Benefits of Electric over Hydraulic Actuation
An industry wide demand for higher efficiency and greater throughput has made electromechanical actuation an attractive alternative to fluid power. Whether you manufacture machines for others or need an in-house solution, electric actuation offers several advantages over hydraulic.

**Energy Efficiency**
Servo electric systems are 80% efficient compared to hydraulic systems, which are, at best, 50% efficient. Hydraulic systems require constant pressure and power to retain position while servo electric systems can be configured to only draw power when in motion. The result is a remarkable 60% energy savings, which can fund the complete retrofit of a hydraulic system to electric.

**Safety / Health / Maintenance**
Hydraulic fluids are expensive; require replacement, and hazardous waste disposal. An electric solution is naturally cleaner, environmentally friendly, and safer for your
workforce. The safety risk of dangerous high-pressure oil leaks is completely eliminated as is the risk of fire from flammable oils. Because there are no oil hoses or seals to leak and repair, electric actuators also require very little maintenance.

Noise levels are typically 30% lower with electric systems as well. Overall, the health and safety risks alone make electric a valuable solution.

Installation / Ease of Use
Electric systems are much easier to install. Quick connect cables install in a small fraction of the time it takes to plumb an entire hydraulic system. Exlar® electromechanical actuators offer a true “plug-and-play” experience in whatever configuration you need:
- actuator only
- integrated motor / actuator
- integrated drive / motor / actuator.
The physical size of an electric system is much smaller than a hydraulic system due to the elimination of hydraulic power packs, filters, pumps, valves, and reservoirs minimizing your facility’s overall footprint saving you thousands in property and equipment.

**Other Advantages**
The precision and control of electric servo driven systems increases flexibility, part quality, and tool life.

Higher cycle rates can be achieved through shorter reaction times from electric versus hydraulic systems.

Improved stability across installation environments and better repeatability across temperature ranges.

Electric actuator systems don’t suffer from the same issues as hydraulics with change in temperature or low temperature.

Increased precision, programmability, flexibility, and reliability.

Call one of our representatives today for a cleaner, more efficient, environmentally friendly solution. Choose Exlar electric servo actuator systems from Curtiss-Wright.
Industries

Whether you require higher efficiency, less maintenance, or a cleaner solution, Exlar electromechanical actuators continue to be a competitive option.

Automotive
Exlar electric actuators offer the high force density (up to 80,000 lbs.), precision, and reliability needed to replace hydraulic cylinders effectively.

Entertainment
Electric actuators provide smooth, life-like motion and compact, low noise actuation in an industry where simulation is paramount.

Food & Beverage
Replacing hydraulic cylinders with electric actuators in volumetric filling or slicing applications can easily give you more precise control and repeatability in a clean solution.

Plastics
Compact, lightweight actuators from Exlar give you the flexibility and speed (up to 50 in/sec) to run processes in parallel, reducing cycle time. Electric actuators can also be programmed to decelerate just before the molds close preventing tooling damage.

Oil & Gas
Eliminating methane emissions allows you to reduce cost and comply with EPA standards. Powerful Exlar electromechanical actuators are environmentally responsible and easier to maintain than hydraulic cylinders.

Whatever industry you are in, Exlar electric actuators deliver the full power density of hydraulic cylinders while increasing efficiency and longevity, helping you reach your production demands.