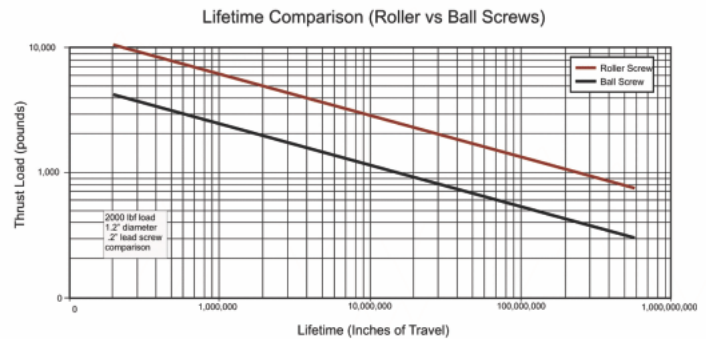


Benefits of Exlar Electric Cylinders over Hydraulic Cylinders

Electric servo actuator systems from Exlar provide a cleaner, more energy efficient and more environmentally friendly solution for actuation than hydraulics. Consider these items before choosing to use hydraulics for your motion control applications.

- Hydraulic systems are at best 50% efficient, compared with the 80% efficiency of servo electric systems. The result is a 60% energy savings! This remarkable amount of energy savings can fund the complete retrofit of a hydraulic system to electric.
- An electric solution is naturally cleaner and environmentally friendly. There is no need to dispose of a hazardous waste such as hydraulic fluid.
- Servo electric systems can be configured to draw no power during stopped motion. Hydraulic systems require pressure and power to retain position.
- Electric actuators require very little maintenance because there are no oil hoses or seals to leak and repair.
- The risk of dangerous high pressure oil leaks is eliminated.
- In high temperature applications such as power stations, process control and military, there is no fire risk from flammable oils.
- Hydraulic fluids are expensive and require replacement.
- The physical size of an electric system is much smaller than a hydraulic system due to the elimination of hydraulic power packs and reservoirs.
- Electric systems are much easier to install. Quick connect cables install in a small fraction of the time it takes to plumb a hydraulic system. Electric systems offer simpler tuning and it is also possible to easily synchronize axes, e.g. press applications.
- Analyzing the cost installation of an electric system is straightforward compared to the much more involved installation cost analysis of plumbing a hydraulic system.



- Noise levels are typically 30% lower with electric systems. Health and safety directives encourage companies to reduce factory noise.
- Due to better control of the load, longer tool life is possible. The precision and control of electric servo driven systems reduces stress on machine parts, compared to those driven with hydraulics.
- Higher cycle rates can be achieved through shorter reaction times from electric versus hydraulic systems.
- Electric actuator systems don't suffer from the same issues as hydraulics with change in temperature or low temperature.



Exlar's GSX Series actuator integrates a servo motor and roller screw for a robust, clean and efficient electric solution.

- Comparing to other electro-mechanical solutions, the product lifetime of Exlar roller screw actuators is significantly longer than ball screw actuation. Ask Exlar Applications Engineering to calculate the life in your particular application.