



Group Products and Services



Innovative flow control and asset management solutions



Fluid Power Actuators and Control Systems

Rotork has fluid power actuator manufacturing facilities in Italy, Sweden, China, the UK and the USA, providing the capacity to produce a high volume of products, ensuring that you deliver your projects on time.

Rotork offer a wide range of fluid power actuators spanning the following categories:

- Pneumatic rotary and linear valve actuators
- Hydraulic rotary and linear valve actuators
- Electro-hydraulic valve actuators
- Subsea valve actuators
- Vane-type pneumatic valve actuators
- Control systems

Support Centres

Wherever our clients are, Rotork can support them. We have Support Centres strategically located around the world, with superior technical assistance, comprehensive resources, dedicated systems and hundreds of directly employed engineers all able to offer OEM level support.

Design and Testing

Rotork has dedicated research and development facilities around the world combined with test facilities that include bespoke specialist testing systems, ensuring reliable operation and lifetime functionality of our products.

Our test systems incorporate the following features:

- Static continuous and dynamic analysis on a full range of torques throughout the complete stroke of the actuator
- Cyclic and repetitive tests, with variable parameters such as load, cycle times and temperature
- Automatic or manual setting and recording of pressure, position and temperature parameters
- Hydraulic filtration and flushing capabilities
- Torque testing up to 600,000 Nm (442,537 lbf.ft)
- Thrust testing up to 10,000 kgf (22,046 lbf)
- Pneumatic pressures up to 120 bar (1,740 psi)
- Hydraulic pressures up to 360 bar (5,220 psi)

Most comprehensive range of pneumatic, hydraulic and electro-hydraulic actuators available.

Superior performance actuators for on/off duty, ESD, HIPPS, protective service and special valve applications.



Fluid Power Actuators

GT range



Rack and pinion actuators

- Double-acting and spring-return pneumatic actuators
- Fail close/fail open
- Extruded aluminum body with cast aluminum end caps
- Corrosion resistant cylinders and nickel-plated pinion
- Mechanical interfaces to ISO 5211, EN 15714-3-4, NAMUR VDI / VDE 3845
- Torque output up to 15,300 Nm (11,285 lbf.ft)
- Certified to ATEX 2014/34/EU
- Certified suitable for use at SIL3 as a single device (IEC 61508)

See [PUB110-001](#) (metric) and [PUB110-002](#) (imperial) for further details.

GTS range



Rack and pinion actuators

- Double-acting and spring-return pneumatic actuators
- Fail close/fail open
- Body and end caps in electro-polished stainless steel 316L
- Pistons in aluminium – stainless steel as an option
- Mechanical interfaces to ISO 5211, EN 15714-3-4, NAMUR VDI / VDE 3845
- Torque output up to 1,190 Nm (878 lbf.ft)
- Actuators certified to ATEX 2014/34/EU
- Travel stops in both open and close direction

See [PUB110-005](#) for further details.

RC200 range



Compact scotch yoke actuators

- Extremely compact scotch yoke pneumatic actuator
- Contained spring module for safety and convenience
- Double-acting and spring-return configurations
- Fail close/fail open
- For on/off and modulating
- Torque output up to 4,400 Nm (3,245 lbf.ft)
- Valve mounting dimensions per ISO 5211/DIN 3337
- Certified to ATEX 2014/34/EU
- Certified to PED 2014/68/EU
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508
- Optional emergency manual override suitable to operate the actuator in the event of fluid supply failure

See [PUB014-001](#) (metric) and [PUB014-002](#) (imperial) for further details.



Fluid Power Actuators

CP range



Scotch yoke actuators

- Pneumatic scotch yoke actuators (symmetric yoke)
- Double-acting and spring-return configurations
- Fail close/fail open
- For on/off and modulating
- Torque output to 4,500 Nm (3,319 lbf.ft)
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508
- Optional emergency manual override suitable to operate the actuator in the event of fluid supply failure

See [PUB013-001](#) for further details.

