

LINEAR MOTION BEARINGS

What Are Linear Motion Bearings?

Linear motion bearings can support motion across a single linear axis. It ensures a low-friction surface for guide rails on carriages, allowing precise movement with minimal wear and friction. Our linear motion bearings are assembled with precision rolling elements to reduce friction and ensure smooth, precise operations in any system with a guiding rail, ranging from compact 3D printers and robotics systems to sliding doors and machining equipment.



Types of Bearings Distributed by Emerson Bearing

Both rolling linear bearings and plain linear bearings are designed to provide smooth linear motion. Learn more about which type is the right fit for your next project:

Rolling Linear Bearings



Linear roller bearings have balls or rollers in the guide rails, which act as the smooth rolling element to control motion. The bearing roller can be large or small, depending on the linear speed the guide demands. Each unit can be customized to have the size and contact angle needed for the assembly's loading capacity and motion requirements.

Plain Linear Bearings



Plain bearings can reduce friction and ensure smooth contact between two surfaces. These parts are very simple to use, with simple construction and, as a result, a low production cost. They can handle a large load due to the increased contact surface area, and they can also handle shock and vibrations better than other linear bearings.

Types of Linear Motion Bearings We Offer

At Emerson Bearing, we offer these four types of linear motion bearings:

01 TW Type Linear Motion Bearings

Our Super Series bearings are lightweight and come in a wide range of shapes and materials for different applications. They have a high load-bearing capacity.

02 SW Type Linear Motion Bearings

Our SW type linear motion bearings are available in multiple different styles for single-direction motion applications.

03 SM Metric Type Linear Motion Bearings

Commonly used in Japan, our SM metric type bearings come in millimeter dimensions.

04 KB Metric Type Linear Motion Bearings

This bearings series is commonly used in Europe and include a wide variety of standard, adjustable, and open options.

How to Choose the Right Type of Motion Bearing

At Emerson Bearing, we can help you choose the right motion bearing for the job. Some of the factors to consider include:



Precision demands, including applications ranging from low-end drawer slides to high-precision industrial equipment.



Motion smoothness in high-load operations. This requires extra precision components.



Risk of particulates and contamination within the bushing. Linear bearings with seals are available.



Friction



Stand-alone or assembled goods: Manufacturers can offer a wide range of assembled systems with different actuating options for simple operation.

Order Linear Motion Bearings From Emerson Bearing Today

At Emerson Bearing, we provide specialty linear motion bearings for precision systems. We prioritize quality and high performance in every construction. Contact us today to learn more about our processes or request a quote to start your order.