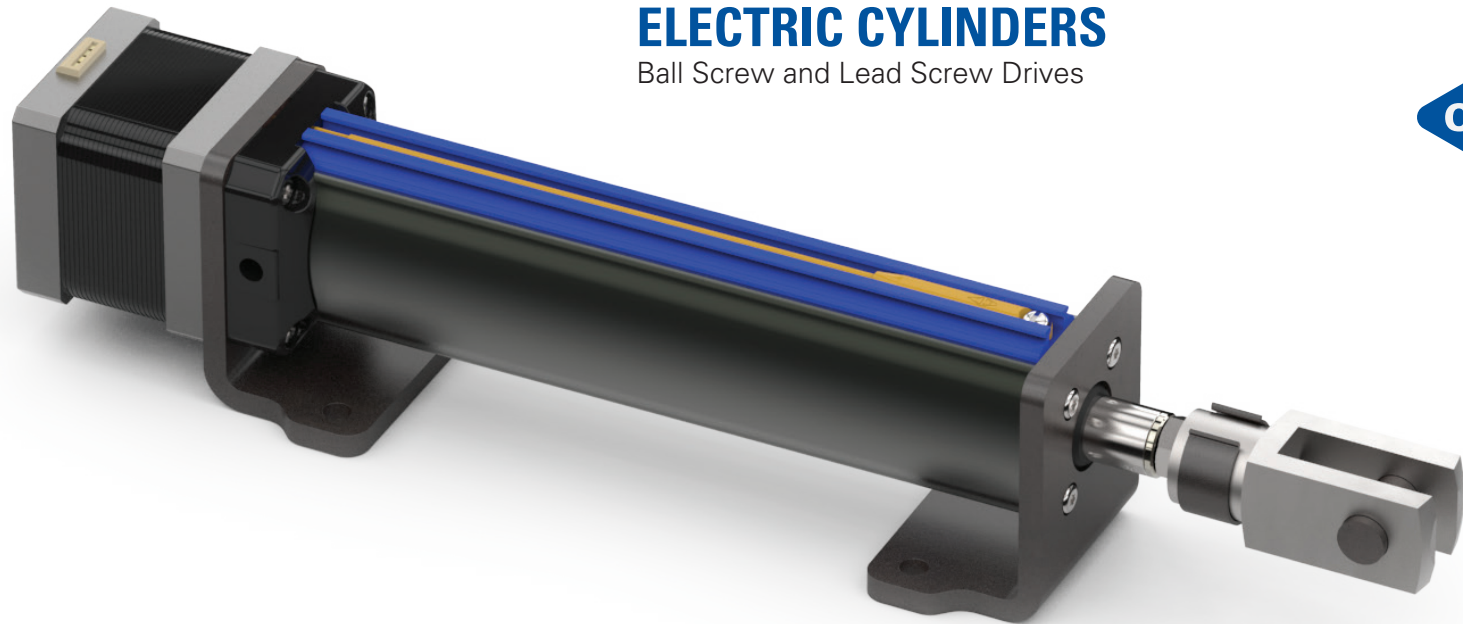


Linear Motion Technology



## ELECTRIC CYLINDERS

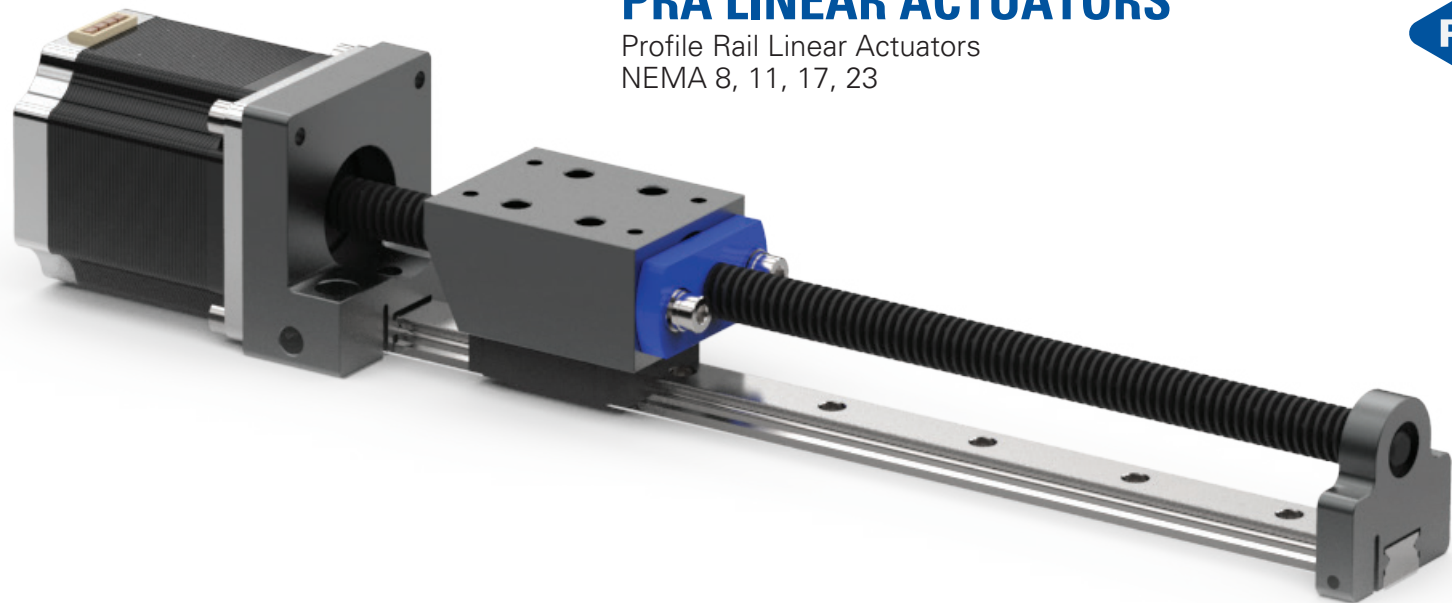
Ball Screw and Lead Screw Drives



Helix Electric Cylinders feature smooth, clean, and quiet linear positioning. These Electric Cylinders are built with a precision 300 series stainless steel lead screw or ball screw. Lead screw models include a Teflon-coated screw and internally lubricated nut. Helix Electric Cylinders have versatile mounting options and can be built with digital encoders, magnetic sensors and linear potentiometers.



