

## High Force Linear Actuators Roller Screws vs Ball Screws





In the past the only solution for **high-thrust linear motion** was fluid-powered cylinders that used high-pressure air or hydraulic oil.

Now there are <u>electric rod actuators</u> that deliver high forces as well as infinite positioning, speed control and low maintenance. In an electric rod actuator, it's the screw/nut combination that converts the rotary motion of the motor to linear motion. Roller screws and ball screws are typically used in high-duty-cycle and high-force applications. However, **it's a challenge to choose the right screw technology for a high-force application.** 

## **Ball Screws**

Ball screw actuators perform well in applications that require high duty cycles, moderate to high thrust and moderate speeds. Plus, ball screws are typically 85-90% efficient and are reasonably priced.



## **Roller Screws**

Roller screw systems deliver high force, operate at high speeds, are long-lasting, provide good force transmission capabilities, and require little maintenance.



## Which to use?

This article will give you an overview of the advantages of each screw technology.

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