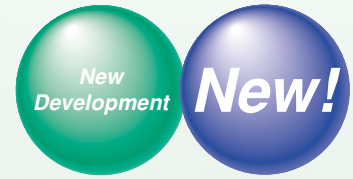
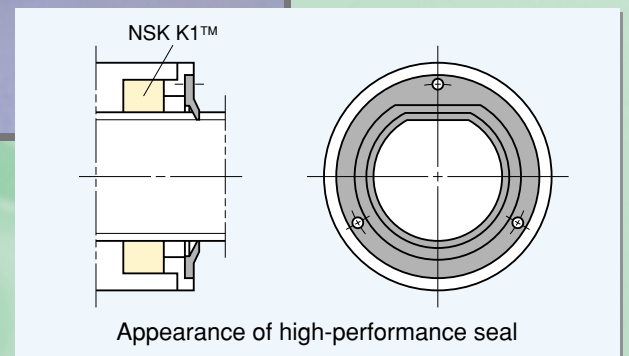


NSK Ball Screw Equipped with High Performance Seal



Patent Pending

All new, high performance seal ensures increased service life by reducing the entry of fine contaminants.



- Achieves compactness through applying the new lip-type seal similar in design to the cross section of the ball screw shaft, while reducing the temperature rise of ball screw by adopting a low-torque design.
- Special raceway-type ball screw shaft improves seal performance and reduces the entry of contaminants inside the ball screw nut.
- In the standard specification, a high-performance seal is to be installed with the NSK K1™ lubrication unit which achieves advanced sealing performance and durability.

1. Features

1 High sealing performance

- New seal configuration reduces the contamination rate of foreign matter to less than 1/15 of that of the conventional standard-type seal. (Fig. 1)

2 Increased durability

- High sealing performance increases the durability of the ball screw under heavy exposure to dust.
- The extreme durability test with fine iron powder shows that the high performance seal increases the service life of the ball screw by more than four times as long as that of the standard seal. (Fig. 2)

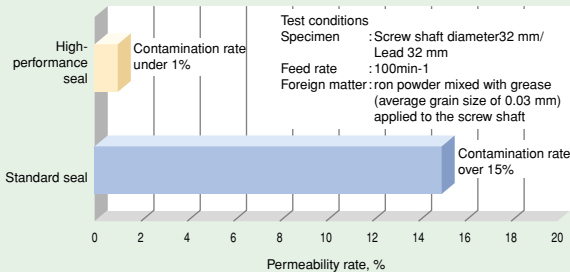


Fig. 1 Contamination rate of foreign matter

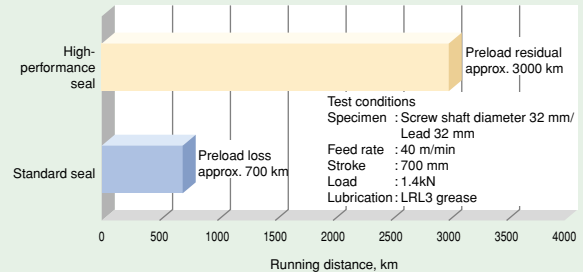


Fig. 2 Durability test with iron powder

2. Specifications

- In the standard specification, the NSK K1™ lubrication unit and the lip-type seal are to be installed in the ball screw nut. Therefore, the overall nut length is slightly longer than the conventional length.
- Torque slightly increases due to the installation of the high performance seal.

3. Applications

- The high performance seal is particularly suited for the following applications involving significant exposure to contaminants:
 - Laser cutting machines
 - Woodworking machines

4. Applicable services and sizes

- Ball screw equipped with high performance seal is made-to-order for most applicable seal configurations depending on the screw shaft diameter and length of the leads.

Handling Precautions

To maintain the long-term efficiency of High Performance Seals, the following precautions should be observed:

1. Permissible temperature range Max. operating temperature: 50°C
 Max. instantaneous peak temperature: 80°C
2. Use of chemicals Never leave the ball screw in close proximity to grease-removing organic solvents such as hexane, thinners, etc.
 Never immerse the ball screw in kerosene or rust preventive oils which contain kerosene.

For more details, please contact the distributor below or NSK:

<NSK Office>