

## AUMA Showcase Their New Fail-safe Actuator



AUMA actuators with FQM fail-safe unit open and close a valve in the event of emergencies, without requiring power supply.

For applications with significant hazard potential in the oil & gas sector and other industrial markets, fail-safe actuators are required. These specialist devices automatically open and close valves in the event of emergency, even with disrupted power supply. Meeting these challenging market requirements, a new AUMA FQM fail-safe unit offers an innovative mechanical actuator solution.

Incorporating a patent pending constant force spring motor, the new AUMA fail-safe unit mechanically provides the required torque in the event of an emergency. While conventional springs lose 80% of their torque across valve travel, the AUMA solution provides virtually constant torque. Additionally, an overriding gear arrangement ensures that the spring does not move during standard operation. Both these factors contribute to enabling selection of significantly smaller actuator solutions. Premature spring fatigue and excessive torques at the valve are also avoided.

A further special feature of the AUMA FQM innovation is variable running speed during fail-safe operation. The soft end position approach of the valve is achieved by reduced speed. This also avoids pressure peaks within the pipeline and preserves the valve.

The new fail-safe unit can be combined with AUMA SQ part-turn actuators or SA multi-turn actuators paired with GS part-turn gearboxes, both with AC controls. Operating concept, interfaces and communication with the DCS are identical to AUMA standard actuators. Due to AUMA's modular design concept, the fail-safe unit can be retrofitted within existing plants.

The AUMA fail-safe unit is particularly suited to automation of butterfly valves and ball valves at an angle of up to 90°. The fail-safe unit meets the requirements of safety-related applications up to SIL 2/SIL 3 and is virtually maintenance-free. An explosion-proof version is also available.

[www.auma-usa.com](http://www.auma-usa.com).