

RBC Aerospace Bearings

Hypersonic Technical & Product Capabilities

RBC Bearings provides our aerospace, and defense customers with unique design solutions to complex problems and an unparalleled legacy of support in advanced weapon systems.

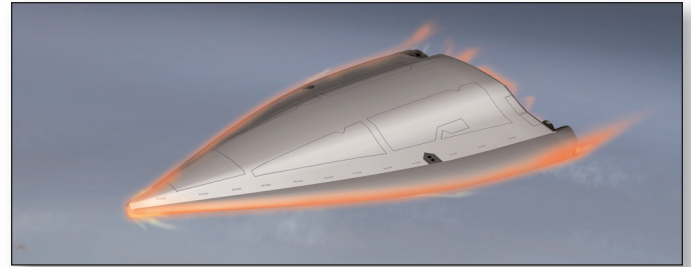
We have a full offering of custom designed bearing products which support missile and space airframe, engine, and flight control engineered applications which are being focused to meet the unique performance requirements of Hypersonics. The product offering includes ball/roller bearings, plain bearings, hydraulics, control & structural rods, precision machined components and specialty fasteners.



RBC has the broadest offering of bearing products which is backed up by extensive special processing capabilities such as HVOF, Dry Film, Passivate, Nitride, and numerous plating options.

Performance Advantages:

- Extended operational life
- Reduced coefficient of friction
- High temperature operation
- Customized design solutions



Hypersonic Applications:

- Launch Platforms
- Engines (Scramjet)
- Glide Body & Fin Actuation
- Guidance Systems



The bearings and machined components are available in a wide variety of materials.

Aluminum Beryllium, Titanium, Stellite®, Inconel®, Custom 465®, Silicon Bronze, Tungsten and numerous other standard aerospace grade Nickel, Cobalt and HVOF materials.

We test (NDT & Destructive) and validate all products to assure the optimal performance in your application.



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



Call: 603-617-8404

Email: HypersonicBearingSolutions@rbcbearings.com

www.rbcbearings.com

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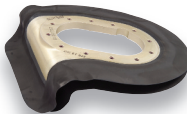
RBC Aerospace has a 100+ year track record of being an Engineered Solutions Provider. In addition to our industry leading bearings, valves, pneumatic actuation, specialty fasteners and hydraulics, we also manufacture swage tube structural members, bulkhead fittings, rubber bladder tank fittings, swivel and bungee rods.

Legacy of Applications Support:

- Space & Hypersonic Vehicles
- Solid Fuel Propulsion
- Gas Turbine Engines
- Aircraft Actuation Systems
- Optical Targeting
- Flight Controls
- Liquid Oxygen Turbopump
- Missile Guidance
- Military Ground Vehicles
- Launchers (Air, Land & Sea)
- Nuclear Submarines

RBC designs and tests bearing to operate continuously, for repeated service from -323°F to 1200°F (-197°C to 649°C). For one-time use, even broader temperature ranges are possible.

Our bearing products can be incorporated into next-up integral assemblies backed by our comprehensive machining and special processing capabilities. RBC analyzes the Failure Mode Effects Analysis (FMEA) of the bearing and its system, to ensure that the integrity is maintained structurally throughout the life of the product.



Many weapons systems bearing designs tend to overlook the damage that occurs in storage and/or repeated mount and dismount on aircraft, ground vehicles, or underwater systems. RBC incorporates many Super Alloys and specialized CREN (Corrosion Resistant Nitrogen Steels) to provide for more secure mounting and dismounting of weapon ordinance.

Rarely is a bearing ever static. Vibration environments trigger movement, wear, and can lead to premature failure. RBC offers many anti-fretting treatments such as polymer fretting buffers, electrolytic, and electroless platings, HVOF, plasma, molybdenum disulfide, graphite, tungsten disulfide and PTFE solutions to alleviate excessive wear and fretting.

We have a design solution for your application, please give us the opportunity to put our technical and manufacturing resources to work for you.



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