rotork®

Keeping the World Flowing
for Future Generations

TRADING PARTNER:

FERRUM ENERGY



Group Products and Services

Intelligent Flow Control Solutions



We have been the recognised market leader in flow control for over 60 years.

Our customers rely upon Rotork for innovative solutions to safely manage the flow of liquids, gases and powders.

Rotork Group

Rotork is a market-leading global provider of mission-critical flow control and instrumentation solutions for the industrial actuation and flow control markets. These include oil and gas, water and wastewater, power, chemical, process and industrial applications.

Customers rely on us for innovative, high quality and dependable solutions for managing the flow of liquids, gases and powders. We help customers around the world to improve efficiency, reduce emissions, minimise their environmental impact and assure safety.

Our reliability record is second to none. Our products are designed with safety and performance at their core and are put through vigorous testing and certified to international standards. Our products are certified for use in the world's most dangerous and hazardous areas.

Partnering with us provides the following:

- Assured safety and reliability
- Industry leading accuracy and efficiency
- Proven technology that works with all network control systems
- Product range with solutions to suit every application
- Assistance with plant planning, development and maintenance through our local support services
- We have innovative research and development centers throughout the world

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Our engineering and application knowledge, built over 60 years, enables us to deliver innovative and reliable solutions for flow control applications worldwide.

Operating globally, we support a diverse range of markets and safety-critical environments.

Our experience of flow control is second to none.

Oil & Gas

We understand the challenges of the oil and gas industry. Our innovative products and solutions help meet economic and policy requirements for the safe production of clean energy. Our wide-ranging suite of products, honed and improved through years of research and development, mean we are perfectly situated to assist in all stages: upstream, midstream and downstream.

Building on a wealth of experience, we have the knowledge to offer you the best actuation products possible. We design and produce the actuators, instrumentation and associated flow control equipment that are used in the most vital parts of the oil and gas industries. In all cases, our products provide a high degree of durability, control and safety. From involvement in offshore production platforms and wellheads in upstream, to pipelines and storage tank facilities in midstream, to refining and distillation in downstream, we are the actuation experts in the oil and gas industries that you can rely on.

Water & Power

Rotork products control thousands of valves in the water and wastewater industry. Our flow control products are used in potable water treatment including filtration, desalination and distribution. We are involved in level control in dams, reservoirs and irrigation systems. Rotork help protect the environment by controlling wastewater plants, improving effluent processing and ensuring clean, safe output from sewage treatment plants. Rotork is involved in every part of wastewater operations including production of green energy from aerobic and anaerobic processes to sludge handling.

Wherever there is coal, natural gas, nuclear, solar, biomass or geothermal power generated globally, you'll find Rotork flow control products. We help meet the challenges of power generation and have a detailed understanding of the demands and requirements that plant operators face, including diverse applications such as onshore and offshore wind farms and conventional thermal power stations. We specialise in designing and manufacturing actuators and related equipment for every part of the power industry. Our products can withstand harsh environments and unique challenges such as extreme temperatures, hazardous and corrosive substances, vibration and dust.

Chemical, Process & Industrial (CPI)

We have a track record of innovation and proven results in complex applications. Our products provide the exacting levels of durability, reliability and safety that our clients require and our specialist knowledge for isolation, control and flow regulation of liquids and gases provide an essential element in the operation and protection of equipment and machinery across a wide range of markets. We can customise the range of solutions that we offer, dependent on the industry and application or customer requirements.

Whether you are a producer of chemicals for use as lubricants, adhesives or battery and fuel cells; a mining company; a manufacturer of iron, steel and aluminium materials; a producer of paper, glass or cement; or part of the wider manufacturing industry, Rotork can help you meet your goals.

Extending across this broad range of industries which convert key raw materials such as hydrocarbons, minerals and gases in to manufactured products, as well as their safe transportation and storage, Rotork products offer quality and high performance in all applications.



At Rotork, we design and deliver innovative, dependable products and solutions for the global flow control market.

Rotork electric actuators are designed and manufactured in strategic global locations such as the UK, USA, Germany, China, South Korea and India to ensure complete global coverage for all your site needs.

We deliver industry-leading flow control products including:

- Intelligent valve actuators – multi-turn and part-turn
- Control valve actuators – part-turn / rotary and linear
- Specialist products for HVAC, power station and pump metering applications
- Explosionproof actuators, sensors, switches and controls
- Network control systems

Proud to be recognised as the leader in automation products for challenging critical applications.

Unrivalled record of reliability and assured operation in the harshest environments.

Research and development

We are continually researching new technologies and developing innovative and industry leading products.

We have dedicated research and development centres around the world that all work together to produce the strongest line of valve actuation products available on the market today.

Testing and quality assurance

Rotork is recognised for being quality driven and committed to providing our customers with robust and reliable products that meet or exceed their expectations.

We have test facilities located at all of our manufacturing facilities so that every product is tested and qualified before shipment to the customer. Our products are manufactured to comply with stringent quality standards around the world.

All our products are designed and manufactured in accordance with ISO 9001, achieving the highest levels of performance and reliability.

Customer service - the Rotork advantage

We provide unparalleled world-class service and support locally to you, wherever you are in the world.





Intelligent Integral Non-Intrusive Actuators

IQ3 Pro
range



IQ3 Pro multi-turn and part-turn electric actuators for arduous environments

Unrivalled industry-leading reliability

- Advanced absolute position measurement allowing continuous position tracking even without power
- The graphical interface, remote indication and data logger are maintained and accessible on power loss
- Extended life and mounting in any orientation with oil bath lubrication
- Water ingress protection, not reliant on terminal cover or cable gland sealing – double-sealed to IP66/68
- Built-in protection by using independent torque and position sensing
- Safe, motor-independent handwheel operation available at all times
- Explosionproof and certified suitable for use in safety applications (SIL2/3)
- Drive bush bearings sealed for life – no maintenance required
- Integral plug and socket connections available
- Mechanical position indication available

Simple, secure commissioning and configuration

- Rapid and secure commissioning and configuration even without power
- Multiport and Multiset control moves the valve to different port positions with high levels of accuracy
- Non-intrusive setting in any environmental conditions using the intrinsically safe Rotork Bluetooth® Setting Tool *Pro*, Rotork App or Manual Setup using actuator local control knobs
- Rotork App features include a valve configuration wizard
- Easy installation and valve maintenance using detachable thrust bases
- Auto set up function on part-turn variants
- Multilingual backlit display

Asset management and preventative maintenance

- Real-time valve and actuator data viewable on screen and exported to Rotork's intelligent Asset Management (iAM) system for detailed trend analysis and predictive maintenance
- Safe and secure data log download to non-intrusive Rotork Bluetooth® Setting Tool *Pro* and the Rotork App
- Integrated Ethernet allows remote collection of the full data logs over a high bandwidth connection
- Field upgradeable and configurable control and indication options using setting tool
- Compatible with *Pakscan*™ control and monitoring system, all leading field bus networks and legacy control systems

IQ range performance data

- Class A, B (on/off - inching) and Class C (modulating) options for both multi-turn and part-turn
- Multi-turn direct drive:
  10 to 3,000 Nm (7 to 2,213 lbf.ft)
- Multi-turn with IS or IB gearbox:
  up to 40,718 Nm (30,030 lbf.ft)
- Part-turn direct drive:
  50 to 3,000 Nm (37 to 2,213 lbf.ft)
- Part-turn with IW Mk2 gearbox:
  up to 826,888 Nm (609,881 lbf.ft)
- Linear thrust range with linear output:
  up to 112 kN (25,177 lbf)

Power supply options

- 1-phase, 3-phase or DC supplies

Special designs

- If you require an IQ or IQT actuator for duties that are not covered by our standard range, we are happy to discuss customised solutions.

See PUB002-197 for further details.

Intelligent Integral Non-Intrusive Multi-turn & Linear Actuators



IQ 3-phase

IQ 3-phase electric actuators for isolating, regulating or inching duties (S2 & S3 / Class A & B) of up to 60 starts / hour.

Direct torque output range from 14 to 3,000 Nm (10 to 2,213 lbf.ft). With second stage gearboxes, multi-turn output torque up to 40,718 Nm (30,030 lbf.ft) and part-turn up to 826,888 Nm (609,881 lbf.ft).



IQS 1-phase

IQS actuators are 1-phase versions of IQ actuators.

Direct torque range from 10 to 450 Nm (7 to 332 lbf.ft). With second stage gearboxes, multi-turn output torque up to 9,756 Nm (7,196 lbf.ft) and part-turn up to 208,000 Nm (153,413 lbf.ft).



IQD direct current

DC powered versions of IQ actuators. Voltage ranges available are 24, 48 and 110 VDC.

Direct torque output range 11 to 305 Nm (8 to 225 lbf.ft). With second stage gearboxes, output torque up to 1,500 Nm (1,106 lbf.ft) and part-turn up to 131,950 Nm (97,321 lbf.ft).



IQH high speed

IQH 3-phase electric actuators provide fast operation with positive seating without back driving. High output speeds and generally irreversible operation provide a self-locking ability.

Speeds up to 259 rpm and torque range 27 to 397 Nm (20 to 293 lbf.ft).



IQM / IQML modulating

Modulating 3-phase electric actuator with solid state reversing starter including an electronic motor 'brake' feature. Fast-response remote control circuits for rapid control.

IQM is suitable for up to 1,200 starts per hour (S4 / Class C). Direct seating torque output range from 11 to 544 Nm (8 to 401 lbf.ft). With second stage gearboxes, output seating torque up to 11,750 Nm (8,666 lbf.ft) and part-turn up to 77,000 Nm (56,790 lbf.ft). IQML has a linear output drive providing seating thrust output of up to 43 kN (9,667 lbf).



IQ SET

IQ SET actuator is backwards compatible to the 1960s. This backwards compatibility is for legacy actuators on your site that have non-integral starters (known as "SyncroSET").

Customers can manage obsolescence concerns by replacing legacy actuators with the latest intelligent IQ3 actuator platform. This allows access to the many benefits an IQ3 brings to modern plant and network design, operation and maintenance. IQ SET is compatible with existing site cabling and control systems.

Intelligent Integral Non-Intrusive Part-turn & Linear Actuators



IQT

IQT part-turn 1-phase, 3-phase and DC electric actuators are designed for isolating or regulating duties (S2 & S3 / Class A & B) of up to 1,200 starts per hour and modulating duty up to 1,800 starts per hour (S4 / Class C).

