

## Rotork Controls - leadership in valve

For over half a century, Rotork has stood for quality and reliability in the field of valve actuation. Clients in the global oil and gas industry, power, water/wastewater as well as other industries have come to appreciate Rotork's innovative valve actuation solutions. Also, Rotork has a worldwide service and support network that is second to none. From power plants to refineries and from wastewater treatment to marine engineering, the number of applications using Rotork valve actuators is extensive.

Valve World Americas had the opportunity to visit Rotork Controls, Inc.'s Rochester, New York manufacturing facility to speak with Robert Arnold, president, and Michael Heuseveldt, marketing coordinator, to discuss Rotork's global vision, immense growth, and historic leadership role in advancing valve actuator technology.

By Sarah Bradley



A section of the Fluid Systems manufacturing area in the Rochester, NY factory.

Started in Bath, England, in 1957 – when the computer age was in its infancy and plant automation was merely a concept – Rotork has evolved to become an established leader in valve actuation technology with a global network of manufacturing plants and sales/service offices. Rotork's mission is to create the finest range of valve actuators and flow control products in the world. The company is recognized as an industry leader because of its ability to use skilled engineering and creativity to solve challenging customer problems and develop new technological solutions. Throughout the company's history, end users have relied on Rotork for innovative and dependable valve actuation and flow control solutions – from emergency shut-down safety systems that may be needed just once in a lifetime to high-precision modulating controls that are operating constantly.

### A GLOBAL PLAYER

Rotork is structured into the following divisions: Controls, Fluid Systems, Gears, Instruments, and Site Services. Rotork Controls manufactures electric valve actuators for heavy-duty valve applications,

highly accurate process control actuators, explosionproof HVAC actuators, and network control systems. The Fluid Systems division specializes in the production of pneumatic, hydraulic, and electro-hydraulic actuators, along with associated control systems. Rotork Gears manufactures gear-box assemblies for use with electric and fluid power actuators and as direct manual valve operators. The Instruments division manufactures products and components for high-precision flow control, pressure control, flow measurement, and pressure measurement. Rotork Site Services provides customer service and support for the other divisions. They install and commission new installations and retrofit actuators to existing sites as well as provide maintenance and repair services. Rotork believes that the support it offers contractors and end users is the best in the industry and that it is increasingly valuable in securing business.

Rotork is a global player and supports operations in remote and challenging environments virtually everywhere in the world. It has 25 manufacturing plants and 164 offices and agents servicing 95 countries, which augment a local approach to



Rotork's manufacturing facility in Rochester, NY.

the markets it serves. Consistently rapid company growth has come organically through product development as well as through the acquisition of companies with complementary products and markets.

Bob Arnold said, "Our innovation and technical ability set us apart. We offer technically superior, innovative, engineering-oriented products. It's a high priority at Rotork to have the same product quality available across the board. All of our products are manufactured with consistent quality control throughout our facilities worldwide. Quite often customers order from different places to ship into the same project. We ensure that geography doesn't affect the product they are receiving. For example, the product that we build in Rochester for shipment to Houston or Brazil will be the same as the product we offer from our facilities in England, Italy, or any other location."

In addition to providing reliable products of consistently high quality, the company's history boasts many significant innovative technological achievements which have helped end users improve performance and productivity in their applications. For example, Rotork was the first to: utilize O-ring seals in place of gaskets in explosion-proof actuators; pioneer intelligent actuators; and introduce the double-sealing concept providing separately sealed, easy access to electrical connections without exposing the internals to environmental influences. It was also Rotork that introduced non-intrusive commissioning and interrogation of actuators with the use of hand-held infrared tools.

"Because we are always looking to provide the best products to our customers, we invest heavily in staying at the forefront of innovation. We have an industry leading R&D program. It's part of our culture. Our engineers are always searching for innovative, cost-effective ideas. We listen to our customers. We make improvements and add features that are useful to them – enhancements that provide them with significant operational advantages or cost savings. We are always out there trying to come up with the next technological feature that will make our products perform better," said Mike Heuseveldt.

### U.S. OPERATIONS

Rotork's U.S. operations are headquartered in Rochester, NY, and they have eight manufacturing sites across the country. For sales, they divide the country into four geographic regions – East Coast, West Coast, Gulf Coast, and Midwest – to provide regional sales and service support to customers and their representative network. Each region has a Factory Store – a stocking valve automation center staffed to provide sales, inventory, application engineering, and maintenance/repair services. Further, to best serve its diverse customer base, each Factory Store has several remotely located area sales managers and service personnel strategically placed throughout their coverage area.

"We have our sales and service people located near end users. We provide a quick response with factory-trained personnel. Beyond that, I think a key benefit to our approach is our close relationship with our customers. They know us, and we know them. The regional staff knows the sites



Workers install a Twin Power range pipeline actuator in Mexico.

and has historical knowledge of the operation. Customers benefit from that. It saves them time, downtime, and money," said Mike.

Rotork's U.S. manufacturing sites are located across the States and include the following:



An EH range self-contained electro-hydraulic actuator at a water treatment plant.



A technician tests an NA range actuator designed for nuclear power plant applications.



CVA range control valve actuators at an underground gas storage facility.

