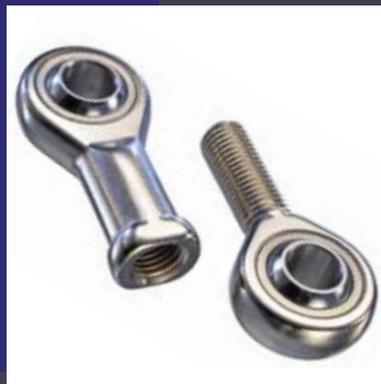


METRIC & AMERICAN INDUSTRIAL POWER TRANSMISSION PRODUCTS



COMPANY OVERVIEW



- Founded in 1994 with nearly 20 years focusing on metric products
- Headquartered in Charlotte, NC
- 80,000 Ft² Warehouse
- 30,000 SKU's
- 24/7 product availability
- In-house engineering and application support
- Most orders ship same day
- ISO 9001:2008 Certified



MOUNTED BALL BEARINGS

- Metric and Inch Bores
- All Major Housing Styles Including Pillow Blocks, Flanges and Take-ups
- Inserts in Setscrew, Eccentric Collar, Concentric Collar and Adapter Mount
- PTI Brand (Silver Series) & European Brand (Gold Series) Inserts



CORROSION RESISTANT MOUNTED BALL BEARINGS

- Metric and Inch Bores
- All Major Housing Styles Including Pillow Blocks, Flanges and Take-ups
- Housings of Stainless Steel, Nickel Plated Cast Iron, Black Thermoplastic and White Thermoplastic
- Inserts in Setscrew, Eccentric Collar
- End Closures and Flange Back Covers Available from Stock



MOUNTED ROLLER BEARINGS AND ACCESSORIES

- Metric and Inch Bores
- SAF/SAFD/SAFS/SDAF Split Pillow Blocks – In Stock through 22" Bore Size
- Multiple Seal Options Available
- Metric SN/SNG/SD Split Plummer Blocks
- 722 Series Metric Flange Bearings and HSPA Take-Up Units
- Metric & Inch Adapters, Withdrawal Sleeves, Nuts and Lockwashers



DRIVE PRODUCTS

- Metric (British Standard) and ANSI Roller Chain
- Metric Timing Belt Drives
- Metric Sprockets
- Metric Sheaves and Bushings
- Metric Spur Gears
- Metric Rod Ends
- Taper Bushed Weld-on Hubs

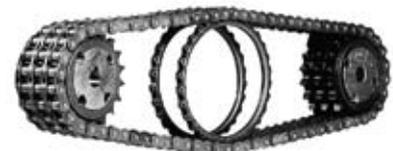


EUROPEAN SPECIALTY PRODUCTS

- Metric Attachment Chain and Other Specialty Chains
- Eich Spring Wound Bearings
- Winkel Linear Bearings and Profiles
- Roll-Ring Chain Tensioners

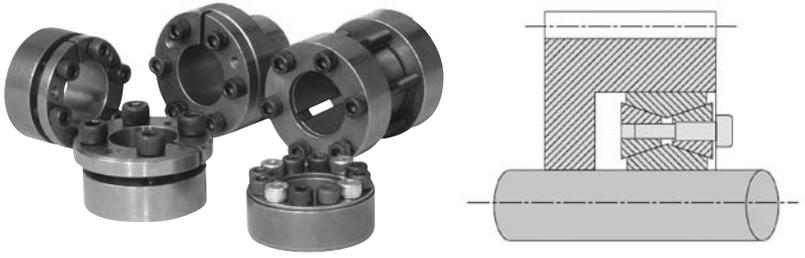


WINKEL



ROLL-RING

METRIC KEYLESS BUSHINGS



Keyless Bushings offer quick and simple mounting or removal of drive components on straight shafting without a key. The self centering feature improves balance compared to set screw mounting. When tightened, the resulting interference fit allows high torque, high speed and a zero backlash.

KEY FEATURES

- Attaches to straight bores and shafts. Can be installed over a keyway. Keys not required.
- Friction contact between bushing and drive component transmits torque.
- Most units are self-centering as installation occurs, providing a concentric fit and balanced assembly.
- The Axial position along the shaft for alignment of driven components is simple. Installation screws can be threaded into the removal threads to loosen the unit on the shaft to adjust alignment.
- Various types allow for heavy torque, minimal diameters or shoulders for positioning the drive component.
- Handle both radial and thrust loads.
- Application review and component selection is available at PTI. Our engineers will be happy to review requirements or assist with interchange.

