designed primarily to be used in underground applications where ceiling heights can be quite limited, PPI Wire Rope Idlers incorporate an offset center roll design that minimizes overall profile height of the idler assembly. Outfitted with a universal clamp that provides versatile installation on wire rope applications or rigid rail systems.



CATENARY STRUCTURE

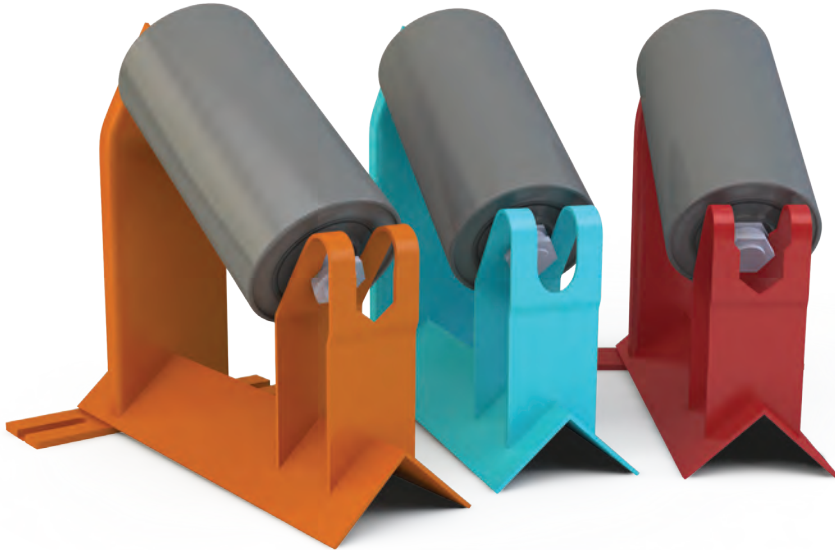
PPI Catenary structure incorporates a user-friendly design that allows easy assembly and tear down that lets operators reconfigure conveyor as the mining process dictates. Floor stands equipped with chain-slot brackets allow roof or floor mount configurations based on specific terrain at the mine. Available in CEMA C, D and E for 24" - 60" belt widths. For wider belts, please call for application assistance.



CATENARY IDLERS

Idler structure designs vary widely within the industry, so PPI has adapted the shaft ends of our idler rolls to accept a variety of mounting hardware ranging from hooks, chain and threaded rod. Having so many different mounting options available ensures PPI can retro fit our catenary idlers into most existing structures found in the market today.





PPI Retro Rolls® allow you to use the proven PPI idler rolls in other manufacturers' frames. You get the durability and low maintenance that PPI is known for without having to replace existing frames.

FEATURES AND BENEFITS

- Maintenance free, sealed for life, heavy duty ball bearings
- Seal for a long, trouble-free life in the toughest applications
- Total Indicator Run-out (TIR) for good balance and lower horsepower usage
- Adjustable adapter nuts or slotted shaft ends provided, depending on application
- Available for all major idler brands, ISO, plus others
- Available with 1/4" wall tubing, lagging or Poly Sleeve
- Available in CEMA B, C, D and E Series Rolls

SMART ROLL

PPI developed and patented our Smart Roll which monitors conveyor belt speed. Designed with a proximity sensor protected inside our rugged idler roll, it creates an electronic pulse stream that must be interpreted by either a PLC or our Smart Monitor. When those interpreting devices are incorporated into a conveying system, they can control motor shutdown circuits preventing material overflowing onto a broken down conveyor. The Smart Roll shown is a Clean Side Return (CSR) that does not encounter material load or belt weight, ensuring a long, trouble-free life.



MAGNETIC SPEED SWITCH SERIES

PPI's Speed Switch Design is setting the bar for ease of installation in the conveyor monitoring field. The innovative magnetic coupling system eliminates the conventional drill and tap of the past. Simply snap the sensor into place on the shaft, connect wiring and installation is complete. The magnetic coupling not only makes installation a breeze, it allows the unit to break away from the shaft if struck by errant debris, minimizing equipment damage compared to rigid designs. The Speed Switch Series offers a variety of different pulse outputs and accommodates shaft sizes from one inch in diameter and greater, making it very versatile.



