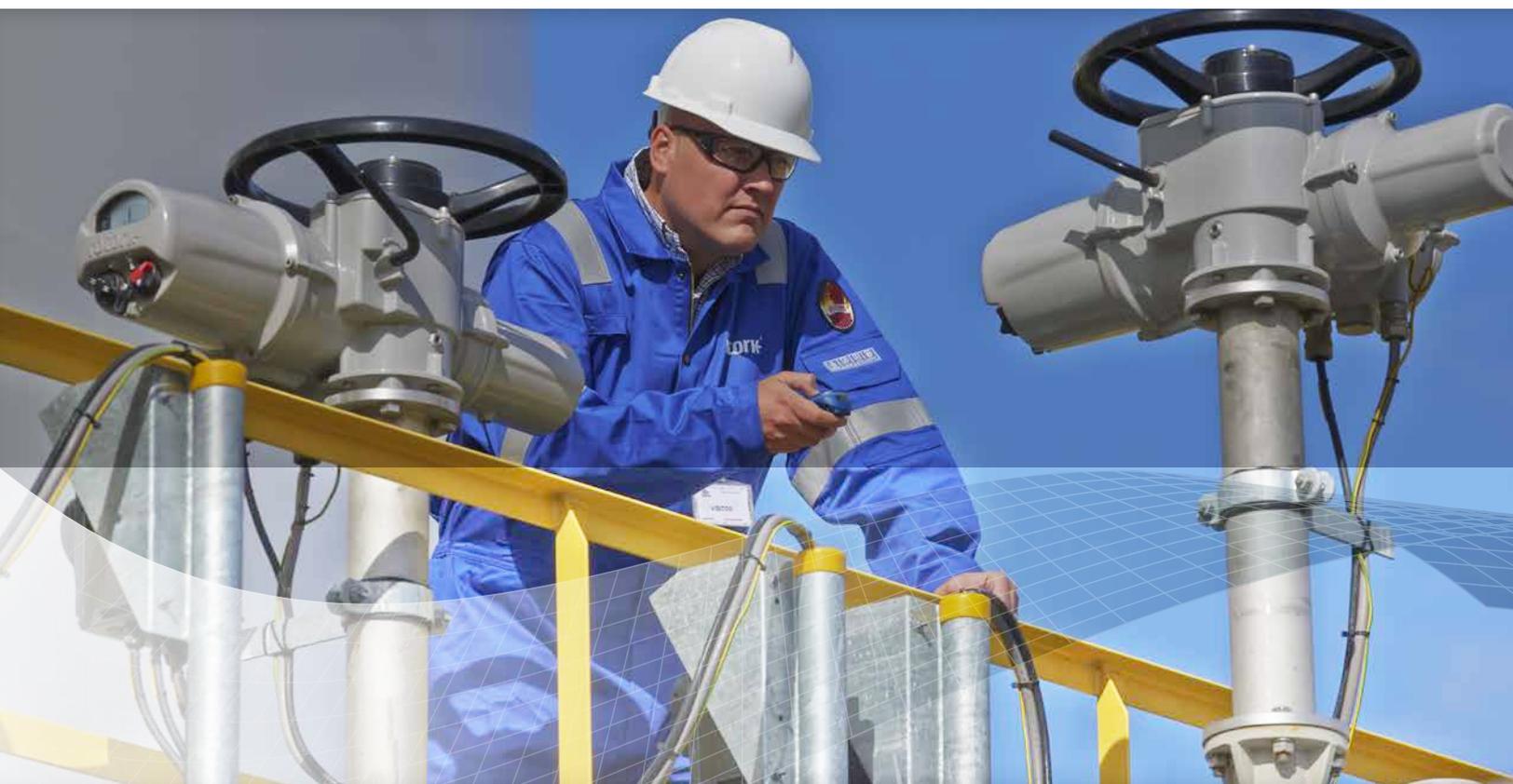


rotork®

Site Services

Worldwide Projects and Services



Automation Projects
and Support Services

Keeping the World Flowing

rotork®

Keeping the World Flowing



**RELIABILITY
IN FLOW CONTROL
CRITICAL
APPLICATIONS**



RELIABLE OPERATION WHEN IT MATTERS

Assured reliability for critical applications and environments. Whether used 24/7 or infrequently, Rotork products will operate reliably and efficiently when called upon.