Direct torque output range from 50 to 3,000 Nm (37 to 2,213 lbf.ft).

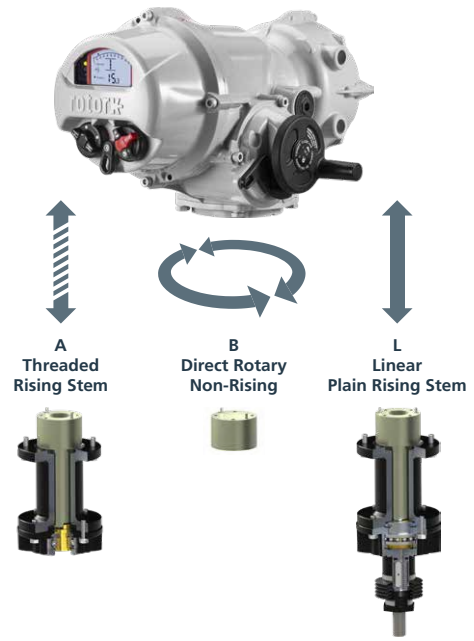
Option: High shock base for Naval applications.



IQTM modulating

IQTM 1-phase, 3-phase and DC electric modulating versions of the IQT actuator are designed for modulating duty up to 1,800 starts per hour (S4 / Class C). They feature fast-response remote control circuits for rapid control.

Torque range 50 to 3,000 Nm (37 to 2,213 lbf.ft).



IQTF full-turn modulating

IQTF 1-phase, 3-phase and DC electric modulating actuators are capable of multi-turn, rising output, linear output and direct rotary output. Includes special fast switching control inputs for hardwired control. Modulating duty cycle up to 1,800 starts per hour (S4 / Class C). For full IQTF data please refer to *PUB002-006*.

A = Torque range 20 to 250 Nm (14.8 to 184.5 lbf.ft)
B = Torque range 20 to 3,000 Nm (14.8 to 2,213 lbf.ft)
L = Thrust range 7.5 to 75.8 kN (1,693 to 17,036 lbf)

The drive outputs conform to actuator interface standards EN ISO 5210 for multi-turn and BS EN 15714-2 for linear.



IQT shutdown battery

The IQT Shutdown Battery option provides fail-to-position functionality for IQT, IQTM and IQTF actuators in the event of a mains power loss. The internal Lithium-ion battery is charged with the actuator mains power supply to ensure a power loss action is always available. Available for Ex and non-Ex applications, actuators can be configured to automatically move to a preset position or remain available for control during the power loss.

Note: Not available with IQT3000.



Remote Hand Station Pro

Enables replicated operation, interrogation and configuration of the latest IQ3 Pro range 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
- Powered from the attached actuator, no need for additional power supply

See PUB002-056 for further details.

Intelligent Integral Non-Intrusive Actuators

Integrated Ethernet





RJ45 (left) and M12 (right) termination options

Integrated Ethernet for IQ3 and IQ3 Pro range actuators

Rotork's Ethernet option supports Modbus TCP, EtherNet/IP and PROFINET industrial communication protocols in IQ3 Pro range actuators, providing a high-bandwidth connection that enables advanced asset management. The integrated solution offers superior reliability through a simple design that reduces the number of potential failure points.

- Dual RJ45 or M12 connections to suit site standards
- Line, Ring and Star network topologies supported
- Watertight and explosionproof certifications
- 10/100 Mbps speeds supported
- PI (PROFINET) and ODVA (EtherNet/IP) certified
- Internal webserver provides fast access to configuration and internal data log file
- Data logs can be uploaded to Rotork's intelligent Asset Management (iAM) cloud-based system
- Setup via standard actuator configuration tools, Insight 2 software or integrated webserver
- Compatible with existing IQ3 and IQ3 Pro range actuators, an upgrade kit and/or firmware upgrade may be required

See PUB190-002 for further details.

IQ3 Perform

range





Cost-effective multi-turn and part-turn electric actuators

The IQ3 Perform range offers an actuator that prioritises the essentials without compromising on quality.

Part of our trusted IQ range, the IQ3 Perform is all about delivering reliability and performance as a cost-effective option for the water industry.

These robust multi-turn and part-turn electric valve actuators offer enhanced performance, build quality, and value. Detailed trend analysis, diagnostics and data logs are downloadable via the Bluetooth® Setting Tool Pro.

- Industry leading IQ robustness and dependability
- Water ingress protection, not reliant on terminal cover or cable gland sealing – IP66/68 7 m for 72 hrs
- Absolute encoder provides continuous position tracking at all times, even without power
- On power loss, remote indication is maintained
- Extensive range of torques and speeds for direct drive or in combination with external gearboxes

See PUB002-400 for further details.

Advanced Modular Actuators

CK range







CK modular design electric actuators for valves in non-hazardous locations

The modular CK range facilitates a number of different control package configurations to meet your application requirements.

- Multi-turn output torque up to 10,800 Nm (8,000 lbf.ft)
- Part-turn output torque up to 205,600 Nm (151,600 lbf.ft)
- Plug and socket connection for easier field wiring
- Continuous valve position indication even during power loss
- Hollow output drive to accept rising valve stems
- Detachable base options
- Safe, motor-independent handwheel operation
- IP68 rating (8 m for 96 hrs) as standard

CK & CKR actuators for users with centralised motor control centres or high temp. and sustained vibration applications, comprising electric motor, drive gearing, torque and position limit control and indication with plug and socket field wiring.

CKA & CKRA actuators include the Atronik control module providing reliable motor starter with modest integral controls.

CKC & CKRC actuators include the Centronik control module providing intelligent, integral control for use with all site control systems with hardwired, fieldbus or analogue control and indication, and non-intrusive setting.

See PUB111-001 for further details.

ELC range


ELC55


ELC-500


ELC-2500


ELC100-SR


ELC250-SR

Electric linear control valve actuators

The ELC linear electric valve actuator range is compact, lightweight and cost-effective, built on a proven reliable design. Microprocessor-controlled with automatic self-calibration on startup, it delivers precise, consistent performance.

ELC supports independently reversible input and output signals, with freely adjustable 3-point or analogue input signal. A wear-free position measuring system, adjustable deadband and wire break recognition in 2–10 VDC and 4–20 mA ensure dependable operation.

- Actuating thrust 0.6 to 25 kN
- ELC-SR features mechanical spring-return with hydraulically damped spring action
- ELC-SR features fail-close function in case of power failure (actuator stem extended)
- Manual override for emergency operation
- Fault recognition in continuous operation (in case of valve blockage)

See PUB192-001 for further details.

Precision Modulating Actuators

CMA range



CML 1500/3000 (Linear)



CML (Linear)



CMQ (Part-turn)



CMR (Multi-turn)

Linear, part-turn and multi-turn actuators

The CMA delivers a range of sizes suitable for almost all linear, part-turn and multi-turn control valves and other applications requiring exact position control and continuous modulation. Suitable for demanding applications including control valves, metering and dosing pumps.

- Powered by 1-phase or DC supplies
- Continuous modulation to S9 (IEC 60034), Class D duty (ISO 22153)
- Optional local controls including positional display
- Optional Reserve Power Pack (RPP) including local controls and positional display
- Permanently lubricated and maintenance-free drive train
- Optional configurable ESD input for end of travel or stayput emergency shutdown function
- Accurate and repeatable position control
- 4-20 mA loop powered feedback signal
- Linear: up to 20 kN (4,500 lbf) seating thrust
- Part-turn: up to 395 Nm (3,500 lbf.in) seating torque
- Multi-turn: up to 28 Nm (250 lbf.in) rated torque

See PUB094-001 for further details.

CVA range



CVL (Linear)



CVQ (Part-turn)



CVL-5000 (Linear)

Linear and part-turn precision modulating actuators

- Compact, viable alternative technology when good quality instrument air is not available in hazardous areas
- Ultra-low energy consumption, suitable for solar powered applications
- 1-phase and DC power supply options
- Continuous, unrestricted modulation to S9 (IEC 60034), Class D duty (ISO 22153)
- Unparalleled accuracy, repeatability, resolution and stiffness
- Perfect for demanding applications including control valves and metering pumps
- Comprehensive data logging
- Programmable fail-to-position option
- Analogue, digital and network control options
- *Pakscan*™, HART®, Profibus®, Foundation Fieldbus® and Modbus® available
- Optional hardwired control
- Watertight IP68, NEMA 4 & 6, and explosionproof enclosures
- Option of intrinsically safe I/O connections
- Non-intrusive setup / calibration using Bluetooth wireless technology
- Optional manual override
- CVL Linear: thrust range 890 to 22,241 N (200 to 5,000 lbf)
- CVQ Part-turn: torque range 22 to 271 Nm (480 to 2,400 lbf.in)

See PUB042-001 for further details.

Industrial Valve Actuators

Noah NA range



Part-turn electric actuators

Compact modular electric actuators designed to provide configurable valve control options for industrial applications. Self-locking design two-stage gear structure prevents rotation and reverse torque from valves and attached equipment.

- Torque: 60 to 3,500 Nm (44 to 2,581 lbf.ft)
- Mechanical limit switch protects the valve
- Waterproof to IP67 (IP68 optional)
- Internal heater prevents condensation and moisture
- **Options include:** Explosionproof certification. Supercapacitor failsafe option. Current Position Transmitter. Proportional Control Unit. Local Control options. Network communications.

See PUB195-001 for further details.

Noah NL range



Linear output electric actuators

Compact modular electric actuators with linear output drives designed for industrial applications. A two-stage worm gear and trapezoidal screw provides high efficiency output drive with low noise, high starting thrust, and selectable output thrusts.

- Thrust: 4 to 35 kN (899 to 7868 lbf)
- Mechanical limit switch protects the valve
- Waterproof to IP67 (IP68 optional)
- Internal heater prevents condensation and moisture
- **Options include:** Explosionproof certification. Supercapacitor failsafe option. Current Position Transmitter. Proportional Control Unit. Local Control options. Network communications.

See PUB195-002 for further details.

Noah SA range



Compact part-turn electric actuators

Highly compact part-turn electric actuators designed to provide reliable valve control in limited space industrial applications. All Rotork Noah actuators feature internal heaters to prevent condensation and moisture forming inside the actuator, protecting the internal components.

