



Fiberglide® & Fabroid®

Self-Lubricating Bearings



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



RBC Bearings® provides global industrial, aerospace, and defense customers with unique design solutions to complex problems and an unparalleled level of service, quality, and support.

RBC manufactures highly engineered precision plain, roller and ball bearings, shaft collars, rigid couplings and keyless locking devices. While RBC designs and manufactures products in these major product categories, RBC excels at solving the most demanding and difficult applications with solutions that improve customers' products and process performance and deliver the lowest total cost of ownership. This has been achieved by providing products such as maintenance free bearings, components, and bearings designed

to withstand environments with extreme temperature, high speed, contamination, corrosion, and severe shock loading.

RBC Bearings® has been providing engineered solutions to customers since 1919. RBC has significantly broadened our end markets, products, customer base and geographic reach through organic growth and through acquisitions. These acquisitions fit well with our philosophy of providing high quality products and solutions to our customer base. They have enhanced our customer solutions and experience, further diversifying our offering to our target markets.

RBC currently has 31 facilities in five countries, with manufacturing in 28 locations.





RBC Bearings® – A Tradition of Excellence

RBC Bearings® has had a long tradition of innovation, commitment, and quality since the company was founded in 1919. Today, RBC Bearings® has grown into a world-class manufacturer of standard and custom-engineered bearings and related products, with a product focus on research, testing, and development of the best product for specific applications.

How We Can Serve You

RBC Bearings® has implemented a total quantity control system that uses statistical quality control at all facilities, and manufactures in high volume to a just-in-time delivery program.

To serve the ongoing needs of customers, RBC Bearings® has a network of over 2,400 distributors and sales engineers throughout North and South America and Europe, with authorized agents worldwide.

Customer Service – 800.390.3300

Warranty

RBC Bearings® products are warranted for material and workmanship for period not to exceed 90 days from shipment and for a value not to exceed purchase price.

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What We Manufacture

RBC Bearings®, with facilities throughout North America and Europe, provides bearings and precision products for applications in the construction, mining, material handling, transportation and off-highway equipment, robotics and automation, farming, machine tool, and semiconductor equipment industries. Through RBC Aerospace Bearings®, the company is a major manufacturer of highly-engineered bearings and precision products for military, defense, and commercial aerospace applications.

RBC’s High-Quality Bearings Include:

- **Heavy Duty Needle Roller Bearings** – Pitchlign® caged heavy needle roller bearings, inner rings, type TJ TandemRoller® bearings for long life.
- **Spherical Plain Bearings** – Radial, angular contact, high misalignment, extended inner ring, DuraLube™, maintenance-free spherical plain bearings, QuadLube® long life bearings, ImpactTuff® case carburized bearings, ShimPack® double acting angular-contact bearings, CrossLube® lubrication groove systems, and SpreadLock® Seal.
- **Cam Followers and Yoke Rollers** - Standard stud, heavy stud, yoke type, caged roller followers, RBC Roller® long life came followers, Hexlube® universal cam followers, airframe track rollers. Mastguide rollers and carriage rollers, chain sheaves (for leaf chain), toothless sprockets (for roller chain), and heavy-duty roller bearing construction.
- **Rod End** – Commercial and aerospace, precision, Mil-Spec series, self-lubricating, inch and metric. Heim®, Unibal®, and Spherco® brands.
- **Self-Lubricating Bearings** – radial, thrust, rod ends, spherical plain bearings, high temperature, high loads, inch and metric. Fiberglide®.
- **Thin Section Ball Bearings** – Standard cross sections to one inch. Sizes to 40 inches. Stainless steel and other materials available. Seal available on all sizes and standard cross sections.
- **Airframe Control Bearings** – Ball bearing types, self-lubricating types, needle roller track rollers.
- **Ground, Semiground, and Unground Ball Bearings** – Full complement, utilizes design and burnished races for higher loads, long life, and smooth operation
- **Dowel Pins, Loose Needle Rollers, Shafts**
- **Large Bearings** – A full range of high quality, large diameter, Cylindrical Roller and Tapered Roller bearings in standard and custom designs for applications that require increased load capacity. Common uses in oil, mining, paper, steel, gear box, and swivel applications.
- **Tapered Roller Thrust Bearings** – Case-hardened. Sealed and unsealed for truck, tractor, and construction equipment, steer axles, and Class 8 trailer landing gear.
- **Custom Designed Bearings** – RBC produces a wide range of custom bearings in various materials for specific applications.

Smoother. Faster. Longer.

Because That's How We Roll.

Product Overview

- ✓ Ball Bearings
- ✓ Cam Followers
- ✓ Cylindrical Roller Bearings
- ✓ Dowel Pins
- ✓ Heavy Duty Needle Roller Bearings
- ✓ Integrated Assemblies
- ✓ Keyless Locking Assemblies
- ✓ Keyless Rigid Couplings
- ✓ Loose Needle Rollers and Shafts
- ✓ Maintenance-Free Bearings
- ✓ Rigid Couplings
- ✓ Rod Ends
- ✓ Self-Lubricating/Lined Bearings
- ✓ Shaft Collars
- ✓ Shrink Discs
- ✓ Spherical Plain Bearings
- ✓ Tapered Roller Bearings
- ✓ Tapered Roller Thrust Bearings
- ✓ Thin Section Ball Bearings

Industrial Markets Served

- ✓ Automation
- ✓ Construction
- ✓ Food & Beverage
- ✓ Material Handling
- ✓ Mining
- ✓ Oil & Gas
- ✓ Packaging Machinery
- ✓ Refuse & Recycling
- ✓ Renewable Energy
- ✓ Military & Defense
- ✓ Power Generation
- ✓ Robotics
- ✓ Semiconductor
- ✓ Transportation
- ✓ Hydropower & Dams

Custom Engineered Solutions

- ✓ Maintenance-Free Bearings
- ✓ Bearings & Components for Harsh Environments
 - Extreme Temperatures
 - High Speed
 - Contamination
 - Corrosion
 - Shock Loading
- ✓ Advanced Sub-Assemblies



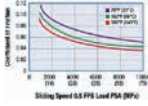
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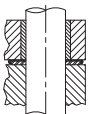
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Fiberglide®/Fabroid® Selection Guide

Self-Lubricating Bearings, Maintenance-Free Bearings

Type	Description	Dimensions	Applications
	<p>CJS/CJM</p> <ul style="list-style-type: none"> • Inch/Metric Journal Bearings • Split Seam Steel Backing • Zinc Plated 	<p>NOMINAL SHAFT Ø 0.375" to 7.000" 8 mm to 120 mm</p> <p>BEARING LENGTH 0.250" to 6.500" 8 mm to 165 mm</p>	<p>These bearings work excellent in any pivot or linkage application. For construction and farm equipment, this product is typically used in kingpins, rock shafts, hinges, pedals and many other pivot points.</p>
	<p>CJT</p> <ul style="list-style-type: none"> • Inch Journal Bearings • Thin Walled • Split Seam Steel Backing • Zinc Plated 	<p>NOMINAL SHAFT Ø 0.500" to 7.000"</p> <p>BEARING LENGTH 0.375" to 6.000"</p>	<p>These bearings are designed as a direct replacement with conventional 1/16" wall bushings. These bearings are used in self-lubricated chain, variable speed sheaves, boom pivot points on fork lifts and many similar applications.</p>
	<p>CJH</p> <ul style="list-style-type: none"> • Inch Journal Bearings • Heavy Walled • Split Seam Steel Backing • Zinc Plated 	<p>NOMINAL SHAFT Ø 0.750" to 7.000"</p> <p>BEARING LENGTH 0.250" to 6.500"</p>	<p>These bearings are designed as a direct replacement with conventional 1/8" wall bronze bushings. Typical applications include suspension points on large trucks and railroad cars. These products are also used in the boom foot pivot of large cranes.</p>
	<p>FTP</p> <ul style="list-style-type: none"> • Thrust Packs • Two Piece Assembly • Metal-Backed 	<p>NOMINAL SHAFT Ø Inner Diameter: 1.000" to 3.000" Outer Diameter: 1.750" to 4.625"</p>	<p>These bearings are used in articulated frame joints, pivot arm supports, kingpins and many other applications.</p>
	<p>FTS/FTM</p> <ul style="list-style-type: none"> • Inch/Metric Thrust Bearings • Metal-Backed • Single-Sided Wear Surface 	<p>NOMINAL SHAFT Ø 0.250" to 3.250" 6 mm to 83 mm</p> <p>Inner Diameter: 0.280" to 3.312" 7 mm to 84 mm</p> <p>Outer Diameter: 0.500" to 4.875" 13 mm to 129 mm</p>	<p>These bearings accommodate thrust in clutches, hospital beds, screw jacks, valve actuators, vehicle suspensions, and many other applications.</p>
	<p>LJS</p> <ul style="list-style-type: none"> • Journal Bearings • Composite PTFE 	<p>NOMINAL SHAFT Ø 1.000" to 12.000"</p> <p>BEARING LENGTH 0.375" to 6.500"</p>	<p>These bearings are used in many harsh applications and in food handling machinery. Typical applications include butterfly valves and trunnion support pivots. This product is also used in sheaves and hoists for marine</p>
	<p>LTD</p> <ul style="list-style-type: none"> • Thrust Bearings • Composite PTFE • Double-Sided Wear Surface 	<p>NOMINAL SHAFT Ø 0.250" to 3.250"</p> <p>Inner Diameter: 0.280" to 3.312"</p> <p>Outer Diameter: 0.500" to 4.875"</p>	<p>These bearings are used in cam actuator arms, turntable support bearings, exercise equipment, and many other applications.</p>

