

Core Competencies

Specializing in Build-to-Spec, Build-to-Print, Hydraulic Component Design, Manufacturing, Qualification Testing, and Acceptance Testing.

Over 100 Years of Hydraulic Expertise

F-35 | 737 | 707 | A320 | CH-53k | G500/G600 | B-52 | C-5 | KC-135 Latitude | Sovereign | U-2 | X-17 | B17 | Minuteman 3

HYDRAULIC DESIGN CAPABILITIES:

Actuation – Locking, Snubbing, MLG, NLG, Door, Utility, Thrust Reversers

Valves – Manually Operated, Metering, Swivels, Servos, Solenoid

Manifolds – Filter, Distribution, Power Transfer

Relief Valves – High Flow & Pressure Designs, Weight Optimized, Customer Specific

Accumulators - LVDT Type, Pressure Transducers

Uplocks/Downlocks – Integrated Solutions with Combined Hydraulics Components



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Innovation. Commitment. Quality.

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:



Spherical Bearings

- MS approved to AS81820 (formerly MIL-B-81820)
- Self-lubricating Metal-to-Metal
- Loader slots High temperature
- Low coefficient of friction
- Special configurations and materials



Thin Section Ball Bearings

- · Standard cross sections to one inch
- Stainless steel and other materials are available
- Sizes to 40"
- Seals available on all sizes and
- standard cross sections
- Super duplex configurations



Journal Bearings

- MS approved to AS81934 (formerly MIL-B-81934)
- Plain and flanged Self-lubricating
- High temperature High loads
- · Available in inch and metric sizes



Airframe Control Ball Bearings

- MS approved to AS7949 (formerly MIL-B-7949)
- Single and double row
- Radial, self-aligning, and pulley series
- 52100 Cad plated and 440C stainless
- Zinc Nickel plated



Ball Bearing Rod Ends

- MS approved to AS6039 (formerly MIL-B-6039)
- Various shank configurations
- · Low coefficient of friction
- Advanced AeroCres® materials available



Rings and Seals

- Solutions for any pneumatic and hydraulic applications
- Seals from .5" to 55" diameter
- Cast Iron to Rene 41
- Precision machined & wire rings to tight tolerances



Specialty Fasteners

- Hollow Bolts, Fuse Pins, Solid Bolts (Standards), Customed Machined Parts & Nuts
- Hot Headed, Thread Rolled, HVOF Coated
- Large Diameter over 3/4"



Hydraulic Actuators

- 2-Position Fluid Hydraulic
- Auto or Manual Mechanical Locking
- Lock Sensing/Position Sensing
- Flow/Directional Control Valves; Solenoid/Manual



Rod End Bearings

- MS approved to AS81935 (formerly MIL-B-81935)
- Self-lubricating Metal-to-Metal
- Loader slots High temperature
- · Low coefficient of friction
- Special configurations and materials



Track Rollers

- MS approved to AS39901 (formerly MIL-B-3990)
- ATF single row and ATL double row
- Sealed with lube holes and grooves
- Heavy duty cross sections
- Advanced AeroCres® materials available



Cam Followers

- MS approved to AS39901 (formerly MIL-B-3990)
- Advanced AeroCres® materials available
- Maximum corrosion resistance
- · Superior lubricants & seals to reduce maintenance



Load Slot Bearings

- Spherical and rod end designs
- Superior ball-to-race conformity
- Reduced maintenance cost
- · Variety of race materials available



Specials

- Many specialty bearings, custom-designed and configured for diverse aerospace applications
- Capability for advanced aerospace specialty corrosion resistant and high temperature materials



Control Rods

- Swaging up to 14' length and 4" dia
- Nadcap and customer special process approvals including NDT
- Surface treatments, CNC Machining, Flash Welding, Aluminum Heat Treat
- Design and build to print



Ducting Solutions

- Solutions for pneumatic ducting
- Patented couplings
- Temperatures 450° to 1,500°F
- Engines, Aircraft, APUs



Machined Components

- Exotic materials 3, 3.5, 4 and 5 Axis
- · Horizontal and Vertical Milling
- Lathes, Hot Head, Gearing, Heat Treat, Special Processes





Aero**Structures**™





Industrial Tectonics Bearings







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