- Torque: 30 to 90 Nm (22 to 66 lbf.ft)
- Waterproof to IP67
- Internal heater prevents condensation and moisture
- **Options include:** Explosionproof certification (selected models). Supercapacitor failsafe option. Current Position Transmitter. Proportional Control Unit.

See PUB195-003 for further details.

Noah SR range



Spring-return electric actuator

Compact spring-return actuators designed to provide configurable valve control options for industrial applications. Self-locking design two-stage gear structure prevents rotation and reverse torque from valves and attached equipment.

- Torque: 50 to 500 Nm (37 to 369 lbf.ft)
- Mechanical limit switch protects the valve
- Waterproof to IP67 (IP68 optional)
- Internal heater prevents condensation and moisture
- **Options include:** Explosionproof certification. Supercapacitor emergency operation delay option. Current Position Transmitter. Proportional Control Unit. Local Control options. Network communications.

See PUB195-004 for further details.

Explosionproof Actuators and HVAC Control Systems

ExMax
range



Part-turn explosionproof valve actuators

Compact, robust and lightweight electric part-turn valve actuator, designed for use in Ex areas for all gases, mists, vapours and dust.

- On/off duty as standard
- 24-240 VAC/VDC universal power supply
- Standard ISO flanges available
- Torque range 5 to 150 Nm (3.7 to 110.6 lbf.ft)
- Explosionproof to international standards
- UL and CSA certified variants available
- Auto setup and selectable speeds
- Mechanical position indication
- Failsafe option
- Ingress protection IP66/67
- Stainless steel housing option
- Temperature range: -40 to +50 °C (-40 to +122 °F)

See PUB113-003 for further details.

ExMax+Lin/ ExRun
range



Linear explosionproof actuators

ExMax + LIN and ExRun electric linear valve actuators are designed for use in Ex areas for all gases, mists, vapours and dust. ExMax + LIN with spring-return safety function.

- Thrust range 500 to 10,000 N (112 to 2,248 lbf)
- Certificates: ATEX, IECEx, CSA, INMETRO, Kosha, EAC and others
- Optional spring-return configuration (3, 10 or 20 seconds)
- Control modes: On-off, 3 pos., modulating (0-10 VDC, 4-20 mA), depending on type
- 1-phase and DC power supply options
- Water and dust-tight IP66 rating
- Stainless steel housing option for ExMax
- Temperature range: -40 to +50 °C (-40 to +122 °F)
- Optional extras: Ex-d auxiliary switch with 2 adjustable contacts (2 mounting options available), Ex-e terminal box, manual override

See PUB113-001 for further details.

ExReg
range



HVAC explosionproof control systems

ExReg controller system has been designed for use in Ex areas for all gases, mists, vapours and dust. In combination with Ex-Max actuators it is a closed loop control system for volume flow control (VAV, CAV), pressure, temperature and humidity.

- Operating temperature range -20 to +50 °C (-4 to +122 °F)
- Measurement differential pressure range 0 to 300 Pa
- Measurement temp. range -40 to +125 °C (-40 to +257 °F)
- Measurement humidity range 0 to 100% rH
- 1-phase and DC power supply options
- Stainless steel housing option
- Certificates: ATEX, IECEx, CSA and others
- Water and dust-tight IP66 rating, integrated junction box
- Integral PID loop
- Pre-defined parameter sets for the most common control tasks
- Can be configured on site in the hazardous location

See PUB113-001 for further details.

ExCos/ ExBin
range



HVAC explosionproof sensors and switches

ExCos analogue sensors and ExBin binary switches are designed for direct use in hazardous locations. No additional modules in the panel are required. No intrinsically safe wiring is required. All parameters are adjustable on site without additional tools or measuring devices. Sensors and switches for pressure, differential pressure, temperature and humidity are available. Explosionproof design for all gases, mists, vapours and dust.

- Operating temperature range -20 to +50 °C (-4 to +122 °F)
- Measurement pressure range 0 to ±7,500 Pa
- Measurement temp. range -40 to +125 °C (-40 to +257 °F)
- Measurement humidity range 0 to 100% rH
- DC power supply
- Stainless steel housing option
- Certificates: ATEX, IECEx, CSA, INMETRO, Kosha, EAC and others
- Water and dust-tight IP66 rating, integrated junction box

See PUB113-001 for further details.

Specialised Actuators

Hanbay M
range



Compact electric actuators

Hanbay M Range multi-turn actuators provide precision modulating control for needle, metering, globe and control valves, as well as pressure regulators. Part-turn actuators deliver fast open/close operation for ball, diverter, multi-port, shut-off, internal and butterfly valves.

- Temperature range 0 to +65 °C (+32 to +149 °F) internal (derate duty cycle at high temp.)
- Brushless DC motor, computer control
- Optional manual override
- IP rating IP66 and UL 61010-1 certified
- Fail to position on signal loss
- Failsafe battery

See PUB193-027 for further details.

Hanbay R
range



Compact explosionproof electric actuators

Hanbay R Range multi-turn actuators provide precision modulating control for needle valves, metering valves, high pressure valves and plug valves. Part-turn actuators are compact, lightweight, and are compatible with ball valves, multi-port and shut off valves.

- Temperature range 0 to +65 °C (+32 to +149 °F) internal (derate duty cycle at high temp.)
- Brushless DC motor, computer control
- Optional manual override
- IP rating IP68, IECEx and UL 61010-1 certified
- Fail to position on signal loss
- Failsafe battery

See PUB193-027 for further details.

PAX1 / PAXL
Compact Actuation and Regulators



Compact low power actuators and regulator controllers

The PAX1 is a low voltage DC or AC powered regulator controller with a rotating linear thrust rod output optimised to control regulators up to 25 mm (1") stroke.

The PAXL converts the rotating linear output of PAX1 to a bi-directional non-rotating linear output optimised for automation of small valves, pumps and other devices.

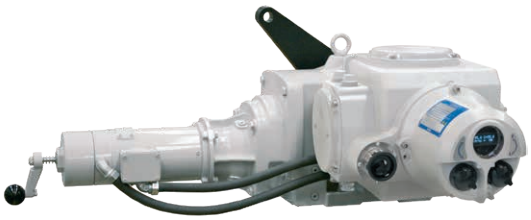
PAX1 and PAXL are suitable for use in hazardous areas due to the fully-sealed explosionproof enclosure.

- Operation speed up to 60 mm/min (2.36 inch/min)
- Maximum thrust of 2,890 N (650 lbf)
- Control pressures up to 20,684 kPa (3,000 psig)
- IP rating IP66 / IP68
- NEMA rating Type 4X / Type 6P
- FM, CSA, CCC/NEPSI, ATEX, IECEx, UKEX hazardous areas
- Ambient temperature range: -40 to +80 °C (-40 to +176 °F)
- Less than 1 Watt power consumption during standby, ideal for remote solar applications
- Optional isolated 4-20 mA position feedback
- Configurable stroke limits

See PUB136-001 for further details.

Specialised Actuators

SM-6000
range

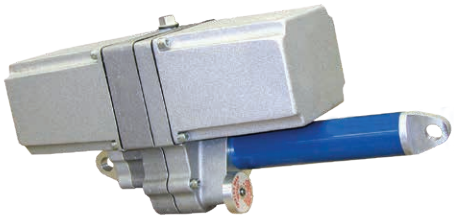


Heavy-duty rotary actuators

- Up to 313° rotation
- Torque range up to 35,252 Nm (26,000 lbf.ft)
- Double O-ring sealing
- Continuous unrestricted modulating duty
- HART®, Profibus® and Foundation Fieldbus® available
- Temperature range: -40 to +85 °C (-40 to +185 °F)
- Automatic torque limiting
- Self-locking drive system to hold in last position and prevent backdriving
- Manual override standard

See PUB052-001 for further details.

LA-2000
range

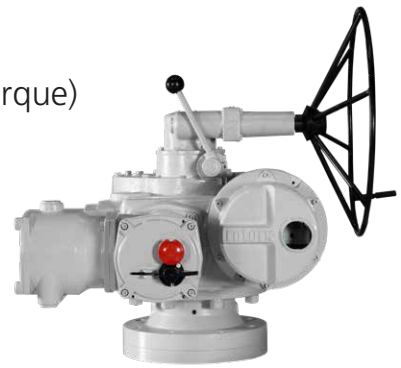


Heavy-duty linear actuators

- Stroke distance from 6" to 30" (152 to 762 mm)
- Thrust range up to 27,335 N (6,150 lbf)
- Modulating duty: 2,000 starts per hour
- HART® available
- Temperature range: -40 to +65 °C (-40 to +150 °F)
- Automatic thrust limiting
- Self-locking drive system to hold in last position and prevent back driving up to thrust rating
- ATEX approved for LA-2520
- Manual override standard

See PUB045-002 for further details.

K (high torque)
range



High torque electric actuators

- Torque up to 7,000 Nm (5,163 lbf.ft) and thrust up to 1,115 kN (250,662 lbf)
- Water ingress protection, not reliant on terminal cover or cable gland sealing – double-sealed to IP66/68 1.2 m for 48 hours
- Standard wiring diagrams for any valve type
- 3-phase power supply
- Thrust or non-thrust mounting flange dimensions to International (ISO) valve standards
- Advanced counter switch mechanism featuring combined torque position limit switches at each end of travel
- Integral starter and control circuit option (Rotork SyncroPak)
- Three base options for each size of actuator

See PUB009-001 for further details.

RCEL
range



High quality electric actuators

- Torque up to 2,452 Nm (21,702 lbf.in)
- Permanently lubricated and self-locking gear drive
- Temperature range: -20 to +70 °C (-4 to +158 °F)
- 1-phase and 3-phase power supply
- Waterproof IP67 (option IP68) VAC or VDC supply
- Certificates: CSA – UL (option ATEX)
- Built-in heater preventing condensation

See PUB146-015 for further details.

Specialised Actuators and Control Stations

ROM / ROMpak
range



Part-turn actuators

Compact, lightweight, part-turn actuator with efficient and simple gearing.

- On/off duty; manual override; self-locking; ISO flanges
- Available with local controls and phase rotation correction
- Torque range 8 to 800 Nm (6 to 590 lbf.ft)
- Wide range of supply voltages available
- 1-phase, 3-phase and DC power supply options
- Watertight IP68 rating
- High speed variant available
- Mechanical and LED local position indication
- **Options:** Bus communication, analogue control and feedback

See PUB008-001 for further details.