*Bearing sizes outside of ranges described above may be available on a custom basis

Maintenance-Free Product Overview

Fiberglide®/Fabroid® PTFE Liners

Fiberglide®/Fabroid® is a proprietary self-lubricating bearing material of woven polytetrafluoroethylene or PTFE fibers applied to a rigid backing. To assure the best possible bond between PTFE fibers and backing material, a secondary, more readily bondable fiber (which may vary with application requirements) is interwoven with the PTFE fibers presented on the bearing side of the fabric.

These liners are unique in their ability to resist cold-flow under extremely high loads because the monofilament fibers have a tensile strength approximately 25 times greater than straight PTFE resins. Cold-flow is also minimized by the effective entrapment of the fiber bundles by the high-strength bonding resins.

These lined bearings are completely self-lubricating and normally run dry. However, they can also be used where lubricating or other fluids are present. Operating dry, Fiberglide®/Fabroid® bearings are recommended where low surface speeds are combined with high loads.

The liners are available with many backing materials in a wide variety of standard configurations. In addition, RBC Bearings® offers special bearings with an almost unlimited range of configurations and metal backings.

Fabroid® liners are designed to carry higher loads with improved wear life. Fabroid® liner types are woven PTFE glass fabrics utilizing various thermoset resins depending on product type. This construction leaves the PTFE fibers exposed on the working surface without contact to the resin. A resin is used in the prepreg and as the bonding adhesive. Due to the construction, the liner is highly compressible, able to absorb distortions in mating surfaces, and has a low friction surface from the start with no break-in period.



PTFE Liner

Product Advantages

1. Design freedom—Fiberglide®/ Fabroid® bearings can be incorporated into internal component assemblies inaccessible to conventional lubrication technique, eliminating costly maintenance tear down
2. Maintenance free—The self-lubricating nature of Fiberglide®/ Fabroid® makes it an ideal selection for equipment providing service to remote environments such as oil and gas transmission lines and pumping stations
3. Operation without lubrication while tolerating many lubricating and non-lubricating fluids
4. Lead-, mercury-, cadmium-, and grease-free
5. High dynamic load-carrying (up to 20,000 psi)
6. Inherent vibration and noise dampening qualities
7. Low coefficient of friction
8. Freedom from stick-slip
9. Absence of cold-flow tendencies of solid and filled PTFE resins
10. High resistance to fatigue under shock loads
11. Eliminating fretting corrosion
12. Resistant to attack by most substances
13. Operation at temperatures beyond the range of most lubricants (-200° F to 350° F)
14. Fiberglide® bearings have been tested to have 7-10 times the life of a DU® metal-polymer bearing, see chart on page 10
15. Good dimensional stability
16. Compatible with a wide range of mating materials
17. Electrically non-conducting

Typical Applications

Fiberglide®/Fabroid® bearings are being used by many basic manufacturing industries where they have proven their economy, convenience, and dependability.

- ✓ **Aerial Work Platforms**
- ✓ **Steering system for trucks, farm tractors, off-highway equipment**
- ✓ **Heavy-duty suspension systems of trucks, tractors and related equipment**
- ✓ **Brakes for trucks, automobiles, off-road vehicles**
- ✓ **Transmission shift linkages and pivots**
- ✓ **Butterfly, ball plug valves**
- ✓ **Clutches and variable speed sheaves**
- ✓ **Marine equipment**
- ✓ **Pneumatic and hydraulic tools and actuators**
- ✓ **Conveying and material handling equipment**
- ✓ **Recreational vehicles suspensions and controls**
- ✓ **Packaging machinery**
- ✓ **Textile machinery**
- ✓ **Wherever heavy loading and low speed oscillations are encountered**

Engineering

Fiberglide®/Fabroid® Maintenance-Free Self Lubricating Bearings

Maintenance factors affect the overall performance of Fiberglide®/Fabroid® bearings. Primary concerns include applied load, surface velocity, operating mode, surface temperature, mating surface finish, and running clearance. All performance values referred to in this section are based on dry operation. When running in a fluid atmosphere, Fiberglide®/Fabroid® bearings may have limitations where application requirements exceed those shown.

Fiberglide®/Fabroid® lined bearings are designed to be used under oscillating motion, interrupted start-stop, impact loading, or axial motion. They are recommended where high loads are combined with low surface speeds.

Bearing Wear

Bearing wear is affected by many factors. With everything considered, tests conducted by RBC Bearings® subject journal bearings up to 20,000 psi loads with the bearings fixed and the shaft oscillating. The values shown in the charts on page 10 are representative of the normal wear rate range that can be expected when the amplitude is ±45°, frequency is 10 CPM, and shaft finish is 16 RMS under room temperature conditions.

It will be noted that a wear-in period takes place during the first few thousand cycles. During this period some PTFE is transferred to the mating surface. In addition, the fibers are generally reoriented, the high points of the weave are flattened and adjacent fibers tend to blend together. After the break-in period, the bearing surface will become smooth and shiny.

Because of the many variables which influence wear, it is extremely difficult to project bearing life for all types of applications. For this reason, the RBC Bearings® engineering department should be consulted when questions of this nature arise. Wear life calculations are based on the rubbing distance of travel.

Design Calculations

(Journal-Oscillating Motion)

$$\text{Proj. Area (sq.in.)} = \text{Shaft Dia. Max (or Norm. I.D.)} \times \text{length}$$

$$\text{P. Pressure (psi)} = \text{Load (Lbf)} \div \text{by Proj. Area}$$

$$\text{V. Velocity (FPM)} = \frac{\text{Shaft Dia. Max} \times \text{TT}}{12} \times \frac{4 \times \text{Osc. Angle}^\circ \times \text{CPM}}{360}$$

CPM - Cycles Per Minute

Bearing Load Limits (Standard Fiberglide®/Fabroid®)

Static Pressure Limit (Constant pressure*):

- 10,000 (70MPa) psi with composite backing
- 38,000 (262 MPa) psi with steel backing

Dynamic Pressure Limits (while Oscillating):

Fabroid®: 20,000 psi (141 MPa) suggested max. with steel backing.

Fiberglide®: 10,000 psi (70 MPa) suggested max. with steel backing.

Temperature Limit

Normal operating temperatures should be kept below 300°F (149°C) for standard Fiberglide®/Fabroid® bearings. An increase in wear rates may be experienced at temperatures above 350°F (149°C), (environmental temperature plus friction heat generated). When temperatures exceed 300°F (149°C) or fall below -200°F (-129°C) consult RBC Bearings® engineering department for specific recommendations.

Coefficient of Thermal Expansion

When bonded to a metal backing, Fiberglide®/Fabroid®'s coefficient of expansion can normally be regarded as identical to that of the backing, with steel backing 8.4x10⁻⁶ in/in/ °F.

Velocity Limit

Under dry running conditions, the maximum allowable surface velocity will depend on the applied load and other operating parameters. In general, surface speed should be kept below 35 FPM (Feet Per Minute) (11 m/ min) at 10,000 psi (70 MPa) load or 600 FPM (183 m/min) at 100 psi (0.7 MPa) load.

Mating Surfaces

Fiberglide®/Fabroid®, being non-metallic, will operate against most metals, but better performance is obtained with the hardest available mating surfaces. Hardened steel, hard anodized aluminum, hard chrome or nickels plate are recommended. A surface hardness of 45-50 R_C plate is desirable, but satisfactory performance can also be obtained with softer materials. Generally, a surface finish on the mating components of 16-32 μ inch (0.4-0.8 μm) will be provided. Shaft materials or surface treatments should be selected that will effectively resist corrosion.

