SUGGESTED SPECIFICATIONS

"Q" Series

To insure that quality QTRCO actuators are utilized, the following sample specification has been developed to define the product. All QTRCO actuators are suitable for operation of ball, butterfly, or plug valves as well as dampers and any other quarter-turn devices.

Actuator Specification:

- The actuator shall be quarter-turn Rack & Gear design and constructed of 316 stainless steel material, with the exception of bearing, seals and springs.
- The cylinders and pistons shall be axially aligned with the pitch circle diameter of the pinion gear in order to eliminate internal cantilever loading and the resulting friction.
- Racks shall be positioned and held in proper contact with the pinion gear by low friction rolling bushings. The outward side of the racks shall be flat for optimum contact with the supporting bushings.
- Twin side rails shall be incorporated on all racks to prevent rack tilt and also to assure proper engagement between the rack and the gear teeth.
- Piston o-rings shall be replaceable without removal of the actuators from the adjoining valve and accessories. Cylinders shall be separate from the gear body housing and removal of each cylinder shall allow access to the piston o-ring for ease of replacement.
- The actuator shall have two identical mounting surfaces (top & bottom) complete with attachment bolt circle, threaded holes and double square female output drive in accordance with ISO 5211 standards. The side that is not attached to the valve shall be readily adapted to driving accessories with specific manufacturer's or international mounting standards.
- Spring return actuators shall incorporate the use of a fully captured spring module allowing the change out of different spring ratings and/or disassembly of the actuator in complete safety. Springs shallo be located inward of the pistons and, on spring return models, operating pressure shall not be applied to the shaft seals, thereby making them impervious to failure.
- Spring return models shall be capable of reversing the fail position (fail clockwise to counter-clockwise or the opposite) without any disassembly of the actuator.
- Trims shall be available for ambient operating temperature ranges from -40°F to +450°F (-40°C to +232°C).
- The actuator's cylinder wall shall be a minimum of 1/8 inch thick to resist handling and "dropped wrench" damage.
- Disassembly and re-assembly of the actuator shall require no special tools.
- The actuator manufacturer shall offer a minimum three year warranty that includes corrective action against defects in material, workmanship and premature wear.
- The actuator shall also be capable of being ordered with such options as very fast acting and, for spring return models, a stainless steel jackscrew manual override with stainless steel handwheel.
- The actuator shall be manufactured by QTRCO, Incorporated located in Tomball, Texas U.S.A.

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