16 Types of Metric Keyless Bushings, 450 SKU's

PTI		KLAA	KLAB	KLBB	KLCC	KLDA	KLDB	KLEE	KLFF	KLGG	KLHH	KLMM	KLNN	KLPP								
Chiaravall	Compomax (conax)	Italblock (CN)	Bonfiglioli	Hausmann	Lovejoy SLD	Climax Metal	Ringepann	US Teubaki	Ringfeder	Bilcon	Ringblock	Tolluk	KTR (Clampax)	SIT	Vicentine (VK)	MAV	TAS	Quantum (Lok-In)	Optibolt	Gernsh Peter	Maschinlager	
KLGG	RCK 40	A	210	2000	112	SLD 1500	200 Series	RLK 200	PL AS	RFN 7012	4000	1120	TLK200	100	1	400	2005	3020	30	01	2001	1000
KLCC	RCK 80	B	55	1000	110	SLD 1900	170 Series	RLK 110	PL TF	RFN 7110	8000	1100	TLK110	250	3	800	5061	---	10	02	2010.1	3000
KLNN	RCK 50	C	31	3000	106	SLD 350	501 Series	RLK 300	PL EL	RFN 8006	5000	1060	TLK300	150	2	500	3003	---	80	03	3001	2000
KLDA	RCK 70	D	54/N	4000	131	---	---	---	---	TI 9013.A	7000A	1300.1	TLK130	200	5A	700	6901	---	20	04	2007	5000A
KLAA	RCK 13	DS	913	4100	133	SLD 1350 SLD 1850	123 Series	---	---	RFN 7013.0	1003	1710	TLK132	203	6	130	1062	3003	---	05	2002	5005
KLDB	RCK 71	E	54/S	70	132	---	---	---	---	TI 9013.B	7000B	1300.2	TLK131	201	6B	700.1	6902	---	20B	06	2007.3	5000B
KLBB	RCK 15	EP	914/SP	4900	---	---	---	---	---	1506	2400	TLK134	256	8	156	3061	---	---	16	---	---	---
---	---	ER	54X	---	---	---	---	---	---	---	---	---	---	---	---	3062 or 3063	---	---	---	---	---	---
KLAB	RCK 16	ES	914	4600	136	SLD 1450 SLD 1750	133 Series	---	PL AE	RFN 7013.1	1006	1720	TLK106 TLK133	206	7	160	1061	3006	---	07	2002.3	5007
KLEE	RCK 11	F	910	9500	145	SLD 2600	405 Series	RLK 400	PL AD	RFN 7015.0	1012	1800	TLK450	400	4	112	4061	3012	70	08	---	7000
---	---	FS	---	---	---	---	---	---	---	RFN 7015.1	1015	---	TLK451	400.1	---	---	1008	3015	---	---	---	---
---	---	G	911	8000	141	---	---	---	---	---	1400	---	---	---	---	---	---	---	40	09	---	4000
KLFC	---	H	25C	5000	160	---	---	---	---	---	5500SP	1500C	TLK250	125	9	550C	3505	---	50	10	---	6050
KLFF	RCK 55	I	25L	5500	151	---	---	---	---	---	5500SP	1500	TLK250L	125L	13S	550L	3705	---	60	11	---	6000
KLHM	RCK 45	L	720	6000	100	---	---	---	---	TI 9009	4500	1000	TLK139	90	12S	450	4005	---	100	12	---	1010
KLMM	RCK 95	M	912	7000	160	---	---	---	---	RFN 7020	9500	1600	TLK500	700	10S	950	1004	---	90	13	---	9000
KLPP	RCK 19	SD	915	6000	271	SLD 900	733 Series	RLK 603	PL SL	RFN 4071	1029.1	2200	TLK603	603	11S	129	2008	---	14	5000.3	---	---

