

rotork[®]
Instruments

Rail Industry Solutions



Keeping the World Flowing

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Rotork is the global market leader in valve automation and flow control. Our products and services are helping organisations around the world to improve efficiency, assure safety and protect the environment.

We strive for technical excellence, innovation and the highest quality standards in everything we do. As a result, our people and products remain at the forefront of flow control technology.

Uncompromising reliability is a feature of our entire product range, from our flagship electric actuator range through to our pneumatic, hydraulic and electro-hydraulic actuators, as well as instruments, gearboxes and valve accessories.

Rotork is committed to providing first class support to each client throughout the whole life of their plant, from initial site surveys to installation, maintenance, audits and repair. From our network of national and international offices, our engineers work around the clock to maintain our position of trust.

Rotork. Keeping the world flowing.

Introduction

Rotork has been providing critical components and safety systems to the Rail Industry for over 20 years.

Through our expertise and design capabilities we continue to provide solutions for rolling stock, trackside and infrastructure through a wide range of technologies;

- Pneumatic
- Electro-pneumatic
- Electronic
- Hydraulic

With state of the art design and innovation, our rail industry experience extends across many applications;

Freight Rolling Stock

- Automated door handling systems
- Anti-collision system components

Passenger Rolling Stock

- Door controls
- Brake controls
- Compressed air preparation systems
- Traction and suspension assist

Trackside

- Train stop braking controls
- Points control
- Tunnel ventilation control



Products for Freight Wagons

Rotork has designed and supplied a wide range of wagon control systems that have been in service for many years. This ranges from a simple manual system to the most advanced fully automated control system.

1 Automated Door Systems

Our automated door system design enables all controls, hand valves and visual indicators to be located in one place.

The fully automated control system allows quicker loading and unloading, requiring only supervision without manual intervention during the process. The system design also allows for wagons to be separated and used in other rakes without any further configuration giving the operator greater flexibility.

2 Control Cabinet Box

The 'heart' of the automated freight system.

Specially designed to house all key and hand valves, visual indicators and gauges, and all filters, regulators, control valves and logic valves. All door cylinders and sensor valves are piped back to this central control cabinet. This improves access to equipment during maintenance.



3 Automated Door Systems - Applications:

Grain Wagons

- Top and bottom door control

Coal and Ore Wagons

- Rapid dump bottom door control
- Customised heavy duty actuators designed to give years of maintenance free operation and minimal leakage.

Biomass

- Fully automated control system allowing quicker loading and unloading, requiring only supervision without manual intervention during the process.

4 Hand Control Valves and Plate Assemblies

For the manual operation of hopper doors on coal and aggregate wagons.



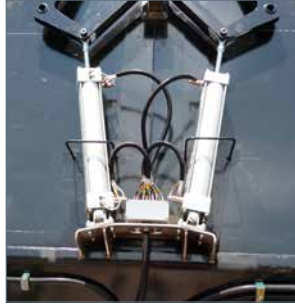
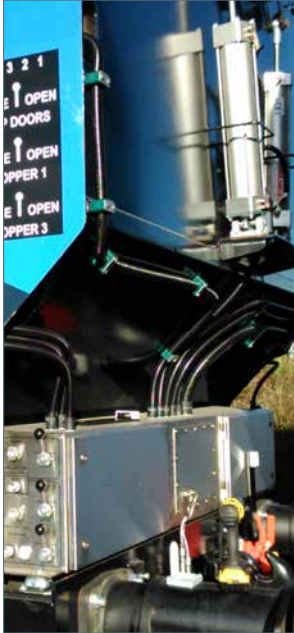
5 Auto Door Close Modules

This system is available as a retrofit module to upgrade existing wagons. When wagons are dis-armed, this module automatically closes all doors, removing any operator error.



6 Top and Bottom Door Cylinders

Rotork produce a range of double-acting, fully adjustable cushioned metric cylinders to VDMA 24562 and BS ISO 6431 standards. Profile barrels (MP range) or with conventional round barrels (MR range).



7 Locomotive Compressor Unloading

For compressor unloading without overpressure in the system.



8 Train Anti-Collision Systems (TACS)

TACS is a RFID/GPS device which monitors the distance between two trains on the same track providing a 4-20 mA signal to a Rotork transducer.



Products for Passenger Trains

Rotork solutions for passenger and metro rolling stock extends to high performance and high reliability products for control, measurement and actuation applications.

1 Air and Fluid Control

Rotork manufactures a range of air and fluid control equipment to meet the working environment of passenger rail vehicles, from HST to commuter trains. Our products can be mounted both externally and internally and work reliably in the harshest environments.



Filtration

Rotork manufacture a full range of filters and filter regulators for compressed air and gases.



2 Pressure Sensing

Rotork manufacture pressure sensing components to operate in high vibration areas and up to -40 degrees with accurate repeatability giving reliable performance.

- Accurate
- Repeatable
- Durable

For use in multiple applications including compressors and braking systems.



3 Brake Control

Rotork manufacture a range of products that are used in brake control applications, our focus is to manufacture safe, reliable and robust product to operate for extended periods. We provide both standard components and system solutions or bespoke valve and control equipment solutions.



M4500



T7800 OR T7900



4 Door Control

Rotork pneumatic actuators are selected in these applications due to their compact design, fast operating capability, long term reliability and minimum maintenance requirement.