*Many optional mounts and ends are available.*

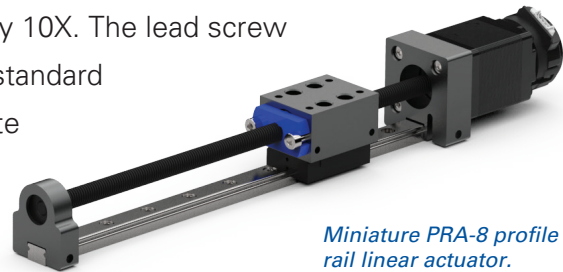


## PRA LINEAR ACTUATORS

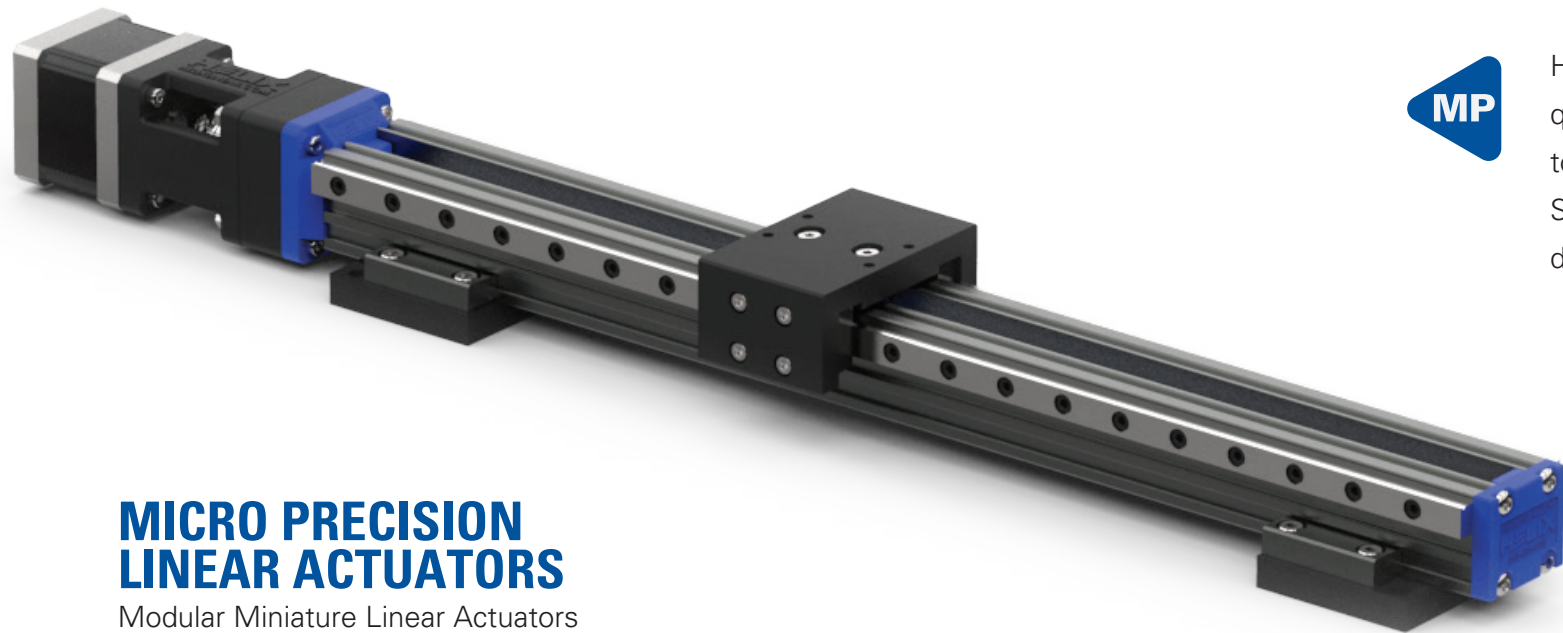
Profile Rail Linear Actuators  
NEMA 8, 11, 17, 23



Helix Profile Rail Linear Actuators offer smooth, clean and quiet linear positioning. The PRA is built with either lead screw or ball screw drives. Lead screws can be coated with Helix H10X™ PTFE to increase the nut life by 10X. The lead screw assembly also incorporates a standard or anti-backlash nut to eliminate axial and radial lash. The PRA linear actuator is built with precision ground profile rails for robust guidance. These pre-assembled linear actuators offer a turn-key solution for linear motion applications and quick deliveries.



*Miniature PRA-8 profile rail linear actuator.*

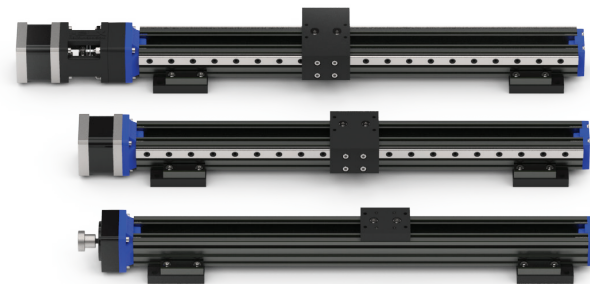


## MICRO PRECISION LINEAR ACTUATORS

Modular Miniature Linear Actuators



Helix Micro Precision Linear Actuators offer smooth, clean and quiet linear motion. Helix manufactures three different models to meet the demands of different linear motion applications. Standard accessories include mounting blocks, limit switches, digital encoders, sensors and high-payload options.



