

Why Electric Actuators?

1

Machine builders (or OEM's) today are looking for more flexibility in their machine's performance. Would the ability to vary the speed or position of a cylinder without going through a manual setup or adjustment be a benefit to your process?



2

Our OEM customers have been telling us they're putting equipment into facilities that don't have air compressors and are building versions of their equipment that are 100% electric. Do you see this too? Have you heard from peers why they're specifying electric actuators in place of traditional pneumatics?

3

We're hearing a lot of buzz about Industry 4.0 and The Internet of Things being popular with manufacturers, especially when it comes to polling specific parts of machinery to measure production rates, or current draw for predictive maintenance activities. Are you hearing these same sentiments?



FAQs



Q: What are Electric Actuators?

A: Electric motion systems use servo drives and motor technology to make more complicated applications easier to navigate. Often these tasks are implemented by using a drive alongside a PLC, HMI or other controller. They are powered by electricity, offer precise control and positioning, flexible use for processes, low operating costs and built with safety and quality in mind.



Q: How Do I Size an Actuator for My Application?

A: Sizing can be accomplished in three easy steps:

- Determine the form factor best suited for the application
- Determine the maximum moments, side load and speed required
 - This will determine the bore and motor size required for the application
- Based on the motor size, reference the appropriate torque / speed curve to ensure the correct motor lead is selected

In short, sizing depends on several factors: speed, stroke length, accuracy, force, etc, but the easiest way is to contact our team of experts at John Henry Foster and we can help you find the best solution for your needs.

FAQs



Q: Are Electric Actuators Drop-In Replacements for Pneumatic Cylinders?

A: Possibly. But you will need to match the motor to the drive/control specifications. While the bodies are similar, mountings can be different, especially in the case of certain brands and series. Also, motor lengths must be kept in consideration, as this does affect the overall length of the actuator.



Q: Can I Use My Own Motor?

A: Yes, some of our manufacturers will allow you to utilize the brand and manufacturer of your choice with the correct adapter plate.



Q: Can I Use My Own Controller and/or Amplifier?

A: Yes. Any step motor amplifier rated for the proper current and voltage can drive these motors.



Q: Are Electric Actuators Repairable?

A: Yes. All actuators are fully repairable.

QUESTIONS ON MOTION SOLUTIONS?

Thanks to their programmability, electric motion offers incredible accuracy and repeatability with little maintenance. Preset electric impulses create acceleration, motion, and deceleration with zero start-up time, and can be employed continually without issue. Our team of experts are ready to assist you and answer any of your questions and discuss possibilities to utilize motion solutions in your work environment. Contact us at **651.452.8452**, solutions@jhfooster.com or visit us today at jhfooster.com.

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