Q
range



Part-turn actuators

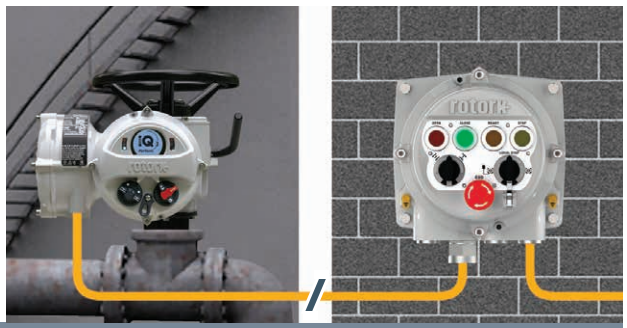
Small, electro-mechanical part-turn actuator environmentally sealed to IP68.

- Torque range 40 to 900 Nm (30 to 664 lbf.ft)
- Rugged compact, double-sealed
- Positive travel limitation through externally adjustable mechanical stops
- 1-phase power supply
- Marine option
- Simple remote control for basic applications
- **Options:** Bus communication, analogue control and feedback

See PUB007-007 for further details.

Local Hand Station





Robust actuator control panel

The Local Hand Station is a fully enclosed control panel, optimised to control actuators and field devices in hazardous, inaccessible or unpleasant locations. The Local Hand Station provides a simple interface between the actuator and DCS, ensuring that localised maintenance activities can be performed safely with no fear of unexpected operation. Critical status information is displayed through the bright LED indicators for maximum visibility to site operators.

The Local Hand Station is designed for wall or pole mounting to suit any application.

Suitable for use in:

- Hazardous area certified ATEX, IECEx, BIS, PESO
- IP rating IP68
- Temperature: -20 to 70 °C (-4 to +158 °F)

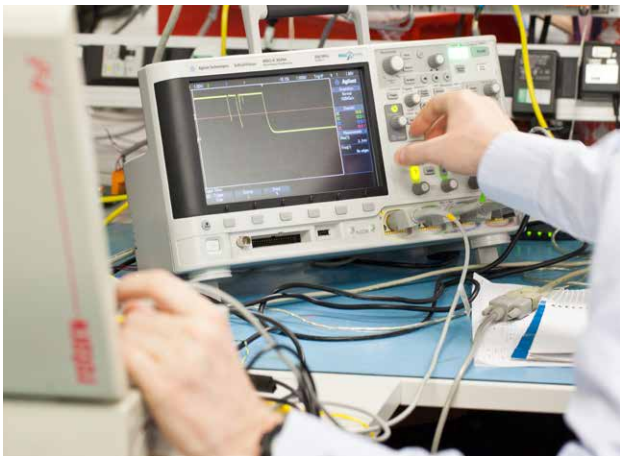
See PUB169-002 for further details.

Integration of the plant controls using network connectivity has been a hallmark of Rotork's actuator products for many years. The use of field networks makes the commissioning of a plant, and the subsequent control and monitoring, a simple and reliable task.

All Rotork actuators are compatible with a wide range of communication and process controls systems by including the appropriate option card or selecting the integrated Ethernet option. The actuator reports status feedback, via the field highway, to the overall plant control system (DCS or PLC) and valve control commands are actioned.

Our own *Pakscan*™ system complements the open systems from Foundation Fieldbus®, Profibus®, Modbus®, HART® and DeviceNet® through to industrial Ethernet where Rotork's integrated Ethernet option supports Modbus TCP, Ethernet/IP and PROFINET industrial communication protocols in the IQ3 Pro range. Innovative technology together with expert bus system knowledge ensures that Rotork can always provide the ideal solution for your site control system.

Modern facilities require up-to-date communications 24 hours a day, right down to plant level.



Rotork Master Station



Control and monitoring for network loops

Rotork *Master Station* provides a state-of-the-art control interface for *Pakscan* and Modbus loops.

Now with 30 years installed experience, *Pakscan* has found preference in all industry sectors and many diverse applications.

At the heart of the *Pakscan* system is the Rotork *Master Station*, providing the vital link between the control system and the devices in the field. The field devices are connected to the Rotork *Master Station* using *Pakscan* networks which have been designed for use in industries and applications where robust and reliable plant control and monitoring is required.

- Automatic network monitoring and fault management
- Rotork *Master Station* with hot standby capability
- Redundant, fault tolerant field networks
- Fully pre-configured Rotork *Master Station*
- Intuitive user interface
- Long distance and high device count without the need for external repeaters
- Well recognised, simple Modbus RTU / TCP host communications
- Field and host communication diagnostics
- Built in webpages for full system diagnostics
- Commission field devices without the need for the host control system
- Field networks open to third party devices
- Efficient low cost installation with minimum cost of ownership
- Multiple host connectivity
- Backed by Rotork global support

Rotork *Master Station* Network Capabilities

Redundant Host Ethernet Modbus TCP connection as standard with optional redundant Host serial Modbus RTU connection available.



Pakscan Classic field network Add In Module (AIM)

The *Pakscan* Classic redundant loop network has been the network of choice for actuator control for over 30 years. Using robust current loop technology, up to 20 km loop lengths, two independent loops and 240 field devices are possible.

Modbus field network Add In Module (AIM)

Modbus field network with standard highway or redundant loop topology options. Other manufacturer's devices are integrated into the network by use of a Rotork field device description file.

Multiple Bus Connectivity

Pakscan™ Classic

The *Pakscan* Classic current loop network has now been in service for 30 years, providing numerous plants globally with a robust, reliable valve control system. Over 170,000 field units are operating in the field today. The Rotork *Master Station* and *Pakscan* Classic current loop network are interchangeable with previously-supplied Rotork *Master Station* models, interfacing seamlessly with the systems currently running the plant.

- Long loop length, up to 20 km
- Redundant, single fault tolerant, loop
- High noise immunity, current loop
- Up to 240 field devices, on a single highway
- No external repeaters, highway terminators or biasing
- Open to third party devices
- Fast scan time due to 'report by exception' protocol
- Standard instrumentation cable

Pakscan™ CLASSIC

Foundation Fieldbus®

The Rotork Foundation Fieldbus module connects directly onto the standard Foundation H1 bus system (IEC 61158-1). The ability to report extensive actuator feedback within a single input block, as well as system diagnostic information, makes Rotork the first choice for use with a Foundation Fieldbus system. The device has link active scheduler capability as well as multiple digital and analogue function block capability, inputs and outputs. DD files describe the device capabilities to the host system.

- Foundation ITK inter-operability certified
- Fully compliant with IEC61158-2 standard
- Includes link master and LAS capability
- Independent HIST approval by major DCS vendors
- Full H1 field capability

See PUB089-001 for further details.

FOUNDATION



HART®

Highway Addressable Remote Transducer (HART) is a process control communication protocol. The HART signal consists of two parts, the analogue 4-20 mA current loop and a superimposed digital (variable frequency) signal. Traditionally the 4-20 mA loop is used for control and the superimposed digital signal for feedback, diagnostics and configuration. Along with the use of standard HART function codes, a DD file describes the device parameters which can be accessed by a host or handheld device. The majority of user-configurable settings can be made over the HART interface.

- Up to 63 devices on each network
- Electronic Device Description (DD) files
- HART 7 compatible

See PUB092-001 for further details.

HART® COMMUNICATION PROTOCOL

Multiple Bus Connectivity

Modbus®

Rotork's Modbus module allows actuators to be connected to a 2-wire RS485 network for direct communication to a PLC or DCS using Modbus RTU protocol. Modules are available for standard single and dual (redundant) communication highways. In addition, a redundant loop network can be created with the single and repeater Modbus card. Status, alarms and control functions are available over the Modbus network.

- RS485 2-wire RTU communication
- International open standard
- Single and dual redundant options
- Integral repeater modules included where necessary
- Up to 115 kbps

See PUB091-001 for further details.

Integrated Ethernet

Industrial Ethernet is a popular choice for devices that require higher data speeds and volumes, such as sensors and actuators. Rotork's Ethernet option supports Modbus TCP, EtherNet/IP and PROFINET industrial communication protocols.

See page 10 for details.

Profibus®

Profibus is a leading international network protocol (IEC 61158-3). Rotork's Profibus DP module supports DP-V0 cyclic communications, extended actuator diagnostics and configuration is included in the DP-V1 acyclic data. Single highway and dual highway units, with the DP-V2 redundancy are available. EDD and DTM files allow the Rotork device to be incorporated into asset management systems, whilst the GSD file guarantees device interoperability with all Profibus PLCs.

- RS485 Profibus DP V0 and V1 compliant
- Single and dual redundant options
- Fully compliant with IEC61158-3 standard
- Profibus PNO certified
- Supports speeds up to 1.5 Mbit/s

See PUB088-001 for further details.

DeviceNet®

Devicenet is a communications protocol which utilises the CAN bus network. Rotork's DeviceNet module Electronic Data Sheet (EDS) file is used to set up the actuator parameters to allow the performance of the system to be optimised. Status, alarms and control functions are available over the DeviceNet network.

- Up to 63 devices on each network
- 4-wire cable, 2 for signal, 2 for power
- Trunk and drop line permitted
- ODVA certified to ensure compatibility
- EDS electronic device description file

See PUB090-001 for further details.

Rotork are a specialist supplier of gearboxes, adaptations and accessories to the international valve and actuator industry with manufacturing plants in the UK, Netherlands, Italy, China, USA and India.

Gearboxes and operators designed to withstand harsh environments including subsea installations.

Mounting brackets, extension shafts, pedestals and accessories for the valve and actuator industry.

We offer a wide range of gearboxes spanning the following categories:

- Part-turn output manual gear operators
- Part-turn output motorised gear operators
- Multi-turn output manual gear operators
- Multi-turn output motorised gear operators
- Specialised application gear operators
- Mounting kits and accessories
- Chainwheels and accessories

Engineering and working capabilities

We deliver innovative solutions to suit individual needs, backed by Rotork quality and after-sales care.

Advanced application engineering ensures our products are world-class in design and meet or exceed international standards. The quality of our gearbox products is maintained through continuous materials testing and extensive life testing of fully engineered gearbox products.



Testing facilities

Our manufacturing locations have extensive multi-turn and part-turn gearbox test facilities. In-house testing capabilities include comprehensive performance, endurance, overload and environmental testing to ensure our gearboxes meet the exemplary standards expected by our customers.

