

Application and Installation of Linear Bearing

Application of [Linear Bearing](#)

[Linear bearings](#) are more and more widely used in electronic equipment, food machinery, packaging machinery, medical machinery, printing machinery, textile machinery, machinery, instruments, robots, tool machinery, CNC machine tools, automobiles and digital three-dimensional coordinate measuring equipment and other precision equipment or special machinery industries.

Specification of [linear bearings](#)

The specifications of [linear bearings](#) are LM and LME, LIN-11, LIN-12 and KH series. The LM series is used in Asia and Southeast Asia. The metric dimension is the standard, and the tolerance of the outer diameter of the linear shaft is generally h7. LME series are mostly used in Europe, America, Germany, Italy and other regions. The standard size of LME series is British size, but also metric size. The outer diameter tolerance of straight axis is generally g6. LIN-11 stands for European standard plastic [linear bearings](#), which are installed with clamp spring limited position, while LIN-12 series is narrow design, which directly uses its outer diameter to fit with the installation seat hole tightly, mainly in order to save installation space.

[Linear Bearing](#) Installation

1. Before installing [linear bearings](#), the rough edges, dirt and surface scars on the mechanical installation surface must be removed. Linear bearings are coated with anti-rust oil. Before installation, please wash the base level with cleaning oil and install it again. Usually the base level is easy to rust after cleaning the anti-rust oil. It is suggested that the main shaft with low viscosity be coated with lubricating oil.
2. Lightly place the [linear bearing](#) on the bed. Use the lateral fixing screw or other fixing fixture to make the track and the lateral fixing surface fit together lightly. Before installation and use, it is necessary to confirm whether the screw holes are in accordance with each other. Assuming that the processing holes of the base do not coincide with each other and the bolts are locked forcibly, the combination accuracy and the service quality will be greatly affected.
3. The positioning screw of [linear bearing](#) is tightened sequentially from the center to both sides, so that the track and the vertical mounting surface are fitted together, and the more stable accuracy can be obtained by tightening from the central position to both ends. After the vertical datum level is slightly tightened, the locking force of the lateral datum level is strengthened so that the [linear bearing](#) can effectively fit the lateral datum level.
4. Use the torque wrench to lock the torque one by one according to various materials, and tighten the positioning screw of the [linear bearing](#) slideway slowly.
5. Use the same installation method to install auxiliary rails, and install slides to main rails and auxiliary rails individually. Attention should be paid to the fact that after the linear sliding rail is installed on the sliding seat, many accessory parts can not be installed due to the limited installation space, so all accessory parts must be installed together at this stage.
6. Place the moving platform gently on the sliding seat of the main rail and the auxiliary rail of linear bearing, then lock the lateral screw on the moving platform, and the installation and positioning can be completed.