5 Traction, Pantograph and Suspension Assist

Rotork I/P transducers are accurate, compact, light-weight and fast responding. The high precision accuracy provides ideal solutions for traction and suspension assist control systems requiring high speed responsiveness.

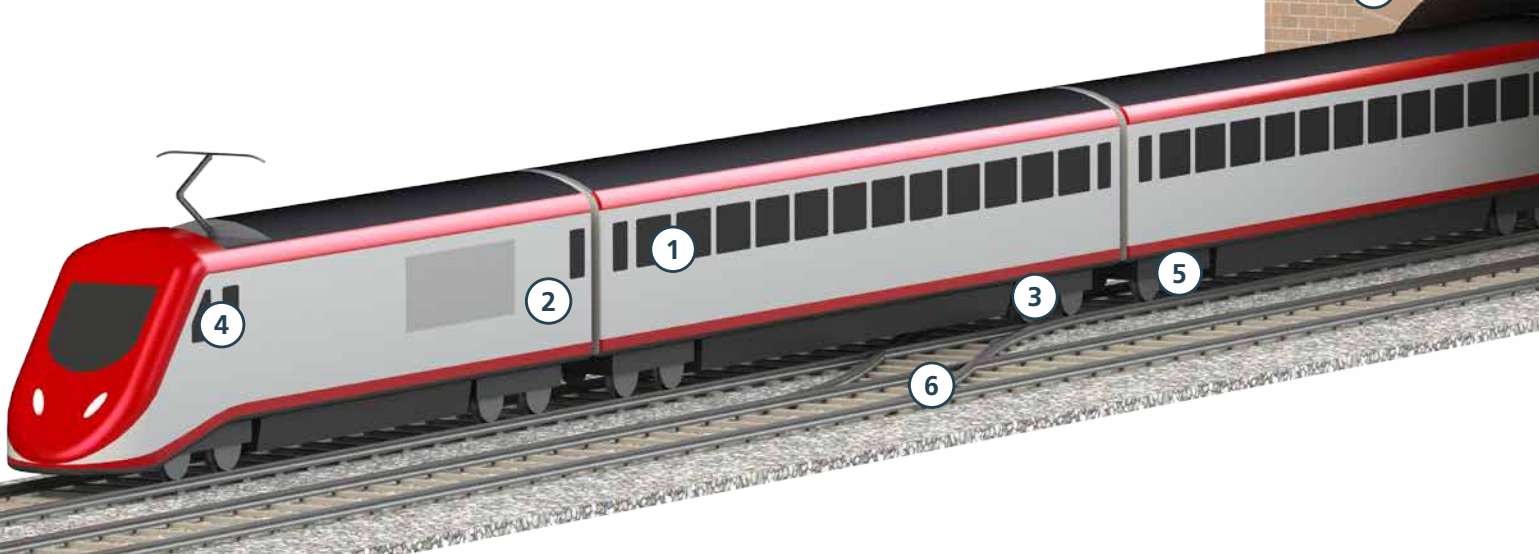


M20



T7800

7



6 Train Stop Braking Controls and Points Motors

Rotork pneumatic cylinders are used in critical track based safety systems and to power track points systems.

Train Stops are protection devices that automatically stop a train if it attempts to pass a signal when the signal aspect and operating rules prohibit such movement, or (in some applications) if it attempts to pass at an excessive speed.



7 Tunnel Ventilation

Rotork has a large installed base and long track record in tunnel ventilation as they are being used to automate the dampers. Dampers in tunnel ventilation come as smoke extraction dampers and/or fire dampers to prevent the fire from spreading, isolation dampers for fans or control dampers to fine tune air flow.



Schischek actuator

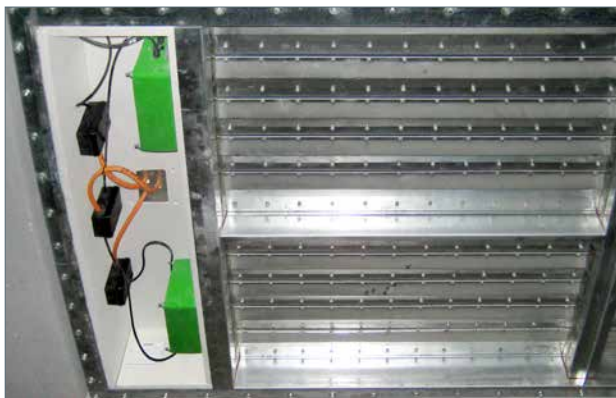


RC200 actuator with controls



No other manufacturer has a broader portfolio of actuators for tunnel ventilation. Rotork can offer electric actuators double-acting and fail-safe with spring or supercaps, pneumatic double-acting or fail-safe as well as electro-hydraulic.

The photograph below shows Rotork Schischek actuators installed on ceiling dampers in a subway ventilation system.



Global Service and Support

Rotork understand the value of prompt and punctual customer site services and aim to supply our customers with superior solutions, by providing high quality, innovative products and superior service – **on time, every time.**

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

Field Support

- Site repairs
- Commissioning
- Upgrades - Retrofit
- Fault finding
- Maintenance
- Call-out
- Fully equipped service vehicles

Asset Management

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



rotork® Site Services

*Giving You Peace of Mind,
Guaranteed Quality and
Improving Your Site Efficiency*



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Keeping the World Flowing



www.rotork.com

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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