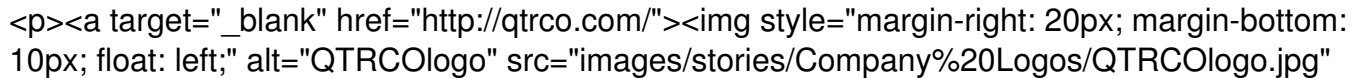


<http://qtrco.com/> QTRCO's, Objective is to build actuators that last forever. It's that simple. Our patented or patent-pending actuator designs feature the most innovative developments since actuators were invented, resulting in superior performance.

Q-SERIES

Q-Series Rack & Gear Actuators are direct replacements for traditional R&P actuators. The design incorporates numerous considerations that simplify user installation, improve performance, and extend actuator life. Cylinders are offset to eliminate internal cantilever loads. Low friction rollers support the racks; twin rails on the racks assure proper gear engagement. Shafts are pressure balanced to remove the pistoning effect common to R&P actuators. Failure-prone seals are designed out, replaced with readily available industry-standard O-rings. And bidirectional travel stops actually stop the piston motion, eliminating the considerable side loading that pinion-located stops create.

MAIN FEATURES

- Available in Ductile Iron (QD Series) or 316 Stainless Steel (QS Series)
- 100 to 15,000 pound inches
- Change action from 'fail open' to 'fail closed' by turning top side down
- Patented low friction design for longest life
- Top side standard with NAMUR accessory drive geometry
- Optional cylinder materials available
- Fewer seals to wear
- Captured springs

DESIGN FEATURES

- Captured, full size springs located inward of the pistons mean that the shaft seals are not pressurized on the SR version, which eliminates a common cause of R&P actuator failure and reduces air consumption by greatly reducing void volume; permits on-site O-ring replacement.
- Roller type rack support bushings, reducing friction and wear.
- Bidirectional travel stops actually stop the piston motion causing no pinion force loading unlike pinion-located stops, which allow full piston force to push the pinion into high friction contact with the actuator body.
- Offset cylinders align piston axis with pitch circle diameter of the pinion gear to eliminate internal side loading, friction, and cylinder wear.
- Twin side rails on racks assure correct gear engagement for extended cycle life.
- Identical shaft end areas prevent axial thrust, and massive shaft bushings fully prevent shaft-to-body contact.