Reliability and quality assurance

We are committed to fully understanding your needs and expectations and meeting or exceeding these needs. We have an established quality management system that meets the requirements of ISO 9001.



Global support

With established worldwide support centres we are able to offer same-day or next-day service to the majority of our customers.

Gear Operators

232 range



Light-duty worm gear operators

Light-duty cast aluminium part-turn gearboxes suited for HVAC, fire protection, and general industrial applications.

Torque range up to 1,500 Nm (1,106 lbf.ft).
Ratios from 37:1 to 45:1.

- Lightweight
- Rugged construction
- Removable output drive sleeves
- IP65
- High pressure aluminium cast housing
- Protected input shaft

See PUB034-001 for further details.

242 range



Part-turn worm gear operators

Robust and lightweight part-turn cast iron gearbox for low torque manual applications. Suitable for ball, plug and butterfly valves.

Torque range up to 2,000 Nm (1,475 lbf.ft).
Ratios 40:1 and 50:1.

- Worm gear
- Manual drive
- Designed using the latest analytical design tools

See PUB099-001 for further details.

AB range



Part-turn worm gear operators

Heavy-duty cast iron part-turn gearboxes are suited for ball, plug and butterfly valves serving the water, gas, chemical, power, and demanding industrial applications.

Torque range up to 32,000 Nm (23,602 lbf.ft).
Ratios from 34:1 to 729:1.

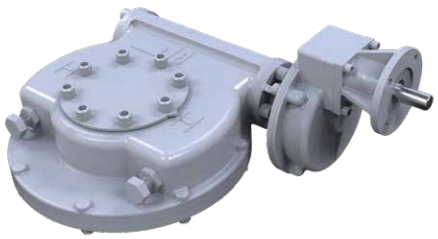
- Cast iron
- Axial needle bearings
- Rugged construction for all environments
- IP67
- **Options:** Stainless steel input shaft. Ductile iron. IP68. AWWA. Various environments. Padlockable handwheels. Limit switches. High and low temperatures. Buried service. Continuous submersion.

See PUB033-006 for further details.



Gear Operators

IW Mk2 range



High torque part-turn worm gear operators

Part-turn worm gear operators for the operation of ball, plug and butterfly valves. Designed to suit motorised isolating duty applications. Low lead angle gearing to be inherently self-locking. Increased torque output per size compared to IW Mk1.

IW3 to IW13 torque range up to 203,000 Nm (149,725 lbf.ft).

IW14 to IW17 torque range 250,000 to 850,000 Nm (184,391 to 626,927 lbf.ft)

- Comprehensive gear ratios with a selection of auxiliary input spur gear reducers
- Angular contact bearings supporting worm shaft
- Removable and re-positionable output sleeve
- Re-positionable baseplate facility
- **Options:** High and low temperatures. All types of environment. Flexible extensions.

See PUB028-079 and PUB029-001 for further details.

AB-SS range



Stainless steel gear operators

Heavy-duty stainless steel 316 housing part-turn gearboxes suited for plug, ball and butterfly valves serving the water, gas, chemical and power industries in corrosive environments.

Torque range up to 26,000 Nm (19,177 lbf.ft).
Ratios from 34:1 to 729:1.

- Worm gear
- Manual drive
- Stainless steel 316 housing
- Stainless steel 316 input shaft
- Stainless steel 316 fasteners

See PUB100-001 for further details.



BR range



Bronze worm gear operators

The BR series gear operators are manufactured from high-quality cast aluminium bronze, and stainless steel materials and designed for extended life operation of valves in corrosive manhole and vault steam distribution environments where road salts, standing water and elevated temperatures are common.

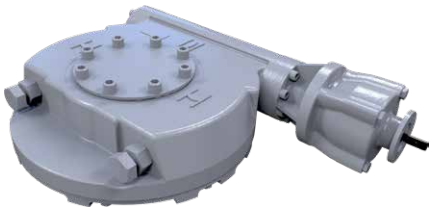
Torque range up to 7,000 Nm (5,163 lbf.ft).
Ratios from 34:1 to 217:1.

- Temperature range up to +200 °C (+392 °F)

Contact Rotork for further details.

Gear Operators

HOW
range



Manual part-turn operators

Part-turn gear operators designed to suit manual applications. For the operation of ball, plug and butterfly valves. Low lead angle gearing to be inherently self-locking.

Torque range 39,000 to 264,000 Nm (28,765 to 194,716 lbf.ft).
Ratios from 1229:1 to 7171:1.

- Ratios chosen to meet manual rim effort requirements
- Protected steel input shaft
- Removable output sleeve
- Ductile iron gearcase
- Angular contact bearings supporting worm shaft
- Re-positionable baseplate facility
- **Options:** High and low temperatures. Stainless steel input shaft. All types of environment. Limit switches. Chain wheels. Fixed and flexible extensions.

See PUB168-001 for further details.

ABM
range



Motorised part-turn gearboxes

Part-turn devices for the motorised operation of plug, ball and butterfly valves and power and process dampers.

Torque range up to 2,000 Nm (1,475 lbf.ft).
Ratios 34:1 to 200.7:1.

- Supports electric actuator weight up to 46 kg (101 lbs) and a speed up to 96 rpm
- Input: F/FA10
- Ductile iron housing and C45 carbon steel input shaft
- Axial thrust bearings
- Removable insert
- IP67 and ATEX approved
- **Options:** High and low temperatures. Firesafe to ISO 10497. IP68 marinised and buried service.

See PUB123-004 for further details.

ILG-D
range



Override part-turn gear operators

Complete range of manual declutchable sandwich override part-turn gearboxes for double-acting pneumatic actuators.

Torque range up to 17,000 Nm (12,539 lbf.ft).
Ratios from 35:1 to 468:1.

- Protected input shaft
- Cast iron housing
- Axial needle bearings
- IP65
- **Options:** High and low temperature. ISO drive coupling. Solenoid valve to evacuate air automatically. IP67.

See PUB038-001 for further details.

ILG-S
range



Override part-turn gear operators

Complete range of sandwich manual override part-turn gearboxes for spring-return pneumatic actuators.

Torque range up to 32,000 Nm (23,602 lbf.ft).
Ratios from 34:1 to 729:1.

- Protected input shaft
- Cast iron housing
- Axial needle bearings
- IP65
- **Options:** High and low temperature. ISO drive coupling.

See PUB039-004 for further details.

Gear Operators

ABLX (FM-UL) range



Part-turn worm gear operators

Cast iron part-turn gearboxes with integrated limit switches for remote position indication suited for fire protection.

Torque range up to 1,620 Nm (1,196 lbf.ft).
Ratios from 34:1 to 40:1.

- Cast iron housing
- Rugged construction
- Removable output drive sleeves
- IP67
- Different types of position indicators
- Suitable for FM/UL/APSAD applications

Contact Rotork for further details.

232LX range



Part-turn worm gear operators

Light-duty cast aluminium part-turn gearboxes with integrated limit switches for remote position indication suited for fire protection.

Torque range up to 500 Nm (366 lbf.ft).
Ratios 37:1 to 45:1.

- High pressure aluminium cast housing with stainless steel input shaft
- Lightweight
- Suitable in corrosive environments
- IP65
- Removable output drive sleeves
- Powder coated
- Different types of position indicators

Contact Rotork for further details.

WGS range



Subsea part-turn gearboxes

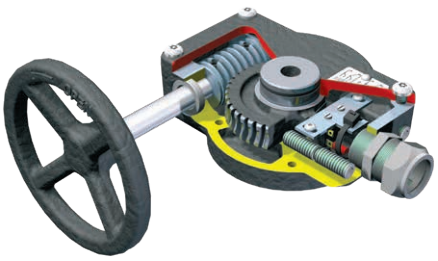
The WGS range of part-turn gearboxes are designed for heavy-duty subsea applications at any depth with carefully chosen materials to offer the highest level of reliability required in this very harsh environment. The operator is equipped with membrane or piston type pressure compensators to balance the pressure and allow them to work at any depth.

Torque range 2,200 to 500,000 Nm (1,623 to 368,781 lbf.ft).

- Worm shaft supported on taper roller bearings
- High strength alloy steel worm screw hardened and ground
- Vertical or horizontal carbon steel ROV input
- Stroke: 0 to 90° (± 5° adjustable)

See PUB036-001 for further details.

FB range



Worm gear operators

Part-turn cast iron gearbox suitable for use with fire protection (i.e. sprinkler) systems, includes limit switches to be incorporated into a supervisory electrical circuit. Designed and tested specifically to meet UL1091 specification and FM1112 approval.

Torque range up to 1,000 Nm (737 lbf.ft).
Ratios from 40:1 to 60:1.

- Worm gear
- Manual drive
- 3 x overload capacity
- 1,000 cycles

See PUB093-001 for further details.

Gear Operators

AB-AWWA (C504 and C517) range



Part-turn worm gear operators

Worm gear operators suitable for the manual actuation of AWWA C504 butterfly valves and C517 plug valves.

Torque range up to 2,000 Nm (1,475 lbf.ft).
Ratios from 34:1 to 48:1.

- 90% grease filled for life and fully sealed
- Self-lubricating sleeve bearings
- Standard temperature range -20 to +120 °C (-4 to +250 °F)
- Above or buried service
- 300 lbf.ft overload capability
- **Options:** Stem extensions. Square nut. Padlock kit. NAMUR and Westlock position indicator mounting kit. High and low temperatures. Open right service. 450 lbf.ft overload capability (unavailable for AB550AW).

See PUB033-010 for further details.

IW-AWWA (C504 and C517) range



Part-turn worm gear operators

Worm gear operators suitable for the manual actuation of AWWA C504 butterfly and C517 plug valves.

Torque range up to 164,000 Nm (120,960 lbf.ft).
Ratios from 48:1 to 2,374:1.

- 90% grease filled for life and fully sealed
- Self-lubricated drive sleeve
- Standard temperature range -40 to +120 °C (-40 to +250 °F)
- Maximum stem acceptance diameter - 12" bored with ANSI B17.1 square key
- Above or buried service
- IP68
- **Options:** Stem extensions. Padlock kit. NAMUR & Westlock position indicator mounting kit. High and low temperatures. 2" square nut. 450 lbf.ft service. Mitre box - IB2 for FA10 mounting or IB4 for FA14 mounting.

See PUB028-003 for further details.

MOW range



Worm gearboxes

Heavy-duty part-turn modulating gearboxes suited for control valves.

