



**rotork**<sup>®</sup>

Keeping the World Flowing  
for Future Generations

# Gas Fired Power Stations Overview



## Gas Fired Power Stations

**Working with utilities industries for more than 60 years, we have partnered with power generation companies and legislative bodies to improve process efficiency, ensure fast response times, reduce energy consumption, maximise uptime and minimise pollution.**

Our products and flow control solutions are important components in all areas of gas fired power stations.

- High performance valve actuators are used on gas turbines or reciprocating gas engines, heat recovery steam generators and cooling water systems
- Our actuators and instrumentation control the flow of natural gas and hydrogen into power plants
- Products certified for use in challenging and hazardous environments are used throughout the plant
- Our intelligent products integrate seamlessly with both existing and modern DCS control systems

Rotork products are known for accuracy and reliability, reducing process waste and increasing efficiency. Equipment reliability delivers longer product lifespans, reducing plant maintenance and increasing profitability. Rotork products deliver reduced cost of ownership over their extended lifetimes.

**This is why Rotork is specified as the flow control partner of choice for the global power industry.**

# Understanding Your Challenges

**Working closely with power industry partners allows us to understand your business and know the challenges that you face to deliver power safely and reliably, day in day out, to millions of homes and businesses.**

We are aware of the environmental, societal and legislative pressures that mean the power industry has to improve its operational processes and provide consumers with ever-improving value for money.

## Operational costs

Accelerating digitisation and automation to improve operational efficiency will position energy suppliers more competitively in a turbulent and highly legislated market.

## Increasing production

World populations and demand for energy are increasing. Rotork products help you extract resources accurately and with repeatable precision, maximising energy output.

## Reducing emissions

We understand the need to minimise emissions. Eliminating process leaks, capturing and re-using by-products reduces pollution and creates revenue streams.

## Life cycle management

Plant designers and managers can reduce the risk of equipment failure and obsolescence by utilising Rotork's advanced technologies and asset management systems.

## Reliable on-demand production

Gas power plants are an important part of a national power mix with a high percentage of renewables. They must respond quickly and reliably at peak times or when renewables are not available or cannot meet demand, even after periods of inactivity.

## Moving to zero emissions

The industry is changing feedstock from natural gas to either part or pure hydrogen to reduce emissions. We can help you reduce your plant emissions further and achieve your targets. Zero emission targets for industry are fast approaching – The EU (2050), China (2060).

## Energy consumption

Using Rotork products within your processes will improve plant efficiency and reduce energy consumption without compromising safety or reliability.



### IQ electric actuator

Used in flow control processes throughout power stations for safe and reliable operation. Intelligent on-board systems provide detailed process data to control systems.



# The Importance of Flow Control

**Correctly specified flow control equipment can provide a safe working environment, increase process efficiency, reduce emissions and increase your profitability.**

Whether you are upgrading gas input pipelines to include hydrogen blending, replacing gas turbines with reciprocating gas engines, designing a new heat recovery steam generator or upgrading a district heating system, your flow control solutions should be carefully considered and specified.

## Process efficiency

The ability of a control valve to move quickly and precisely to a set position will make your process more efficient, minimise waste and reduce energy consumption.

## Repeatability

Many operations require valves and dampers to move repeatedly between set positions. Rotork electric actuators provide precise operation, with repeatability and resolution.

## Reliability

Flow control equipment should be specified correctly to operate in the chosen process environment and to function on demand, even after long periods of inactivity. Our products are tested and certified for lifetime operation in power industry applications.

## Safety

Gas fired power stations have areas requiring Emergency Shutdown (ESD) procedures to stop chain reactions, increase safety and protect equipment. Rotork products are certified for use within HIPPS, SIL, SIS, EIV, ESD and ROSoV applications.

Our products can be operated remotely and are certified for use in watertight, high and low temperatures, high vibration and explosive environments.

## Reduced maintenance

Installing correctly specified and highly engineered solutions will reduce unplanned maintenance and plant downtime. Our intelligent diagnostics work with asset management systems to maximise plant efficiency and uptime.