*Motorized and non-motorized models.*

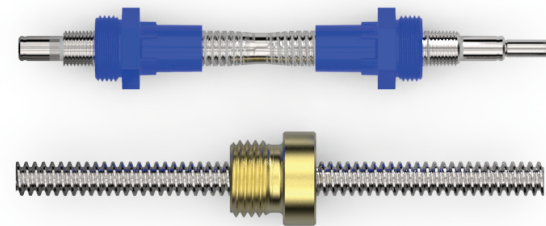
## LEAD SCREWS

1.5 - 50mm diameter assemblies



LS

Helix manufactures lead screws ranging in size from 1.5 - 50 mm diameter with a wide variety of nut designs and materials. Helix nuts are available in threaded and flange mounts. Anti-backlash nuts perform with zero backlash, and are self-compensating for wear. Helix nuts are molded from our proprietary internally lubricated Helital™ material. Helix lead screw assemblies guarantee maximum load sharing, minimal torque and long life. Lead screws can be coated with Teflon to provide a dry lubricant and extend nut life by 10X.



*Available screw materials include stainless, steel, aluminum, titanium and can be coated with PTFE.*

## MINIATURE PRECISION TORQUE SPLINES

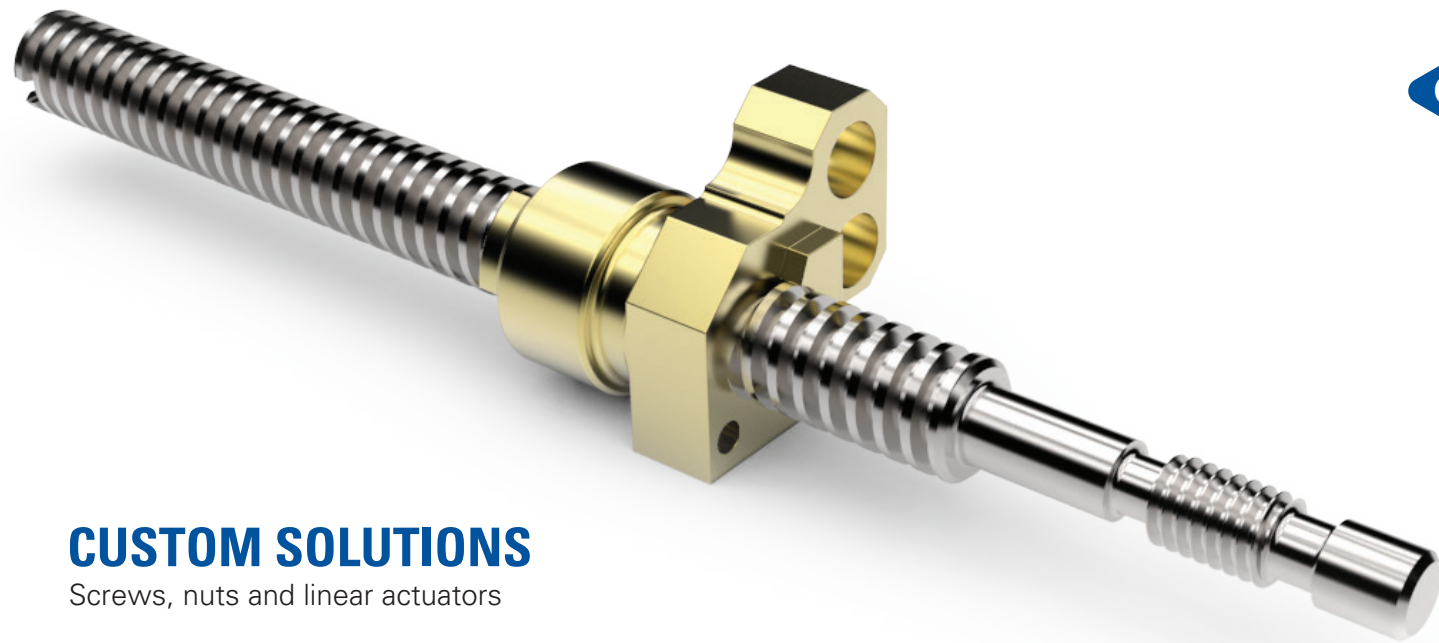
Rotary and linear motion



Helix Precision Torque™ Splines are a convenient and efficient product that allows low friction linear motion while transmitting torque. In a Helix PT Spline assembly the high strength composite polymer bushing carries the load between the rotating member (inner race) and the rotating/translating member (bushing). Helix PT Splines are coated with Helix H10X™ PTFE coating for long life and anti-friction. The PT bushings are offered in a standard freewheeling design and an anti-backlash design. These bushings can be mounted using an external thread or flange mount.