Torque range up to 46,775 Nm (34,499 lbf.ft).
Ratios from 40:1 to 3,000:1.

- Up to 1,200 starts per hour
- Ground and polished worm shaft
- Aluminium bronze worm wheel
- Comprehensive gear ratios combined with a selection of spur input reducers
- Angular contact bearings
- Removable output drive sleeves
- **Options:** All types of environment.

See PUB085-006 for further details.

Lever Arm range



Lever arms for damper operation

Used on dampers to transfer the 90° operation from the worm gearbox to the damper spindle.

- **Option for IW Mk2 range:** This is an optional feature on all our IW Mk2 and MTW ranges of worm gearboxes.

Contact Rotork for further details.

Gear Operators

IB
range



Motorised multi-turn gearboxes

Complete range of heavy-duty cast iron multi-turn bevel gearboxes suitable for the most demanding motorised applications for cast and fabricated sluice gates, gate valves and globe and pinch valves.

Torque range up to 8,135 Nm (6,000 lbf.ft).
Thrust range up to 1,320 kN (296,750 lbf).
Ratios from 1:1 to 120:1.

- **Common options for IB:** Spring-loaded temperature compensators. Various position indicators. AWWA. High and low temperature. All types of environment. IP68. Cast steel.

See PUB030-001 for further details.

HOB/MPR
range



Bevel gear operators

Hand operated bevel gears suited for sluice gates, gate, and globe valves.

Torque range up to 10,846 Nm (8,000 lbf.ft).
Thrust range up to 1,557 kN (350,028 lbf).
Ratios from 2:1 to 81:1.

- Cast iron body
- Maintenance free
- IP67
- **Options:** All types of environment. Position indicators. IP68.

See PUB032-003 for further details.

IS
range



Motorised multi-turn gearboxes

Complete range of heavy-duty cast iron multi-turn spur gearboxes suitable for the most demanding motorised applications where the gearbox input shaft needs to be parallel with the valve stem for globe and gate valves and sluice gates.

Torque range up to 43,386 Nm (32,000 lbf.ft).
Thrust range up to 2,900 kN (652,000 lbf).
Ratios from 1:1 to 360:1.

- **Common options for IS:** Spring-loaded temperature compensators. Various position indicators. AWWA. High and low temperature. All types of environment. IP68. Cast steel.

See PUB031-001 for further details.

HOS/MPR
range



Spur gear operators

Multi-turn devices intended for the manual operation of gate, globe, sluice and penstock valves. For use above and underground with upward or downward input orientation.

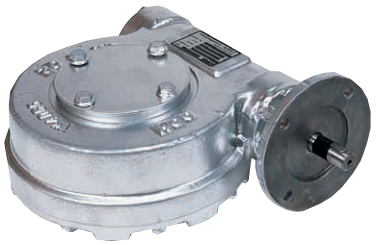
Torque range up to 46,100 Nm (34,000 lbf.ft).
Thrust range up to 4,350 kN (977,920 lbf).
Ratios from 2:1 to 662.4:1.

- Totally enclosed gearing
- Cast iron gearcase
- IP67

See PUB122-001 for further details.

Gear Operators and Valve Accessories

MTW
range



Worm gearboxes

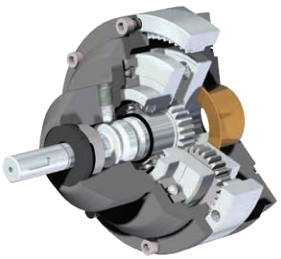
The multi-turn worm gearboxes are used for applications such as sluice gates and dampers.

Torque range up to 162,000 Nm (119,485 lbf.ft).
Ratios from 40:1 to 5,760:1.

- Ground and polished worm shaft
- Aluminium bronze worm wheel
- Comprehensive gear ratios combined with a selection of spur input reducers
- Angular contact bearings supporting worm shaft
- Removable output drive sleeves
- **Options:** Travelling nut for applications requiring mechanical stops. Lever arms. AWWA. All types of environment.

See PUB087-005 for further details.

DSIR
range



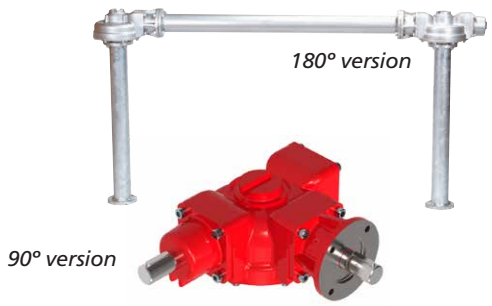
Dual speed gear operators

The Dual Speed Input Reducer is used to reduce the number of input turns required, and therefore the operating time, on manual gearbox applications. It can be used with any manual gearbox which can be fitted with an F14 or FA14 input flange.

Output torque 720 Nm (531 lbf.ft).
Ratio can be switched between 1:1 and 4.25:1.

See PUB040-001 for further details.

DSB
range



Dual shaft bevel gear operators

Complete range of multi-turn bevel gearboxes with two shafts for use with dual stem sluice gates and penstocks.

Torque range up to 8,135 Nm (6,000 lbf.ft).
Thrust range up to 1,320 kN (296,750 lbf).
Ratios from 1:1 to 120:1.

- Ductile iron baseplates
- Comprehensive gear ratios combined with a selection of spur input reducers
- Pinions mounted on ball bearings
- IP67
- **Options:** All types of environment. Various position indications. IP68. Input shafts available at 90° and 180° to each other.

Contact Rotork for further details.

SPI
range



Smart Position Indicator (SPI)

Limit switches enclosed in an IECEx/ATEX certified protective enclosure, providing an accurate and reliable Open/Close signal to the control room for multi-turn manual valves.

Ratios from 34.8:1 to 1,196:1.

- Manual duty
- ISO 5210 F10 output
- Aluminium housings
- IP67
- Mount to existing F10 input flange, direct mount to rising stem valve
- **Options:** Pin / key handwheel.

See PUB132-001 for further details.

Valve Accessories

Mounting kits

ball, butterfly and plug valve kits



Bespoke ball, butterfly and plug valve kits

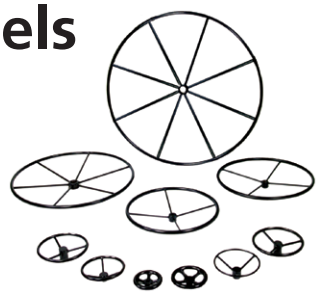
A complete range of precision CNC-machined stainless steel or carbon steel mounting kits. With open or closed construction, mounting kits are engineered from certified material, individually bagged and labelled ready for assembly.

Part-turn valve adaption for rack and pinion or pneumatic actuators can be provided in the form of spool or pedestal type mounting kits. These are fully enclosed carbon steel adaptors with options DD, square or keyed drives.

- To suit valves from ¼" to 48"
- F03 - F35 flanges - ISO 5211/DIN 3337
- **Options:** O-ring seals, stress calculations, material certification, alternative materials, custom design, logo or brand names.

Contact Rotork for further details.

Handwheels

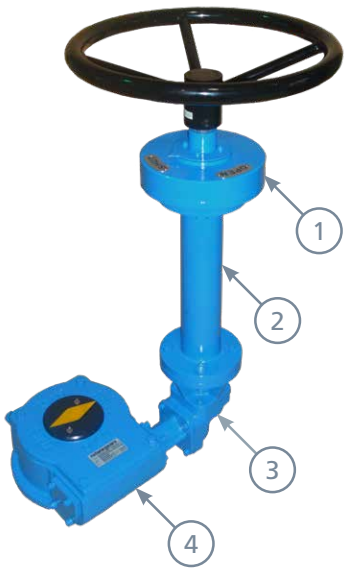


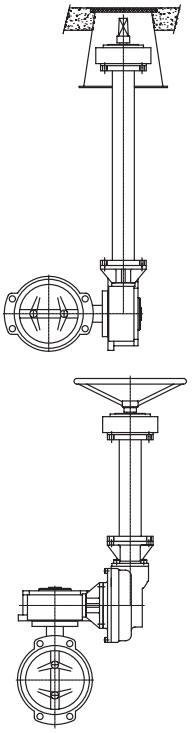
Stainless steel and powder coated handles

- 125 to 2,000 mm diameter
- Stainless steel or powder coated
- Keyed, pinned or square drive
- Fabricated or pressed design
- Oval or round designs for small valves
- **Options:** Locking flange, handle, specials, galvanised, rotating handle, flat or dished, open and closed indication marking

Contact Rotork for further details.

Remote mounting and extension spindles





1 - Remote position indicator
2 - Extension spindle
3 - W100 90° bevel gearbox
4 - AB880 part-turn gearbox

Remote mounting and operation

Valve and actuator remote mounting and extension spindles.

Remote actuator mounting can be achieved using valve extension spindles or pedestal adaptors. Lengths can be from 500 mm to 8 m, in stainless steel or carbon steel.

Extension spindle

- Underground applications
- Customer specified extension
- Welded construction for weight saving
- Position indication option
- Suitable for manual or actuated drives
- **Options:** Oil filled, environmental sealing, galvanised, plain or dynamic bearings, swivel joints.

Remote position indicator

Mechanical remote ECL position indicators for buried service and shaft extension applications. The ECL is available in two versions, one with an F10 base plate to fit any extension with F10, and an ECL BB which has an F14 base plate to fit any extension with F14.

W100 1:1 bevel gearbox

1:1 bevel gearbox designed primarily to be used on AB and manual duty IW Mk2 part-turn gearboxes to change the input shaft direction by 90° for underground applications.

Contact Rotork for further details.

Chainwheels and Accessories

Roto Hammer Chainwheels

range







Chainwheels and valve extensions

Roto Hammer offers the very best solutions for hard-to-reach and difficult to operate valves, with the purpose of protecting people and equipment with safe, dependable valve operation.

We manufacture clamp-on sprockets chainwheels to fit handwheels size from 102 to 1,016 mm (4" to 40"), made with different materials (ductile, aluminium and stainless steel) and protections to cater for very harsh environments.

We also make a variety of innovative custom solutions.

- Safe and dependable valve operation
- Custom solutions for valves in hard to access locations
- Extensive product range available from stock throughout the world
- Material selection to suit applications and environments
- Direct mount chainwheels provide a truly custom fit

See PUB027-056 for further details.

Chainwheel

accessories











Innovative accessories for increased safety and ease-of-use

Right angle gearbox

Designed to enable 90° direction change from vertical or horizontal positions, for use with Roto Hammer valve extensions, handwheels and chainwheels. 1 to 1 ratio.

