# **RBC Aerospace Bearings**

# **Transport Dynamics Offers Fretting Buffer Solutions**

# As the World Leader in self-lubricating liner

systems<sup>™</sup>, the Transport Dynamics Division of RBC Aerospace offers a full range of proprietary maintenance free liner systems. These liner systems have been the preferred option for critical aerospace applications since they were originally developed by Transport Dynamics in 1957.

We have vigorously tested and validated the use of these liners (commonly referred to as wear strips) in applications that are intended to provide a fretting buffer. This effort has led to the introduction of the **X-GuardSL**<sup>™</sup> liner which includes a Peel and Stick option for ease of installation.

The RBC Fibriloid<sup>®</sup> liner, which is widely recognized as the most versatile and best performing liner in the industry, was tested against our competitor's liner options with far superior results.



# Test (Performance) Results:

- Improved wear resistance
- Reduced coefficient of friction
- Excellent bond integrity
- Meets AS81820 requirements
- Temperature range (°F): -320 to +450

These **X-GuardSL**<sup>™</sup> liner systems can be custom cut to size or bonded to most surfaces to provide the same operational benefits as part of our **Bond Only offering.** 



# **Range of Applications**

- Engine Blade Root (High Temperature)
- Aircraft— Nacelles (Reduce Friction)
- Helicopter (Vibratory Loading)
- Custom Bond Only (Extended Life)

The use of a Transport Dynamics liner in a spherical, link, journal or rod end has proven to be the cost effective solution for most applications requiring reliability and a long operational life without needing intervening maintenance.

The **X-GuardSL**<sup>™</sup> self-lubricating liner system can serve to minimize wear and reduce fretting in your application.



Spherical bearing with fretting corrosion on the OD

Please consult your local Sales Engineer or contact us directly to get a technical design consultation.



Call: 714.546.3131 Email: XGuardSL@rbcbearings.com www.rbcbearings.com

# **RBC Aerospace Bearing Products**

# **Product Line Card**







- 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 inches · Seals available on all sizes and
- standard cross sections
- · Super duplex configurations



### MS approved to AS81934 (formerly MIL-B-81934) Plain and flanged Self-lubricating

Journal Bearings

- 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<sup>®</sup> 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









• Spherical and rod end designs

Rod End Bearings MS approved to AS81935

(formerly MIL-B-81935) Self-lubricating 
 Metal-to-Metal

MS approved to AS39901

· Heavy duty cross sections

• Lined track rollers available

MS approved to AS39901

(formerly MIL-B-3990)

Cam Followers

(formerly MIL-B-3990)

Track Rollers

• Loader slots • High temperature Low coefficient of friction
Special configurations and materials

ATF single row and ATL double row

· Sealed with lube holes and grooves

Advanced AeroCres® materials available

- Superior ball-to-race conformity
- Reduced maintenance cost
- Variety of race materials available

# Specials

- · Many specialty bearings, customdesigned 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

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 Superior lubricants and seals to reduce maintenance Load Slot Bearings