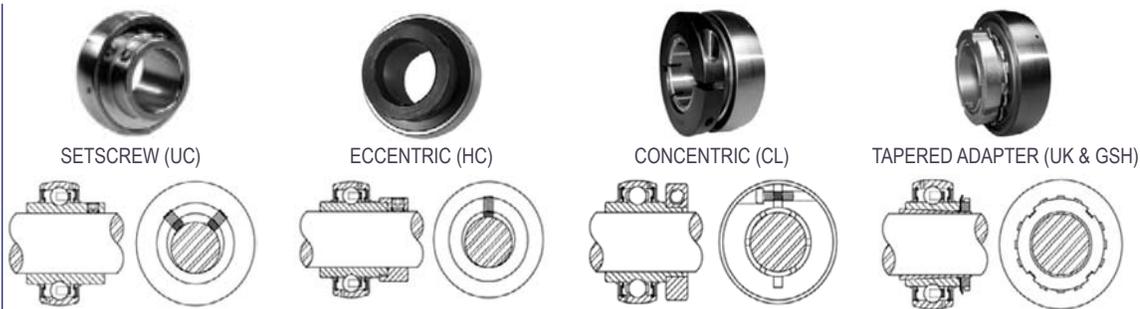
MOUNTED BALL BEARINGS

POPULAR HOUSING STYLES



SHAFT LOCKING METHODS

There are 4 standard methods to secure mounted ball bearings to a shaft – setscrew, eccentric collar, concentric clamp collar and tapered adapter sleeve. PTI offers all four styles.



PTI offers the widest assortment of housings and ball bearing inserts in the industry!

We have over 700 types of housings available including popular European metric, Asian metric and American standard configurations. Housings are available in cast iron, ductile iron, pressed steel, stainless steel, thermoplastic and nickel plated. Other options available upon request.

GOLD AND SILVER SERIES:

PTI offers two brands of inserts with setscrews and eccentric collars. The Gold Series is a popular European brand that uses a molded nylon cage for higher speeds. Gold Series bearings are grease lubricated and typically have a lip seal between 2 pieces of zinc plated steel. The Silver Series is a PTI brand that uses a steel cage. Silver Series bearings are also grease lubricated and have a steel slinger with a lip seal on each side of the bearing.

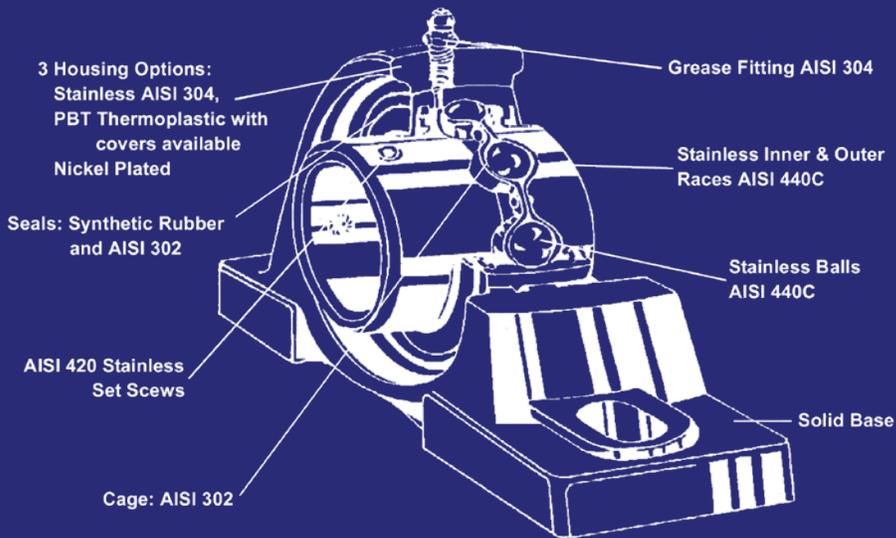


OTHER OPTIONS

Many other options and modifications are available upon request. High temperature and low temperature bearings are available. Triple lip seals and inserts with solid lubricants are available for harsh environments.



CORROSION RESISTANT MOUNTED BALL BEARINGS



PTI offers a wide assortment of corrosion resistant units to meet the demands of caustic environments and high pressure washdown found in the food and beverage industries. Our stainless steel insert bearings are available with either setscrew or eccentric locking collars. Each bearing is lubricated with Mobil FM222, a USDA H-1 approved grease. A broad assortment of housing configurations are available from stock.