## Cost of ownership

Rotork products are designed and engineered to very high performance levels. They pay for themselves many times over during their life cycles.



### CK modular design electric actuator

Suitable for valves in non-hazardous locations. The modular product range facilitates a number of different control package configurations to meet your application requirements.

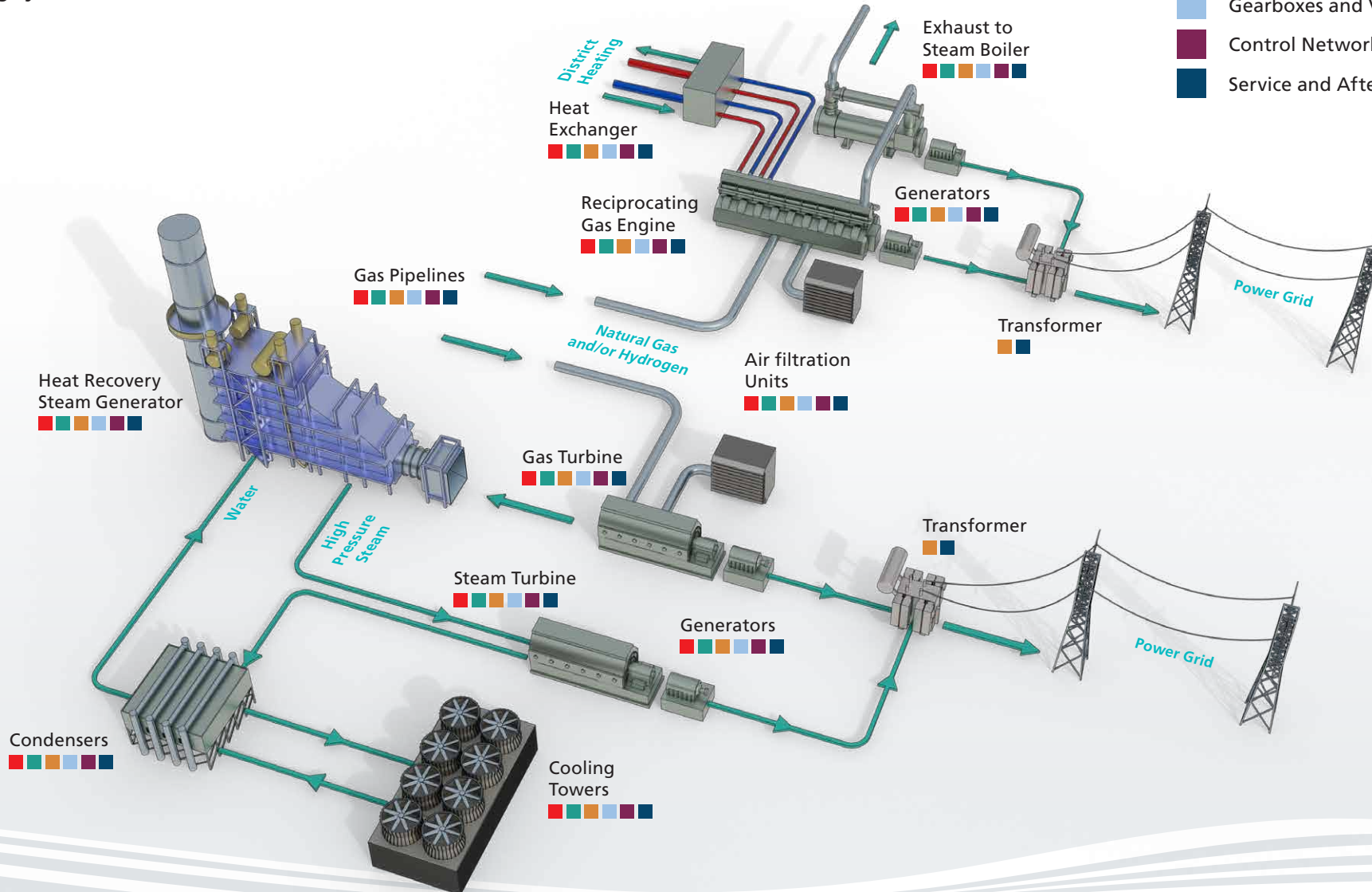


# Gas Fired Power Station Processes

Rotork has extensive knowledge and experience in all aspects of flow control within gas fired power stations, both gas and steam turbine and reciprocating gas engine plants linked to district heating systems.

