

# THE ELECTRO-MECHANICAL SOLUTION FOR HIGH-PERFORMANCE ACTUATION



WHAT MOVES YOUR WORLD

# A SMARTER, MORE FLEXIBLE PRE-ENGINEERED ACTUATION SOLUTION

Today's linear motion applications demand more modern, high-performance motion control solutions. With rising utility costs and increasing challenges to take environmental action, design engineers want a flexible, pre-engineered solution that will help them incorporate an electric solution without sacrificing precision, speed and productivity.

The Moog MaxForce Pre-Engineered Electric Linear Actuation Solution provides an electro-mechanical alternative to traditional hydraulic actuation. Combining an electro-mechanical actuator, a servodrive and integrated software, this high performance solution delivers worldclass motion control to a wide array of linear applications, ensuring high speed and high force in today's most demanding industrial environments.

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With four actuator frame sizes and two styles, this solution has speeds up to 63 in/sec (1600 mm/sec), forces up to 33,700 lbs (150 kN) and stroke lengths up to 98 in. (2500 mm).

#### PERFORMANCE

- Long-lasting performance and reliability with integrated design and reduced part count
- Pre-engineered system—actuator, servodrive, software—allows for easy set-up and installation

#### PRECISION

- Ensures more accurate precision motion control
- Low inertia motors for higher acceleration
- Lower audible noise compared to hydraulic installation

#### **EFFICIENCY**

- Reduces maintenance and operating costs
- Match unique machine designs with a full range of options, sizes and configurations
- Reduces energy consumption
- Eliminates oil leaks

## AN INTEGRATED SYSTEM DESIGNED TO ACHIEVE MAXIMUM MACHINE PERFORMANCE

## Components optimized to work together

The MaxForce Pre-Engineered Electric Linear Actuation Solution is an actuation package that employs Moog's innovative brushless servomotor and ball-screw technology, a state-of-the-art servodrive and user-friendly commissioning software. All of the components are optimized to work together to provide the highest level of performance and accuracy.

#### Engineered in advance

Moog's depth of motion control expertise provides you with a flexible solution unique to your machine needs. Moog has engineered the majority of the work in advance so that with minimal effort the system can be easily implemented into your application.

### World-class components for high performance

The MaxForce Pre-Engineered Electric Linear Actuation Solution features genuine Moog components so you can rest assured that you're getting the world-class performance today's design engineers have come to trust.

#### User-friendly software

Moog's intuitive commissioning software helps the user reduce system setup time.

The commissioning software saves time at system start up by automatically uploading preset system tuning parameters off the absolute encoder. The software also ensures error-free start up by implementing preset safety limits for speed, force and stroke length. In addition, the encoder file provides the drive with data on actuator speed, force, and position, eliminating the need for the user to convert, then program, motor RPM, motor current, and encoder counts into these values.

There is also a Control Panel function and Fault History which allows ease of setup and troubleshooting. Various levels of intelligence and communication options are available.

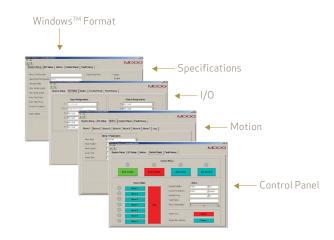
#### SERVOACTUATOR



#### Port Encoder Feedback Connection

Input Power ------ Motor Power

#### **COMMISSIONING SOFTWARE**



#### ELECTRIC ACTUATION APPLICATIONS

The MaxForce Pre-Engineered Electric Linear Actuation Solution supports a number of industries in need of a high performance solution for any current hydraulic or not-as-effective electric linear motion control application.

- Manufacturing Industry-Pressing applications, such as bearings into housings
- Power Generation Industry-Damper Control and other applications
- Plastic, Sheet Metal & Paper Industries–For example, Edge Guide System for web control
- Food & Beverage Industry–Applications include synchronized bottle filling
- Powder Metal Industry–Designed for a range of heavy-duty uses including Sintering Pusher Furnace
- Automotive Industry–Applications include Walking Beam and parts movement on an assembly line
- Plastics Industry–Ideal for Tensioning (maintaining a precise tension on a web as it is rewound) and other applications

#### WHY CHOOSE ELECTRIC ACTUATION

Electric technology consumes less power than traditional hydraulic actuation systems. And because electric actuators don't require oil, it's a low maintenance, cost-effective solution that delivers a cleaner, more efficient operation with a maximum level of performance, precision and reliability.

In addition, the MaxForce Pre-Engineered Electric Linear Actuation Solution creates less noise than virtually any hydraulic-based system. This innovative electric solution is easy to set-up, offers plug-and-play installation and delivers power densities that are similar to hydraulic solutions.

There can be significant gains in energy efficiency when using an electro-mechanical solution. For example, a 10 horsepower rated EM system will have energy savings of up to 75% over a comparable servohydraulic system while holding position and maintaining full force.



#### MOOG'S RICH HERITAGE IN ELECTRO-MECHANICAL ACTUATION

When it comes to tailoring the right electro-mechanical solution to your specific performance requirements, experience pays. Moog has been at the forefront of this technology for more than 25 years. From designing our own brushless servomotors and servodrives to bringing high-performance electro-mechanical actuation solutions to applications in flight simulation, power generation, wave simulation, heavy industry, and space and defense, Moog offers an unsurpassed track record of leadership, innovation and success.

## TAKE A CLOSER LOOK

Solutions for pre-engineered electro-mechanical actuation for high performance applications are readily available by calling +1 716 652 2000 or emailing us at info.usa@moog.com

For more information, visit our Web site or locate the distributor nearest you are www.moog.com/industrial/distributorlocator

#### www.moog.com/industrial

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