QUALITY-DRIVEN GLOBAL MANUFACTURING

Products designed with 60 years of industry and application knowledge. Research and development across all our facilities ensures cutting edge products are available for every application.

CUSTOMER-FOCUSED SERVICE WORLDWIDE SUPPORT

Solving customer challenges and developing new solutions. From initial enquiry through to product installation, long-term after-sales care and Client Support Programmes (CSP).

LOW COST OF OWNERSHIP

Long-term reliability prolongs service life. Rotork helps to reduce long term cost of ownership and provides greater efficiency to process and plant.

Worldwide Projects and Services

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COMPREHENSIVE PRODUCT RANGE SERVING MULTIPLE INDUSTRIES

Improved efficiency, assured safety and environmental protection.

Rotork products and services are used throughout industry inclusive of Power, Oil & Gas, Water & Wastewater, HVAC, Marine, Mining, Paper & Pulp, Food & Beverage, Pharmaceutical and Chemical industries around the world.

MARKET LEADER TECHNICAL INNOVATOR

The recognised market leader for 60 years.

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

GLOBAL PRESENCE LOCAL SERVICE

Global company with local support.

Manufacturing sites, service centres, sales offices and *Centres of Excellence* throughout the world provide unrivalled customer services and fast delivery.

CORPORATE SOCIAL RESPONSIBILITY

A responsible business leads to being the best business.

We are socially, ethically, environmentally responsible and committed to embedding CSR across all our processes and ways of working.

rotork®

Keeping the World Flowing

**ESTABLISHED
REPUTATION
GLOBAL
SUPPORT**

Unrivalled global network of manufacturing sites, service centres, sales offices and agents.

Tailored support programmes increase plant efficiency.



CUSTOMER FOCUSED

Customers can source Rotork products locally in the knowledge that they will be supported by life-of-plant maintenance, repairs and upgrade services wherever they are in the world, with over 400 service engineers available globally to provide support.

We are committed to close customer ties, with our global network supporting operations in some of the most remote and challenging environments.

We understand the importance of being close to our customers and understanding their needs – this is key to driving innovation.



GLOBAL NETWORK

Rotork operates a truly global network of sales offices, service centres and manufacturing plants sited in Europe, Asia and North America. From heavy-duty gears to nuclear-certified actuators and pressure regulators, we are proud to be delivering the best solutions everywhere we work.

Rotork has more than 3,700 employees around the world who are fundamental to maintaining our reputation for excellence in innovation and the quality of our products and services.

CLIENT SUPPORT

As an international business, supporting clients wherever their operations and project installations are located is part of our culture.

Our worldwide international sales and service network allows us to support our clients wherever they are based.

In addition to manufacturing sites throughout the world, Rotork has regional *Centres of Excellence* providing local service and support.

rotork® Site Services

Rotork has a history of innovation and introducing technological advances to increase product reliability and useability. We capitalise on our industry knowledge to develop and introduce solutions that support evolving customer requirements. Rotork continues to invest in research and development, utilising the latest technologies within our products to increase performance and reliability.

Rotork understands the value of its prompt and punctual customer site services and aims to supply its customers with superior flow control solutions, by providing high quality, innovative products and superior service – **on time, every time.**

Whether you have an actuator requiring on-site servicing, a custom design service requirement or a new actuator installation, we can deliver the fastest turnaround with the least plant disruption.



Actuator Workshop Overhaul

- Supporting Rotork and non-Rotork products
- Workshop facilities including torque testing and re-coating
- Large OEM stock in all workshops
- Fully trained and experienced service engineers
- Loan actuator facilities

Field Support

- Site repairs and commissioning
- Upgrades
- Fault finding and maintenance
- Call-out with fully equipped service vehicles

Client Support Programme (CSP)

- Select a level of service tailored for you – gold, silver or bronze
- Improves production throughput
- Reduces the cost of maintenance year-on-year
- Allows customers to manage the challenge of 'Risk vs Budget' in maintenance operations
- Lifecycle management includes planned and predictive maintenance with a focus on equipment reliability and availability as well as asset management
- Generated reports detail cost savings and performance improvements

Planned Shutdown Support

- Preventative maintenance
- On-site overhaul and testing
- OEM spares and support
- Support for Rotork and non-Rotork products
- Achieve tight shutdown return to service targets
- Project management and supervision

Valve Automation Centres

- Actuator replacement
- New valve automation
- Control and automation
- System integration

60 years of experience and knowledge in all aspects of flow control.

