Thin Section Bearings for Industrial Applications

RBC Bearings offers a wide variety of thin section bearing styles for demanding industrial applications.

Most radial ball bearings are designed so that as the bore size increases, the width and the thickness of the bearing changes proportionately. Thin section bearings reduce total cost in a system because the cross section remains the same as the bore diameter increases, thereby improving design efficiency over standard bearing geometries.

Modern designs rely on a compact design, low weight and miniaturization. Thin section bearings are an ideal solution. Each series of thin section bearings is based on a single cross-section that remains constant even with increasing bore diameter. This design often allows solid shafts to be replaced with hollow shafts. The interior of the hollow shaft provides space for components such as air or hydraulic lines, pneumatic lines, electrical wiring, etc. For a large number of applications, a four-point contact thin section bearing can even replace two bearings. This allows for a more compact design, simplifies the installation, and may reduce cost.

RBC Thin Section Ball Bearings:

- **7 Open type cross sections**
  - 1" through 40" bore
  - Radial, angular, and 4-point “gothic arch” raceway geometries
- **4 Sealed type cross sections**
  - 1" through 20" bore
  - Available with the EverGlide™ Seal – lower torque, higher temperatures!
  - Radial and 4-point “gothic arch” raceway geometries to meet your needs
- **440C Stainless, Thin Dense Chrome, Ceramic balls, special greases, and many other options available**

Markets Served:

- **Automation**
- **Electrical slip rings and rotary unions**
- **Food and beverage**
- **Indexing and rotary tables/stages**
- **Industrial robots**
- **Medical**
- **Oil and gas**
- **Packaging**
- **Radar (mobile and fixed)**
- **Tire manufacturing and balancing**
- **Textile**

RBC BEARINGS

Smoother. Faster. Longer.

Because That’s How We Roll.

Innovation. Commitment. Quality.

RBC has been producing bearings in the USA since 1919. In addition to unique custom bearings, RBC offers a full line of standard industrial and aerospace bearings, including:

Tapered Roller Thrust Bearings

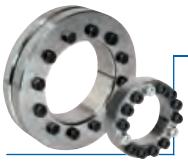
Case-hardened tapered roller thrust bearings for oilfield top drives and swivels. Available in full complement, maximum capacity versions.

Cylindrical Roller Bearings

Cylindrical roller bearings designed for mud pump pinion and eccentric positions. Fully interchangeable to industry standards.

Spherical Plain Bearings

Radial, angular contact, extended inner ring, high misalignment. **QuadLube®, ImpactTuff®, SpreadLock® Seal, CrossLube®, DuraLube™,** and self-lubricating bearings. Available in inch and metric sizes.



Keyless Locking Devices

Mechanical bushings used to connect power transmission components onto rotating shafts. Without the use of keyways, KLDs eliminate the problems associated with backlash including fretting, corroding, and wallowing.

Self-Lubricating Bearings

Radial, thrust, rod ends, spherical bearings, high temperature, high loads. Available in inch and metric sizes. **Fiberglide®** self-lubricating bearings.

Ball Bearings

Precision ground, semiground, unground. High loads, long life, smooth operation. **Nice®** branded products are offered in caged and full complement configurations.

Thin Section Ball Bearings

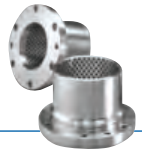
Standard cross sections to one inch. Bore sizes to 40 inches. Stainless steel and other materials are available. Seals are available on all sizes and standard cross sections. Super duplex configurations.

Needle Roller Bearings

Pitchlign® caged heavy duty needle roller bearings ideal for cross head bearings applications. These double row bearings are available in single row and **Tandem Rollr®** versions.

Tapered Roller Bearings

Single, double, & multi row versions available for main bearing positions in mud pumps, gear boxes, etc. Bearings are constructed of case hardened steel washers and rollers with bore size of 11" or greater.



Lubron™ Bearings

Lubron™ self-lubricating bearings designed and custom manufactured in most any size, material and bearing configuration. Applications include hydro power and water control, nuclear power generation, infrastructure, architecture, offshore marine, industrial, machinery and heavy equipment.

Rigid Couplings

Shaft couplings serve as components to time, join, or align shafts at lower speeds and torque, especially when zero backlash is desired. Made from mild steel with a black oxide finish type 303 stainless steel, or alùminum. Available in inch and metric sizes.

Cam Followers

Standard stud, heavy stud, yoke type, caged roller followers. Patented **RBC Roller®** cylindrical roller cam followers, **HexLube®** universal cam followers, airframe track rollers.

Commercial Rod Ends

Commercial and industrial, precision, Mil-Spec series, self-lubricating, and aircraft. Sold under the **Heim®, Unibal®,** and **Spherco®** names. Available in inch and metric sizes.

TP Series Bearings

RBC's TP Series cylindrical roller thrust bearings ideal for crane hooks, oil well swivels, winch systems, and gear boxes. Fully interchangeable with industry standard offering.

Shaft Collars

Used to position or locate a component on a shaft. Made from mild steel, type 303 or 316 stainless steel, aluminum, or acetal. Available in inch and metric sizes.

Specials

RBC manufactures many specialty bearings for the aerospace, oil and energy, semiconductor equipment, packaging, transportation, and other industries.

PIC Design®

Complete line of precision gears, precision hardware, timing belts, pulleys, and linear motion systems. Industries served include industrial, aerospace, defense, medical, robotics and automation, material handling, and assembly. Custom design support for unique applications.

CLIMAX™ METAL PRODUCTS COMPANY · NICE® · HEIM BEARINGS · RBC BEARINGS · PIC DESIGN · Lubron™ · SPHERCO®

Smoother. Faster. Longer. Because That's How We Roll.

www.rbcbearings.com **800.356.6584**