Handwheels

Handwheels available blank or custom fitted in a variety of finishes including carbon steel, ductile iron and stainless steel.

Valve stem extensions

Designed to provide horizontal or vertical access to remote located valves. Vertical extensions are handwheel driven only. Horizontal extensions can be handwheel or chainwheel driven. Extension can be used in conjunction with the right angle gearbox.

Chain bar wrench

For the remote actuation of ball, butterfly, plug and all types of partial turn valves.

Chucket and Chuckout

The Chucket chain storage bucket holds overhead chains and frees the pathway beneath, eliminating the potential safety hazard of a suspended chain. Becomes the Chuckout when combined with an added lockout/ tagout feature to prevent unauthorised access or use. Available in bright colours for increased visibility.

See PUB027-056 for further details.

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

We 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

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.

Support centres

Wherever our clients are, we 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

We have 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 98,066 N (22,046 lbf)
- Pneumatic pressures up to 120 bar (1,740 psi)
- Hydraulic pressures up to 360 bar (5,220 psi)





Fluid Power Actuators

GT range



Rack and pinion actuators

- Double-acting and spring-return pneumatic actuators
- Fail close/fail open
- Extruded aluminium body with cast aluminium 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.

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.

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 1,150 Nm (848 lbf.ft)
- Actuators certified to ATEX 2014/34/EU
- Travel stops in both open and close direction

See PUB110-005 for further details.

GTE range



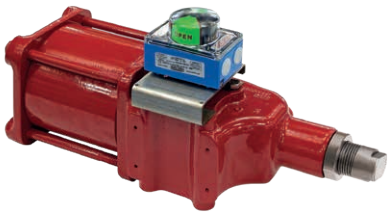
Rack and pinion actuators

- Double-acting and spring-return pneumatic actuators
- Fail close/fail open
- Anodised aluminium body with coated end caps
- Aluminium pistons
- Mechanical interfaces compliant with ISO 5211 and NAMUR standards
- Torque output up to 6,300 Nm (55,760 lbf.in)
- ATEX and SIL options available
- Travel stops in both open and close direction

See PUB110-016 for further details.

Fluid Power Actuators

CP range

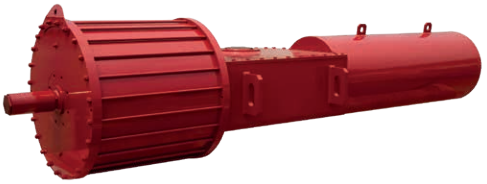


Scotch yoke actuators

- 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.

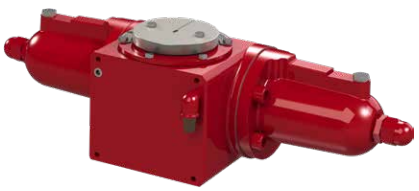
- Pneumatic actuator in double-acting and spring-return configurations
- Fail close/fail open
- For on/off
- Torque output up to 150,000 Nm (110,634 lbf.ft) – higher torques are available upon request
- Certified to IP 66M/67M
- Certified to ATEX 2014/34/EU
- Certified in accordance with PED 2014/68/EU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

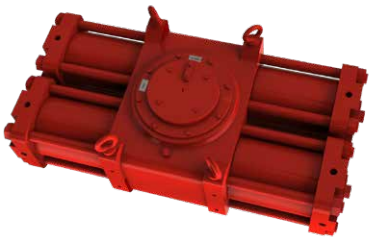
See PUB119-001 for further details.



Fluid Power Actuators

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 3,700 Nm (2,730 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

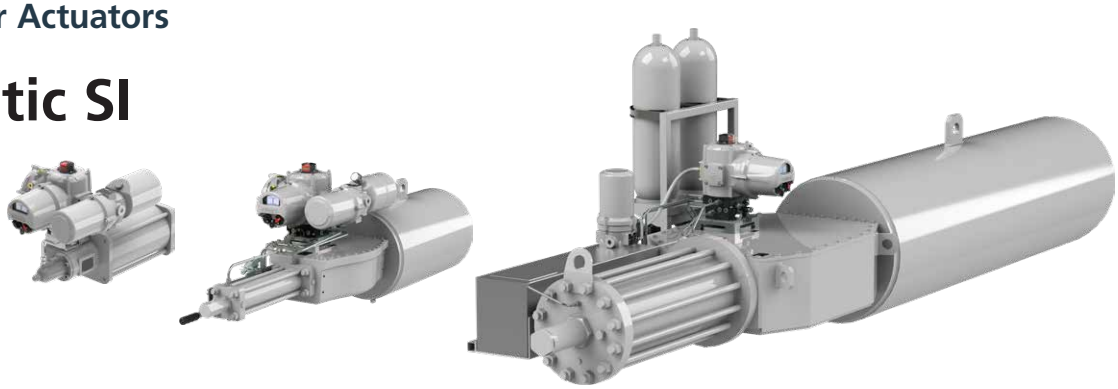
See PUB020-001 for further details.



Fluid Power Actuators

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 configuration
- Linear output: up to 400 kN (90,000 lbf)
- Part-turn output: up to 200,000 Nm (147,500 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 to <0.25%
- Network options include *Pakscan*, Profibus, Modbus, HART and Foundation Fieldbus
- Data logger, recording up to 3,000 events
- Watertight and explosionproof Ex d IIB/IIC T4 – ATEX, IEC, EAC and CSA. TÜV Functional Safety SIL certified to IEC 61508-2:2010
- 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 Skilmatic 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.



Fluid Power Actuators and Control Systems

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



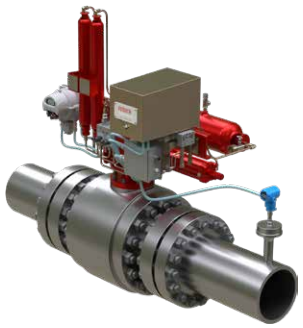
Direct high-pressure gas actuators

- 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 Electronic Line Break (ELB) is a robust, self-contained pipeline monitoring system engineered for pipelines that transport oil and gas, as well as hazardous, highly volatile liquids and gases – such as carbon dioxide and hydrogen.

ELB is designed to continuously monitor pipeline pressure dynamics to provide early detection of pipeline breaks and initiate automatic valve actuator movement to an emergency position based upon user-defined parameters.

The powerful and versatile system can also collect detailed operational data useful for optimising performance and enhancing pipeline safety.

- 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

Contact Rotork for further details.

Fluid Power Actuators

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

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.



Fluid Power Actuators and Control Systems

manPOWER
range

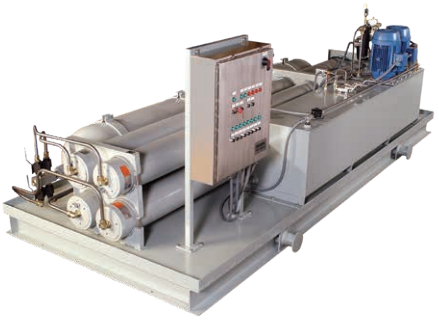


Self-contained failsafe actuator

- 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.



Rotork have a number of instrumentation equipment production facilities throughout the world, complemented by a large network of distribution and support centres.

Worldwide industry and application experience

We offer a complete range of precision control and valve accessory products through our prestigious brand portfolio.

Instrumentation Valves

- Valve actuator accessories
- Solenoid valves
- Instrument valves
- Subsea valves and connectors

Pressure Control & Filtration

- Volume boosters
- Filter regulators
- Pressure regulators – including high pressure products for hydrogen applications

Valve Positioners and Controllers

- Conventional and smart valve positioners
- Valve positioner accessories
- Valve controllers
- I/P and E/P converters

Limit Switches and Position Transmitters

- Limit switch boxes
- Position transmitters
- Bolt type proximity switches

Pressure Controllers

- Intensifiers

Rotork is proud to offer a diverse range of products which serve many different duties in a wide variety of applications. We also offer a factory customisation service to create one-off units to meet specific needs.

Specialist products for control and measurement of flow and pressure.

Trusted wherever there is a need for high precision and reliability, including oil & gas, pharmaceutical, biomedical, and manufacturing industries.





Instrumentation Valves



Valve actuator accessories

We offer the widest range of precision products for actuation control systems, with the highest flow rates and efficiency factors. System components are available for piped, nipple and modular mounting arrangements and in a range of materials.

- Filters, regulators, flow control, volume boosters, HIPEX
- Relief, pressure sensing and stick pilot valves
- Check and quick exhaust valves
- Pilot and mechanical valves
- Modular manifolds
- Fire safety valves

Contact Rotork and see: PUB103-005 (Fairchild); PUB126-001 (Valve Positioners) further details.



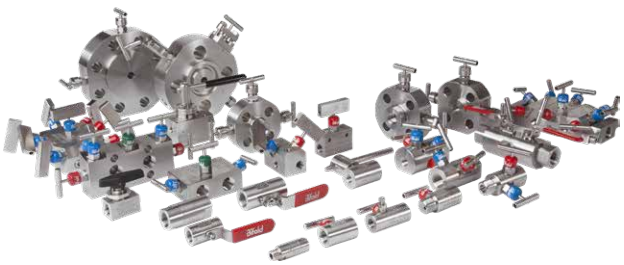


Solenoid valves

A comprehensive range of pneumatic and hydraulic solenoid valves for hazardous and safe area installation. Available in stainless steel, brass and aluminium with threaded and NAMUR connections. Rotork solenoids offer the highest levels of safety factors and global certification.

- Solenoid valves available from ¼" to 8" sizes
- Manual reset and manual override options
- Normally open, normally closed and diverting
- Up to 1,380 bar (20,000 psi) working pressure
- Low temperature and low power versions

Contact Rotork and see PUB124-005 and PUB117-011 for further details.



Instrument valves

State-of-the-art precision engineered instrumentation valve solutions products, such as needle valves, ball valves and Double Block and Bleed (DBB) valves in single or combined valve arrangements.

- One piece body construction
- ¼" to 1" sizes
- Pressure range up to 689 bar (10,000 psi)

Contact Rotork for further details.

Instrument Valves and Controllers



Subsea valves and connectors

Experience gained since 1987 of successfully applying valves directly immersed in seawater has been applied to develop the technically superior, market leading performance, FPS10 range of shearseal type directional valves. Fully seawater compatible, the standard products operate on fluids with contamination levels greater than NAS 1638 Class 12. These are true failsafe valves offering the benefits of reduced manifold weight, size and cost.