*Options include cylinder mount, thread mount and anti-backlash bushings.*

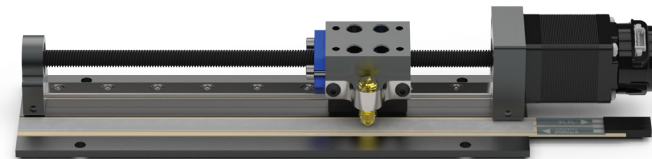


## CUSTOM SOLUTIONS

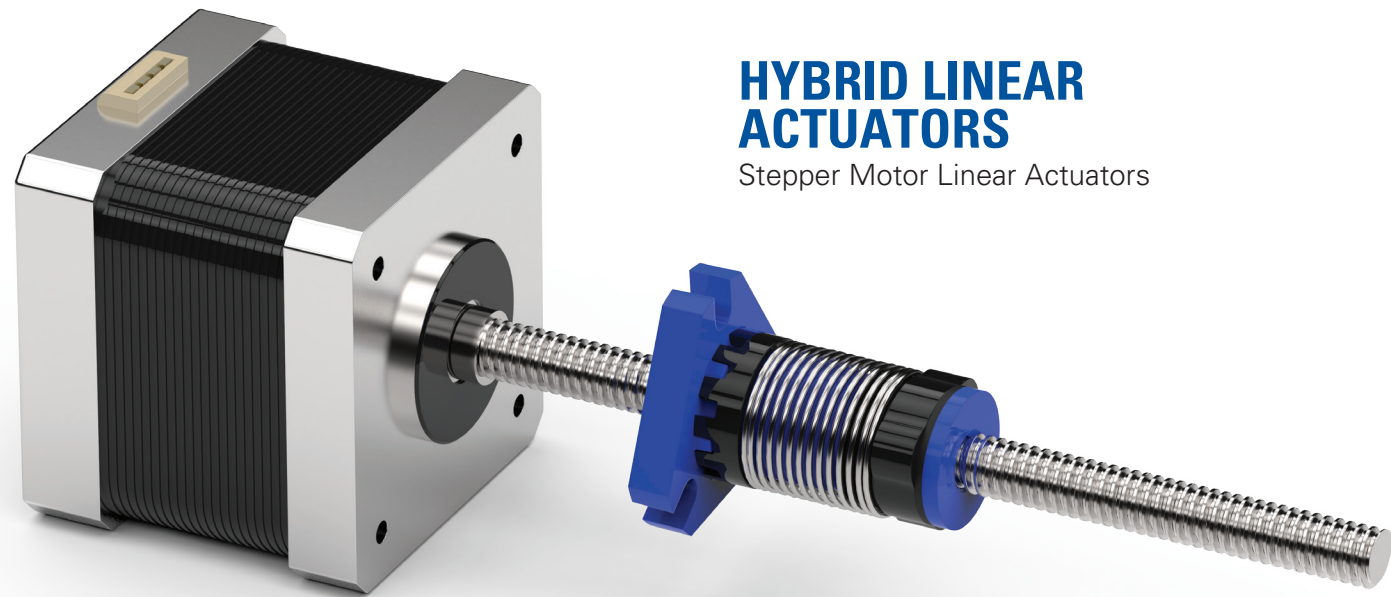
Screws, nuts and linear actuators



Building custom solutions is an important part of our business. We combine our standard products with additional high-performance components to build custom lead screw assemblies and linear actuators specifically for your application. Contact us today with your custom design.