WATCH DOG MONITOR

The Watch Dog timer relay is a single pole, double throw relay with a field adjustable timed input trigger. The relay is designed to monitor a pulse stream received from a speed monitoring device such as the PPI Magnetic Speed Switch and provide a continuously open or closed relay connection. Upon receiving the first high voltage pulse on the input connection, the relay will energize. As long as each proceeding pulse is received within the amount of time specified on the field adjustable timer, the relay will remain energized. If the selected time passes without receiving a pulse, the relay will de-energize until the next pulse is received.

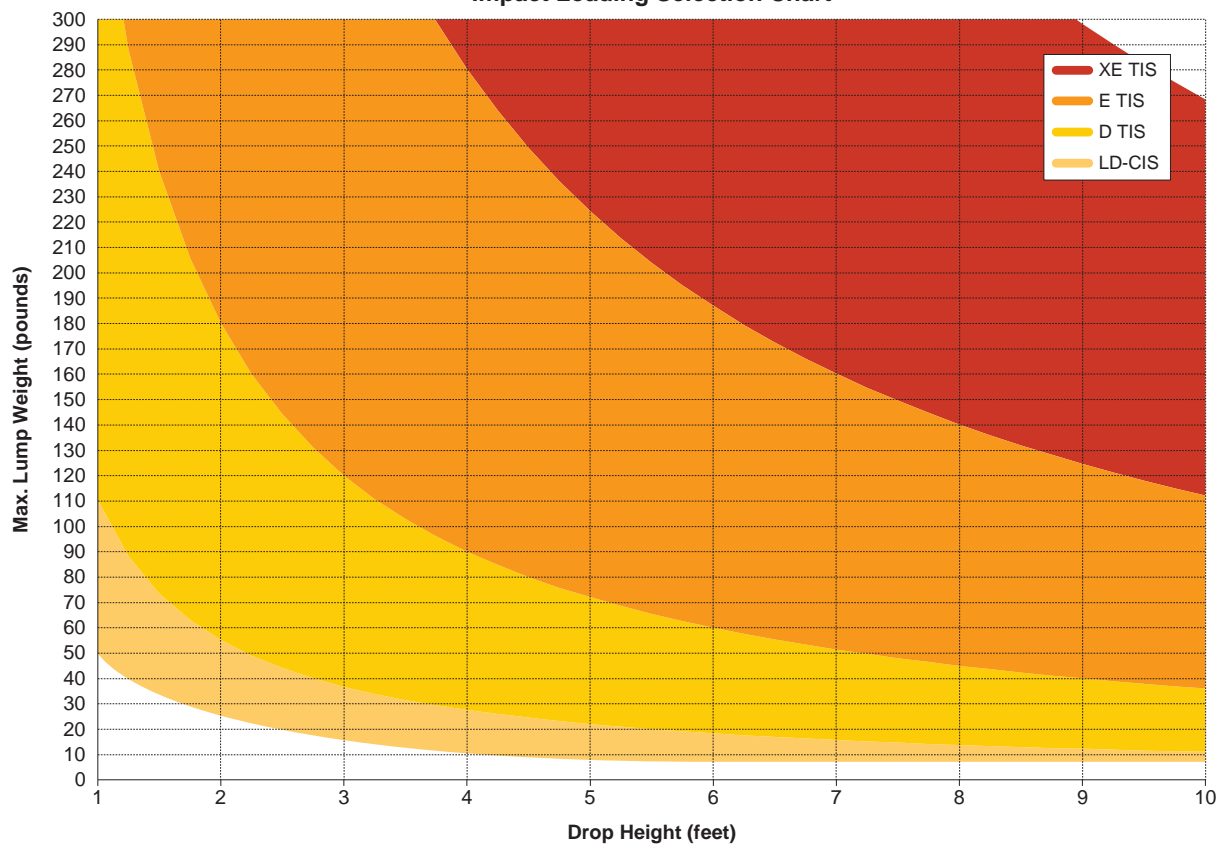




TROUGHER IMPACT SYSTEM (TIS)