Predictive maintenance programmes and comprehensive customer services.

Health checks and performance analysis for optimum plant performance.

Actuator Workshop Overhaul



Actuator Workshop Overhaul Services

- Supporting all Rotork and non-Rotork products
- Workshop facilities including torque testing and re-coating
- Large OEM stock in all workshops
- Fully trained and experienced service engineers
- Loan actuator facilities

The overhaul, repair and upgrade activities carried out in our workshops are an integral part of the life-of-plant asset management support offered by Rotork Site Services.

On completion of work, every overhauled actuator is torque rig tested, and a test certificate is provided confirming that its performance is identical to the day that it was built.

We service and repair all major brands of actuators. Our service teams have many years of experience in the overhaul and repair of non-Rotork actuators.

Benefits of having a certified workshop overhaul in comparison to a complete actuator replacement:

- Less downtime compared to waiting for a replacement
- No valve modifications or machining of adaptations/ drive nuts
- Certification and calibrated torque/thrust testing
- Overhauled actuators are provided with a Rotork warranty
- Workshop diagnostic rigs allow detailed fault analysis
- OEM parts are used, ensuring performance and reliability



Field Support



Field Support Services

- Site repairs and commissioning
- Upgrades
- Fault finding and maintenance
- Call-out with fully equipped service vehicles

Rotork provides prompt customer field service response for all types and makes of actuator including those in hazardous environments such as nuclear and offshore installations. Our support can be planned or in response to emergency situations.

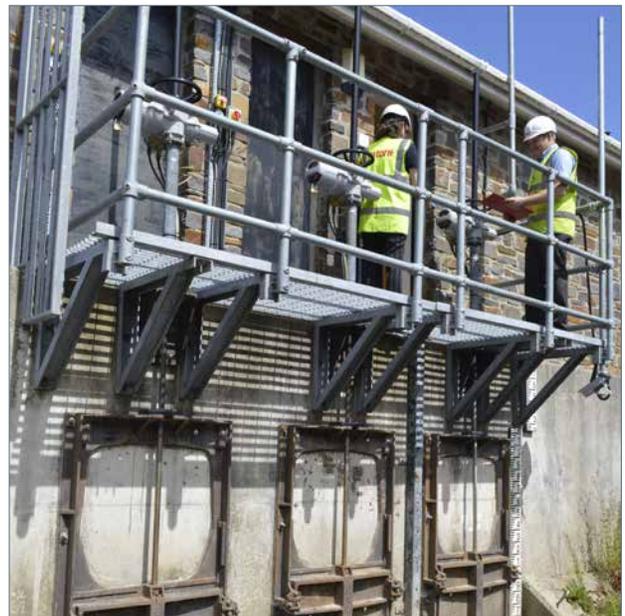
Rotork Site Services are specialists in actuation services:

- All types and brands of actuators serviced and repaired
- Installation and commissioning services
- Upgrade, troubleshoot and repair/replacement of damaged or deteriorating assets
- Fully trained and qualified service engineers
- Fully equipped fleet of service vans
- Majority of repairs carried out on-site, not taken away
- Often a loan actuator can be provided to minimise plant downtime
- Guaranteed emergency response times

Rotork Site Services is recognised and certified by major safety authorities around the world.

Strict adherence to safety regulations and procedures.

Warranty provided on all work we undertake.



Client Support Programme



Client Support Programme – Features

- Fixed term prices for Rotork products and services
- Tailored programme based on equipment criticality to production
- Equipment performance related targets for reliability and availability
- Priority support with customisable response times
- Fully parts and labour inclusive, no additional costs or discounted labour and parts
- Fix or replace options
- Periodic equipment performance and status reports
- Built-in regular health checks on all equipment

Client Support Programme – Benefits

- Year-on-year reduced maintenance costs
- Easy budget management
- Maximised production – reduced downtime
- Year-on-year improved reliability and availability
- Optimised resource usage, accelerate in-house projects
- Reduced lifecycle costs

Rotork offers a tailor-made programme designed to increase reliability and availability of valve actuator and control products via planned maintenance, predictive maintenance and asset management.