GP/ GH ranges



Heavy-duty scotch yoke actuators

- Pneumatic and hydraulic scotch yoke actuators (symmetric or canted yoke)
- Double-acting and spring-return configurations
- Fail close/fail open
- For on/off and modulating
- Electroless nickel-plating
- Torque output to 600,000 Nm (442,537 lbf.ft)
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508
- Optional emergency manual override suitable to operate the actuator in the event of fluid supply failure

See [PUB011-001](#) for further details.

CQ range



Compact part-turn self-contained actuators

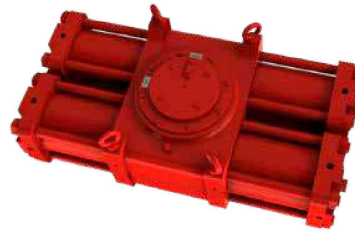
The CQ self-contained actuator is a fully concentric design based on a helical mechanism, transforming the linear motion of the piston into a part-turn rotation of the valve stem.

- Pneumatic actuator in double-acting and spring-return configurations
- Fail close/fail open
- For on/off
- Torque output up to 150,000 Nm (110,634 lbf.ft) – higher torques are available upon request
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508

See [PUB119-001](#) for further details.



RH range



Heavy-duty and extreme-duty rack and pinion actuators

Heavy-duty RH actuators

- Hydraulic actuators in double-acting and spring-return configurations
- Torque output to 3,400 Nm (2,508 lbf.ft)
- Fail close/fail open
- For on/off and modulating
- Valve mounting dimensions per ISO 5211 DIN 3337
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508
- Optional emergency manual override suitable to operate the actuator in the event of fluid supply failure

Extreme-duty RH actuators

- Hydraulic actuators in double-acting configuration
- Torque output up to 700,000 Nm (516,293 lbf.ft), up to 5,650,000 Nm (4,167,220 lbf.ft) available on request
- Designed for some of the most challenging valve actuation applications on earth
- Balanced, compact design
- Totally enclosed weatherproof housing
- Electroless nickel-plated cylinders with redundant piston seals
- Mechanical interfaces to ISO 5211
- Lifting lugs to support the actuator and valve

See [PUB019-004](#) for further details.

LP/ LH ranges



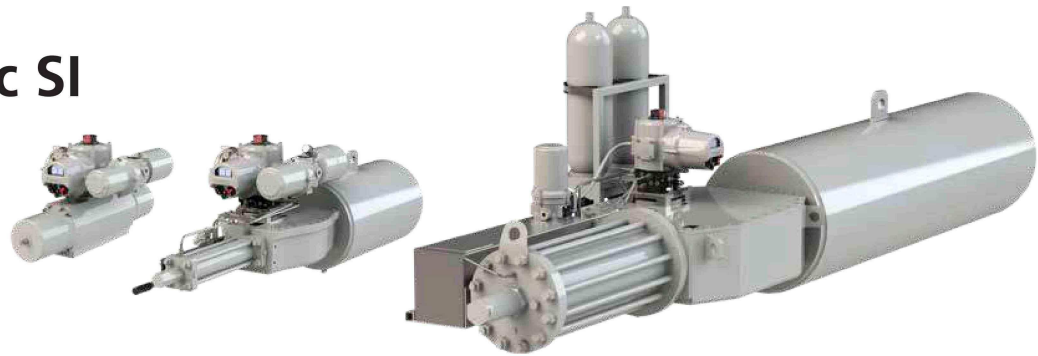
Linear actuators

- Pneumatic and hydraulic actuators in double-acting and spring-return configurations
- Electroless nickel-plated cylinders, chromium-plated piston rods
- Hammer blow and standard valve stem coupling designs available
- Thrust up to 5,500 kN (1,236,449 lbf)
- Certified to IP 66M/67M and ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508
- Optional emergency manual override suitable to operate the actuator in the event of fluid supply failure

See [PUB020-001](#) for further details.



Skilmatic SI range



Electro-hydraulic actuators

The Skilmatic SI range of intelligent self-contained electro-hydraulic actuators designed to meet today's control and safety needs for both two position and positioning control applications. Featuring a large display for position, pressure, diagnostics and status indication and utilising Bluetooth for configuration, setting and downloading actuator data.