PPI True Impact System (TIS) solves the problem of sealing the skirt boards and the high impact upon the belt. By utilizing its proven impact rolls, along with a center support system that is cushioned against the frame, it gives the TIS its double action dampening system. This rugged five-foot bed is made from welded steel and fits D6 and E7 rolls. While the rolls are D6 or E7, it does come in a low profile version (TISL) that will line up with C5/D5 or an E6. The slider rails come with 1/2" thick Ultra High Molecular Weight (UHMW). This product is also available as a Channel Impact System (CIS).

Impact Loading Selection Chart



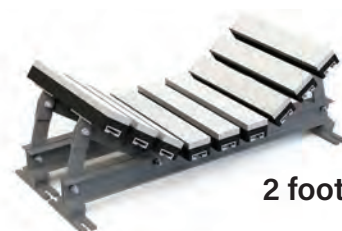
The above chart is a guideline based on analysis of typical loading zones of transfers and feeders. As each application is different, no warranty can be implied or given based on this chart alone.



5 foot



4 foot



2 foot

MEDIUM DUTY SLIDER SYSTEM

PPI is proud to offer the medium duty slider bed, a cost-effective solution for your impact and loading zone requirements. This slider bed is an ideal combination of impact absorption and belt support that promotes a tight seal against your skirting system. A modular design, available in two-foot, four-foot and five-foot lengths with foldable wings, allows the user to configure to their unique needs.

EZ SLIDER IMPACT SYSTEM

PPI's EZ Slider series provides a variety of loading zone options. The EZI is equipped with rubber disc rolls that provide impact absorption for light to medium duty loads. For applications beyond the loading zone, the EZS has steel idler rolls in the center position providing excellent load support. The EZR is a light duty slider bed that can be used in the loading zone and beyond, providing continuous support throughout the trough. All three versions are equipped with rails in the wing position to provide excellent support for skirt board sealing.



EZI



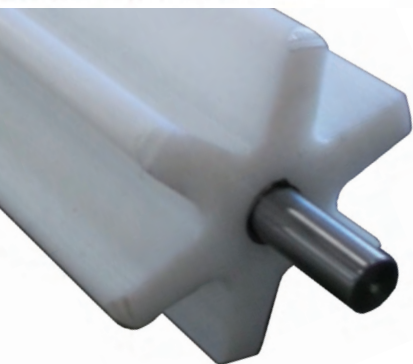
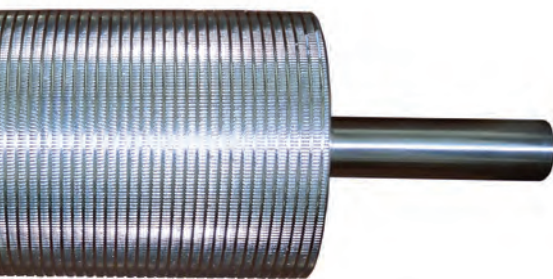
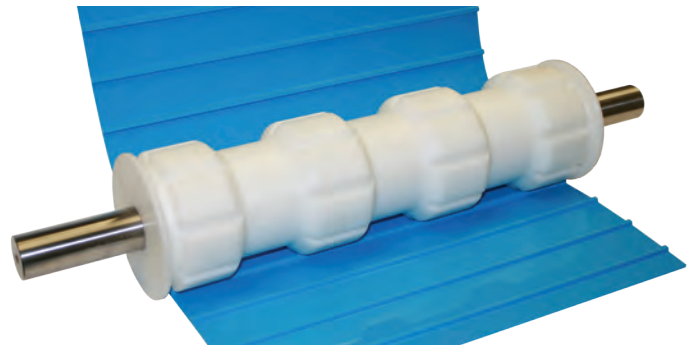
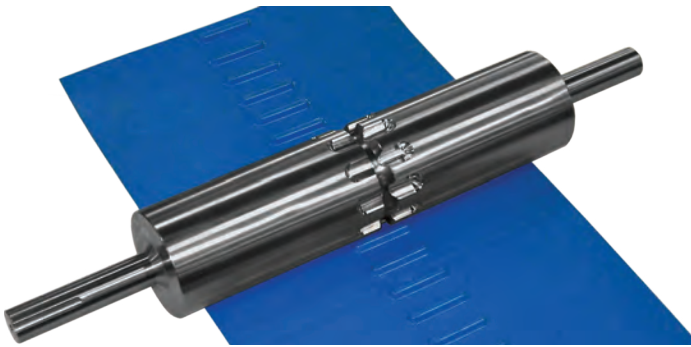
EZS