To determine the approximate reduction in life for different values of shaft finish and hardness, see below:

SURFACE FINISH μ in. / μm	Life Factor	Hardness Rockwell Reading	Life Factor
4-10 / 0.1-0.3	1.00	R _C 50	1.00
16 / 0.4	0.75	R _C 40	0.60
32 / 0.8	0.40	R _C 30	0.40
63 / 1.6	0.20		

PV Factor

For plain, dry-running bearings, it is often helpful to reference a pressure-velocity (PV) factor as a guide in determining bearing capability. It should be understood that this factor is actually a variable which reflects the point where surface temperatures are at a maximum, but are still stable. The maximum PV established for Fiberglide®/Fabroid® is:

- PV Continuous:** 50,000
- PV Intermittent:** 150,000

*Where repeated impact loading is applied, these values should be reduced to meet fatigue life requirements

Engineering

Coefficient of Friction

The coefficient of friction depends upon type of movement, finish of mating surface, ambient temperature, bearing pressure, velocity, and other variables. Figs. 1,2, and 3 were obtained from flat specimens and may be used as a guide. Note that in Fig. 1 the coefficient drops off as bearing load increases. This offers the advantage of using the smallest bearing sizes to obtain the least amount of friction. Fig. 3 shows the coefficient of friction increases as surface velocity increases from 2-20 FPM (0.6-6.1m/min.)

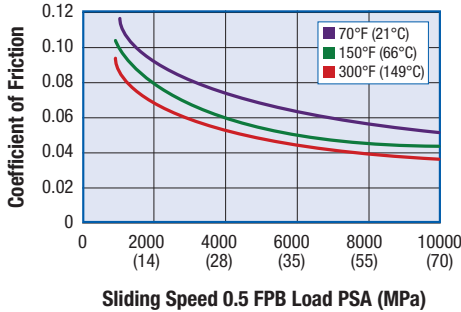


Fig. 1
Effect of load and temperature on Fiberglide® bearing

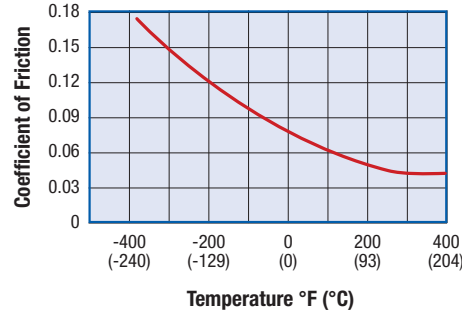


Fig. 2
Effect of temperature on coefficient of friction

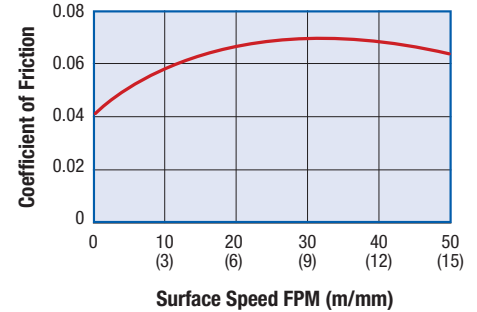


Fig. 3
Coefficient of friction at 10,000 PSI (70 MPa)
Normal unit load and 70°F (21°C) vs. surface speed

Contamination

Fiberglide®/Fabroid® can tolerate small amounts of dirt, but reduced bearing life will result. Optimum life is achieved if dirt or abrasive particles are excluded. If a dirty environment is likely, we recommend the installation of a simple seal.

Running Clearance

As a general rule, close running fits and often slight interference fits (0.0005 in., 0.013 mm) are selected for oscillating motion when minimum starting torque is less important than the elimination of free play. For constant rotation, a free-running fit is normally recommended, the exact amount depends on bearing bore size. A rule of thumb would be 0.0015 inches per inch (.038 mm) of bore (bearing installed).

Bearing Housing & Shaft Sizing

Fiberglide®/Fabroid® journal bearings (CJS/CJT/CJM/CJH Type) are installed into the housing bore using a press fit. Recommended housing bores should be held to the tolerance shown to insure the proper fit and size.

The LJS Type bearing is hand slip fit into its recommended housing bore to provide optimum fit-up. CJS/CJT/CJM/CJH types can also be provided for slip fits on special orders.

RBC Bearings® offers a free service to properly recommend housing and shaft sizes for each new application. Contact engineering department for details.

Fluid Compatibility

Fiberglide®/Fabroid® can tolerate most fluids or contaminants found in bearing applications, although some reduction of dry bearing life will result. Fluids tend to flush PTFE solid particle lubricants out of the bearing. Grease tends to act as a magnet to attract and retain dirt. Following are some of the environments in which these bearings have operated successfully.

- Hydraulic Oils
- Mild Acids
- Greases
- Gasoline
- Lubricating Oils
- Detergent Solutions
- Ammonium Hydroxide
- Liquid Nitrogen
- Seawater
- Toluene
- Kerosene
- Water

Comparative Testing Results

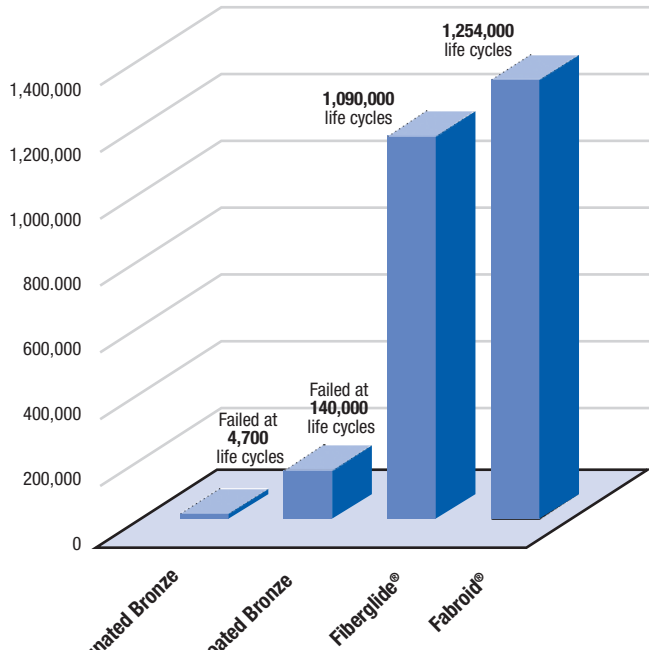
Tests were conducted to compare the load carrying capability and wear life of four standard self-lubricating bearing products. RBC Bearings® performed all testing on the same test machine and fixturing. Standard Fiberglide® and Fabroid® products are presented herein. RBC Bearings® offers other self-lubricating bearing products capable of dynamic loading 40,000 psi (276 MPa) and ultimate static loading to 120,000 psi (827 MPa).

Test Conditions

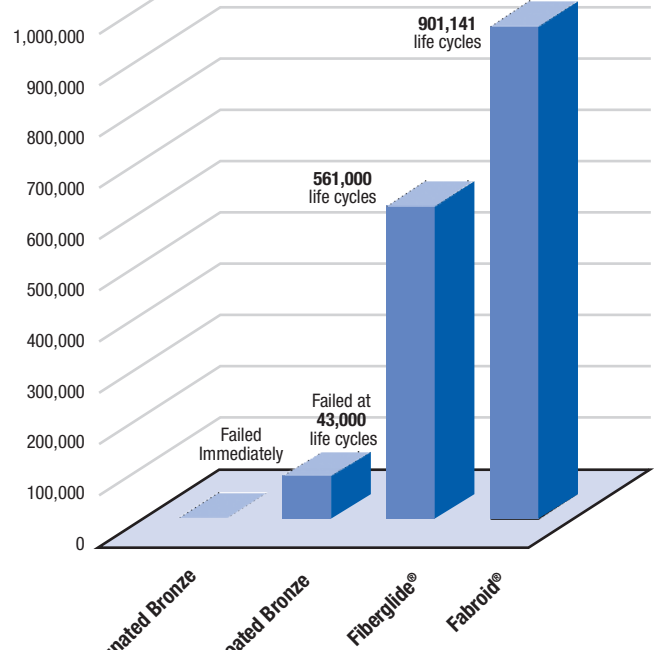
The bearings were placed under a fixed load with an oscillating shaft. The test bearing size was 1.00 inch (25.4mm) I.D. by 0.500 inch (12.7mm) long. The test conditions were 10,000 psi (70 MPa) (5,000 lbs) (22kN) and 5,000 psi (35 MPa) (2,500 lbs) (11kN) loads with an oscillation of 45 degrees and 30 cycles per minute at room temperature. After every 10,000 cycles, the bearings were removed and inspected for wear.