STANDARD CORROSION RESISTANT HOUSINGS:



STAINLESS STEEL



WHITE THERMOPLASTIC



BLACK THERMOPLASTIC



NICKEL PLATED

MULTIPLE HOUSING STYLES AVAILABLE:



STAINLESS STEEL HOUSINGS

Pillow Block
4-Bolt Flange
2-Bolt Flange
Tapped Base
3-Bolt Flange Bracket
Take Up



THERMOPLASTIC HOUSINGS

STAINLESS STEEL INSERT TYPES:



SUC SET SCREW TYPE



SHC ECCENTRIC COLLAR TYPE



SSB SET SCREW-NARROW



SSER SET SCREW
CYLINDRICAL

OPTIONS AND ACCESSORIES:



LIGHT DUTY STAINLESS



COVERS AND BACK COVERS



OPTIONAL HOUSING COLORS



OTHER HOUSING STYLES
AVAILABLE

SPLIT PILLOW BLOCKS AND SPECIALTY HOUSINGS

SAF/SDAF SPLIT PILLOW BLOCKS



Solid Base Housing Design Stocked in Three Different Materials:

- Cast Iron – SAF
- Ductile Iron – SAFD
- Cast Steel – SAFS
- Housing caps and bases paired to ensure controlled bearing fit
- Suitable for grease or oil lubrication
- 222, 230, 231 & 232 series spherical roller bearings
- Double row ball bearings available for high speeds
- Pry slots make housing disassembly simple

SEAL OPTIONS:



LER Standard Labyrinth Seal



PER Labyrinth Seal with O-ring for a snug fit on the shaft



EPR End Cover to seal one end of housing



PER-PTV-ring seal includes a lip seal over the PER and within the housing seal grooves. Provides for an excellent barrier against contaminants. The seal can be reversed to contain the grease where contamination is of less concern or where relubrication is difficult.



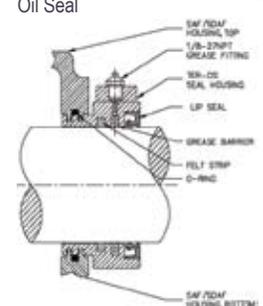
The LER-DC Dust Cover/Wiper Seal can be used with PER or LER seals to provide optimum protection against contamination in harsh environments. PTI SAF housings (sizes 517 – 544) have a machined face to allow the wiper seal to contact the housing and create an additional labyrinth.



TER Taconite Seal



TER-OS Taconite Seal with Oil Seal



OTHER HOUSING STYLES:



SDAF Asymmetric series pillow blocks allow the bearing to be positioned closer to the load to increase L-10 life. These units are typically used on shaft sizes exceeding 18", but smaller units are available.



SDAF Asymmetric series pillow blocks allow the bearing to be positioned closer to the load to increase L-10 life. These units are typically used on shaft sizes exceeding 18", but smaller units are available.



SNG metric plummer blocks are interchangeable with other SN designs. They are available in 200, 300, 500 and 600 series. SNG units can be used with spherical roller bearings or double-row ball bearings.



S3000/SD3100 large bore metric plummer blocks designed for 230 and 231 series bearings. They are available in cast iron, ductile iron or cast steel through a 380mm shaft diameter.



HSPA Take-up units are generally made-to-order and can be provided in shaft sizes through 360mm. Standard units accommodate 230, 222, 231 or 232 series roller bearings.

BEARINGS, ADAPTERS, NUTS, WASHERS, AND WITHDRAWAL SLEEVES

SPHERICAL ROLLER & DOUBLE ROW BALL BEARINGS



SPHERICAL ROLLER

- 222,223,230,231 and 232 series
- Heavy loads, lower speeds



DOUBLE ROW BALL

- 1200, 1300, 2200 and 2300 series
- Lighter loads, higher speeds

ADAPTER SLEEVES - STANDARD & HYDRAULIC



H-SERIES ADAPTER

- Metric threads
- Inch or metric bores



SNW ADAPTER

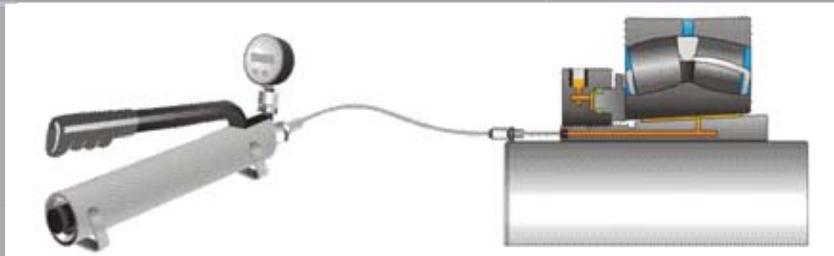
- Inch threads
- Inch bores



HYDRAULIC ADAPTER

- Allows for removal using hydraulic pressure
- Typically offered as standard above 8" bore size

HYDRAULIC MOUNTING NUTS



A hydraulic mounting nut is a reusable tool that is used to assist with bearing installation. It contains a piston that pushes on the inner ring of the bearing as hydraulic pressure is applied; gently pushing the bearing up the tapered adapter sleeve to its final position. The process removes internal clearance from the bearing as the inner ring expands, effectively creating a press fit of the bearing onto the shaft.