- 1-phase and 3-phase power supply
- Failsafe to close, open or lock in last position
- Spring-return or double-acting configuration
- Linear output: up to 3,850 kN (865,514 lbf)
- Part-turn output: up to 600,000 Nm (442,537 lbf.ft)
- Configurable Partial Stroke Testing (PST)

- Certified as suitable for use in SIL applications
- Positioning control option 4-20 mA input and output, resolution 0.3%
- Network options *Pakscan*, Profibus, Modbus, HART and Foundation Fieldbus
- Data logger, recording up to 3,000 events
- Watertight and explosionproof Exdb IIB & IIC T4 –ATEX, IEC, EAC and CSA. TÜV Functional Safety SIL certified to IEC 61508:2010
- Operating temperature -50 to +70 °C (-58 to +158 °F)

See [PUB021-064](#) for further details.

RHS



Remote Hand Station

The Remote Hand Station enables duplicated operation, interrogation and configuration of the latest SI actuators. For use when the actuator is located in a hazardous or inaccessible location.

- Installation using standard data cable, up to 100 m (328 ft) away from the actuator
- Full replication of actuator configuration, control, monitoring and downloadable data
- Powered from the attached actuator, no need for additional power supply

See [PUB002-056](#) for further details.



GO range



Gas-over-Oil actuators

- Scotch yoke, rack & pinion or linear double-acting actuators
- Hydraulic manual override as standard
- Speed control in both directions as standard
- Torque output to 600,000 Nm (442,537 lbf.ft)
- Extremely wide range of high-pressure control logic options
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU
- PED or ASME approved gas/oil and power gas storage tanks

See [PUB017-001](#) for further details.

HPG range



Direct high-pressure gas actuators

- Scotch yoke double-acting actuators
- Hydraulic manual override standard
- Speed control in both directions standard
- Torque output to 600,000 Nm (442,537 lbf.ft)
- Extremely wide range of high-pressure control logic options
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU
- PED or ASME approved gas/oil and power gas storage tanks

See [PUB016-001](#) for further details.

ELB



Pipeline pressure monitoring system

Rotork's ELB, the electronic linebreak detection system is designed to continuously monitor pipeline pressure and provide automatic valve actuator movement to an emergency position.

- Comprehensive data logging with real-time clock
- Configuration and data retrieval via Rotork Bluetooth® Setting Tool Pro or PC (using Rotork's Insight 2 software)
- Configurable fail position to close, open, stay put
- Optional manual reset requirement
- Local controls for open, close, local/remote/stop
- Remote control via either hard-wired connections or Modbus® serial communication protocol
- Certified to IECEx Hazardous Area Approvals
- Certified IP66/IP68 and NEMA 4, 4X & 6

See [PUB127-001](#) for further details.



K-TORK range



Vane actuators

- Pneumatic actuators in double-acting and spring-return configurations
- Compact no-sideload, constant-torque design with output to 18,300 Nm (13,497 lbf.ft)
- Certified to IP66M/IP67M and meets NEMA 4/4X
- Certified to ATEX 2014/34/EU
- Complies with ANSI / AWWA C540-02 and C541-08
- Conforms to VDI / VDE 3485 control accessory mounting standards
- Modulating accuracy of 0.25% or better
- Capable of millions of operations at fast cycle times

See [PUB097-001](#) for further details.

TYPE K range



Damper drives

- Direct 'drop-in place' design matches existing damper drive take-out dimensions
- Rotary and linear versions available
- Torque output up to 16,875 Nm (12,446 lbf.ft)
- High-speed operation as quick as 3-5 seconds full scale
- High temperature options up to +149 °C (+300 °F)
- Highly accurate and responsive
- Designed for safety and serviceability in harsh environments
- Infinite duty cycle
- Control options: Profibus®, HART® and Foundation Fieldbus® control. Pneumatic, analogue and digital positioners

See [PUB000-062](#) for further details.