Industrial Bearing Life Testing Cycles to Failure vs. Bearing Type

Total Life Cycles at 5,000 psi Load (35 MPa)



Total Life Cycles at 10,000 psi Load (70 MPa)



Test Condition:
5,000 PSI (35 MPa) (2,500 lbs.) (11kN) Journal Bearing
1.00 (25.4 mm) I.D. x .500 (12.7 mm) wide; oscillation ±45°
30 CPM. Room Temperature.

Test Condition:
10,000 PSI (70 MPa) (5,000 lbs.) (22kN) Journal Bearing
1.00 (25.4) I.D. x500 (12.7 mm) wide; oscillation ±45°
30 CPM. Room Temperature.

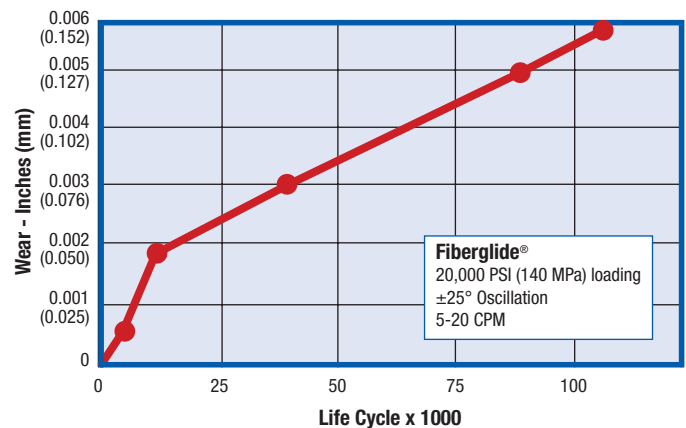
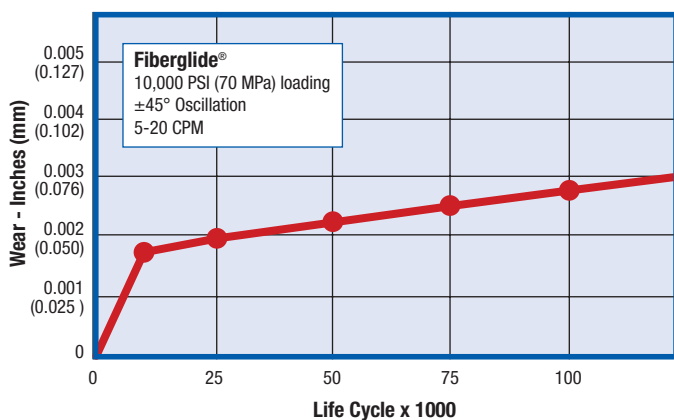
DU® is a registered trademark of GGB Inc.

Fiberglide®/Fabroid®

The graph below depicts typical wear curves for two types of self-lubricating liner materials; Standard Fiberglide®/Fabroid®. The standard Fiberglide® material is suitable for most applications and significantly outperforms other bearing types. Should your application include extraordinarily high static and/or dynamic loads, extreme temperatures, or chemical resistance requirements, RBC Bearings® manufactures a variety of liner materials and backing for critical service applications.

	Metal-Backed Fiberglide®	Metal-Backed Fabroid®	Fiberglass-Filled PTFE	PTFE Impregnated Bronze	Oil Impregnated Bronze
Typical Dynamic Load [psi]	2,000 to 10,000 (14 to 70 MPa)	5,000 to 20,000 (34 to 140 MPa)	0 to 500 (0 to 3.4 MPa)	500 to 3,000 (3.4 to 21 MPa)	100 to 2,000 (0.7 to 14 MPa)
Maximum Static Load [psi]	38,000	60,000	10,000	20,000	11,000
Maximum PV Value	50,000	60,000*	10,000	50,000	50,000
Temperature Range [F°/(C°)]	-250 (-155) +300 (145)	-320 (-195) +400 (204)	-400 (-240) +500 (260)	-320 (-195) +500 (260)	-65 (-54) +250 (121)
Chemical Resistance	Good	Excellent	Excellent	Fair	Poor
Minimum Coefficient of Friction	0.04	0.03	0.02	0.03	0.05

* FOR LOW SPEED OSCILLATING CONDITIONS- static loads over 38,000 psi (262 MPa) or dynamic loads over 20,000 psi (140 MPa) require metal backing of high strength stainless steel or equivalent material.



RBC Bearings® is the originator, innovator and leader in self-lubricating bearing technology with over 60 years of material development and application experience. The original Fabroid® Liner System was patented in 1958. Evolution in the development of materials has created three generations of self-lubricating liner technology.

Today's materials represent a significant advance in technology and their increased capabilities offer solutions in applications previously judged to be borderline or beyond material capability.

Contact RBC Bearings® engineering department for a detail publication of all our liner systems.

Series CJS

Split Seam Steel Backed Bearings

(Standard Inch Series)



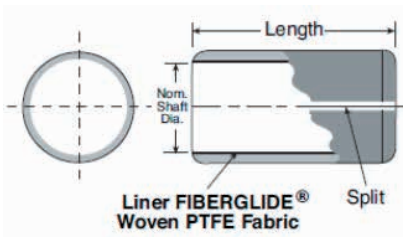
Fiberglide® split seam steel journal bearings are designed to meet or exceed industry standards for self-lubricating bushings. They provide all the advantages of Fiberglide® at minimum cost. Carbon steel is normally used as a backing material, with the external surfaces plated to resist corrosion. Other metals can be supplied upon special order. Fabroid® can also be supplied for special applications, please consult RBC Bearings® engineering department. For bearing installation, see page 24.

Part Number	Recommended Shaft Diameter Min / Max [in.]	Recommended Housing Bore Min / Max [in.]	Bearing Length +0.000 - 0.020 [in.]	Wall Thickness [in.] Ref.	Max Static Load [lbf]	Bearing Weight [lbs]
CJS0606 CJS0608 CJS0610 CJS0612	0.3736 / 0.3750 0.3736 / 0.3750 0.3741 / 0.3750 0.3741 / 0.3750	0.4680 / 0.4690	0.375 0.500 0.625 0.750	0.047	5,344 7,125 8,906 10,688	0.006 0.007 0.009 0.011
CJS0808 CJS0810 CJS0812 CJS0816	0.4986 / 0.5000	0.5930 / 0.5940	0.500 0.625 0.750 1.000	0.047	9,500 11,875 14,250 19,000	0.010 0.012 0.014 0.019
CJS1008 CJS1010 CJS1012 CJS1016	0.6234 / 0.6250	0.7180 / 0.7190	0.500 0.625 0.750 1.000	0.047	11,875 14,844 17,813 23,750	0.012 0.015 0.018 0.024
CJS1208 CJS1212 CJS1216 CJS1220	0.7480 / 0.7500	0.8745 / 0.8755	0.500 0.750 1.000 1.250	0.062	14,250 21,375 28,500 35,625	0.019 0.280 0.038 0.047
CJS1408 CJS1414 CJS1416 CJS1420	0.8730 / 0.8750	0.9995 / 1.0050	0.500 0.750 1.000 1.250	0.062	16,625 29,094 33,250 41,563	0.022 0.038 0.044 0.055
CJS1608 CJS1612 CJS1616 CJS1620 CJS1624	0.9980 / 1.0000	1.1245 / 1.1255	0.500 0.750 1.000 1.250 1.500	0.062	19,000 28,500 38,000 47,500 57,000	0.025 0.037 0.05 0.062 0.074
CJS1812 CJS1816 CJS1818 CJS1824	1.1230 / 1.2500	1.2805 / 1.2815	0.750 1.000 1.125 1.500	0.078	32,063 42,750 48,094 64,125	0.053 0.070 0.079 0.105

Part number example: CJS1216 is split seam steel Fiberglide® journal bearing with a 0.750 in. bore, 1.000 in. length
Special and larger sizes can be supplied upon special order.

Series CJS

Split Seam Steel Backed Bearings (Standard Inch Series)



* Recommended housing bores are for steel housings. Contact engineering for recommended housing dimensions for alternate materials.

