

**Recognized as “Guardians
of the World’s Gas Pipelines”**



Shafer™ Actuation Solutions

 **EMERSON**™



SHAFER™

Portfolio answers flow control's toughest
automation, safety and productivity challenges



HYDRAULICS

Actuator

VALVE CONTROL FOR SUBSEA AND OTHER CRITICAL APPLICATIONS



Shafer RV-Series Rotary Vane Valve Actuator

The Shafer rotary vane actuator was specifically designed for pipeline applications where rugged dependability of equipment is vital. The rotary vane actuators are used to automate ball valves or plug valves in all types of severe climatic conditions.

Key Features

- Constant torque output over the full 90° rotation
- Compact and vibration resistant with the actuator body centered directly over the valve stem
- 50 year life expectancy backed by a 10 year warranty
- Exceptional reliability with minimal maintenance

Operating Temperature

-60 °C to 121 °C
(-76° F to 250 °F)

Typical Applications

Natural gas pipelines with the actuators powered by pipeline gas, slurry pipelines where the actuators are powered hydraulically

Torque

325 Nm to 2.0 million Nm
(2,875 lbf-in to 17.8 million lbf-in)

Operating Pressure

17.2 bar to 207 bar
(250 psi to 3,000 psi)





Shafer Emissions Controlled Actuation Technology (ECAT)

ECAT is a unique, eco-friendly, valve operating system specifically designed for natural gas pipelines. The novel design uses pipeline gas to power the actuator without any associated gas emissions.

Key Features

- ECAT system utilizes the field-proven rotary vane actuator and control components
- An innovative power pack re-injects gas back into the pipeline after valve operation
- The re-injection mechanism uses utility or solar power for remote applications
- The reliability of the rotary vane gas-over-oil actuator with no associated emissions

Torque

325 Nm to 451,939 Nm
(2,875 lbf-in to 4 million lbf-in)

Operating Pressure

17.2 bar to 153 bar
(250 psi to 2,220 psi)

Operating Temperature

-29 °C to 121 °C
(-20 °F to 250 °F)

Typical Application

Mainline isolation valves, remote valve control, compressor station ESD, line break and high/low pressure shut down





Shafer Hydraulic Power Units (HPU's)

Shafer Hydraulic Power Units have been manufactured for over 40 years. The majority of installations are for outdoor, severe service and/or hazardous locations. The HPU's are custom engineered to provide reliable hydraulic fluid power for our valve operating systems.

The HPU's are designed to stroke multiple valves singly or in unison, depending on our client's needs.

Key Features

- An innovative motor control system ensures there is sufficient fluid volume and pressure for a complete shutdown in ESD applications.
- A pressurized reservoir prevents ingress of moisture and fluid contamination which is critical for long life in hostile environments.
- Piston accumulator seals are lubricated on the nitrogen side, vastly extending seal life.

Capabilities

- Accumulator fluid capacity from 19 litres to 3785 litres (5 gallons to 1,000 gallons)
- Operating pressures up to 207 bar (3,000 psi)
- Biodegradable or petroleum based fluids
- Hazardous area installations

Energy Sources

Electric motors, solar power, gasoline or diesel engines, pneumatic driven hydraulic pumps

Typical Applications

Slurry pipeline and pumping station valve actuators, offshore loading terminals and buoys, offshore platforms for subsea valve actuators, portable or solar powered HPU's for valve operation in remote locations

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