INTRODUCING
MV Sealed BEARINGS
by Schaublin

Background

- Expertise developed in the design and production of ball-pin or kingpin style spherical plain bearings
- These bearings are used in harsh environments with severe contamination such as sand, dust, mud or salt water
- The Design is optimized to perform in demanding fatigue, shock and vibratory conditions

Advanced design providing superior performance

- This new MV Sealed bearing product line is a concentration of bearing technology that provides you with numerous technical assets and solutions
- The Uniflon®-E liner system delivers:
  o A liner system: highly resistant to heat, abrasion, and high loads
  o A high proportion of PTFE and synthetic fibers, which have superb low wear properties
  o A matrix chemically linked by a thermoset resin system with a low coefficient of friction
- Fatigue resistant case hardening steel used for the ball pin with specially selected surface coatings.
- The design is optimized by using FEA (Finite Element Analysis) to achieve the best performance
- Integral seal boots: high strength elastomeric boots, which are replaceable if necessary

Qualifications

Each product or component is qualified according to a dedicated test plan which may include
- Static and/or dynamic test
- Duty cycle endurance test
- Contamination (Hose down pressure)

These bearings are manufactured using proven technology
- Liner system meeting SAE-AS81820 performance requirements for use in military and commercial aircraft applications
- Seal boots resistant to -40°C (-40°F) and 80 bar (1’160 PSI) hose down pressure according to the toughest requirements. Test data available for mud immersion test in reverse loading and large angle oscillation conditions
- Surface finishing, coatings, conformity of the spherical assembly and liner bonding are all controlled by special processes

Room Temperature Oscillation
Full Load

Advantages

- Shock and fatigue resistant
- High radial and axial load capacity
- Integral seal boot design
- Wear resistant

Typical applications

- High mobility vehicles
- Independent suspension axle systems
- Upper and lower wishbones
- Pivot bearings, kingpins
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:

**Spherical Plain Bearings**
- Radial, angular contact, extended inner ring, high misalignment. Quadlube®, ImpactTuff®, Spreadlock® Seal, CrossLube®, DuraLube™, and self-lubricating bearing. Available in inch and metric sizes.

**Needle Roller Bearings**
- Pitchlign® caged heavy duty needle roller bearing, inner rings, TJ TandemRoller® bearings for long life.

**Thin Section Ball Bearings**
- Standard cross sections to one inch. Sizes to 40 inches. Stainless steel and other materials are available. Seals are available on all sizes and standard cross sections. Super duplex configurations.

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

**Tapered Roller Bearings**
- Tyson® case-hardened and through-hardened tapered roller bearings. Available in many sizes. Used in Class 8 heavy truck and trailer wheel bearings, gearboxes, and final drive transmissions.

**Airframe Control Bearings**
- Ball bearing types, self-lubricating types, needle roller track rollers.

**Tapered Roller Thrust Bearings**
- Case-hardened. Sealed and unsealed for truck, tractor, and construction equipment steer axles, and Class 8 trailer landing gear.

**Dowel Pins, Loose Needle Rollers, Shafts**
- Precision Products dowel pins, loose needle rollers, and shafts.

**Integrated Assemblies**
- For robots and other process tool applications. Engineering design assistance. Production volume capacity.

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

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

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

**Ball Pin Spherical Plain Bearings**
- Self-lubricating types, greased plain bearings, sealed. High loads, high vibration resistant, long life. S-Fit™ and CTRL™ configurations available.

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