

# rotork® Fluid Systems

## Twin Power Range



Pneumatic and Hydraulic Actuators  
for multi-turn applications

Redefining Flow Control

The  
**REMOTE CONTROL**®  
Range

## Rotork Actuators – Quality Controlled

In the 50 years since the company was founded, Rotork has become the standard for excellence in the field of valve and damper automation for the oil, gas, power, water and waste treatment industries around the world.

As established leaders in actuation technology, we owe our success to a commitment to quality at every stage, and at every level, of Rotork's operations.

At the heart of the company is an exceptional workforce – the highly trained, forward thinking engineers, technicians, and sales support staff who each play a crucial role in maintaining Rotork's unrivaled reputation for innovation, reliability and first class after sales support.

With fluid power factories in England, Germany, Italy, Sweden and the United States, and additional Rotork *Centres of Excellence* located around the globe, we are able to offer creative solutions and design systems for virtually any application – from sub-sea hydraulics to the most sophisticated yet simple fluid power control system.

Contact Rotork for your operational or safety application requirements. We will work with you from conception, to design, to manufacture, to installation, and finally to maintenance and service support.



## Twin Power Multi-turn Actuators

The Twin Power is a series of pneumatic and hydraulic actuators for multi-turn applications. It is a robust actuator with a recognised reputation in the oil & gas and other process industries that has been proven in installations ranging from the challenging cold of the North Sea to the heat and humidity of Indonesia.

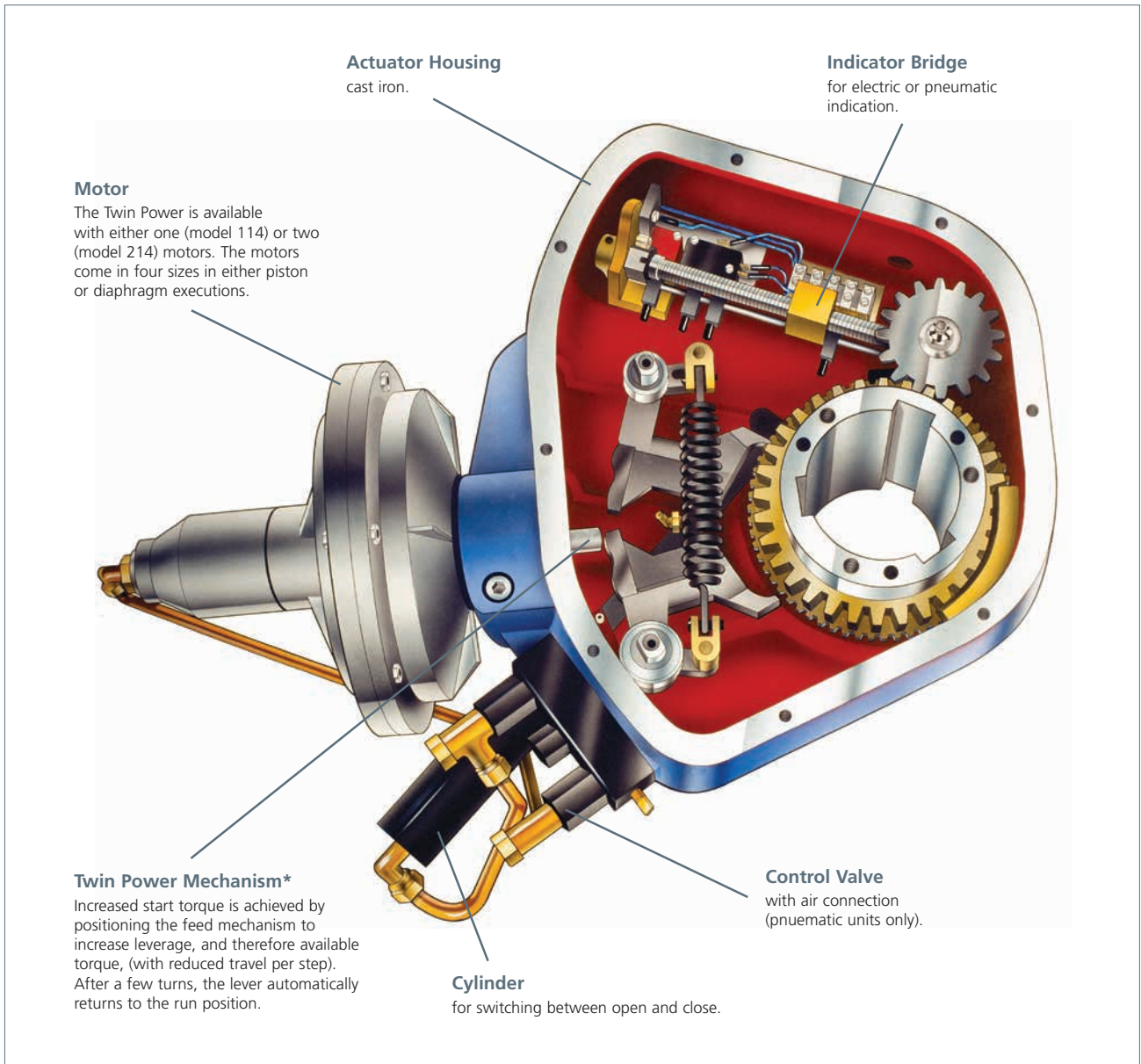
The name is derived from the actuators unique design that enables it to produce two output torque values – a constant run output with increased output (up to 50% more) start output in both directions of rotation\*. There are both one and two motor designs available with four motor sizes of either diaphragm or piston type providing output up to 800 Nm (7,080 lbf.in). If necessary, output can easily be increased by means of an intermediate gearbox.