Subsea range

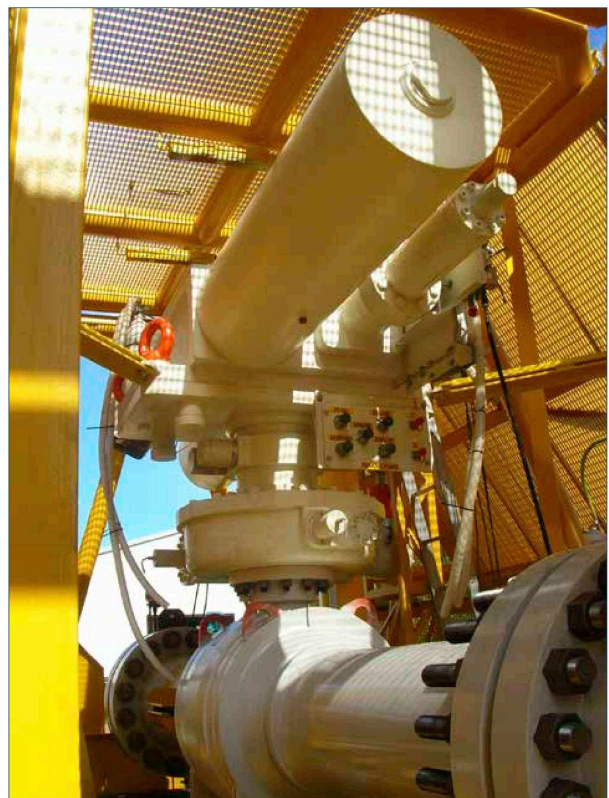


Subsea actuators

The subsea product range encompasses actuator and gearbox designs for retrievable and non-retrievable applications. We are familiar with supplying subsea products to meet the harsh conditions and stringent demands of subsea applications.

- Hydraulic part-turn and linear subsea actuators in double-acting and spring-return configurations
- Subsea and splashzone trims
- Retrievable and non-retrievable designs
- Multitude of design options available
- Installed base dating back to 1992 at depths up to 2,500 m

See [PUB022-001](#) for further details.



manPOWER range

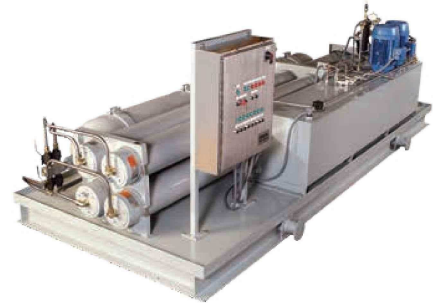


Self-contained failsafe actuator

- The self-contained hydraulics provide high-integrity failsafe valve operation without the need for any external power supply
- Suitable for workshop or field mounting on a wide range of rotary and linear operated valves and dampers
- Manually energised, spring-return failsafe operation
- Cost-effective solution for infrequently operated valves and dampers
- Watertight or explosionproof construction
- Highly configurable with a multitude of options

See [PUB062-002](#) for further details.

HPU range



Hydraulic power units

- Hydraulic fluid capacity from 19 to 7,570 litres (5 to 2,000 U.S. gal)
- Operating pressures up to 345 bar (5,000 psi)
- Flow rates up to 3,785 lpm (1,000 U.S. gpm)
- Electrical classifications: NEMA 4, 4X & 7 or comparable CSA or ATEX ratings
- Custom engineered solutions to meet the specific demands of each application

See [PUB062-001](#) for further details.



Control systems

Control component packages are a part of any actuator / valve installation. Rotork has extensive experience in the design and assembly of all types of fluid power control systems to satisfy any customer requirement for on / off, modulating or ESD (emergency shutdown) service. Packages can be mounted on a panel or in a cabinet and mounted either on the actuator or at a remote location.

Rotork offers components from all leading industry suppliers as well as those of our own design including limit switch housings, quick exhaust valves, pneumatic and hydraulic manifolds, filter regulators, shuttle valves, linebreak safety systems, partial stroke testing and a torque limiting device.