Part Number	Recommended Shaft Diameter Min / Max [in.]	Recommended Housing Bore Min / Max [in.]	Bearing Length +0.000 - 0.020 [in.]	Wall Thickness [in.] Ref.	Max Static Load [lbf]	Bearing Weight [lbs]
CJS2012 CJS2016 CJS2020 CJS2024	1.2475 / 1.2500	1.4055 / 1.4065	0.750 1.000 1.250 1.500	0.078	35,625 47,500 59,375 71,250	0.058 0.077 0.097 0.116
CJS2212 CJS2216 CJS2222 CJS2224	1.3730 / 1.3700	1.5305 / 1.5315	0.750 1.000 1.375 1.500	0.078	39,188 52,250 71,844 78,375	0.064 0.085 0.116 0.127
CJS2416 CJS2424 CJS2428	1.4975 / 1.5000	1.6555 / 1.6565	1.000 1.500 1.750	0.078	57,000 85,500 99,750	0.092 0.138 0.161
CJS2816 CJS2824 CJS2828 CJS2832	1.7475 / 1.7500	1.9375 / 1.9385	1.000 1.500 1.750 2.000	0.094	66,500 99,750 116,375 133,000	0.129 0.194 0.226 0.259
CJS3216 CJS3224 CJS3232	1.9970 / 2.0000	2.1875 / 2.1885	1.000 1.500 2.000	0.094	76,000 114,000 152,000	0.147 0.220 0.294
CJS3618 CJS3636	2.2485 / 2.2500	2.4375 / 2.4385	1.125 2.250	0.094	96,187 192,375	0.185 0.370
CJS4020 CJS4040	2.4970 / 2.5000	2.6875 / 2.6885	1.250 2.500	0.094	118,750 237,500	0.274 0.549
CJS4422 CJS4444	2.7470 / 2.7500	2.9375 / 2.9385	1.375 2.750	0.094	143,688 287,375	0.274 0.549
CJS4824 CJS4848	2.9970 / 3.0000	3.1875 / 3.1885	1.500 3.000	0.094	171,000 343,000	0.326 0.651
CJS5628 CJS5656	3.4965 / 3.5000	3.6875 / 3.6885	1.750 3.500	0.094	232,750 465,500	0.441 0.882
CJS6432 CJS6464	3.9965 / 4.0000	4.1875 / 4.1885	2.000 4.000	0.094	304,000 608,000	0.575 1.149

Part number example: CJS1216 is split seam steel Fiberglide® journal bearing with a 0.750 in. bore, 1.000 in. length
Special and larger sizes can be supplied upon special order.

Series CJM

Split Seam Steel Backed Bearings

(Standard Metric Series)



Offered in industry standard metric sizing

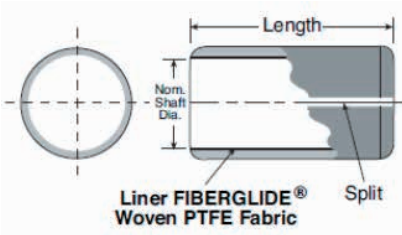
- ✓ Carbon steel is the standard backing, contact RBC Bearings® for additional metal options
- ✓ Fabroid® liner can also be supplied for special applications
- ✓ External surfaces plated to resist corrosion

Part Number	Recommended Shaft Diameter Min / Max [mm]	Recommended Housing Bore Min / Max [mm]	Bearing Length ±0.25 [mm]	Wall Thickness [mm] Ref.	Max Static Load [N]	Bearing Weight [g]
CJM0808 CJM0810 CJM0812	7.9720 / 7.9870	10.000 / 10.0150	8.00 10.00 12.00	1.0 1.0 1.0	16,768 20,960 25,152	1.443 1.803 2.164
CJM1008 CJM1010 CJM1012 CJM1020	9.9720 / 9.9870	12.0000 / 12.0180	8.00 10.00 12.00 20.00	1.0 1.0 1.0 1.0	20,960 26,200 31,440 52,400	1.764 2.205 2.646 4.410
CJM1208 CJM1210 CJM1212 CJM1220	11.9660 / 11.9840	14.0000 / 14.0180	8.00 10.00 12.00 20.00	1.0 1.0 1.0 1.0	25,152 31,440 37,728 62,880	2.086 2.607 3.128 5.214
CJM1415 CJM1420	13.9660 / 13.9840	16.0000 / 16.0180	15.00 20.00	1.0 1.0	55,020 73,360	4.531 6.018
CJM1512 CJM1515 CJM1525	14.9660 / 14.9840	17.0000 / 17.0180	12.00 15.00 25.00	1.0 1.0 1.0	47,160 58,950 98,250	3.852 4.815 8.024
CJM1612 CJM1615 CJM1620 CJM1625	15.9660 / 15.9840	18.0000 / 18.0180	12.00 15.00 20.00 25.00	1.0 1.0 1.0 1.0	50,304 62,880 83,840 104,800	4.093 5.116 6.821 8.527
CJM1815 CJM1820 CJM1825	17.9660 / 17.9840	20.0000 / 20.0210	15.00 20.00 25.00	1.0 1.0 1.0	70,740 94,320 117,900	5.719 7.625 9.532
CJM2015 CJM2020 CJM2025 CJM2030	19.9590 / 19.9800	23.000 / 23.021	15.00 20.00 25.00 30.00	1.5 1.5 1.5 1.5	78,600 104,800 131,000 157,200	9.799 13.065 16.331 19.597

Part number example: CJM1012 is split seam steel Fiberglide® journal bearing with a 10mm bore, 12mm length
Special and larger sizes can be supplied upon special order.

Series CJM

Split Seam Steel Backed Bearings (Standard Metric Series)



*Recommended housing bores are for steel housings. Contact engineering for recommended housing dimensions for alternate materials.

Part Number	Recommended Shaft Diameter Min / Max [mm]	Recommended Housing Bore Min / Max [mm]	Bearing Length ±0.25 [mm]	Wall Thickness [mm] Ref.	Max Static Load [N]	Bearing Weight [g]
CJM2215 CJM2220 CJM2225 CJM2230	21.9590 / 21.9800	25.0000 / 25.0210	15.00 20.00 25.00 30.00	1.5 1.5 1.5 1.5	86,460 115,280 144,100 172,920	10.711 14.282 17.852 21.422
CJM2415 CJM2420 CJM2425 CJM2430	23.9590 / 23.9800	27.0000 / 27.010	15.00 20.00 25.00 30.00	1.5 1.5 1.5 1.5	94,320 125,760 157,200 188,640	11.624 15.498 19.373 23.248
CJM2515 CJM2520 CJM2525 CJM2530 CJM2550	24.9590 / 24.9800	28.0000 / 28.0210	15.00 20.00 25.00 30.00 50.00	1.5 1.5 1.5 1.5 1.5	98,250 131,000 163,750 196,500 327,500	12.080 16.107 20.134 24.160 40.267
CJM3010 CJM3015 CJM3020 CJM3025 CJM3030	29.9590 / 29.9820	34.0000 / 34.0250	10.00 15.00 20.00 25.00 30.00	2.0 2.0 2.0 2.0 2.0	78,600 117,900 157,200 196,500 235,800	13.000 19.500 26.000 32.501 39.001
CJM3520 CJM3530 CJM3535 CJM3540 CJM3550	34.9500 / 34.9750	39.0000 / 39.0250	20.00 30.00 40.00 50.00	2.0 2.0 2.0 2.0	183,400 275,100 320,950 366,800 458,500	30.067 45.100 52.617 60.134 75.167
CJM4020 CJM4030 CJM4040 CJM4050	39.9500 / 39.9750	44.0000 / 44.0250	20.00 30.00 40.00 50.00	2.0 2.0 2.0 2.0	209,600 314,400 419,200 524,000	34.133 51.200 68.267 85.334
CJM4520 CJM4530 CJM4540 CJM4545 CJM4550	44.0000 / 44.0250	50.0000 / 50.0250	20.00 30.00 40.00 45.00 50.00	2.0 2.0 2.0 2.0 2.0	235,800 353,700 471,600 530,550 589,500	48.307 72.461 96.614 108.691 120.768

Part number example: CJM1012 is split seam steel Fiberglide® journal bearing with a 10mm bore, 12mm length
Special and larger sizes can be supplied upon special order.