# actuation technology and flow control

LOCATION	DIVISION	PRODUCTS
Rochester, NY	Controls, Fluid Systems	Electric and Fluid Power Actuators
Milwaukee, WI	Controls	Electric Process Control Actuators
Dallas, TX	Fluid Systems	Rotary Vane Pneumatic Actuators
Houston, TX	Gears	Gearboxes
Tulsa, OK	Flow-Quip	Fluid Power Actuators and Power Supplies
Broken Arrow, OK	Gears	Valve Adaptation and Accessories
Export, PA	Fluid Systems	Fluid Power Actuators for Nuclear Power Generation Applications
Winston-Salem, NC	Controls, Instruments	Electric Actuators, Flow/Pressure Control/Measurement Products

## PRIME PRODUCTS

A genuine, long-term commitment to customers and partners underpins Rotork's culture of engineering excellence, making it a consistently dependable choice for products, service, and engineering expertise. While the company's roots lie in electric actuators, today Rotork manufactures an extensive and diverse range of products that cover virtually any valve actuation application requirement. With the acquisition of specialist manufacturers such as Jordan Controls, Fluid System, Skilmatic, Valvekits, Fairchild Industrial, and most recently GTA, Renfro and Young Tech, Rotork has expanded into diverse areas of valve actuation and flow control activity.

Rotork's line-up of actuator product-types include electric, low-and high-pressure pneumatic, hydraulic, electro-hydraulic, and gas-over-oil. The company's own Pakscan bus system and wireless network provides highly-reliable low-maintenance actuator control. Rotork products also

where. The company's flagship product, the IQ3 (third generation of the IQ Range of Intelligent Electric Actuators), exemplifies the company's ethos of evolving innovative design. The IQ3 sets the standard of reliability with its unrivalled ability to provide valve and process control operational and diagnostic data.

"The IQ3 is new to the market. It has a large display, a user-friendly interface and Bluetooth connectivity for intrinsically safe setup and interrogation. The IQ3 also offers enhanced reliability through solid state controls; reduced internal wiring, a simplified torque sensor, and also features advanced real-time status reporting and other convenient features. If there is a loss of power, the IQ3 maintains plant safety through monitoring valve position, providing local display, and maintaining remote contacts," explained Bob.

Other innovative electric actuators from Rotork are the CVA and CMA ranges. They



through an internal 6-segment LCD display and pushbutton configuration.

The SI range brings intelligent technology to electro-hydraulic actuators. The SI range incorporates the same technology proven in the IQ range. Many of the ranges features such as performance monitoring, datalogging, and non-intrusive Bluetooth setup are rare in fluid power valve actuation.

The Rotork strategy behind product development is simple: continually assess the market, ask the customer what their needs are, and design an actuator to meet those needs. The company is currently working on forthcoming product developments with the second-generation CMA due later this year. Development is also underway on the IQT3 (a quarter-turn version of the IQ3) and the SI3 which will bring the latest IQ3 technological benefits to Rotork's most sophisticated electro-hydraulic product.

## THE ROAD AHEAD

The company is continuing to expand its presence in Canada and the United States, as well as Central and South America. It has recently enlarged its Mexican and Brazilian valve automation centers, and, later this year, ground-breaking will begin on a major expansion to its Rochester manufacturing plant to meet growing demand from the Americas' market.

"There are always going to be challenges in our ever-changing industry and dealing with that, staying ahead is a large part of the culture at Rotork. We make sure that we are offering products that are superior," said Bob. "We believe strongly that the industry will continue to grow and are optimistic about the leadership role that Rotork will play in the future."

## ROTORK AT A GLANCE

### Founded

1957 in Bath, England. Remains both corporate headquarters and a manufacturing site. Rotork Controls, Inc. formed in 1977. Manufacturing established in Rochester, New York, USA.

### Business

Manufacturer of valve actuation and flow control products as well as a provider of related engineering, installation/commissioning, maintenance and repair services.

### Industries Served

Primary markets in volume include: Oil & Gas (54%), Power Generation (19%), and Water and Wastewater Treatment (12%). Other markets comprise about 15% which includes process control, mining, pulp and paper, chemical, HVAC, industrial, marine, and others.

### Global Presence

More than 3,200 employees; 164 offices in 95 countries; 25 manufacturing facilities. 2013 sales of \$970 million USD.

### USA Presence

More than 750 employees, 20 sales offices. The Americas account for approximately 30% of Rotork global sales.



*IQ actuators at a tank farm in California.*

support Profibus, Foundation Fieldbus, Modbus, DeviceNet and Hart Communications. Ancillary products include gearboxes, handwheels, positioners, switchboxes, mounting kits, and accessories. This broad spectrum of products facilitates one-stop-shopping and simplifies contractual routes for customers.

Rotork's IQ family of electric actuators represent the latest in technology, offering benefits which are simply unavailable else-

are designed for linear, rotary, and quarter-turn control valve and pump applications requiring precise position control and continuous modulation. The CVA is a highly accurate and responsive method of automating control valves. It has resolution better than 1% and the ability to eliminate position overshoot. It is unique in its ability to fail to a set position on loss of signal or power. The CMA range is designed for less demanding control valve applications. It provides for simple and safe setup



*High Pressure Gas actuators at an LPG plant in Chile.*



*An IQ range actuator with an intumescent fire-protective coating in the final stage of assembly.*