Rotork Instruments
announces new products and services

As a specialist manufacturer of products for flow control, pressure control, flow measurement and pressure measurement serving diverse duties and a wide variety of applications, ***Rotork Instruments*** *delivers solutions that are trusted wherever there is a need for high precision and reliability. Process and plant engineering is an important industry sector served by the market-leading companies that make up Rotork Instruments. Synergy between these companies – each with their own specialised expertise – enables Rotork Instruments to present innovative and elegant design solutions to the marketplace.*

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Recent Product Developments from Bifold

Now part of Rotork Instruments, Bifold is a widely recognised leader in the design and manufacture of hydraulic and pneumatic stainless steel directional control valves and accessories for hazardous and corrosive environments. Bifold also has market leading technology in areas that include the development of solenoid valves and associated equipment with ultra-low power requirements. Within the Bifold Group, Marshalsea Hydraulics, is a leading designer and manufacturer of high quality pumps and valves and provides a range of stainless steel pressure intensifiers for challenging applications. Bifold Orange instruments (formerly part of Orange Instruments Limited) has broad expertise in electronic control and valve positioning for the hazardous area valve and pump sectors. Bifold has recently introduced several enhancements to its products and services, including the following.

Low Pressure Solenoid Valves

Bifold's solenoid valve range offers a compact and flexible solution to low pressure applications up to 35 bar in sizes up to 1 inch. Manufactured from 316L stainless steel as standard with anodised aluminium options also available, the robust design is suited for offshore and other corrosive atmospheres. With over 35 common interface modular operators, this versatile range covers a wide spectrum of actuation requirements and is now enhanced by a range of compact ultra-low power solenoid valves for hazardous locations, proven and tested to meet UL and CSA requirements.

Bifold low pressure solenoid valves

Hydraulic Piston Accumulators

Bifold offers spring-loaded and gas-charged hydraulic piston accumulators for the storage of non-compressible fluid in a pressurised state for duties including pulsation dampening, noise reduction, leakage compensation and volume storage.

A wide variety of materials and sealing arrangements are available for applications including desert, sub-zero and offshore environments and for use in the presence of hydrogen sulphide. Precision components and wear resistant sealing deliver superior endurance with simple maintenance. Bespoke designs encompass a large range of volumes and pressures.

Bifold piston accumulators

Bifold Marshalsea Chemical Pumps

Developed with over 15 years' experience in the water glycol pumping market, Marshalsea Chemical Pumps are compliant with API 674 and API 675.

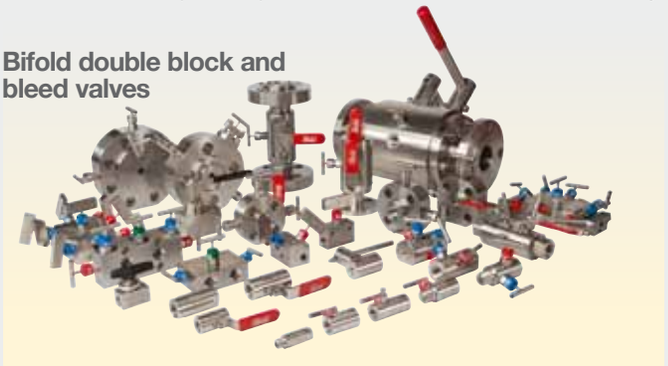
The separate lubrication chamber for the gear assembly enables low viscosity fluid to be pumped with exceptional performance, prolonged pump life and minimum power consumption.

Marshalsea chemical pumps

Bifold pressure transmitters

Pressure Transmitters

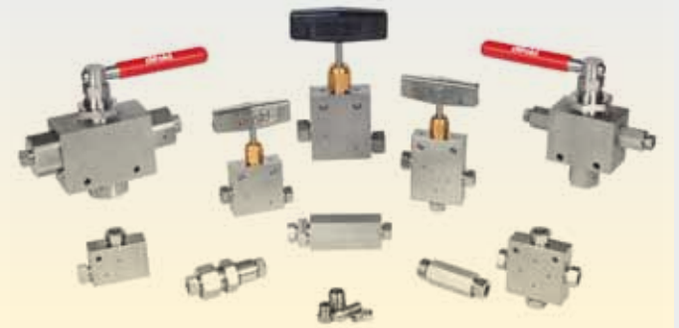
For consistent high levels of performance, reliability and stability the PT01, PT02 and PT05 sputtered thin film transmitters offer an unbeatable price performance ratio in a small package size. Features include all stainless steel wetted parts, a wide choice of electrical and pressure connections and electrical outputs to allow stocking for most applications without modification. The compact construction is ideal for installation where space is at a premium. The sputter element at the heart of the transmitter provides exceptional temperature specifications whilst the manufacturing process utilises the latest automated equipment to produce the most consistent and best price to performance sensor on the market today.