Series CJT

Thin-Walled Split Seam Steel Backed Bearings (Standard Inch Series)



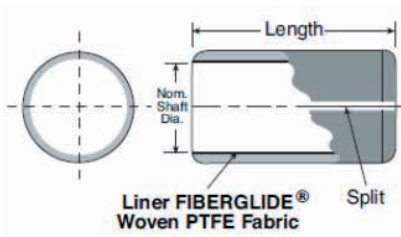
- ✓ Constant wall thickness of 0.062 makes Series CJT dimensionally interchangeable with other types of steel bearings commonly used
- ✓ Carbon steel is the standard backing, contact RBC Bearings® for additional metal options
- ✓ Fabroid® liner can also be supplied for special applications
- ✓ External surfaces plated to resist corrosion

Part Number	Recommended Shaft Diameter Min / Max [in.]	Recommended Housing Bore Min / Max [in.]	Bearing Length +0.000 - 0.020 [in.]	Wall Thickness [in.] Ref.	Max Static Load [lbf]	Bearing Weight [lbs]
CJT0808 CJT0810 CJT0812 CJT0816	0.4936 / 0.500	0.6240 / 0.6250	0.500 0.625 0.750 1.000	0.062 0.062 0.062 0.062	7,500 9,375 11,250 15,000	0.011 0.014 0.017 0.023
CJT1008 CJT1010 CJT1012 CJT1016	0.6234 / 0.6250	0.7490 / 0.7500	0.500 0.625 0.750 1.000	0.062 0.062 0.062 0.062	9,375 11,719 14,062 18,750	0.014 0.017 0.021 0.028
FOR SIZES 12XX THROUGH 16XX USE CJS SERIES ON PAGE 12.						
CJT1812 CJT1816 CJT1818 CJT1824	1.1230 / 1.1250	1.2495 / 1.2505	0.750 1.000 1.250 1.500	0.062 0.062 0.062 0.062	25,312 33,750 37,969 50,625	0.036 0.048 0.054 0.072
CJT2012 CJT2016 CJT2020 CJT2024	1.2475 / 1.2500	1.3745 / 1.3755	0.750 1.000 1.250 1.500	0.062 0.062 0.062 0.062	28,125 37,500 46,875 56,250	0.040 0.053 0.066 0.079
CJT2212 CJT2216 CJT2222 CJT2224	1.3725 / 1.3750	1.4995 / 1.5005	0.750 1.000 1.375 1.500	0.062 0.062 0.062 0.062	30,937 41,250 56,719 61,875	0.043 0.058 0.080 0.087
CJT2416 CJT2424 CJT2428	1.4975 / 1.3750	1.4995 / 1.5005	1.000 1.500 1.750	0.062 0.062 0.062	45,000 67,500 78,750	0.063 0.094 0.110

Part number example: CJT2024 is split seam steel Fiberglide® journal bearing with a 1.250 in. bore, 1.500 in. length
Special and larger sizes can be supplied upon special order.

Series CJT

Thin-Walled Split Seam Steel Backed Bearings (Standard Inch Series)



* Recommended housing bores are for steel housings. Contact engineering for recommended housing dimensions for alternate materials.

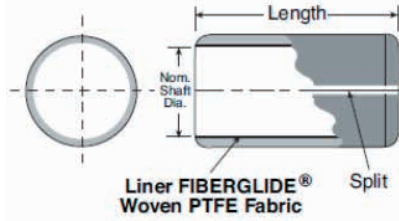
Part Number	Recommended Shaft Diameter Min / Max [in.]	Recommended Housing Bore Min / Max [in.]	Bearing Length +0.000 - 0.020 [in.]	Wall Thickness [in.] Ref.	Max Static Load [lbf]	Bearing Weight [lbs]
CJT2816 CJT2824 CJT2828 CJT2832	1.7475 / 1.7500	1.8745 / 1.8755	1.000 1.500 1.750 2.000	0.062 0.062 0.062 0.062	52,500 78,750 91,875 105,000	0.073 0.109 0.128 0.146
CJT3216 CJT3224 CJT3232	1.9970 / 2.0000	2.1245 / 2.1255	1.000 1.500 2.000	0.062 0.062 0.062	60,000 90,000 120,000	0.083 0.124 0.166
CJT3618 CJT3636	2.2470 / 2.2500	2.3745 / 2.3755	1.125 2.250	0.062 0.062	37,969 151,875	0.789 0.209
CJT4020 CJT4040	2.4970 / 2.5000	2.6245 / 2.6255	1.250 2.500	0.062 0.062	93,750 187,500	0.129 0.258
CJT4422 CJT4444	2.7475 / 2.7500	2.8745 / 2.8755	1.375 2.750	0.062 0.062	113,438 226,875	0.156 0.311
CJT4824 CJT4848	2.9975 / 3.0000	3.1245 / 3.1255	1.500 3.000	0.062 0.062	135,000 270,000	0.185 0.370
CJT5628 CJT5656	3.4965 / 3.5000	3.6245 / 3.6255	1.750 3.500	0.062 0.062	183,750 367,500	0.251 0.501
CJT6030 CJT6060	3.7465 / 3.7500	3.8745 / 3.8755	1.875 3.750	0.062 0.062	210,938 421,875	0.287 0.575
CJT6432 CJT6464	3.9965 / 4.0000	4.1245 / 4.1255	2.000 4.000	0.062 0.062	240,000 480,000	0.327 0.654

Part number example: CJT2024 is split seam steel Fiberglide® journal bearing with a 1.250 in. bore, 1.500 in. length
Special and larger sizes can be supplied upon special order.

Series CJH

Heavy-Walled Split Seam Steel Backed Bearings (Standard Inch Series)

- ✓ Constant wall thickness of 1/8 in. (0.125") makes Series CJH dimensionally interchangeable with many bronze and filament wound bushings.
- ✓ Carbon steel is the standard backing, contact RBC Bearings® for additional metal options
- ✓ Fabroid® liner can also be supplied for special applications
- ✓ External surfaces plated to resist corrosion



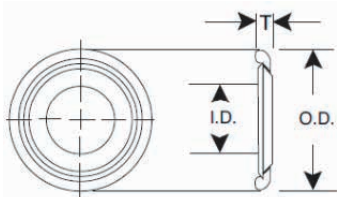
*Recommended housing bores are for steel housings. Contact engineering for recommended housing dimensions for alternate materials.

Part Number	Recommended Shaft Diameter Min / Max [in.]	Recommended Housing Bore Min / Max [in.]	Bearing Length +0.000 - 0.020 [in.]	Wall Thickness [in.] Ref.	Max Static Load [lbf]	Bearing Weight [lbs]
CJH1204 CJH1208 CJH1212	0.7480 / 0.7500	0.9995 / 1.0005	0.250 0.500 0.750	0.125	7,125 14,250 21,375	0.020 0.041 0.061
CJH1608 CJH1612 CJH1616	0.9980 / 1.0000	1.2495 / 1.25005	0.500 0.750 1.000	0.125	19,000 28,500 38,000	0.052 0.079 0.105
CJH2016 CJH2020 CJH2024	1.2480 / 1.2500	1.4995 / 1.5005	1.000 1.250 1.500	0.125	47,500 59,375 71,250	0.128 0.160 0.192
CJH2216 CJH2220 CJH2224	1.3730 / 1.3750	1.6245 / 1.6255	1.000 1.250 1.500	0.125	52,250 65,313 78,375	0.140 0.175 0.209
CJH2420 CJH2424 CJH2432	1.4975 / 1.5000	1.7495 / 1.7505	1.250 1.500 2.000	0.125	71,250 85,500 114,000	0.189 0.227 0.302
CJH2820 CJH2824 CJH2832	1.7475 / 1.7500	1.9995 / 2.0005	1.250 1.500 2.000	0.125	83,125 99,750 133,000	0.218 0.262 0.349
CJH3224 CJH3232 CJH3248	1.9970 / 2.0000	2.2495 / 2.2505	1.500 2.000 3.000	0.125	114,000 152,000 228,000	0.297 0.396 0.593
CJH3624 CJH3632 CJH3648	2.2470 / 2.2500	2.4995 / 2.5005	2.000 2.500 3.000	0.125	128,250 171,000 256,500	0.332 0.442 0.663
CJH4032 CJH4040 CJH4048	2.4970 / 2.5000	2.7495 / 2.7505	2.000 2.500 3.000	0.125	190,000 237,500 285,000	0.489 0.611 0.733
CJH4432 CJH4440 CJH4448	2.7470 / 2.7500	2.9995 / 3.0005	2.000 2.500 3.000	0.125	209,000 261,250 313,500	0.535 0.669 0.803
CJH4832 CJH4840 CJH4848	2.9970 / 3.0000	3.2495 / 3.2505	2.000 2.500 3.000	0.125	228,000 285,000 342,000	0.582 0.727 0.873
CJH5232 CJH5240 CJH5248	3.2465 / 3.2500	3.4995 / 3.5005	2.000 2.500 3.000	0.125	247,000 308,750 370,500	0.675 0.843 1.012
CJH5632 CJH5664	3.4965 / 3.5000	3.7495 / 3.7505	2.000 4.000	0.125	266,000 532,000	0.675 1.350
CJH6032 CJH6064	3.7465 / 3.7500	3.9995 / 4.0005	2.000 4.000	0.125	304,000 608,000	0.721 1.443
CJH6432 CJH6464	3.9965 / 4.0000	4.2495 / 4.2505	2.000 4.000	0.125	304,000 608,000	0.768 1.536

Part number example: CJH1212 is a coiled steel journal bearing with 0.750 in. bore, 0.750 in. length
Special and larger sizes can be supplied upon special order.