EZR

PPI is a premier manufacturer of stainless steel products for the food processing and unit handling industries. We now offer a complete line of stainless steel conveyor drum and wing pulleys as well as custom stainless steel machining capabilities for a wide variety of components to serve your operation's light-belt needs.

We have an excellent understanding of USDA and FDA requirements and have been building products for use in these applications with proven success. In addition to our stainless steel machining, forming and welding services are also available for plastic materials including UHMW, Acetal and Ertalyte just to name a few.



DRUM PULLEYS

Drum pulleys are available for a variety of applications such as corrosion resistance, reduced magnetic properties and sanitary food grade. Surface finishes and shaft attachment methods are very flexible and can be modified to meet customer demands.

XT®, QD®, Taper-Lock®, weld in shafts or fixed bores with set screws are a few of the more popular hub types available.

PPI is capable of producing demanding rim surfaces such as knurling, V guide sections or our proprietary sanitary positive drive system.

WING PULLEYS

Decades of experience making stainless steel wing pulleys endorse PPI effectiveness. Offered in XT®, QD®, Taper-Lock®, weld in, sealed ball bearing cartridge with set screw and fixed bore set screw hubs.

Smooth TIG or MIG welded joints resist buildup and make cleanup easier.

No matter what size or the application, call the pulley experts at PPI to get it right the first time.

CUSTOM PULLEYS

We understand that you face unique challenges that require unique solutions. We produce custom pulleys every day and welcome the opportunity to help solve your most demanding challenges.

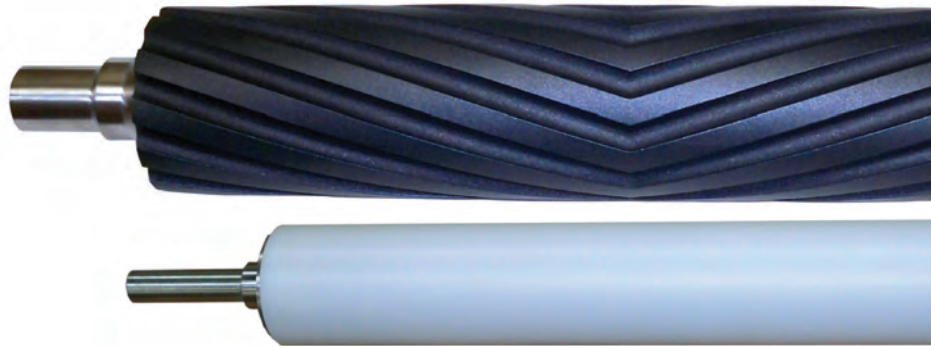
LAGGING OPTIONS AND KNURLING

Lagging is the use of an elastomer compound on the face or contact surface of a pulley to increase the friction between the pulley and the belt. Increasing this friction reduces belt slipping and the belt tension required to drive the conveyor. This equates to longer belt and component life and increases reliability.

Lagging can also greatly reduce wear caused by abrasive materials and prevent buildup of sticky material on pulley surfaces.

We offer a variety of lagging compounds for a broad range of applications. These include SBR, white neoprene, urethane, carboxylated nitrile (XNBR), nitrile, EPDM and silicone.

For those applications that required additional grip from a steel rim, we offer complete knurling services. Options include straight groove, herringbone and diamond as well as custom designs.



SELF-LEVELING FOOT PADS

Our Self-Leveling Foot Pads are an all stainless steel, sanitary design which allows their use in food production applications.