Bifold double block and bleed valves

Medium Pressure Product Range

The Bifold medium pressure product range includes needle valves, ball valves, trunnion style double block and bleed manifolds, check valves, fittings and adaptors, actuated ball and needle valves, thermal and precision relief valves, electric motor driven pumps, air driven pumps, pressure intensifiers, direct and indirect acting solenoid valves, quick exhaust valves, air piloted directional control valves and pressure transmitters. Bifold Medium Pressure Products deliver safe, reliable operation to 20,000 psi / 1379 bar and provide all the components required for building medium pressure testing and/or control systems from a single source. Designed with innovative features for reliable high pressure operation and incorporating many standard features from proven product lines, Bifold's medium pressure products are proving to be far superior to conventional products on the market.



Selection of Bifold medium pressure range products

Double Block and Bleed Valves

The Bifold range of Monoflange and Double Block and Bleed (DBB) products is designed for both instrumentation and process applications. Developed to overcome the problems of traditional assemblies on primary isolation and venting duties, the design combines customer specified valves into a single manifold.

The number of leak paths is reduced, resulting in a one unit solution which also offers a smaller installation envelope, reduced weight and cost saving.

Self-Contained Electro-Hydraulic Power Packs

Designed for universal attachment to valve actuators, Bifold Self-Contained Electro-Hydraulic Power Packs are selectable with a comprehensive range of 24Vdc and single or three phase AC drive motor options, making them particularly suitable for remote installations and renewable energy sources. The AC and DC electric motors are interchangeable across the Electro-Hydraulic Power Pack range and valve control blocks are configurable to suit individual customer's system operational requirements and control method. Options include Partial Stroke Testing (PST) and Local/Remote control. Low power consumption is enhanced by a balanced high pressure hydraulic return solenoid valve which requires less holding power. In addition the power units can be supplied with an electronic controller for valve actuator positioning control that limits the power wastage that comes from spilling high pump flow across the system relief valve at the end of the valve actuator stroke. Reductions in consumed electrical power are also realised from reducing the current to the control block solenoid valves once they have been energised to as little as 0.5W in some cases. These reduced power capabilities serve to minimise the size of solar panels where these are used in remote locations, further facilitating and reducing installation infrastructure and costs.

Solar powered self-contained electro-hydraulic power pack

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The Bifold Store

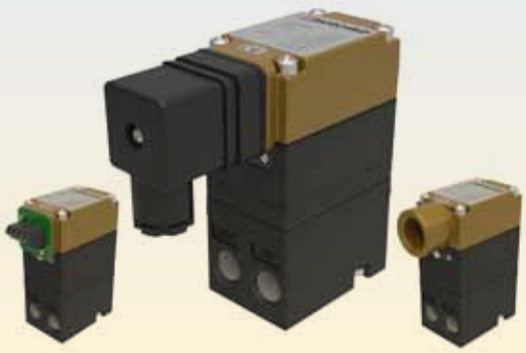
One of Bifold's latest initiatives, the Bifold Store delivers online ordering access to preferred range products via tablets, phones and computers. The range of over 500 products includes ball and needle valves, pilot and mechanical valves, check and exhaust valves, solenoid valves, flow and volume valves and medium pressure valves. Many are available on 48 hour despatch and new products are regularly added. The store includes product images and descriptions with schematics to make product identification much quicker.

The online Bifold Store

New Fairchild I/P transducers deliver high accuracy at very low pressures

The Rotork Fairchild range of industrial control products offers one of the largest varieties of precision pneumatic and electro-pneumatic control devices available for process and OEM applications. These products are valued by customers for their precise, accurate and advanced capabilities.

Regulators, boosters and I/P transducers provide the degree of control that each different application demands, including models which are designed to handle exceptionally high pressure and deliver the greatest flow rates. At the other end of the scale, Rotork Fairchild has launched a new range of compact low pressure I/P (electro-pneumatic) transducers for instrument, analytical and scientific control applications. Precise pressure control, where output pressures must be accurately held at low pressures down to 70 mBar (1 psi), has traditionally been a difficult task for industrial instrumentation. The new Rotork Fairchild T7500 range of transducers is specifically designed for these low pressure control systems with set point accuracy of 0.1%, even at pressures of less than 100 mBar. T7500 transducers accept supply pressures between 1.3 and 2 Bar (20 and 30 psi) with mA or VDC control signals to deliver critical high accuracy output ranges of 0-350 mBar (0-5 psi) and 0-1 Bar (0-15 psi). Flow configurations of 85 l/m or 200 l/m suit a wide range of application requirements. In addition, the T7500 can be ordered with DIN plug, NPT conduit or terminal block electrical connections styles to suit assembly requirements. Applications in test and medical equipment, leak detection equipment and other precise scientific areas are ideal for the T7500 transducers. The rugged cast aluminium construction and vibration resistant internal componentry is designed to withstand the rigors of both portable and stationary mounted equipment often found in medical and test situations.



Rotork Fairchild T7500 I/P transducers with (l to r) terminal block, DIN plug and NPT electrical connections (not to scale)

Rotork Midland assists with Europe's largest decarbonisation project

Rotork Midland is internationally known as a manufacturer of 316 stainless steel control equipment with a reputation for high quality, reliability and innovation. Rotork Midland offers comprehensive solutions for filtration and regulation of compressed air and gases for the valve actuation industries.

