

2. Precautions on Using the Cross Roller Guide/Ball Guide

Handling

- (1) Disassembling components may cause dust to enter the system or degrade mounting accuracy of parts. Do not disassemble the product.
- (2) Dropping or hitting the Cross Roller Guide/Ball Guide may damage it. Giving an impact to the Cross Roller Guide/Ball Guide could also cause damage to its function even if the product looks intact.

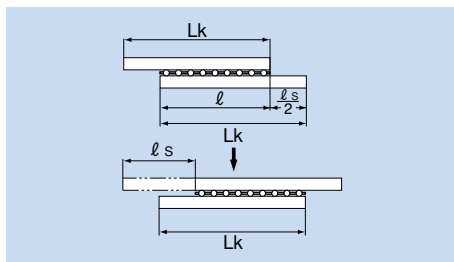
Lubrication

- (1) Thoroughly remove anti-corrosion oil and feed lubricant before using the product.
- (2) Do not mix lubricants of different physical properties.
- (3) In locations exposed to constant vibrations or in special environments such as clean rooms, vacuum and low/high temperature, normal lubricants may not be used. Contact THK for details.
- (4) When planning to use a special lubricant, contact THK before using it.

Rail Length

The roller cage and the ball cage move half the travel distance of the table in the same direction. To prevent the cage from overhanging from the raceway base when the cage length is " ℓ " and the stroke length is " ℓ_s ," the rail length (L_k) must be at least the following.

$$L_k \geq \ell + \frac{\ell_s}{2}$$



Offset of the Cage

The cage, which retains rollers (or balls), demonstrates extremely accurate motion. However, it may be offset as affected by driving vibrations, inertia or impact.

If using the Cross Roller Guide or Ball Guide in the following conditions, contact THK.

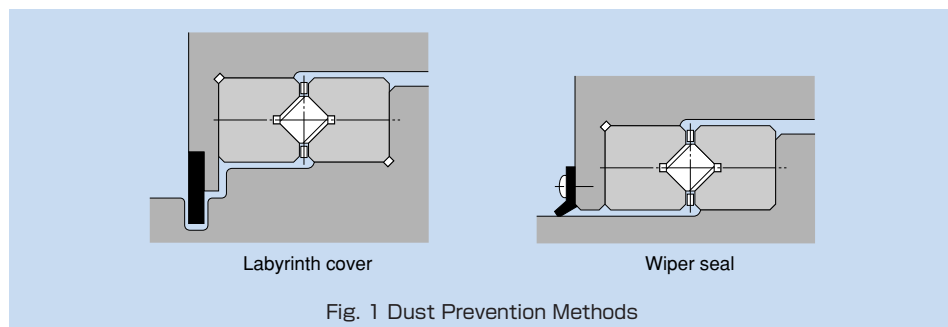
- Vertical use
- Under a large moment load
- Pneumatic cylinder drive
- Butting the guide's external stopper with the table
- Cam drive
- High-speed crank drive

Stopper

Stoppers are attached to the rail ends in order to prevent the cage from falling off. Note, however, that frequently colliding the cage with the stopper may cause wear of the stopper and loosening of the stopper fastening screws, and may cause the cage to fall off.

Dust Prevention

As a means to prevent foreign matter from entering the Cross Roller Guide or the Ball Guide, dust prevention accessories for the side faces as shown in Fig. 1 are available. For dust prevention in the front and rear directions, consider using a bellows or a telescopic cover.



Precautions on Use

- (1) If foreign matter such as dust or cutting chips adheres to the product, replenish the lubricant after cleaning the product with pure white kerosene.
- (2) When desiring to use the system at temperature of 100°C or higher, contact **THK** in advance.
- (3) When using the product in locations exposed to constant vibrations or in special environments such as clean rooms, vacuum and low/high temperature, contact **THK** in advance.

Storage

When storing the Cross Roller Guide/Ball Guide, enclose it in a package designated by **THK** and store it while avoiding high temperature, low temperature and high humidity.