

## Automation Applications Increase Productivity and Profit



## TAKE CONTROL OF YOUR PRODUCTION DEMANDS

Each step in the plastic injection molding industry requires motion. Whether it is core pulling, mold locks, or gate valve applications, repeatability and accuracy are critical to part quality. Today, electromechanical actuators are being chosen over hydraulics for their precise, clean motion.

The slow response rate of hydraulic systems extends the molding process time, reducing production throughput. Switching to an allelectric solution allows these processes to run faster and in parallel, further reducing cycle times.

Exlar<sup>®</sup> electromechanical actuators from Curtiss-Wright offer the force of hydraulics while eliminating fluid leaks and potential safety hazards as well as reducing maintenance and downtime.

With our experience in providing improved solutions for customers, we can offer you gains in productivity, quality, and reliability.



# **Benefits**

**Programmability and Precision** - The ability to control position, velocity, torque, and acceleration, gives plastic manufacturers the flexibility to make different parts quickly and easily with a basic modification to the motion profile.

Electric actuators can be programmed to decelerate just before the molds close together, preventing high-energy impacts that can damage tooling.

**Power Density** - We offer force density comparable to hydraulics, up to 356 kN. Exlar actuators provide accurate positioning at high speed with high force in a very compact design.

**Longer Life** - Exlar actuators are manufactured to last. An Exlar roller screw actuator lasts, on average, up to 15X longer than competitive electric ball screw actuators of similar frame size.

**Increased Efficiency** - Switching from a hydraulic solution to an Exlar electromechanical actuator can yield energy savings greater than 50%.

Our unique roller screw technology delivers high force in a small package giving you more flexibility, higher efficiency, and better reliability than hydraulic cylinders



**Speed** - Exlar actuators allow for smooth, efficient motion at speeds up to 1500 mm/sec. We can provide better control, higher speeds, and faster response than hydraulics.



# **Applications**

Not sure if electric actuation is right for you? The reduced downtime and maintenance as well as higher quality parts and less scrap are just a few of the benefits that will affect your bottom line.

#### Core Pull

Using Exlar actuators to hold clamps tightly while molten plastic is poured and the core and pins are removed allows you to exceed your performance expectations.

#### Mold Locks

Exlar actuators provide the smooth, efficient force needed to completely open and close molds, minimizing vibration and giving you better control.

#### **Gate Valve**

By adjusting speed and stroke effectively to control the flow of plastic, you can eliminate most quality issues. Exlar actuators give you the precision and repeatability required.

#### Part Eject

Increasing your throughput and reducing maintenance is easy with electromechanical actuation. Powerful and compact Exlar actuators are an easy retrofit.

Migrating to electric roller screw actuation can improve energy efficiency, increase speed, reduce downtime, and improve lifespan making our actuators the right choice.





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