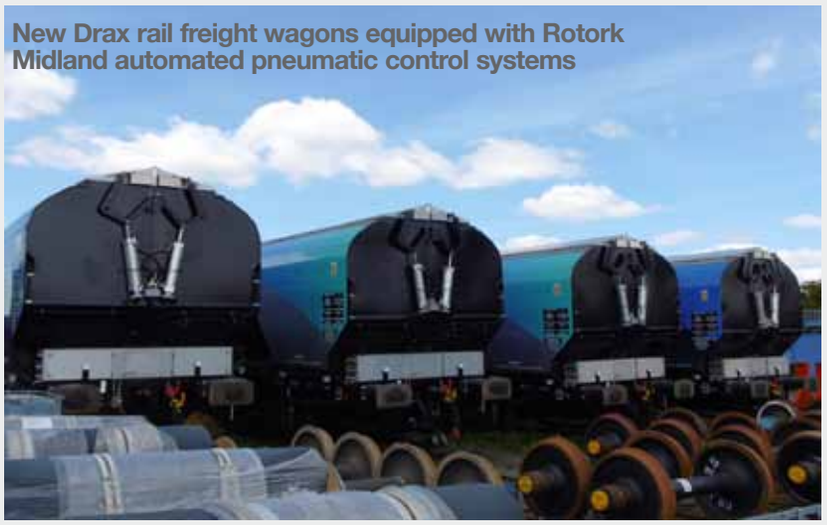
Using the finest quality stainless steels, Rotork Midland oversees every detail and utilises state of the art quality systems.

Rotork Midland products are renowned for their superior leak proof design and high functionality, achieved through attention to detail throughout the process. Whether the application calls for high accuracy or simply rugged duty in extreme conditions, Rotork Midland has a proven track record for reliable field operation and strives to provide innovative solutions to simplify the task of valve control packaging. This performance is illustrated by a recent contract in the UK.

Drax Group, the largest conventional power station in the UK, is converting to burning sustainable biomass in place of coal – a process which has seen the station transform from the UK's largest emitter of CO2 to Europe's largest decarbonisation project.

A major part of this project is the introduction of new rail freight wagons, designed by Lloyd's Register Rail and capable of carrying over 70 tonnes of compressed wood pellets, a 30% increase over conventional wagons.

Over 200 of these new wagons have been manufactured in the UK by WH Davis Ltd., each equipped with a fully automated pneumatic control system manufactured by Rotork Midland.



New Drax rail freight wagons equipped with Rotork Midland automated pneumatic control systems

The Rotork Midland design enables all controls, hand valves and visual indicators to be located in one place, providing safe and convenient access

The Rotork Midland design enables all controls, hand valves and visual indicators to be located in one place, providing safe and convenient access. The innovative design allows any wagon in the rake to be the arming wagon. Top and bottom hopper doors are operated by a magnetic sensor valve from a lineside magnet. 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.

Soldo wins large order for Egyptian power generation industry

The Soldo range of limit switchboxes, proximity sensors, and accessories offers a variety of options. Soldo specialises in the design and manufacture of control accessories for valve automation, providing high quality products and services that guarantee a link between the control room and automated process valves. Product development programmes ensure Soldo is always ready for new markets and applications and able to meet or exceed customer requirements. Soldo products are valued by customers for their advanced design and capabilities, ranging from cost effective, when price is a concern, to corrosion resistant and explosionproof, when harsh environments are encountered. Soldo products provide the protection and automation that each application demands. The unique split shaft design allows installation where space is a factor and where a low profile limit switchbox is not preferred. Soldo limit switches also have easy-set 3 degree cams for independent tool free adjustment. Pre-wired PCB switch modules ensure installation is worry free and allows easy installation and wiring directly into terminal strips. The pre-wired boards are conformal coated for environmental protection. Soldo also offers a full line of mounting brackets for all models that do not come with an integral mounting kit. Soldo has recently received an order for approximately 1,600 limit switchboxes from valvemaker Alfa Valvole for installation at the South Helwan Power Plant in Egypt. The South Helwan Power Project is designed to increase efficient power generation capacity in Egypt. The project includes a 1,950 MW supercritical steam technology power plant fuelled by natural gas as the primary fuel and by Heavy Fuel Oil (HFO) as a backup. Egypt has experienced rapidly growing electricity demand due to population growth, the development of energy-intensive industries and the use of electrical household appliances - particularly air conditioning. The power station will contribute 10% of new electricity generation capacity which is to be added by 2018, helping to deliver a more reliable supply to the Egyptian economy. The additional electricity generated by South Helwan will be distributed to grid-connected consumers throughout the country. The project is part of a broader programme which aims to help the country deal with energy policy issues as well as meet the growing electricity demand in a sustainable manner. The programme includes investments in power generation, transmission and distribution, energy efficiency and subsidy reform.

Soldo switchboxes have been ordered for installation at the South Helwan Power Station in Egypt

The Engineering, Procurement & Construction (EPC) Contractor for the South Helwan Power Plant is Techint. AC BOILERS (formerly Ansaldo Caldaie) has been awarded the contract for 3x650 MW supercritical gas/oil fired boilers for the project, with Alfa Valvole supplying the majority of the valves.