Series FTP

Slim Pack Thrust Bearing Assemblies

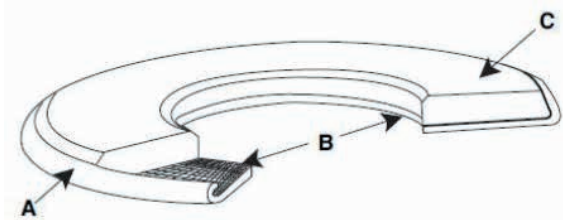


- ✓ Slim pack bearings are unique in the industry
- ✓ No lubrication needed
- ✓ Able to tolerate very high loads and require very little space
- ✓ The advanced, unique design includes a self-contained dust seal and utilizes corrosion-resistant materials

Part Number	I.D. +0.005 - 0.025 [in.]	O.D. +0.010 - 0.020 [in.]	T ±0.010 [in.]	Area [in ²]	Max Static Load [lbf]
FTP1628 FTP2032	1.000 1.250	1.750 2.000	0.130 0.130	1.25 1.48	47,500 56,240
FTP2436	1.500	2.250	0.130	1.72	65,360
FTP2638 FTP2840	1.625 1.750	2.375 2.500	0.130 0.130	1.84 1.96	69,920 74,480
FTP3244	2.000	2.750	0.130	2.19	83,220
FTP3648	2.250	3.000	0.130	2.43	92,340
FTP4052 FTP4072	2.500 2.500	3.250 4.500	0.130 0.130	2.66 10.03	101,080 381,140
FTP4874	3.000	4.625	0.130	8.72	331,360

Part number example: FTP is a thrust pack with a 2.250 in. I.D. and 3.000 in. O.D.

*T is measured with pack loaded

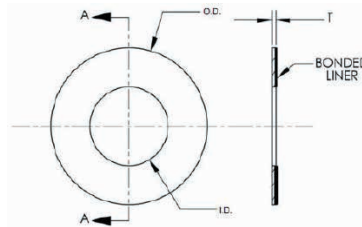


- Diagram Shows:**
- A. Outer metal shell
 - B. Fiberglide®/Fabroid® self-lubricating liner
 - C. Inner metal ring hard plate wear surface. Ring rotates against Fiberglide®/Fabroid® liner which is bonded to outer shell.

Series FTS

Single-Sided Steel Backed Thrust Washers (Standard Inch Series)

- ✓ Offer an economical approach to obtaining self-lubrication where high loads are encountered
- ✓ Zinc-plated mild steel with Fiberglide® laminated to one face
- ✓ Max. compressive strength is 38,000 psi with operating temperature range of -320°F to 300°F
- ✓ Fabroid® liner can also be supplied for special applications

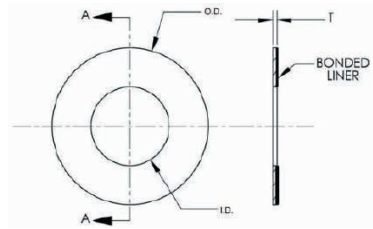


Part Number	Maximum Shaft Diameter [in.]	I.D. +0.020 - 0.000 [in.]	O.D. +0.000 - 0.020 [in.]	T ±0.002 [in.]	Max Static Load [lbf]
FTS0408 FTS0510	0.250 0.312	0.280 0.344	0.500 0.625	0.058 0.058	5,121 8,126
FTS0612 FTS0714	0.375 0.437	0.406 0.468	0.750 0.875	0.058 0.058	11,866 16,313
FTS0816 FTS0918	0.500 0.562	0.531 0.593	1.000 1.125	0.058 0.058	21,429 27,277
FTS1020 FTS1122	0.625 0.687	0.656 0.718	1.250 1.375	0.058 0.058	33,789 41,039
FTS1224 FTS1326	0.750 0.812	0.781 0.843	1.500 1.625	0.058 0.058	48,946 57,599
FTS1428 FTS1530	0.875 0.937	0.906 0.968	1.750 1.875	0.058 0.058	66,901 76,956
FTS1632 FTS1834	1.000 1.125	1.031 1.156	2.000 2.125	0.058 0.058	87,654 94,883
FTS2036 FTS2240	1.250 1.375	1.281 1.406	2.250 2.500	0.058 0.058	102,113 127,529
FTS2442 FTS2644	1.500 1.625	1.531 1.656	2.625 2.750	0.058 0.058	135,692 143,854
FTS2846 FTS3048	1.750 1.875	1.781 1.906	2.875 3.000	0.058 0.058	152,017 160,179
FTS3252 FTS3654	2.000 2.250	2.062 2.312	3.250 3.375	0.058 0.058	223,792 271,830
FTS4060 FTS4466	2.500 2.750	2.562 2.812	3.750 4.125	0.058 0.058	223,792 271,830
FTS4872 FTS5278	3.000 3.250	3.062 3.312	4.500 4.875	0.058 0.058	324,531 381,895

Part number example: FTS1834 is metal-backed thrust bearing, with 1.156 in. bore, 2.125 in. O.D.
Different thicknesses and larger diameters can be supplied

Series FTM

Single-Sided Steel Backed Thrust Washers (Standard Metric Series)



- ✓ Offer an economical approach to obtaining self-lubrication where high loads are encountered
- ✓ Zinc-plated mild steel with Fiberglide® laminated to one face
- ✓ Max. compressive strength is 38,000 psi, with operating temperature range of -320°F to 300°F
- ✓ Fabroid® liner can also be supplied for special applications

Part Number	Maximum Shaft Diameter [mm]	I.D.		O.D.		T ±0.002 [mm]	Max Static Load [N]
		+0.508 - 0.000 [mm]		+0.000 - 0.508 [mm]			
FTM0820 FTM1024	8 10	10 12	20 24	1.5 1.5	61,730 88,892		
FTM1226 RTM1632	12 16	14 18	26 32	1.5 1.5	98,769 144,038		
FTM1836 FTM2038	18 20	20 22	36 38	1.5 1.5	184,368 197,538		
FTM2240 FTM2444	22 24	24 26	40 44	1.5 1.5	210,707 259,268		
FTM2548 FTM2850	25 28	28 30	48 50	1.5 1.5	312,768 329,229		
FTM3054 FTM3562	30 35	32 38	54 62	1.5 1.5	389,314 493,844		
FTM4066 FTM4574	40 45	42 48	66 74	1.5 2	533,351 652,697		
FTM5078 FTM6090	50 60	52 62	78 90	2 2	695,497 875,750		

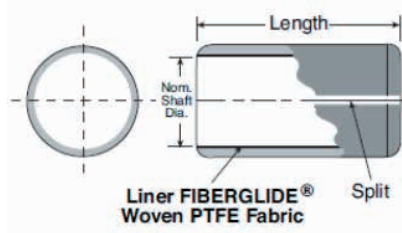
Part number example: FTM1836 is metal-backed thrust bearing, with 20mm bore, 36mm O.D.

Different thicknesses and larger diameters can be supplied

Series LJS

Fiberglide® Composite Bearings (Standard Inch Series)

- ✓ Provides high load capacity and low friction
- ✓ Completely non-metallic-fabricated of woven PTFE fibers with no possibility of corrosion
- ✓ Max. compressive strength is 10,000 psi, with operating temperature range of -250°F to 200°F
- ✓ Max. speeds are typically 20 surface FPM



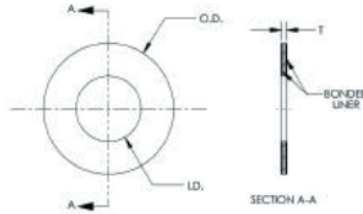
*Recommended housing bores are for steel housings. Contact engineering for recommended housing dimensions for alternate materials.