Twin Power's compact size is often a significant benefit due to the space constraints common to process plant and offshore applications. It is easily mounted on either installed or new valves, regardless of type, manufacture, or drive shaft design.

It can be operated locally or remotely via pneumatic or solenoid valves and a manual handwheel is provided on all units. Three micro-switches are included to indicate open, close and run conditions. Optionally, the actuator can be supplied with a pneumatic or electric position transmitter.

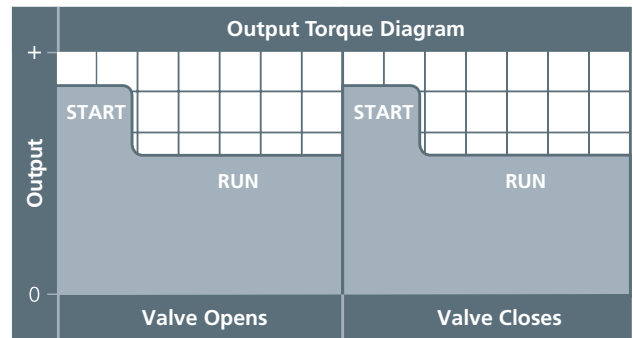


# Inside the Twin Power Actuator



Start torque position

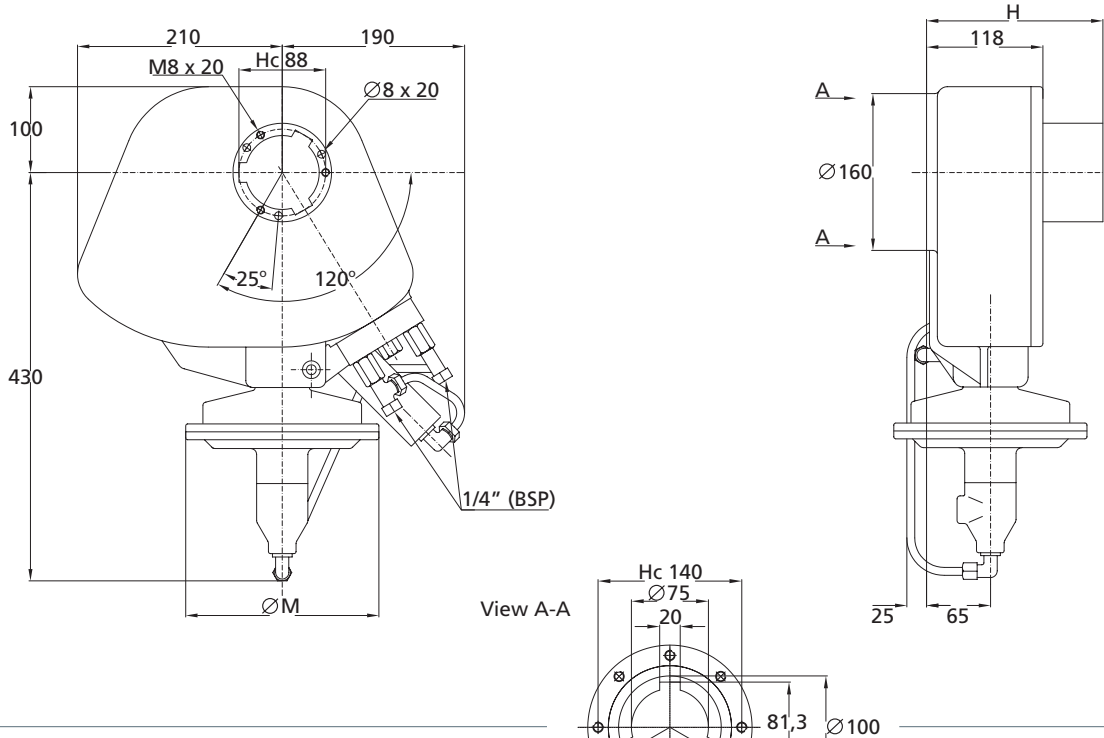
Run torque position



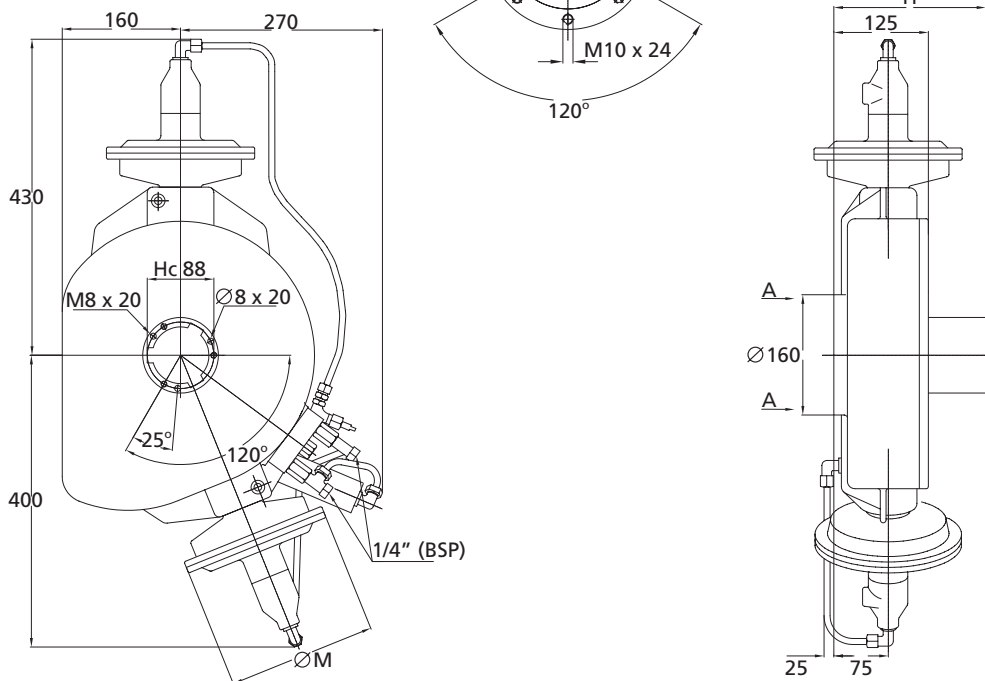
\*All hydraulic powered units and pneumatic units for choke valve applications have no indicator bridge or twin power mechanism. Therefore, they provide a constant torque output rather than the two-stage output provided by standard pneumatically powered units.