OTHER OPTIONS AND ACCESSORIES



Spanner wrenches for use through size 44 (8" bore) are in stock. For larger bearings, a hydraulic nut is recommended.



Locknuts and lockwashers are available separately to secure direct mount (straight bore) bearings to a shaft.



Jack screws can be added to locknuts to assist with mounting. These screws push on the inner ring of the bearing.



STANDARD WITHDRAWAL SLEEVE

HYDRAULIC WITHDRAWAL SLEEVE

Withdrawal sleeves include threads on the large end of an adapter sleeve to assist with bearing removal. Hydraulic withdrawal sleeves have oil grooves on the sleeve OD and ID to assist with mounting and removal.

EICH ROLLER BEARINGS



BR SERIES

Solid roller designs are ideally suited for foot rolls (upper segment) of continuous casters in steel mills. They are generally used on billet, slab, bloom or beam blank casters. Thrust rings on each end help contain and handle thrust. No other bearing offers the ability to handle such extreme temperatures and high load carrying capabilities.



B SERIES

Bearings are a spiral-wound roller design with flexible wound races allowing for the most extreme operating temperatures 600°C (1000°F). One version used in Tunnel furnaces is manufactured exclusively from spring strip steel. They can withstand extreme temperatures (up to 600°C) and absorb impacts from billets or slabs.



Eich Roller Bearings are well respected for their ability to function in elevated temperatures while under heavy loads and in severe environments.

WATER COOLED SPLIT BEARING

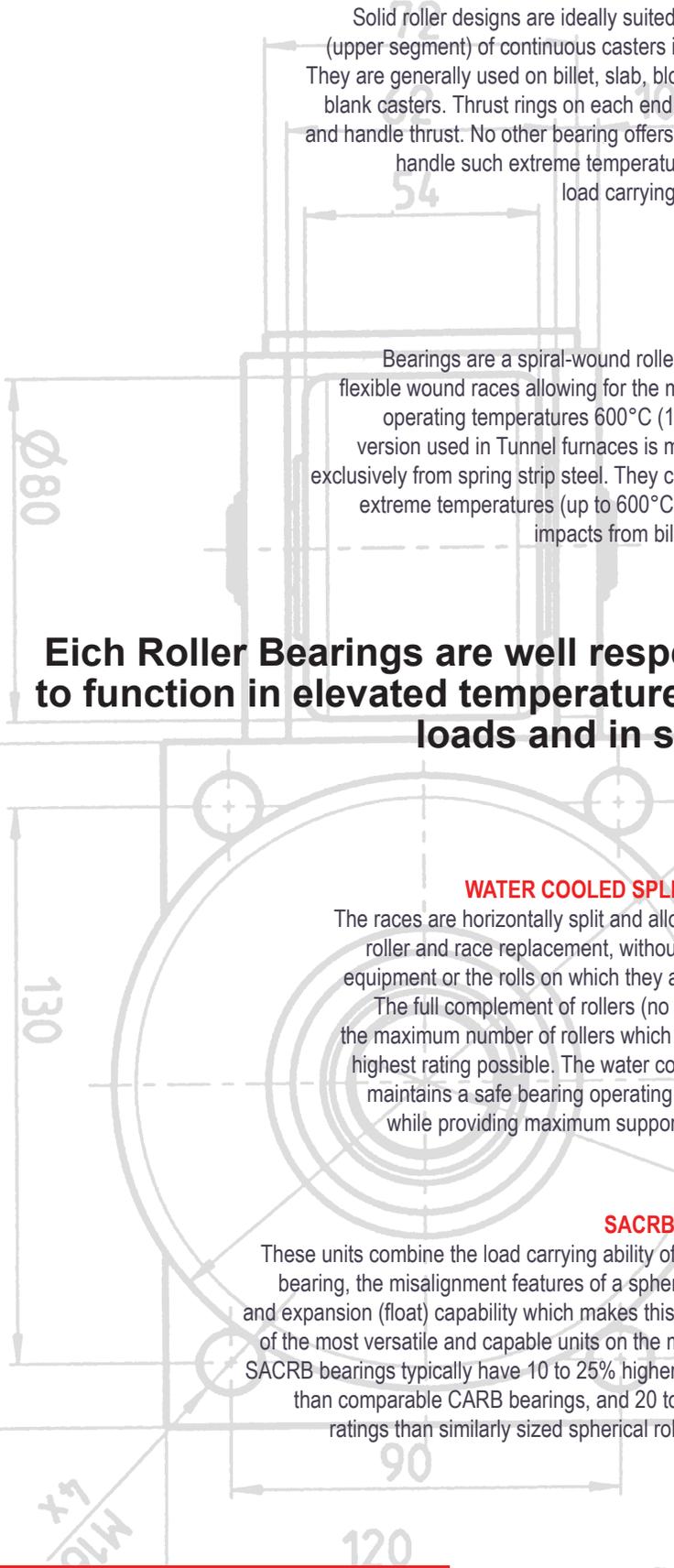
The races are horizontally split and allow for simple roller and race replacement, without moving the equipment or the rolls on which they are mounted.

