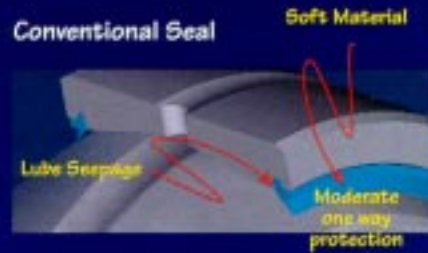
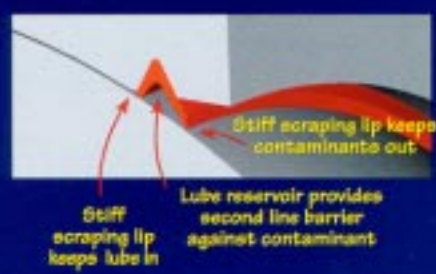


**NEW!**  
**SpreadLock Seal For Spherical Plain Bearings Double Positive Contacting Lips Keep The Dirt Out And Lubricant In.**

Compare the new SpreadLock seal technology with typical single or double lip designs oriented in one direction only.



**SpreadLock Seal**  
 See how this double positive action seal resists outside penetration and maintains lube integrity inside

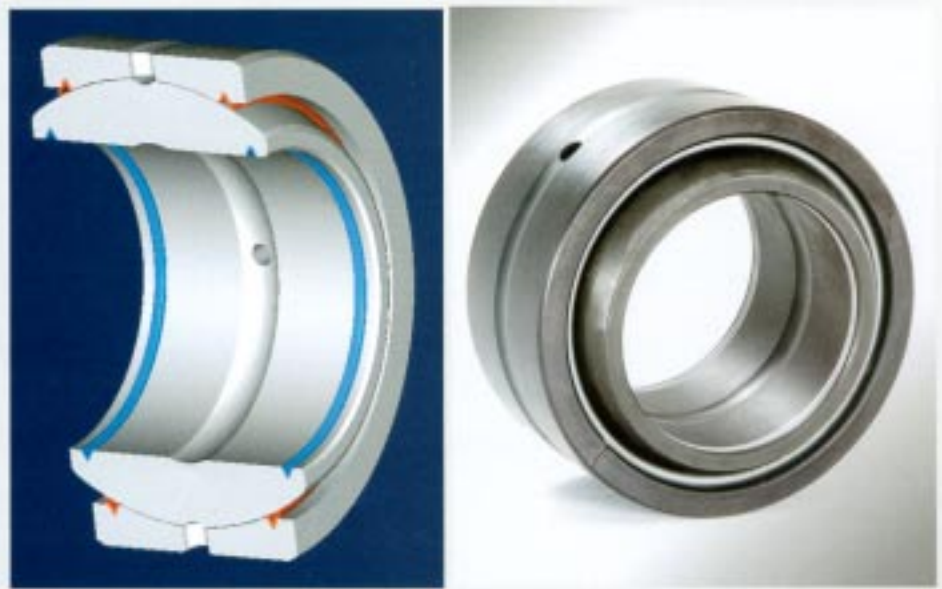


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**SpreadLock Seal**

Engineering Better Bearings For Confident Performance

**DESIGNING FOR RELIABILITY**



Positive yet functional sealing is one of the ongoing challenges in bearing design. In our quest to develop the definitive seal that would work more effectively with our spherical plain bearings, we asked several tough questions to help establish the design priorities. How can we provide maximum protection against the entry of contaminants and wear debris while maintaining proper bearing operation? How do we minimize seal wear and protect the seal from outside damage? Also, we wanted to minimize lube loss with constant pressure on the inner sphere while maximizing lube replacement efficiency.



And, we had to achieve all of the above for our practical manufacturing discipline that consistently produces economical bearings for rugged applications.

The new SpreadLock\* seal is the answer and is a significant evolution in spherical plain bearing sealing technology. The key design elements are the unique double positive contacting seal lips, which are oriented counteractingly. This unique patent-applied-for design maximizes resistance to lube seepage while acting equally forcefully to prevent the entry of outside contaminants.

\*Patent Applied For



# SpreadLock® Seal

## Engineering Better Bearings For Confident Performance

### Advanced Material Properties Improve Seal Performance

Problem	Traditional Seal	SpreadLock Seal
Contaminants enter bearing, accelerating wear.	Flexible material. Contaminants pass easily into bearing.	Stiff material plus unique cross section design virtually eliminate contaminants.
Seal wear and deterioration	Soft material breaks down over time.	High toughness resists wear, improves life.
Bearing corrosion from moisture	Flexible and porous seal material permits moisture entry.	Stiffness and non-hydroscopic properties eliminate penetrating moisture.

### Key SpreadLock Seal Material Properties

Property	Test Method	Value
Elongation at Yield	ASTM D 638	14%
Flexural Modulus	ASTM D 790	450,000 PSI
Heat Deflection Temperature 264 PSI Not Annealed	ASTM D 648	234° F
Water Absorption Immersion 24 Hours	ASTM D 570	0.31%

When it's dirty, dusty and dangerously contaminated on the outside, the SpreadLock Seal keeps bearings clean and reliable on the inside.



Imagine the crop debris from a recently harvested wheat field. Or, the grit and dust from a deep mining operation. Contaminants permeate logging operations. Think of the need for highly effective bearing operation as a bulldozer crunches into a mountainside. In most of the rough applications where RBC engineers provide inventive performance solutions, thorough and efficient sealing is imperative.

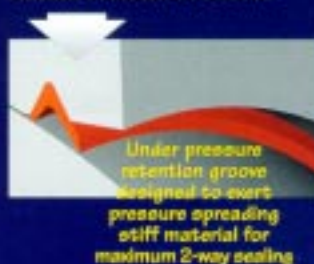
The development of the SpreadLock seal arose from real experiences with major manufacturers of the equipment for the most rugged applications. SpreadLock Seals minimize bearing failure due to corrosion and abrasive wear from contaminants.

### Total Protection Package

The design of the outer ring retention groove and the sealing of the inner ring bore to shaft interface is critical to the total protection package. The groove profile is engineered to exert optimum pressure on the sealing surface, while reducing the seal profile exposure. Obviously less profile exposure reduces the potential of damage and wear. And the optimum pressure is the key to maximizing the lube-in/dirt-out advantage and providing the most efficient relubrication and purging.

The integrity of the inner ring/shaft fit is essential to effective overall performance of the bearing. Even the most precise fit is subject to movement under load. The protective SpreadLock sealing blocks dirt and retains lube to help assure stability of the interface. In addition, inner ring sealing is particularly important where re-lube is performed through the pin.

### Radial Preload Pressure



### Lube Exchange



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