# Dimensions – Pneumatic

Type 114



Type 214



## Technical Data – Pneumatic

Every Rotork Fluid Systems actuator is built to provide long and efficient service with minimum maintenance. The design, engineering and materials used in their construction ensure optimum performance even in the harshest environments.

**Operating Pressure:** Up to 8 bar (116 psi)

**Type:** 114: One motor  
214: Two motors

**Torque Output:** Type 114: 20-400 Nm  
Type 214: 40-800 Nm

**Steps Per Turn:** 27\*

**Speed of Operation:** Single step operation with reciprocating or SOV pulse time 1.5 sec. on 1.5 sec off\*

**Operating Media:** Air or inert gas.

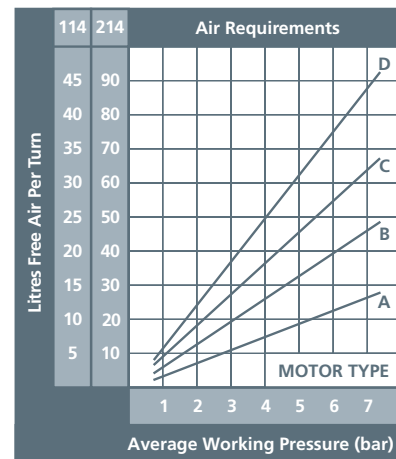
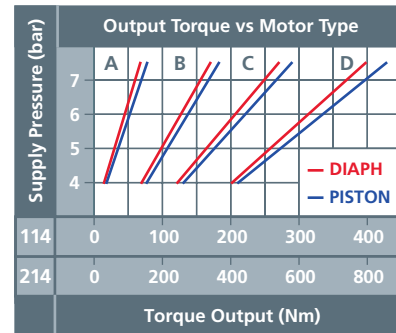
**Weight:** Type 114: 25-40 kg\*\*  
Type 214: 333-50 kg\*\*

**Temperature Range:**

Standard: -30 to +80 °C (-22 to +176 °F)  
High: 0 to +150 °C (+32 to +302 °F)  
(with piston motor)

**Valve Mounting Kit:** Supplied either machined to suit or blank, as requested.

\* May be varied. Contact RFS  
\*\*Dependent upon motor size.



| Dimensions |     |            |     |
|------------|-----|------------|-----|
| Hub Length | H   | Motor Size | M   |
| 114-12     | 120 | A          | 125 |
| 114-22     | 220 | B          | 150 |
| 114-32     | 320 | C          | 175 |
| 214-12     | 130 | D          | 195 |
| 214-22     | 230 | -          | -   |
| 214-32     | 330 | -          | -   |

| Inductor Bridge Turn Limits |         |         |
|-----------------------------|---------|---------|
| Model                       | Minimum | Maximum |
| 175                         | 3.5     | 20      |
| 100                         | 20      | 37      |
| 050                         | 37      | 75      |
| 175 S                       | 75      | 175     |
| 100 S                       | 175     | 300     |
| 050 S                       | 300     | 600     |

| Rotation Speed (turns/min ca) |               |                |
|-------------------------------|---------------|----------------|
| Motor Size                    | 114 (1 motor) | 214 (2 motors) |
| A                             | 22            | 20             |
| B                             | 14            | 8              |
| C                             | 6             | 4              |
| D                             | 5             | 3              |

Air pressure 0.6 Mpa.  
Faster speeds available. Consult RFS.

Ensure that the number of valve turns does not exceed the maximum number of turns of the indicator bridge.

# rotork®

Redefining Flow Control

[www.rotork.com](http://www.rotork.com)

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

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Scan with your smart phone  
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Formerly F904E. All Rotork Fluid Systems actuators are manufactured under a third party accredited ISO9001 quality assurance programme. As we are continually developing our products, their design is subject to change without notice.

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