The primary goal of our Client Support Programme (CSP) is to prevent the failure of equipment before it occurs. This includes equipment checks, replacement of worn components and partial or complete overhauls at specified periods.

Planned preventative maintenance is a better alternative to risking a potentially damaging breakdown of equipment, and enables our clients to realise the full potential of their business by ensuring the maximum reliability and availability of the assets.

Wherever our clients are in the world, Rotork is able to support them. We have workshops strategically located around the world, with trained staff and full test and maintenance facilities.

As part of the CSP, clients have 24/7 access to the Rotork Support Centres, with priority technical assistance, backed by comprehensive resources and dedicated systems. With over 400 directly employed engineers and more service technicians available via agents, we have the infrastructure required to effectively support all of our clients' needs.

In addition, Rotork will help with your site development when you need to expand, diversify or introduce a new process to your plant. Our engineers and technicians will bring 60 years of application experience to help you plan the way ahead.

Through consultation, the CSP is tuned to deliver the optimum level of maintenance through predictive maintenance algorithms.

The CSP covers service and on-site repairs of all brands of actuators used in process industries.

For further information, or to arrange a consultation please contact one of our dedicated sales team or service managers.



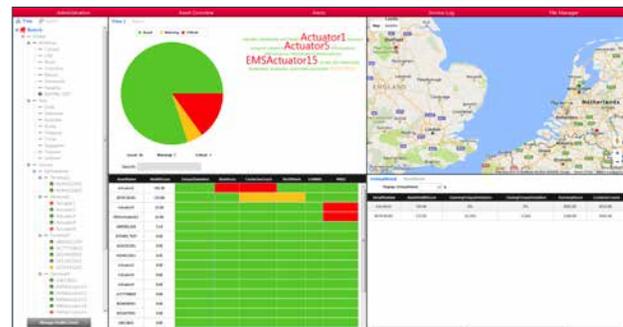
Asset Management

Rotork is a corporate member of the Institute of Asset Management, the professional body for whole life management of physical assets.



Above: Rotork's intelligent asset management system showing torque data from multiple actuator datalogs.

Right: Overview of asset status showing a combination of both real-time live data and data uploaded via datalogs.



Detailed actuator performance reports, produced at agreed frequencies, allows data analysis and predictive maintenance planning. This enables plant operators to plan shutdown maintenance and minimise the impact on production.

The detailed data obtained from Rotork actuators allows us to optimise actuator performance and production efficiencies during scheduled maintenance. We analyse the condition of assets against universal data, and use root cause analysis to define the right solution to any anomalies.



Client Support Programme (CSP) provides a premium level of product reliability and availability.

Predictive maintenance minimises unplanned plant downtime.

Tiered maintenance planning reduces plant downtime and costs.

Planned Shutdown Support



Planned Shutdown Support Services

- Preventative maintenance
- On-site overhaul and testing
- OEM spares and support
- Support for Rotork and non-Rotork products
- Achieve tight shutdown return to service targets
- Project management and supervision

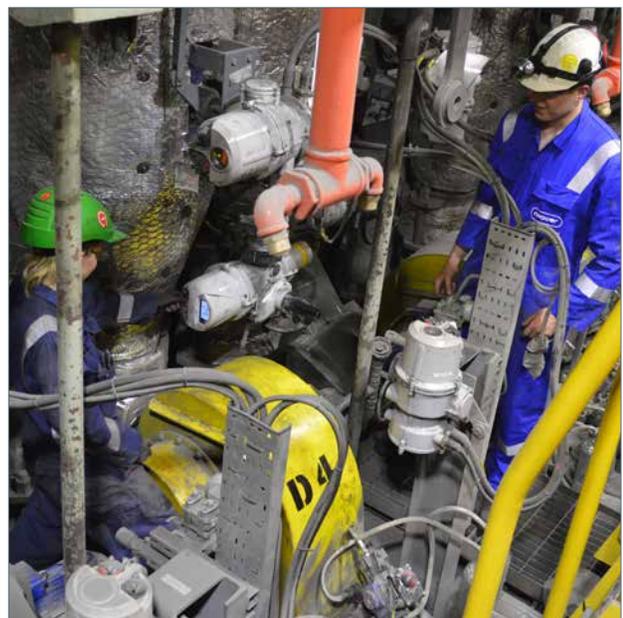
Actuators are recognised as major contributors to efficiency, economy and safety. They facilitate the quick start-ups demanded by today's commercial pressures, and they play their part in supporting the demands of modern business environments.