*Custom Profile Rail Linear Actuator with linear potentiometer.*

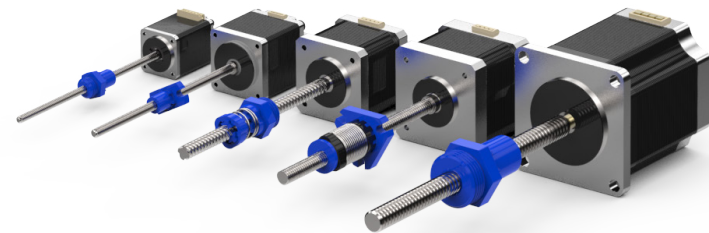


## HYBRID LINEAR ACTUATORS

Stepper Motor Linear Actuators



Helix Hybrid Linear Actuators feature precision lead screws and nuts to produce accurate and repeatable linear motion. Actuators are manufactured in NEMA sizes 8, 11, 14, 17 and 23. Standard and custom nut designs are available. Optional accessories are connectors, wire harnesses, digital encoders and custom lead screw nuts.

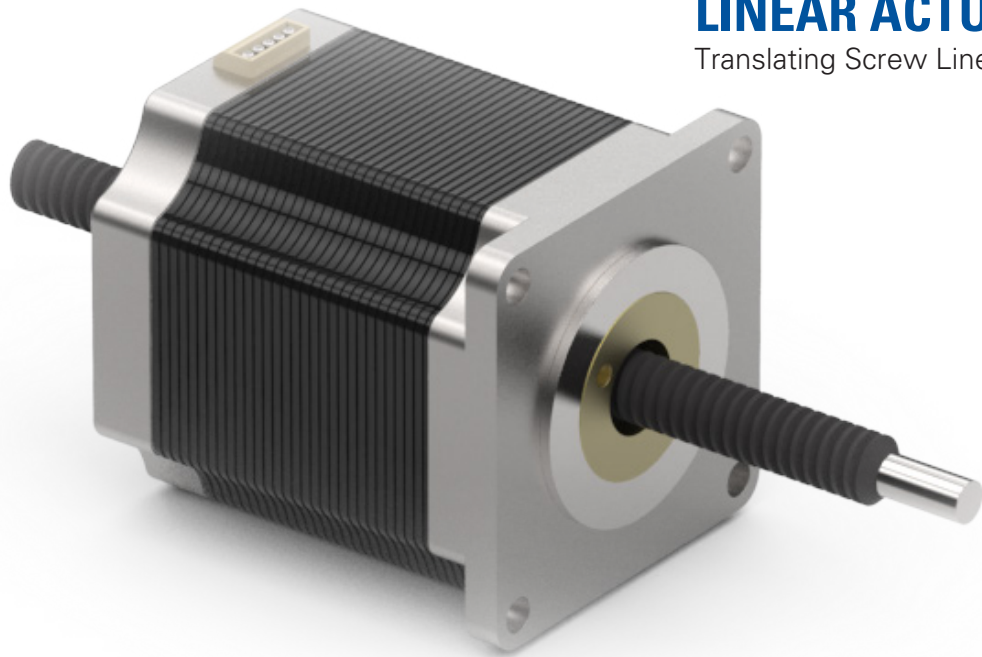


