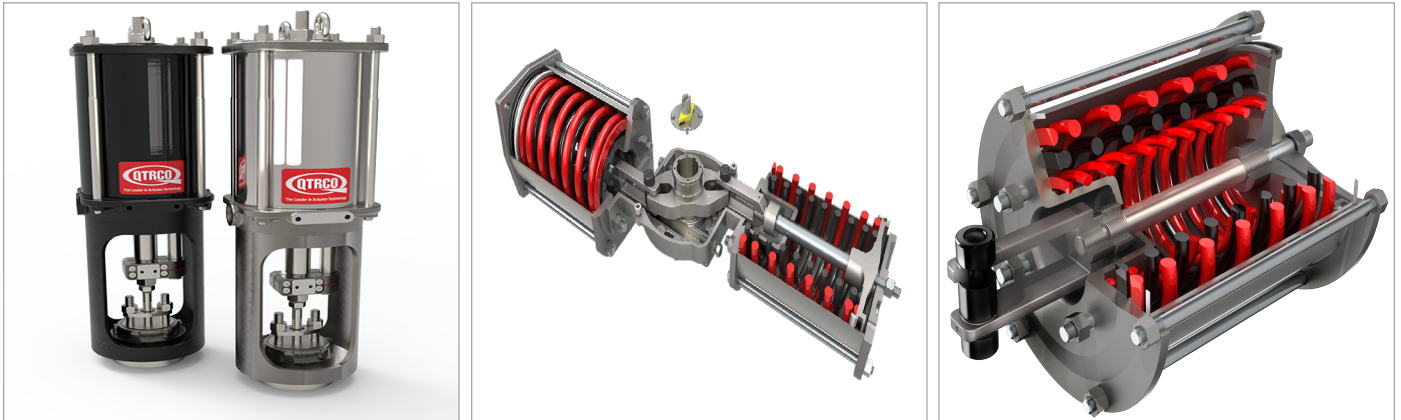


Nuclear Power Products and Services



### About our Teaming Partner

Curtiss-Wright has partnered with QTRCO to provide a new series of actuator options for the international and US nuclear markets. As a manufacturer of actuators that are engineered and crafted without compromise, QTRCO has always produced the safest, most reliable, and easiest to maintain actuators on the market. The safety of these actuator designs and the captured spring system located inward of the pistons allows safe access for replacement while the actuator is installed on the valve, and all QTRCO actuators are designed with the belief that actuators should not fail.

From the beginning, QTRCO has offered unique solutions to address common actuator problems. From the unique design features to the premium materials of construction that back our 3-year performance warranty, these actuators are built to minimize friction, utilize internal side loading, and maximize the abilities of the seals. This focus has resulted in actuators that are ideally suited for control as well as on/off applications. To better enable usage, adapters have been engineered to fit all valve types, and the actuators are also designed to direct mount to many valves.

### QTRCO Pneumatic Actuators

All QTRCO actuators feature robust designs, premium materials, captured springs, and consistently demonstrate the ability to take on the most extreme applications while lasting for incredibly long periods of time. These actuators come with a three year performance warranty, and have shown years of service with no failures and no loss in production time.

#### F-Series

The F-Series' unique slotted body concept absorbs 100% of the yoke mechanism's side loading forces, removing bending stress from the piston rod. The addition of a weight and force balancing second module makes lifting and handling of the actuators safer and easier, while reducing valve neck stress caused by unbalanced scotch yoke actuators.

- Double Acting and Spring Return (Single Acting)
- Torques to 500,000 in-lb
- Pressure to 150 psig
- Temperatures from -76°F to 450°F
- 90° Rotation ( $\pm 5^\circ$  at each end of travel)
- Balanced Weight & Force Distribution
- Convenient Action Reversal

#### L-Series

Using the captured springs and linear components of QTRCO's rotary actuators, the L-Series provides a safe, long lasting, low friction, stainless steel substitute for diaphragm types. These actuators are up to 50% smaller than traditional linear actuators, and resistant to corrosion and vibration.

- Fail Up, Fail Down, or Double Acting Options
- Pressure to 150 psig
- Output Thrust to 46,000 lbf
- Temperatures from -76°F to 500°F
- Stainless Steel or Steel/Composite Construction
- Strokes to 4" (102 mm)
- Piston Diameters from 2 to 24 inches
- DA strokes unlimited, SR strokes to 24"

#### Q-Series

Utilizing offset cylinders to align the piston axis with the pinion gear pitch circle diameter, the Q-Series eliminates the cantilever forces that usually come with rack and pinion type actuators. Their low friction rollers maintain the correct gearing engagement, enabling fantastic throttling control in typical diaphragm actuator applications where corrosion of high vibration requires an advanced solution.

- Double Acting and Spring Return (Single Acting)
- Pressure to 150 psig for DA, 175 for SR
- Temperatures from -75°F to 450°F
- 90° Rotation ( $\pm 5^\circ$  at each end of travel)
- Stainless Steel or Steel/Composite Construction
- Pressure Balanced Shafts
- Bi-Directional Travel Stops



FS Series Stainless Steel Valve Actuator



L-Series Linear Valve Actuators



QD Series Ductile Iron Valve Actuator