

1.1. Structure and Features of the Linear Bush

Linear Bush model LM is a linear motion system used in combination with a cylindrical LM shaft to perform infinite linear motion. The balls under a load are in point contact with the LM shaft. This allows linear motion with minimal friction resistance and achieves highly accurate and smooth motion despite, the small permissible load.

The nut uses high-carbon chromium bearing steel and its outer and inner surfaces are ground after being heat-treated.

The Linear Bush is used in a broad array of applications, such as slide units of precision equipment including OA equipment and peripherals, measuring instruments, automatic recorders and digital 3D measuring instruments, and industrial machines including multi-spindle drilling machine, punching press, tool grinder; automatic gas cutting apparatus; printing machine; card selector and food packing machine.

●Interchangeability

Since the dimensional tolerances of the Linear Bush's components are standardized, they are interchangeable. The LM shaft is machined through cylindrical grinding, which can easily be performed, and it allows highly accurate fitting clearance to be achieved.

●Highly accurate retainer plate

Since the retainer, which guides three to eight rows of balls, is integrally molded, it is capable of accurately guiding the balls in the traveling direction and achieving stable running accuracy. Small-diameter types use integrally molded retainers made of synthetic resin. It reduces noise generated during operation and allows superb lubrication.

●Wide array of types

A wide array of types are available, such as standard type, clearance-adjustable type, open type, long type and flanged LM case unit, allowing the user to select a type that meets the intended use.