Rotork provides actuator removal, service, repair, test, re-connection and re-commissioning on a wide range of electric, pneumatic and hydraulic actuators, including non-Rotork units.

Our customers frequently use Rotork Site Services to remove, overhaul, reinstall and commission hundreds of actuators concurrently in our workshops during shutdown periods.

We can carry out upgrade projects simultaneously to ensure that customers make the most of their plant shutdown time, and we excel at meeting tight shutdown schedules.

Rotork guarantees that your actuators are fully operational in time for your return to service deadlines.





Actuators contribute to efficiency, economy and safety.

They facilitate the quick start-ups demanded by today's commercial pressures.

They help meet the emission reductions demanded by environmental legislation.



Rotork provide a one-stop-shop for all your actuator upgrade and replacement requirements.

Design, manufacture, supply and installation of all mechanical and electrical components to facilitate your plant upgrade.

Valve Automation Centres – Actuator Replacement



Actuator Replacement Services

- Replacement of obsolete or ageing actuators in the field with the latest Rotork product range
- Correct product selection for the right application
- Design and manufacture of adaption components
- Electrical interface design and installation
- Factory trained installation team
- Fully commissioned to the plant control room
- Extended warranty on all products installed by Rotork technicians

Rotork has a wealth of experience in fitting actuators to valves, penstocks or dampers that are already installed on a plant. Whether a customer is replacing obsolete actuators, changing power source or motorising manual valves we are able to offer tailor made solutions designed to comply with our customers' requirements.

Retrofitting actuators to valves installed in the pipeline is a safe and cost effective solution that minimises plant disruption. Working from basic valve data we are able to offer a full sizing service that matches actuator models to the valves' requirements.

We carry out full and detailed site surveys, collecting all the dimensions needed to design the mechanical components that will mount the new actuator to the existing valve.

Ease of installation and maximum reliability of the whole installation are guaranteed by a full Rotork warranty.



Valve Automation Centres – New Valve Automation



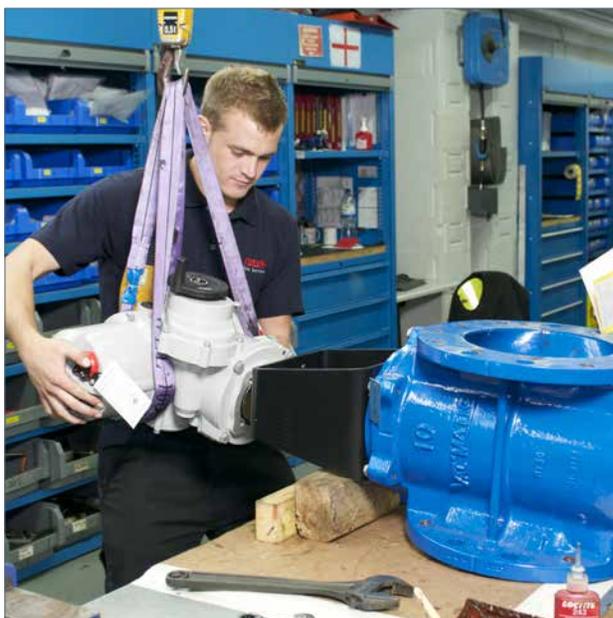
New Valve Automation Services

- Automation of new or refurbished valves in our dedicated service centre
- Correct product selection to suit the process demands
- Design and manufacture of all engineered components
- Correct assembly of valve and actuator/gearbox combinations
- Selection and procurement of the preferred or specified valve for your application
- Free issue valves accepted for automation in our service centres
- Packed and shipped to the desired destination

The careful assembly of the valve to the actuator is critical to ensure that an automated valve performs correctly and reliably. There is a growing need for actuators to be installed on valves after they have left the valve manufacturers factory.