- Subsea valves
- Subsea connectors and stab plates
- Subsea gate, needle, ball and manual valves

Contact Rotork for further details.



Valve positioners and controllers

A comprehensive range of valve positioners and valve controllers for all actuator types. Applying non-contact sensing, torque motor and digital electronics technologies, Rotork provides solutions from the simplest to the most sophisticated valve position control requirements.

- Pneumatic and electro-pneumatic positioners
- Smart positioners with network control and diagnostics
- Electronic digital controllers and SIS systems
- Zero leakage designs
- Partial stroke testing
- HART protocol and diagnostic capabilities
- Profibus and Foundation Fieldbus options

Contact Rotork and see PUB126-001 for further details.



Logic valves

Compact design 1½" and 2" poppet valves available in 1, 2 or 3 port exhaust units. Certified as SIL 3 capable and positively sealed for low pressure applications up to 145 psi / 10 bar operating pressure.

- Arctic service options to -60 °C
- Valve body 316L stainless steel, aluminium options available
- Ports: ½" up to 2" NPT & BSP
- NACE-MR-01-75 Option
- High flow - up to 103.0 Cv
- Extensive Valve Operator Options

See SPR-PPV for further details.



I/P and E/P controllers

Fast response, high flow, compact I/P, E/P, D/P and P/I electro-pneumatic converters with extensive combinations of inputs and outputs, carry standard UKCA, UKEX, CCC, FM, CSA, ATEX or IECEx agency approvals, and maintain accuracies of up to 0.15%. Fast response, high flow and high accuracy models feature proportional pressure regulation.

- Hazardous and safe area models
- High accuracy
- High performance

See PUB103-005 and PUB126-001 for further details.

Indication and Measurement



Limit switch boxes and proximity switches

Our extensive range of limit switches offer visual indication with wide variety of feedback options. All designs are corrosion-resistant and suitable for a wide range of environments in hazardous and safe areas. Our enclosure material options include polymer, aluminium and stainless steel. The Soldo range limit switch boxes are based on our own unique twin shaft design, which enables easier and safer disassembly for installation and maintenance.

Refer to PUB109-003 and PUB195-075 for further details.



Position transmitters and switches

Pressure and position sensing components and devices providing digital or 4-20 mA and HART protocol feedback. Suitable for high pressure and high vibration applications, with accurate repeatability giving reliable performance.

- Pressure transmitters
- Position transmitters
- Pressure switches

Contact Rotork and refer to PUB126-001 for further details.



Pressure Controllers and Modular Systems





Intensifiers

Pressure intensifiers for topside and subsea applications. The innovative designs can boost pressure by a factor of up to 7 without external power, operating with any water-based or mineral / synthetic oil-based fluid. Inlet pressures up to 420 bar (6,000 psi) and outlet pressure up to 1,380 bar (20,000 psi). Once the required high pressure is achieved, the pressure intensifier maintains it without consumption of fluid. Any pressure leak is automatically corrected.

- Ratios from 2:1 to 10:1
- Topside and subsea versions
- Suitable for mineral or synthetic oils – or with any water / glycol mix
- Qualification testing at pressures of 207 to 1,000 bar (3,000 to 14,500 psi) to approximately 500,000 cycles

Contact Rotork for further details.

Manifolds - modular solution range

Modular manifold system allowing fast configuration and delivery of accurate and reliable instrumentation configurations to suit your application.

- 360° fully rotational solenoid housing
- Worldwide solenoid approvals
- Booster manifolds available
- Patented stacker system
- Compact low cost version
- High system flow
- 316L stainless steel
- 3D modelling system design

Our modular systems deliver reduction in:

- Cost
- Components (below cost of separate valves and fittings)
- Panel (smaller panel/back plate required and fixings)
- Labour (reduce labour cost of fabricating system)
- Weight
- Eliminate fittings, tubing
- Smaller mounting plate
- Minimal mounting requirements

Specifications:

- Ambient temperature range -60 to +90 °C (-13 to +194 °F)
- Pressure range 0 - 10 bar (0 - 145 psig)
- Flow rate from 0.73 Cv up to 11.2 Cv (XS04-04 up to XS16-16)
- Ports: ¼" up to 1" NPT & BSP (XS04-04 up to XS16-16)
- Solenoid classification: Ex d IIC, Ex emb IIC, Ex ia IIC
- IP66, IP67 and NEMA 4X

Contact Rotork for further details.



Reduce downtime, extend the lifespan of assets, and optimise performance with Rotork's comprehensive service solutions.

Our focus on Full Lifecycle Experience provides world-class service and ensures the reliability of your Rotork products.

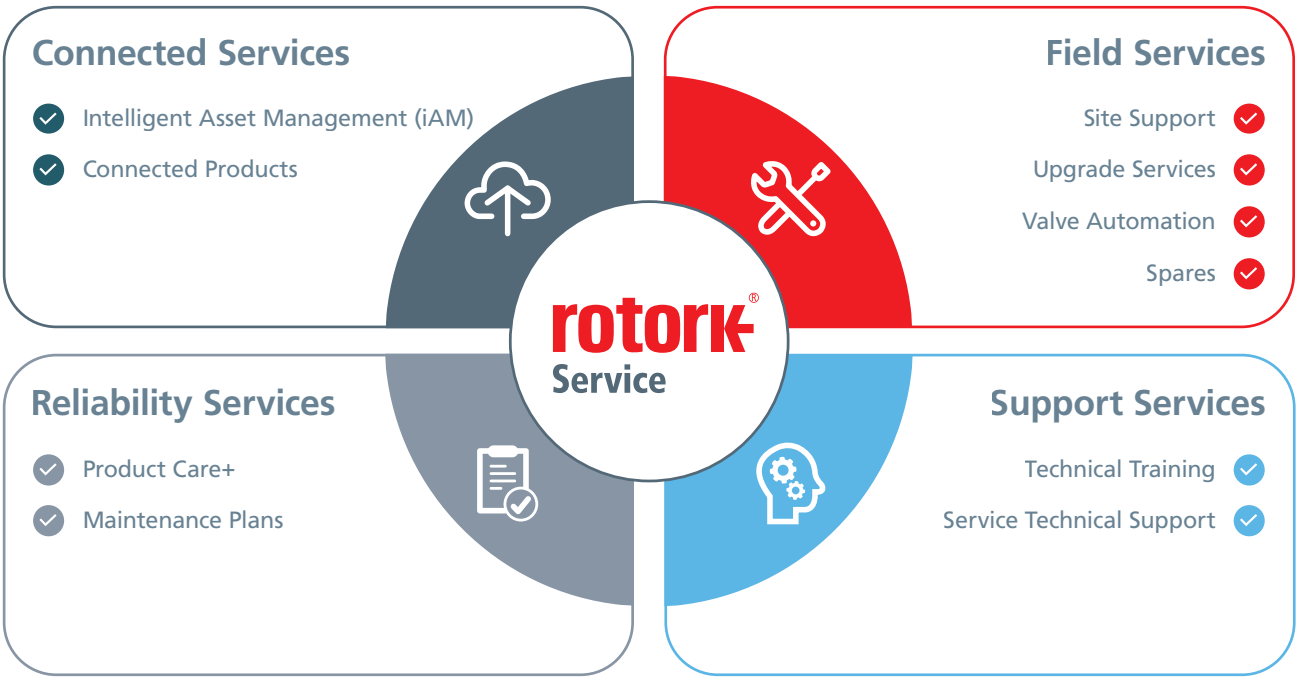
We offer specialist expertise to support mission-critical flow control and instrumentation solutions across oil and gas, water and power, and chemical, process and industrial markets.

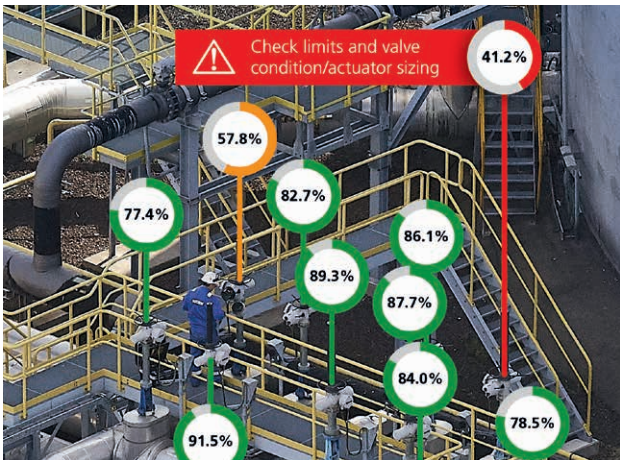
With a global presence and decades of experience, we offer services including installation, commissioning, Reliability Services, Intelligent Asset Management (iAM), product upgrades, spare parts, and overhauls.

Our engineers are highly trained, ensuring consistent, high-quality service worldwide. We operate dedicated workshops for the repair, calibration and testing of our products and only use genuine parts to guarantee top-level performance and reliability.

Our service offering covers four key areas:

- **Connected Services** including Rotork's Intelligent Asset Management (iAM) system
- **Field Services** including site support, upgrade solutions, valve automation and spares
- **Reliability Services** including health checks and product maintenance
- **Support Services** including technical training and support





Connected Services

Intelligent Asset Management (iAM) is a cloud-based system for intelligent Rotork actuators and the flow control equipment they operate. Effective asset management and maintenance are essential for maintaining site uptime.



Reliability Services

Reliability Services is a customisable approach to maintenance, with options that provide progressively increased levels of coverage and support. Our tailor-made programmes increase reliability and availability and allow customers to have flexibility about what services are most appropriate for them.



Field Services

Site Support

Benefit from our on-site support, from installation to emergency repairs.

Upgrade Solutions

Make sure your assets are prepared for the future with suitable upgrade options.

Valve Automation

Achieve precise and consistent flow control with automation of existing valves and replacement actuator/valve packages.

Spares

Maximise performance and reliability with genuine OEM spare parts.



Support Services

Technical Training

Our products and solutions are used in mission-critical applications and it is critical that any workforce is highly trained to ensure a safe and efficient plant. We provide advanced technical training from our strategically located facilities around the world.

Technical Support

We provide expert technical support exactly when you need it – trusted by global industries for over 60 years. Our technical experts draw on decades of our experience to provide you with the right answers and solutions.

rotork®

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