*SMA Hybrid Linear Actuators with standard and anti-backlash nuts.*

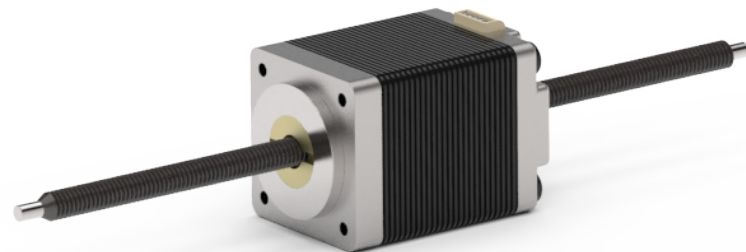


## NON-CAPTIVE LINEAR ACTUATORS

Translating Screw Linear Actuators



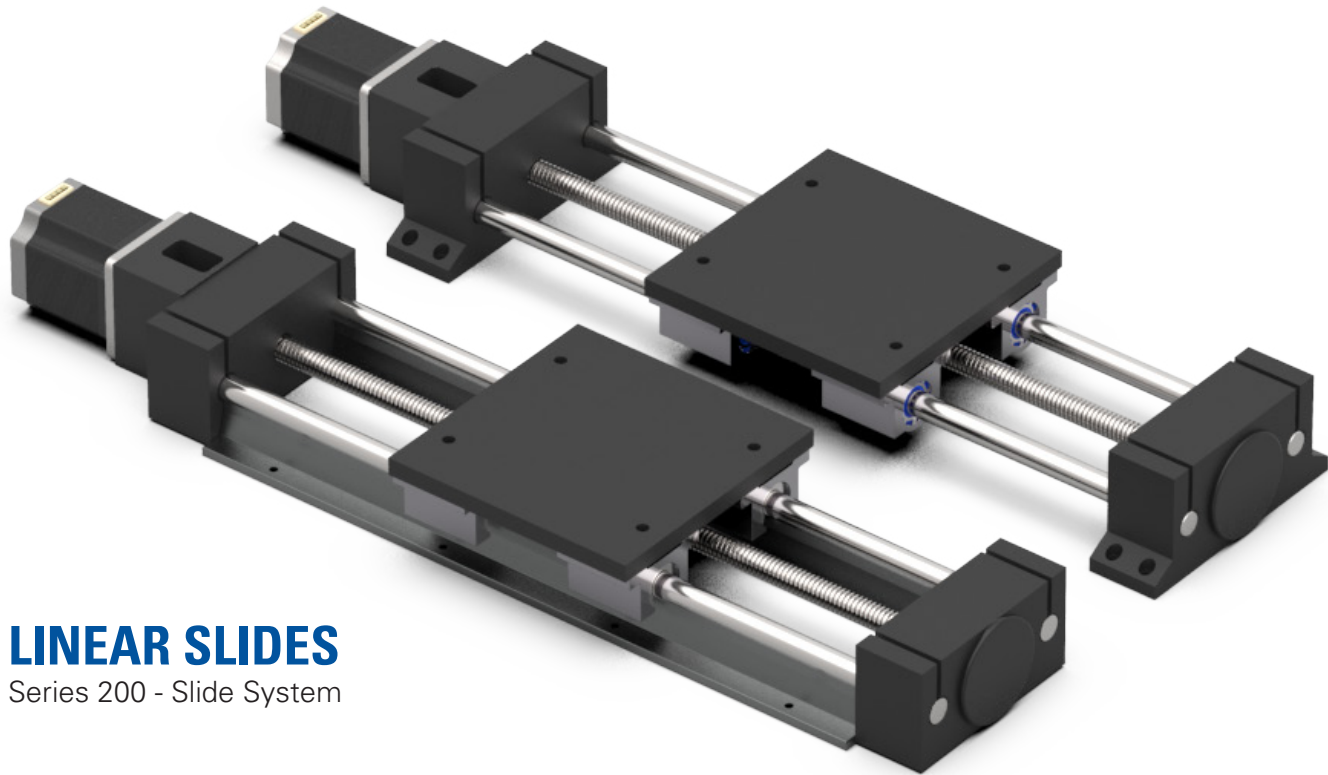
Helix Non-Captive Linear Actuators are offered in NEMA 8,11,14, 17, 23 and 34 frame motors. These stepper motor linear actuators operate with a precision lead screw that translates through the motor housing. The lead screw nut is manufactured from high performance plastic to offer long life and maximum load carrying.