Our products can be found in almost every process control application in and around a gas power station, from input pipelines, turbine/engine control and cooling water systems through to cooling towers, district heating, exhaust gas treatment and electricity export.


- Electric Actuators
- Fluid Power Actuators
- Instrumentation and Control
- Gearboxes and Valve Accessories
- Control Networks
- Service and Aftermarket



# Product Solutions for Gas Fired Power Stations

Rotork design engineers work with plant managers, network systems engineers, legislative bodies and government environmental groups to specify and supply the correct solutions for your requirements.

Our extensive product range allows us to meet all your requirements and help you achieve your goals. For detailed application information see our Application Focus documents available on [rotork.com](http://rotork.com)

<p><b>Electric Actuators</b></p> <p><b>IQ Range</b> – Multi-turn and part-turn actuators for arduous environments</p> 	<p><b>Fluid Power Actuators</b></p> <p><b>CP / GP / GH / LP / LH Ranges</b> – Scotch yoke and linear actuators</p> 	<p><b>Instrumentation and Control</b></p> <p><b>Limit Switch Boxes</b> – High visibility position indication and control feedback</p> 	<p><b>Gearboxes and Valve Accessories</b></p> <p><b>Hand Operated</b> – Part-turn and multi-turn worm gear operators</p> 	<p><b>Service and Aftermarket</b></p> <p><b>Lifetime Management</b></p> 
<p><b>CK Range</b> – Modular design electric valve actuators</p> 	<p><b>K-TORK Range</b> – Pneumatic vane actuators</p> 	<p><b>Valve Positioners</b> – Precision valve control for pneumatic and hydraulic actuators</p> 	<p><b>Motorised</b> – Part-turn and multi-turn worm, bevel and spur gear operators</p> 	<p><b>Intelligent Asset Management</b></p> 
<p><b>CVA / CMA Ranges</b> – Linear, part-turn and multi-turn precision modulating actuators</p> 	<p><b>RC / GT Ranges</b> – Compact scotch yoke and rack and pinion actuators</p> 	<p><b>Instrument Valves, Solenoid Valves and Filter Regulators</b></p> 	<p><b>Control Networks</b></p> <p>Network connectivity</p> 	<p><b>Spares</b></p> 
<p><b>SI / EH Ranges</b> – Electro-hydraulic actuators</p> 	<p><b>Electric Actuators</b></p> <p><b>ExMax Range</b> – Explosionproof part-turn actuators</p> 	<p><b>PAX1</b> – Valve actuators and motorised pressure regulators</p> 	<p><b>Rotork Master Station</b> – Supervisory plant control</p> 	<p><b>Life Cycle Services</b></p> 



## Trusted Partner

**Rotork is a market-leading provider of flow control and instrumentation solutions. We have served global industrial actuation and flow control markets for more than 60 years, delivering results in all regions and in all environmental situations.**

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

Partnering with Rotork provides the following:

- Assured safety and reliability
- Industry leading accuracy and efficiency
- Proven technology that works with all control systems
- Product range with solutions to suit every application
- Assistance with plant planning, development and maintenance through our local support services

History shows we are a company to do business with:

- Established in 1957, we have always been innovators and leaders in flow control technology
- Safety is a core value of our business and products
- We have innovative research and development centres throughout the world
- With 3,400 employees globally and 85 sites, we provide local service on a global scale
- We are embracing a more diverse workforce
- We are committed to reducing our own environmental impact, reducing water and power usage year-on-year

**Our service engineers work with industrial partners to design, update and maintain their plant and equipment.**



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

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