



The global leader in customize valve automation

ATI is pleased to offer our customers the proven and patented pipeline technology that the flow control industry knows as Gevalco.



QUARTER-TURN GAS-OVER-OIL ACTUATORS

The Quarter-Turn Gas-Over-Oil valve actuator is designed to operate using direct pipeline gas with pressures up to 1500 psi, providing torque outputs over 1 million inch-pounds. The design utilizes a proven canted scotch yoke actuator with dual oil tanks. With the cylinder always immersed in oil, the Gas-over-Oil actuator provides maintenance free, long cycle-life actuation. The control modules can be used with the actuator to implement various valve control strategies.



Single Cylinder-Dual Oil Tanks

Utilizing a single cylinder of varying size with ASME rated oil tanks mounted directly on the actuator body, the “Gas-Over-Oil” actuator uses the hi-pressure gas direct from the pipeline to pressure the hydraulic fluid in the tanks into the cylinders at up to 1500 psi. The proven poppet valve is used to direct the power gas to the

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appropriate oil tank. A hydraulic hand pump is installed in the control circuit between the oil tanks and the cylinders to provide smooth, efficient manual operation. When pipeline pressure is not available, the manual hand pump can be used to safely and reliably open and close the valve at its maximum torque requirement. Independently adjustable opening and closing speed controls are built into the manual hand pump module and are easily adjusted in the field without the need for special tools. Utilizing the pipeline gas for both the pilot gas and power media makes the Gas-over-Oil actuator system independent of regulator and other power media failure.

Canted Scotch Yoke Design

The canted scotch yoke mechanism provides high breakaway torque at the beginning stroke, resulting in smaller cylinders and reducing cost and gas consumption. All Gas-over-Oil actuators utilize Teflon impregnated, sintered bronze bushings on a heavily chrome-plated guide bar to absorb any side loads, guaranteeing smooth operation and long cycle life.

Linear Travel Stops

The externally adjustable travel stops are on center with the piston rod, eliminating side loading to the scotch yoke. Located at either end of the actuator, these travel stops provide precise adjustment. Both the open and close travel stops are independently adjustable.

Electrolysis Nickel Plated Cylinders

The hydraulic cylinder walls are electroless nickel plated and precision honed to ensure long lasting, trouble free service. All pistons are furnished with a Teflon impregnated graphite guide ring (wear band) that eliminates any possible metal-to-metal contact. The piston and rod seals are made of Teflon rings preloaded by an O-ring suitable for the most severe working conditions.