*NCA-8 Non-Captive Linear Actuator  
with modified lead screw.*

## LINEAR SLIDES

Series 200 - Slide System

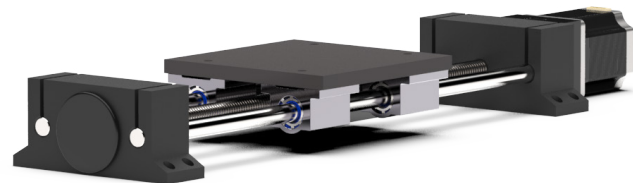


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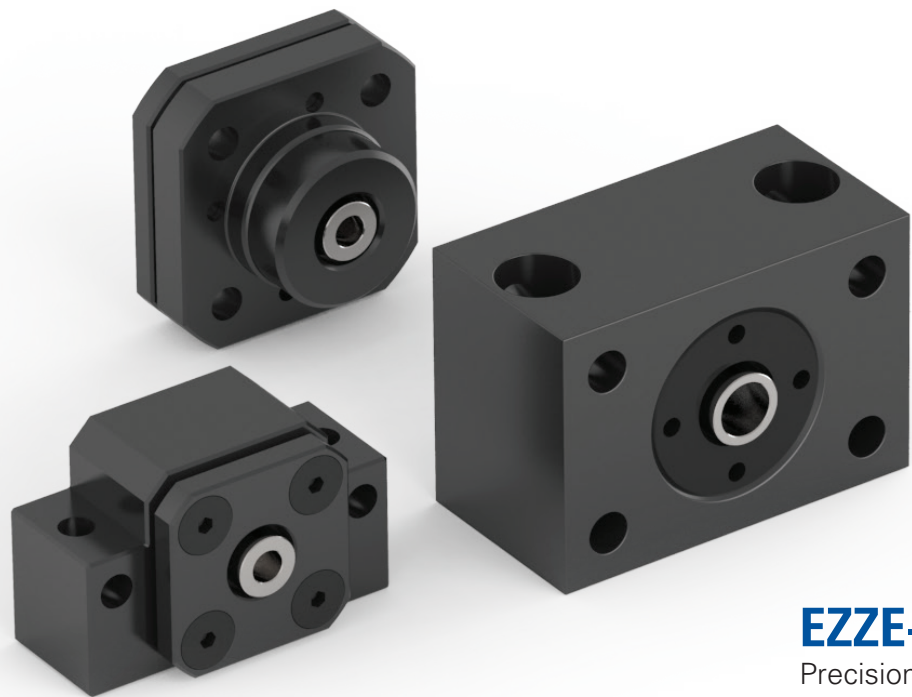
Helix Series 200 Linear Slides are offered in four different sizes to move 700-1600 lbs. The Series 200 slides are available in fully-supported or end-supported models and are built with ACME screws or metric ball screws. Motors, encoders, sensors, bellows boots and twin-lead screws (RH/LH) can also be incorporated into these systems.

### Features/Options

- Choice of end and fully-supported rail guides
- Motor mounts
- Custom carriages
- Anti-backlash nuts



*End-supported 212 Linear Slide.*

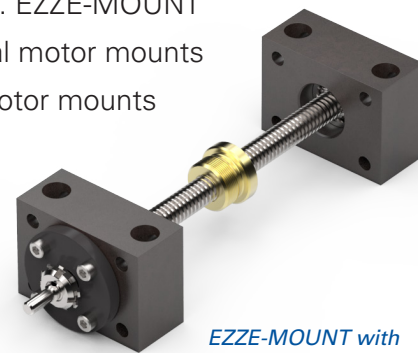


**EZZE-MOUNT™**

Precision end supports



Linear motion applications utilizing a ball screw or an ACME screw require the screw end machining to be matched with precision bearing mounts. Helix Linear offers both end bearing mounts and end machining as a complete assembly. End bearing mounts must be designed to withstand both the radial and the thrust loads generated by the application. EZZE-MOUNT™ bearing mounts are available with integral motor mounts to offer complete motorized systems. Motor mounts are available for standard NEMA mounts (17, 23, 34 and 42), as well as, IEC frames for servo and stepper motor applications.



*EZZE-MOUNT with  
ACME screw and nut.*

# LUBRICANTS

High performance grease and spray



## Increase the Reliability and Life of your Linear Motion System

Proper lubrication is the key to continued performance and reliability of linear motion systems. Helix offers specialized lubricants for these demanding applications:

- Medical / Life Science
- Semiconductor / Static Dissipative
- Military and Aerospace
- All-Purpose Precise Motion
- General Industrial

Smooth. Clean. Quiet.



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