Electro Servo Actuators Deliver High Performance and Low Lifetime Costs

Sarah Shelness | March 16, 2018

Balancing how to increase productivity, reduce costs, and deliver quality is a challenge all manufacturers constantly face. Automation with robots is becoming prevalent in the automotive industry because of the ability to manage all three. Our partner, Tolomatic, recently highlighted the use of robotic servo spot welding equipment in automotive assembly. Here are the key benefits of using servo actuators for robotic resistance spot welding.

**THROUGHPUT AND FLEXIBLE APPLICATION DRIVE INCREASES IN PRODUCTIVITY**

- **More welds per minute**—Pneumatic linear actuators set weld tips back to the full open position after each weld, whereas an electric servo welding actuator opens the tips just enough to move to the next position. The resulting time savings means more welds in the same amount of time from an electric-powered system.

- **Faster, easier changeovers**—Because electric servo actuators for robotic welding are fully programmable, they can adapt quickly as requirements change.

**DURABILITY OF ELECTRIC ACTUATORS EQUALS LOWER LIFETIME COSTS**

- **Longer weld tip life**—An electric welding actuator doesn’t subject weld tips to excessive wear from burn-through, so they last longer.

- **No costly air leaks**—Pneumatic actuator systems are prone to leaks that rob power, cause pressure fluctuations and result in inconsistent welds. This is not the case with electric systems.

- **Lower life cycle cost**—In the long run, an electric welding actuator pays for itself quickly because it is more energy efficient and does not have the repair and replacement costs of a pneumatic cylinder.

**CONSISTENT AND ACCURATE WELDS DELIVER MEASURABLE QUALITY**

- **Consistent, high-quality welds**—Electric actuators deliver consistent force to the weld tips while pneumatic cylinders can have varying force due to fluctuations in air pressure. Fluctuating force to the weld tips can lead to burn-through at one extreme and weak welds at the other.

Download the whitepaper

Automation Technology is a proud distributor of Tolomatic electric actuators. These versatile actuators have a unique design that fits the needs of a variety of industries including packaging, medical, food and drink, and automotive.

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