The full complement of rollers (no cage) allows the maximum number of rollers which provides the highest rating possible. The water cooling feature maintains a safe bearing operating temperature while providing maximum support to the rolls.



SACRB BEARINGS

These units combine the load carrying ability of a cylindrical bearing, the misalignment features of a spherical bearing, and expansion (float) capability which makes this bearing one of the most versatile and capable units on the market today. SACRB bearings typically have 10 to 25% higher load ratings than comparable CARB bearings, and 20 to 30% higher ratings than similarly sized spherical roller bearings.



WINKEL LINEAR SYSTEMS



Winkel Combined Bearings and profiles control linear motion. They are heavy duty units and can be used for precision control as well. Combined bearings are designed to fit precisely into channels and to minimize components to guide linear movement and to handle both radial and thrust loads at the same time. A diverse range of bearings spans wide load range capability. Special profiles (channels) can also be fabricated or machined for specialized control, even through curves”

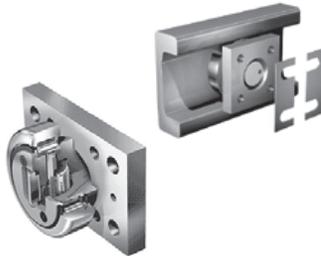


Heavy duty units for harsh or corrosive environments allow load control and protection of rolling elements.

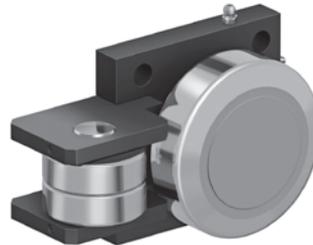
These units allow for re-lubrication and they can be provided with special Duralloy (thin dense chrome) coatings or in stainless steel for both bearings and profiles for the ultimate protection.



COMBINED BEARINGS
Fixed Adjustable and High Temperature Versions are Standard



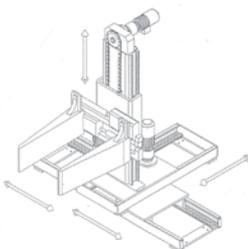
COMBINED BEARING WITH FLANGE AND AXIAL ADJUSTMENT SHIMS



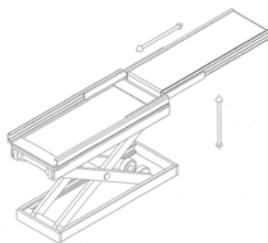
HEAVY DUTY COMBINED BEARING FOR HARSH ENVIRONMENTS

PTI stocks 14 standard profile sizes in 6 meter lengths. We can cut to your designed length upon request.

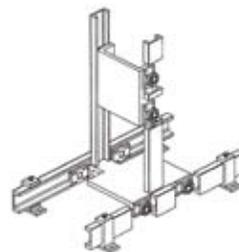
Lengths greater than 6 meters are available on a made-to-order basis.