Part Number	Recommended Shaft Diameter Min / Max [in.]	Recommended Housing Bore Min / Max [in.]	Bearing Length +0.000 - 0.025 [in.]	Wall Thickness [in.] Ref.	Max Static Load [lbf]
LJS1616 LJS1624 LJS1632	1.000	1.061 / 1.062	1.000 1.500 2.000	0.030	10,000 15,000 20,000
LJS1818 LJS1828 LJS1836	1.125	1.186 / 1.187	1.125 1.500 2.250	0.030	12,656 16,875 25,313
LJS2020 LJS2030 LJS2040	1.250	1.311 / 1.312	1.250 1.875 2.500	0.030	15,625 23,438 31,250
LJS2222 LJS2232 LJS2244	1.375	1.436 / 1.437	1.375 2.000 2.750	0.030	18,906 27,500 37,813
LJS2424 LJS2436 LJS2448	1.500	1.561 / 1.562	1.500 2.250 3.000	0.030	22,500 33,750 45,000
LJS2828 LJS2842 LJS2856	1.750	1.811 / 1.812	1.750 2.625 3.500	0.030	30,625 45,938 61,250
LJS3232 LJS3248	2.000	2.126 / 2.127	2.00 3.00	0.062	40,000 60,000
LJS3636 LJS3654	2.250	2.376 / 2.377	2.250 3.375	0.062	50,625 75,938
LJS4040 LJS4060	2.500	2.626 / 2.627	2.500 3.750	0.062	62,500 93,750
LJS4444 LJS4466	2.750	2.876 / 2.877	2.750 4.125	0.062	75,625 113,438
LJS5656 LJS5684	3.000	3.126 / 3.127	3.000 4.500	0.062	90,000 135,000
LJS6464 LJS6496	4.000	4.126 / 4.127	4.000 6.000	0.062	122,500 183,750
LJS7272	4.500	4.626 / 4.627	4.500	0.062	202,500
LJS8080	5.000	5.126 / 5.127	5.000	0.062	250,000
LJS8888	5.500	5.626 / 5.627	5.500	0.062	302,500
LJS9696	6.000	6.126 / 6.127	6.000	0.062	360,000

Part number example: LJS1624 is a liner type bearing with 1.00 in. bore. 1.50 in. length
Larger sizes can be supplied upon special order.

These bearings slip into the housing bore and may require positive retention.
For bearing installation other than that shown on page 24, consult RBC Bearings®.

Fiberglide® Composite Thrust Washer



- ✓ Provides high load capacity and low friction for use where elimination of lubrication is desirable
- ✓ Completely non-metallic with no possibility of corrosion
- ✓ Max. compressive strength is 10,000 psi, with operating temperature range of -250°F to 200°F

Part Number	Maximum Shaft Diameter [in.]	I.D.		O.D.		T ±0.002 [in.]	Max Static Load [lbf]
		+0.020 - 0.000 [in.]		+0.000 - 0.020 [in.]			
LTD0408 LTD0510	0.250 0.312	0.280 0.344	0.500 0.625	0.031 0.031	1,348 2,138		
LTD0612 LTD0714	0.375 0.437	0.406 0.468	0.750 0.875	0.031 0.031	3,123 4,293		
LTD0816 LTD0918	0.500 0.562	0.531 0.593	1.000 1.125	0.031 0.063	5,639 7,178		
LTD1020 LTD1122	0.625 0.687	0.656 0.718	1.250 1.375	0.063 0.063	8,892 10,800		
LTD1224 LTD1326	0.750 0.812	0.781 0.843	1.500 1.625	0.063 0.063	12,880 15,158		
LTD1428 LTD1530	0.875 0.937	0.903 0.968	1.750 1.875	0.063 0.063	17,605 20,252		
LTD1632 LTD1834	1.000 1.125	1.031 1.156	2.000 2.125	0.063 0.063	23,067 24,969		
LTD2036 LTD2240	1.250 1.375	1.281 1.406	2.250 2.500	0.063 0.063	26,872 33,560		
LTD2442 LTD2644	1.500 1.625	1.531 1.656	2.625 2.750	0.094 0.094	35,708 37,856		
LTD2846 LTD3048	1.750 1.875	1.781 1.906	2.875 3.000	0.094 0.094	40,004 42,152		
LTD3252 LTD3654	2.000 2.250	2.062 2.312	3.250 3.375	0.094 0.094	49,562 47,478		
LTD4060 LTD4466	2.500 2.750	2.562 2.812	3.750 4.125	0.094 0.094	58,893 71,534		
LTD4872 LTD5278	3.000 3.250	3.062 3.312	4.500 4.875	0.094 0.094	85,403 100,499		

Part number example: LTD1834 is a double-sided thrust bearing with 1.156 in. bore 2.125 in. O.D.

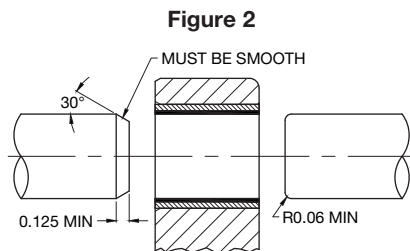
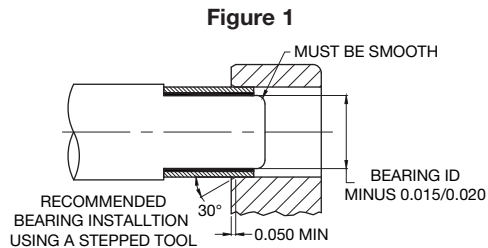
Different thicknesses and larger diameters can be provided and smaller bore diameters are available on request.

Bearing Installation

Maintenance-Free Self Lubricating Bearings

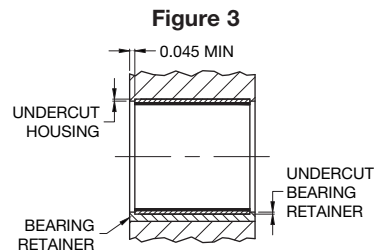
Journal Bearing

Installation of solid journal bearings or closed seam coiled bearings (CJS, CJT, CJM, and CJH series) should be accomplished with a stepped mandrel tool as illustrated. Housing bore should be provided with a lead-in chamfer. See Figure 1.



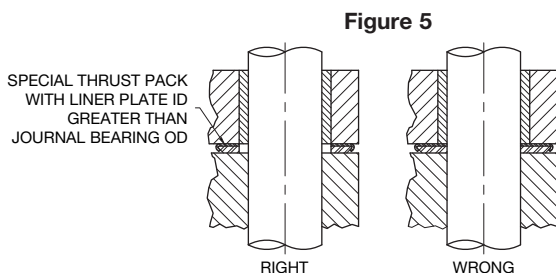
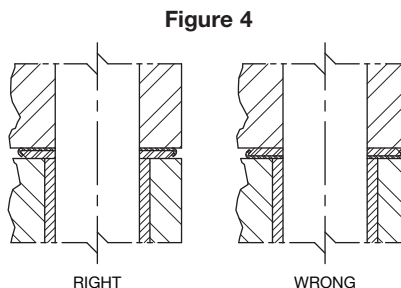
Entering corner of shaft must have a lead-in chamfer or radius as shown in Figure 2 to avoid damaging the bearing liner during assembly.

When installation assembly design does not provide means for entrapment, liner type bearing (LJS series) should be positioned in the housing bore by undercutting the I.D. to form retaining steps as shown in Figure 3 (upper). A separate sleeve type retainer, pressed into the housing, may be preferred in some cases as demonstrated in Figure 3 (lower).



Thrust Pack

Slim pack thrust bearings (FTP series) should be installed with the heavy wear washer on the bottom as indicated in Figure 4.

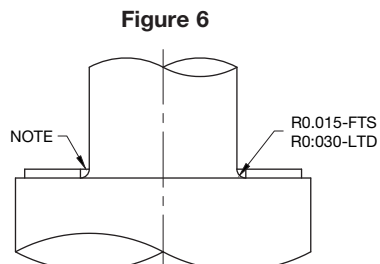


When it is necessary to install this assembly below a heavy walled journal bearing, where repeated impact loads are involved, a special thrust pack having an enlarged liner plate I.D. may be preferred. See Figure 5.

Thrust Bearing

FTS/LTD series thrust bearings should run against a hard smooth-mating surface, which should be resistant to corrosion, otherwise moisture or high humidity tends to form surface rust.

Note that the standard I.D. dimensions are oversized in order to allow for corner radius of stepped shafts. See Figure 6.



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



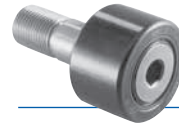
Tapered Roller Thrust Bearings

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



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.



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.



Cylindrical Roller Bearings

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



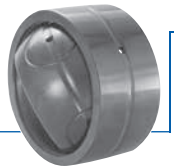
Needle Roller Bearings

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



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.



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.



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.



TP Series Bearings

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



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.



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.



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.



Self-Lubricating Bearings

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



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 aluminum. Available in inch and metric sizes.



Specials

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



Ball Bearings

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



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.