

# Sealed REALI-SLIM® Bearing Selections

## Seals and Shields Available

To realize the full benefits from anti-friction bearings, it is important to keep them clean and well lubricated. Seals and shields properly designed and mounted help to accomplish this. In this catalog these terms have the following definitions:

**Seal**—a contacting closure between the stationary and rotating members, for retaining lubricant within and excluding foreign material from the bearing. Seals are retained in the outer race and make positive contact with the inner race.

**Shield**—a closure for the same purpose as a seal but without positive contact.

A seal is more effective, but requires more turning effort (torque), generates more heat, and as a result, has a lower speed limit than an open or shielded bearing.

The accompanying illustrations are examples by which REALI-SLIM® bearings may be sealed or shielded, either integrally or externally. The lubricant and lubrication systems, torque requirements, speed, and operating environment will influence the choice.

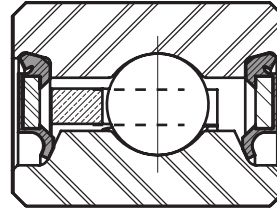
Integral seals and shields offer a very compact overall design with the additional advantage of protecting the bearing before, during and after installation.

Figure 2-1 shows a double-sealed REALI-SLIM® bearing, available from stock in the JU series. In this case, adding shields and seals requires an increase in the width of the bearing (see page 12, Position 2). In the case of JA, JB, and JG double-sealed REALI-SLIM® bearings, the bearing width is the same as that of the open bearing.

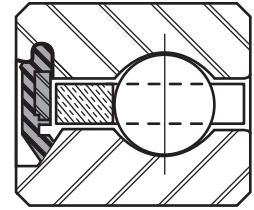
Illustrated in Figure 2-2 is a double LAMI-SEAL® bearing. Shown in Figure 2-3 is a double LAMI-SHIELD® bearing for use where a shield will suffice or is required due to torque limitations or speed.

Where weight and space are at a premium, and a seal or shield is required on one side only, single-sealed or single-shielded bearings as shown in Figures 2-4, 2-5 and 2-6 may be supplied.

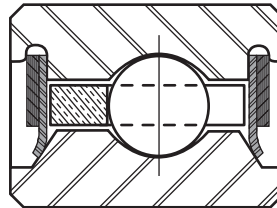
**Note:** Sealed REALI-SLIM® bearings are pre-lubricated with a general purpose grease. Operating conditions (i.e. time, temperature, speed, environment) may result in premature lubrication degradation. A variety of lubricants are available as options to meet your specifications.



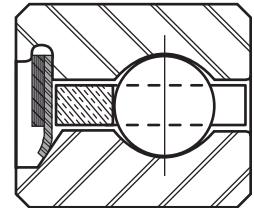
**Figure 2-1**  
Double-Sealed REALI-SLIM® bearing



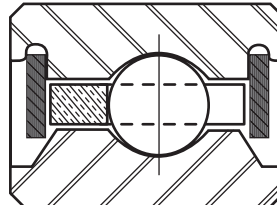
**Figure 2-4**  
Single-Sealed REALI-SLIM® bearing



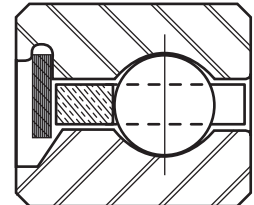
**Figure 2-2**  
Double LAMI-SEAL® bearing



**Figure 2-5**  
Single LAMI-SEAL® bearing



**Figure 2-3**  
Double LAMI-SHIELD® bearing



**Figure 2-6**  
Single LAMI-SHIELD® bearing

**Note:** Pictures are for illustration only and are not intended for design specification.

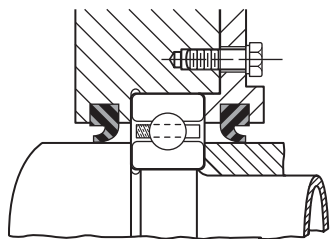
**SEALED REALI-SLIM® BEARINGS, SEALS AND SHIELDS (continued)**

Figure 2-7 shows a nitrile lip-type seal ring available in a variety of cross-sections compatible with the REALI-SLIM® bearing series. While this is a very effective seal, torque is substantial and speeds must not exceed 1000 feet per minute if continuous.

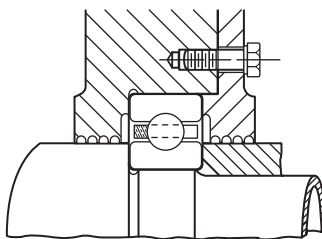
If grease lubrication is used and torque is not critical, a very effective shield is that shown in Figure 2-8 where annular grooves are cut in the housing shoulder and clamp plate and filled with grease.

When a separate shield is required, washers made from precision flat stock are ideal, as shown in Figure 2-9. They serve well where weight limitations are strict.

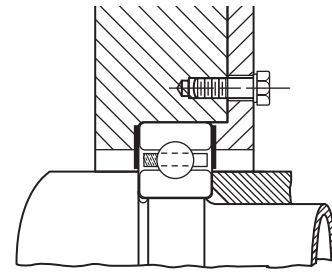
**Whether or not integral seals or shields are specified, bearings must be isolated from hostile environments and debris.**



**Figure 2-7**  
Nitrile Lip-Type Seal



**Figure 2-8**  
Annular Grooves



**Figure 2-9**  
Washer Shield From  
Precision Flat Stock