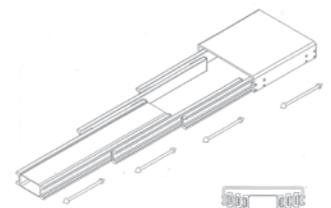
MULTIAXIS HANDLING



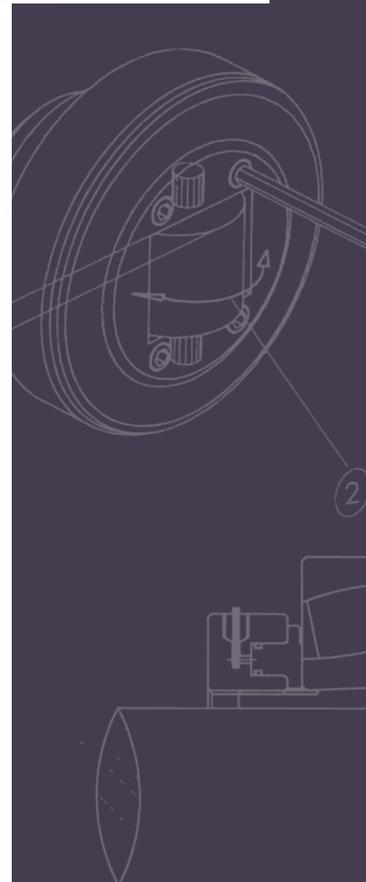
SCISSOR LIFT



VERTICAL AND HORIZONTAL LIFTING MECHANISM



HORIZONTAL TELESCOPE LIFTS



ROLLER CHAIN, SPROCKETS AND ACCESSORIES



EXTENDED PINS ONE SIDE, EVERY PITCH



HOLLOW PIN, STRAIGHT OR FIGURE 8 SIDE PLATES



BENT TAB, BOTH SIDES, ON OUTER LINKS



STRAIGHT TAB, ONE SIDE, 2 HOLES



BENT TAB, BOTH SIDES, ON OUTER LINKS, 2 HOLES



Metric and ANSI precision roller and conveyor chains stocked in single, double and triple strands.



TL SPROCKETS

Mounted with standard TL tapered bushings from 1008 thru the 4040 size, (i.e., thru a 4" or 110mm shaft diameter).



STAINLESS STEEL (AISI 304L) METRIC SPROCKETS

Provide corrosion resistance and allow wash-down capability. PTI stocks sizes from ISO 06B thru 16B (3/8" - 1" pitch) and from 12 to 25 & 30 teeth.



HUB TYPE METRIC SPROCKETS

Available with a minimum plain bore (pilot bore) and some stock popular finished bore sizes.



PLATE SPROCKETS

For single, double or triple strand chain, plate sprockets are an economical choice and allow direct mounting to the customers' hub or shaft assembly.



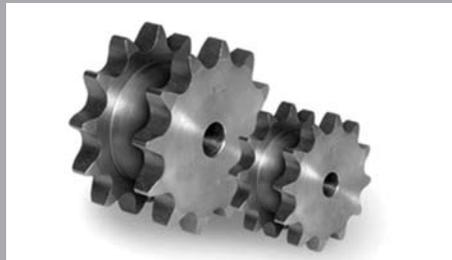
METRIC IDLER SPROCKETS

Available in 3 pitch sizes: XL (1/5" pitch), L (3/8" pitch) and H (1/2" pitch) and a variety of standard belt widths up to 3 inches.



WELD-ON HUBS

Often used to simplify mounting. Popular for large plate sprockets or large gears.



DOUBLE-SINGLE SPROCKETS

Allows for two single strands of chain on just one sprocket to control drive units that must index in pairs.



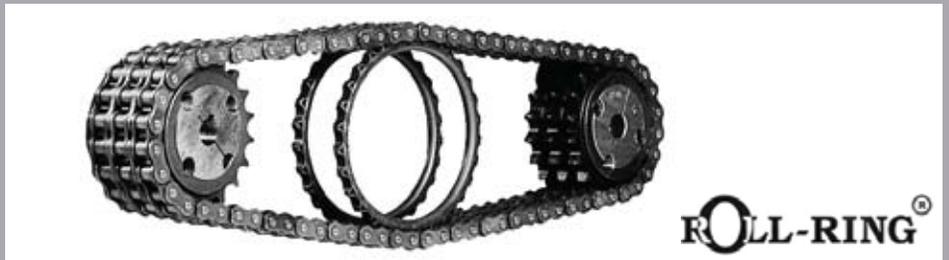
TL TAPER BUSHINGS

Stocked from 1008 thru 5050 sizes covering through 5" or 125mm shaft sizes. PTI also stocks metric and inch keystock for use with our TL Taper Bushings.