With our complete range of electric and fluid power valve actuators, we can automate all valve types regardless of the available power supplies. Working with the engineer responsible for the specification, we will select the correct actuator type and size based on the basic valve data and the plant operational criteria.

We engineer and manufacture all components necessary to mount the actuator to the valve. Assembly takes place in our controlled workshop environments by factory trained technicians. An extended warranty is provided when the valve and actuator are commissioned on-site by Rotork technicians.



Valve Automation Centres – Control and Automation



Control and Automation Services

- Flow control projects
- Flood prevention projects
- Plant optimisation
- PID loop optimisation
- Uninterrupted power supplies (UPS)
- Failsafe control systems SIL 3
- Control and monitoring
- Power and control systems
- Data logging
- Safety critical systems design and installation projects

Experts in the design and implementation of actuation and flow control solutions.

60 years' experience installing equipment in all environments and applications worldwide.

Every year Rotork carries out significant control and automation projects throughout the world. This is a growing requirement from our customers who are often looking for a “one-stop-shop” to automate part or all of their processes.

Our capabilities cover all of the project phases:

- Detailed survey
- Detailed design
- Competitive procurement and timely expediting
- Technical, manufacturing and quality monitoring
- Professional installation and commissioning
- Detailed project management ensuring project delivery on-time every-time

Our projects team have specialist experience in:

- Civil works
- Pipe works and flow control systems
- Actuated valve and penstock installations
- Power distribution, control networks and cabling
- Control system design and installation, field communications and telemetry

Valve Automation Centres – System Integration

System Integration Services

- Design, manufacture, supply and installation services to automate existing valves, penstock or dampers
- Design, supply and installation of power distribution systems, back-up power, uninterrupted power supplies and associated equipment
- Control system integration and design including PLC, bus systems, logic, flow control systems, PID control, failsafe critical plant
- Mechanical, instrumentation, electrical, controls and automation (MIECA)

Rotork has extensive expertise in the design, manufacture and installation of custom control systems for the specialist fields of pressure, temperature, level and flow control applications within the process control industry.

Rotork products integrate seamlessly with the majority of industrial control systems as well as our own Pakscan network control system.

Power

- Power distribution systems upgrades and new installations
- Back-up power, uninterrupted power supplies
- Pneumatic and hydraulic power pack supplies and back-up accumulators
- Failsafe systems
- Automatic shutoff

Control

- Electrical interface between existing and replacement equipment
- Local and remote control panels supplied and installed
- Auto/manual stations
- PID control
- Safety critical system design and Installation
- Flow control systems
- Plant optimisation upgrades
- Continuous modulation of plant final control devices

Systems

- Complete control system design, supply and installation
- PLC/HMI/SCADA/Telemetry
- Major manufacturers supported including Siemens, Rockwell, Mitsubishi, Schneider, Wonderware and Iconics
- Functional safety systems
- Field networks: *Pakscan™*, Profibus®, Modbus®, DeviceNet®, Foundation Fieldbus®, HART®
- Secure wireless networking

POWER SUPPLIES



COMPLETE POWER SOLUTIONS



UNINTERRUPTIBLE POWER SUPPLIES

CONTROL PANEL



LOCAL CONTROL AND INDICATION

CONTROL SYSTEMS



REMOTE CONTROL AND MONITORING

PLC



FEEDBACK AND CONTROL

HYDRAULIC SYSTEM



PNEUMATIC SYSTEM





DISTRIBUTION
BOARDS



PLUG & SOCKET

HARDWIRED CONTROL FROM LOCAL CONTROL PANEL

HARDWIRED CONTROL FROM PLC

NETWORK CONTROL AND
MONITORING SYSTEMS



REMOTE OPERATION



WIRELESS VALVE
MONITORING



VALVE
POSITIONER



POSITION INDICATOR



HYDRAULIC CONTROL PANEL



PNEUMATIC CONTROL PANEL



NETWORK CONTROL AND MONITORING

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A full listing of our worldwide sales and service network is available on our website.

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Rotork is a corporate member of the Institute of Asset Management



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