

## Economy Linear Guide joined the lineup!!



### Features



#### ■Standardization of side seal

To improve dustproof, guide equipped the side seal by the standard. Because the foreign body invasion is prevented more, making to long life can be expected.

#### ■Weight lightening

Lightening the rail was achieved by reviewing height and the shape of cross section. Weight can be 20% lightened in the maximum (compared to our company's products).

#### ■High lubricity

The lubrication properties have improved more than existing product by the grease collecting installation in the ball circulation road, reviewing of the grease supply road.

#### ■Compatibility

Since tolerance between bearings and rails is compatibility, gauging mark between a bearing and a rail is unnecessary. Laborsaving of parts management and shortening of assembly time can be achieved.

#### ■Prevention of balls omission

Since this item has structure with prevention of balls omission, there are no bothers about balls omission in assembly. However, when you insert a bearing into a rail, slide a bearing carefully in parallel.

#### ■Extensive standardization of rail length

To be applicable to most of rail length and to become a symmetrical attachment hole pitch in 2 axis parallel use,

we standardized rail length. It is the easiest to use, and shortening of time for delivery was realized.

#### ■Maintenance is simple

Bearings are delivered in the state which Li-soap based grease is beforehand enclosed with. However, please supply grease periodically from oil hole of both sides.

### Types



#### 1. EGS:

This is the standard size series currently most generally used. This is suitable for electricity, an electron, and a semiconductor process industry.

#### 2. EGS-S:

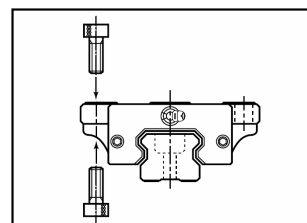
This is designed compactly by shortening the length of bearings LGS series. And this is suitable to the machine equipment aiming at a narrow place.

#### 3. EGH:

This is the heavy size series widely used for the middle weight or heavy weight type machine. This is suitable for auto industry, machine tools, and other special industrial machine equipment.

#### 4. EGH-F:

This is a high rigidity type of LGH prepared a flange. It has the structure which can set a bolt from the top or the bottom.



## Precision Standards

The following table1 shows precision standards for the EGS and EGH series.

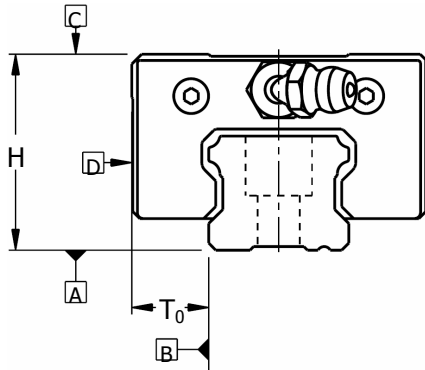
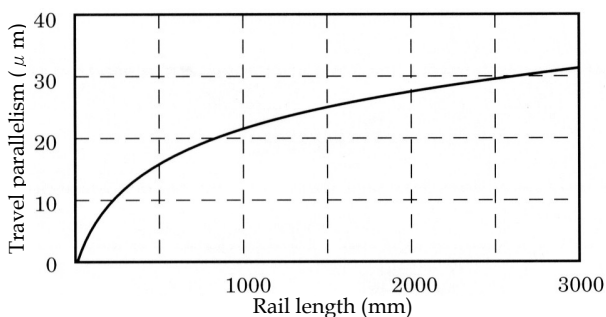


Table1: Precision standards unit:mm

Item	accuracy
H tolerance	±0.1
H deviation between paired rails	0.03
T <sub>0</sub> tolerance	±0.1
T <sub>0</sub> deviation between paired rails	0.03
C-face travel parallelism against A-face D-face travel parallelism against B-face	See Fig1.
Radial clearance	0~+0.020

Fig1: Travel parallelism



Applicable temperature: -20°C~+80°C

## Rated Life

The rated life of the EGS, EGH series can be calculated by the following formula.

$$L_{10} = \left( \frac{C}{f_s \cdot P} \right)^3 \cdot 50km \quad (1)$$

L<sub>10</sub>: Rated Life km

C: Basic dynamic load rating N

P: Acting radial load N

f<sub>s</sub>: Impulse, vibration and/or speed factor; see table2

Table2: Impulse, vibration and speed factor

Conditions	f <sub>s</sub>
When the reciprocating motion speed is V=300mm/sec or less without impact or vibration	1~1.5
When the reciprocating motion speed is V=1000mm/sec or less with slight impact or vibration	1.5~2.0
When the reciprocating motion speed is V=1000mm/sec or more with heavy impact or vibration	2.0~4.0

## Installation

1. Wipe off the rust prevention oil applied on this guiderail.
2. Do not remove the grease contained (Albania No.2 of Shell Petroleum) in the housing.
3. Please assemble them in a state to which a bearing is inserted in a guiderail. Even if you extract a bearing from a guiderail, balls don't fall from the bearing with structure of prevention of balls omission. But if you insert a bearing into guiderail by force, balls may fall.
4. When you insert a bearing into a rail, slide a bearing carefully in parallel.
5. A reference plane of a bearing is one flank (grinding side). Reference planes of a guiderail are both flank.
6. If the greased nipple inlet is required to be shifted in the opposite direction, follow the instructions below.
  - ① Remove the grease nipple with a hexagon socket spanner.
  - ② Remove the filling plug in the grease nipple installation hole on the opposite side with a hexagon socket wrench. Then attach a grease nipple.
  - ③ Install the removed filling plug into the greased nipple installation hole on the other side.