

2. Precautions on Using the Flat Roller

Handling

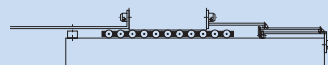
- (1) Disassembling components may cause dust to enter the system or degrade mounting accuracy of parts. Do not disassemble the product.
- (2) Dropping or hitting the Flat Roller may damage it. Giving an impact to the Flat Roller could also cause damage to its function even if the product looks intact.

Dust Prevention and Lubrication

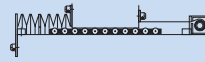
With the Flat Roller, once foreign matter enters the raceway due to poor dust prevention, it cannot be removed easily and tends to severely damage the raceway or the Flat rollers. Therefore, use much care in dust prevention. Normally, for dust prevention of the Flat Roller, a bellows or a telescopic cover that covers the whole sliding surface, as shown in Fig. 1, is effective.

The required quantity of lubricant is much smaller than sliding metals, making the lubrication control easy.

Since the Flat Roller has high lubricant retention, it is suitable for grease lubrication. It is preferable to use lithium-soap group grease No. 1 or 2, or slightly viscous sliding surface oil or turbine oil.



Ⓐ Copper cover or telescopic cover



Ⓑ Bellows or roller blind

Fig. 1 Dust Prevention Method

Attaching a Stopper

Although the Flat Roller performs extremely accurate motion, it may cause a traveling error due to uneven load distribution or un-uniform stop. Therefore, we recommend attaching a stopper on the end of the base or the table.

Chamfering the End Face of the Table

If the Flat Roller is longer than the overall table length, finely chamfer the end face of the table so that the rollers are easily fed to the table.

Mounting Accuracy

To maximize the performance of the Flat Roller, it is necessary to distribute the load as evenly as possible when mounting the product. For the allowable tilt as shown in Fig. 2, we recommend 0.1 mm or less against 1,000 mm.

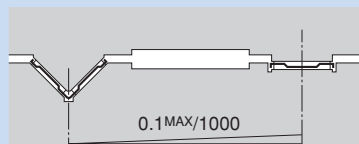


Fig. 2 Mounting Accuracy

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) If desiring to use the product 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.
- (4) The Flat Roller cannot be used as a roller conveyor.
- (5) A moment, vertical mount, uneven contact and machine vibrations may cause the cage to slip. If the slippage of the cage is inevitable, we recommend using an LM Guide system designed for infinite motion.

Storage

When storing the Flat Roller, enclose it in a package designated by THK and store it while avoiding high temperature, low temperature and high humidity.