CUSTOM SPROCKETS

Including large diameter steel or cast iron units for single, duplex or triple strand chain can be made to order.



ROLL-RING APPLICATION PRODUCT

Keeps chain aligned. No adjustments - ever! Installs in just seconds and stays put. Reduces downtime. No alignment, no brackets to mount.

Dampens chain whip, reducing wear and noise of drive. Great for reversing drives. Operating temperature range from -4°F to 158°F. Duplex or triple strand chain? Use two or three side-by-side.

ROLL-RING®

BELT DRIVE PRODUCTS, SHAFT COUPLINGS, ROD ENDS, METRIC SPUR GEARS AND RACKS



METRIC V-BELT TL SHEAVES

(SPZ, SPA, SPB and SPC)

Stocked up to 1250mm pitch diameter and up to 8 grooves on most sizes.



METRIC VARIABLE PITCH TL PULLEYS

Allow for speed adjustment of the driven shaft and available in Z, A and B belt sections.



HTD TL TIMING PULLEYS

Available in a tooth pitch of 5mm, 8mm and 14mm and stocked in several standard widths for standard HTD belts.



SUPER TORQUE TL TIMING PULLEYS

8mm or 14mm pitch sizes and available in belt widths up to 85 and 170mm.



XL, L AND H SYNCHRONOUS TL TIMING PULLEYS

Available in 3 pitch sizes: XL (1/5" pitch), L (3/8" pitch) and H (1/2" pitch) and a variety of standard belt widths up to 3 inches.



T-SERIES AND AT SERIES METRIC TIMING PULLEYS

A trapezoidal tooth form available in 3 popular sizes: 2.5, 5 and 10 mm. The AT tooth form is a curvilinear pitch form available in two sizes: 5 and 10mm.



METRIC ROD ENDS FEATURES

- Standard and heavy duty rated units including designs capable of high dynamic, high static axial loads and high speeds.
- Stainless steel units can be applied in corrosive environments.
- Right, left, male and female threaded units all standard stock.
- Additional rubber seals and neoprene protector caps available.
- Custom designed units possible to accommodate application requirements.
- Hydraulic rod ends suited for heavy loads and severe environments.
- Highly interchangeable European standards.

METRIC SPUR GEARS AND RACKS

- 20# pressure angle metric spur gears mod 1-8
- Bored to size, for weld on hubs or keyless bushing



HUB TYPE



PLATE TYPE



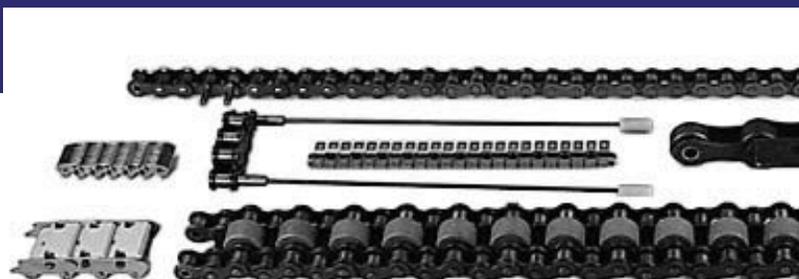
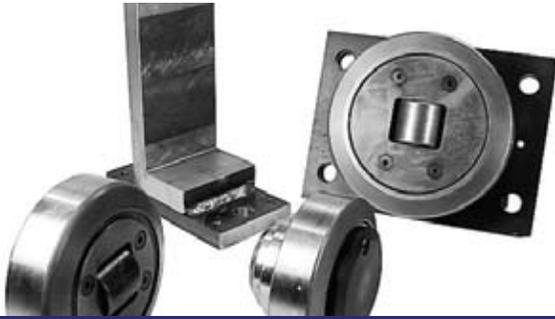
GEAR RACK



PTI'S HRC SERIES ELASTOMERIC SHAFT COUPLING

The TL Bushed version allows the bushings to be easily installation from flange or hub side. Bored to size hubs are also stocked.

- No lube, no maintenance
- Cushions shocks
- Easy installation with Allen wrench and straight edge
- TL bushing mounted allows easy removal without shaft damage
- Very cost effective



P.T. INTERNATIONAL CORP.
1817 WESTINGHOUSE BLVD
CHARLOTTE, NC 28273

PO BOX 411244
CHARLOTTE, NC 28241

704.588.1091 (PHONE 24/7)
800.763.4434
704.588.5738 (FAX)

www.ptintl.com

