

Linear
MOTIONEERING
Tools



Micron
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Product
Selectors



Interactive
3D Models



Precision
Ball Selector



Motioneering
Toolbar



Electromechanical or Fluid Power – Which Linear Actuation Option is Best for Your Industrial System?

Linear actuation plays a critical role in a wide range of products and processes in factory automation, packaging, medical devices, and many other fields.

Linear actuators are commonly divided into two main types: fluid power actuators that operate on differential pressure and electromechanical actuators driven by an electric motor. The type of actuator used plays a critical role in the machine's performance, initial cost and operating costs.

This article provides an honest look at the pros and cons of each of the main types of linear actuators, with the goal of providing a general guide for their selection and application.



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+ problem solver

PROBLEM: Is there a way to predict or calculate noise on a ball screw?

SOLUTION: There is no way to calculate the noise of a ball screw, but there are ways to minimize noise in an application.

Larger ball screws utilize larger ball bearings and are therefore inherently noisier, and external return systems are inherently noisier than internal return systems.

Additionally, the use of spacer balls can reduce the noise of a ball nut. Selecting and properly applying the right grease can also reduce the overall noise level. Minimizing or eliminating backlash can also reduce overall assembly noise.

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TODAY'S WEBINAR:

Clutches & Brakes 101: Basics for Design Engineers
May 29, 2013 - 10 a.m. CST - Please check your local time zone!

Have no clue what the difference is between wrap spring and friction clutches and brakes? Not sure which one is best to use in a given application? This is the webinar for you! Thomson will take you through the basics of function, sizing,

selection, and answer your questions. Learn how to build a better machine with Thomson Clutches and Brakes.

REGISTER NOW! This is your last chance!

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New Profile Rail Catalog Released!

It's now easier than ever to specify the optimal linear guide with help from Thomson.

Thomson is passionate about helping you select motion solutions that strike the optimal balance between performance, life and installed cost. The new catalog now features all of our profile rail products in one handy resource:

- The new 400 Series Profile Rail Linear Guides! This is a high value linear motion solution that delivers smooth, accurate and quiet operation, ideal for standard automation applications.
- 500 Series Ball Profile Rail
- 500 Series Roller Profile Rail
- Ultra compact AccuMini Linear Ball Guides
- Super light T-Series Profile Rail
- MicroGuide Profile Rail

This catalog is far more than a collection of product specifications. In it you'll find a 36 page profile rail engineering guide with complete technical details regarding sizing, selection, load life calculations, deflection v.s applied load, lubrication, bellows cover calculations, conversion factors and more.

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Start Visualizing a Better Motion Solution

Thomson is the original electric linear actuator manufacturer, and we provide positioning solutions for a huge array of unique mobile off-highway applications and dynamic loads.

Our extensive range of actuators - from low-cost, small, quiet and minimal maintenance options to truly heavy-duty solutions built to withstand the harshest environments - can meet virtually any application need.

Simply put, with Thomson you have access to the largest range of standard and custom linear actuators in the market today – plus 40 years of application and engineering expertise.

Check out our special website built to share related technical articles, video, application examples and an application information guide to help jumpstart your conversation with a Thomson application engineer.

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