They are available in a wide variety of standard sizes and lengths with load carrying capacities of up to 28,000 lbs.

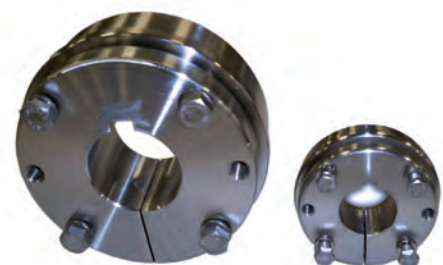


SAW VICE

Saw vice cutting guides are manufactured from nickel-plated carbon steel. Available for pipe size and tubing ranging from one to six inches.

HUBS AND BUSHINGS

A pulley assembly is only as good as the components that go into it. That's why we make our own stainless-steel hubs and bushings. We control the quality of the raw materials and the machining tolerances that go into each one. Available in XT®, QD® and Taper-Lock®.



PPI has been engineering and manufacturing conveyor components for more than 40 years. Over that time, PPI has emerged as the industry leader providing not only standard products, but mastering the art of custom products to respond to your specific and unique needs. Our experienced staff of engineers assesses individual application requirements and design products to meet specifications in the most productive manner. Whatever the application may be, make PPI the preferred choice for top of the line custom components.

COMPACTION ROLLS – PPI builds compaction rolls to customer specifications. This one is machined, line bored and has a special cone rolled and welded to the rim, and end disc to prevent buildup.

CUSTOM TUBE PULLEY – Heavy wall steel tubing and a machined face to insure maximum strength and concentricity are key features of these special machined face tube pulleys.

EXTRA WINGS – PPI builds special wing pulleys using techniques developed at PPI. This allows us to build wing pulleys with several additional wings for critical applications.

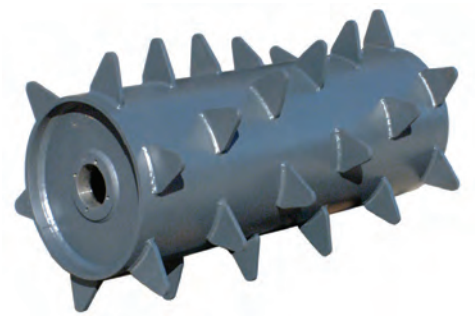
HEAVY DUTY ROLLS – PPI builds heavy duty rolls to meet customer specifications. This roll has a one piece hub that extends between the two end discs.

SPECIALTY DRUMS – PPI builds a wide variety of drums for a wide variety of situations. This is a special design feed roll.

SPECIALTY WINGS – PPI builds wings to customer specifications with some slight modifications. PPI can and does build specialty wings every day.

SPECIALTY PULLEYS – PPI built this combined Wing Drum for a particular problem situation.

WHEELS – PPI builds special wheel assemblies for use in TU carts and other carriages.



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 and the most qualified human capital 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

"This manufacturing approach allows us to be very focused, but it also gives greater flexibility to react quickly to the customer needs."

– Roger A. Brown. President of PPI





The global footprint is not new for PPI. The fact that the company serves a diversity of operations including aggregate, mining, package handling and the food industry make the presence of PPI components worldwide possible.

Today, PPI has over 700 global employees and 12 manufacturing plants in the United States, as well as two international locations. Each plant is dedicated to producing specific products and serving customers in the best possible way.

PPI jumped into business with the fabrication of standard conveyor pulleys targeting the aggregate market. But we haven't stopped there. For over four decades, PPI has developed remarkable products that have made a difference for a number of industries. Within 39 years, the company built a solid infrastructure enabling diversification and significant product developments in markets such as hard rock, coal, cement, package, unit handling and the food industry.



Every PPI initiative is focused on the process of putting you, the customer, first. We listen to and understand your needs, and know that by responding with the right tools, we help improve your business profitability and potential.

The PPI Training Center, located in Pella, Iowa, offers 4000 sq. ft. of hands-on experience that empowers participants to become industry leaders. Classes and labs are taught by experienced professionals conveying valuable industry knowledge.





www.ppi-global.com | sales@ppi-global.com

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