

► PRODUCTS:

Emerson Automation Solutions

<https://www.emerson.com/en-us>

Sungov Engineering | Industrial Equipment Manufacturer

<https://www.sungov.com/>

Statron

<https://www.statron.com/en/>

Primary Flow Signal

<https://www.primaryflowsignal.com/>

delta-mobrey

<https://www.delta-mobrey.com/>

NAMDO ENGINEERING

<http://namdoengineering.co.kr/>

YITONG FILTER

<https://www.yitong-filter.com/>

AMI (Advanced Micro Instruments)

<https://www.amio2.com/>

Dr. Thiedig – Sampling & Analyzing Systems

<https://en.thiedig.com/>

AMETEK

<https://www.ametek.com/>

CTC- Vibration Analysis Hardware

<https://www.ctconline.com/>

Spectro Scientific

<https://www.spectrosci.com/>

► VALVES & FINAL CONTROL ELEMENTS

Time-Tested Fisher Control Valves Reduce Operational Costs

[Innovative Process Control Solutions from Global Industry Leader](#)

A control valve serves as an important part of the control loop and is critical to effective process automation and control. By fully or partially opening or closing in response to a process signal, this valve is used in pipelines as a means of controlling vital operating conditions such as flow, pressure, temperature and liquid, gas or steam levels. Each valve is made up of three main parts: the actuator, positioner and valve body. These parts in turn are available in several types and designs.

Simply put, your choice of valves impacts process variability, which influences product quality, and, of course, your profits. In today's competitive economy, efficiency, productivity, cost and safety all prove to be important considerations for every manufacturer. Reducing variables to meet specifications become a top priority. Fisher control valves are known for their reliability and performance.



We make available a wide range types of Fisher control valves:

- **Rotary valves:** Known for both capacity and performance, popular rotary products include butterfly, eccentric plug, full bore pipeline, high performance butterfly and segmented ball.
- **Sanitary valves:** These valves are designed to meet the stringent demands of today's state-of-the-art Life Science facilities.
- **Sliding stem valves:** Globe, angle, and 3-way valves offer a broad range of services from DN15 to 600 (NPS 1/2 to 24), low-flow valves to DN 500 (NPS 20) and also larger models for more demanding high-pressure steam and hydrocarbon services.

Saudi FAL Co. LTD. is a leading regional supplier of control valves such as FISHER valves, Bauman and Top Worx. We can help you identify, design and optimize the right process control systems to perfectly fit your particular manufacturing unit.

Call us _____

for control valves solutions anywhere in Saudi Arabia.

Fisher Control Valves and Systems Designed for Your Specific Needs

Industry experts reveal that the design features of the final control element which includes the valve, actuator and positioner are vital to process control under dynamic conditions. Valve components not designed as a complete assembly typically do not deliver optimal performance. Dead band, actuator/positioner design and valve response time are critical design components.

► TRANSMITTERS

Safety-Certified Transmitters for Advanced Measurement Capabilities

Advanced Smart Instruments offer Enhanced Reliability, Safety and Compliance

Transmitters and flow meters both play vital roles in insuring the reliability, efficiency and safety of your industrial processes. If you're seeking to minimize product variability and hazardous conditions, you'll need advanced measurement control systems that can stand the test of time.

The Emerson Rosemount transmitters offered by **Saudi FAL Co. LTD.** all have safe operation records lasting for millions of hours. These field-proven pressure and temperature technologies have consistently achieved certification following the IEC 61508 safety standards. All the above explains why our transmitters are the popular choice for SIS (Safety Instrumented System) and ESD (Emergency Shutdown System) throughout the world.



Product Links

Rosemount

- Pressure
 - Temperature
 - Flow
 - Level
 - Tank Gauging
 - Wireless
 - Nuclear
- HART Readiness
 - FOUNDATION fieldbus
 - PROFIBUS PA
 - Accessories
 - Download Device Drivers
 - Safety

Mobrey

- Point Level Detection
- Ultrasonic
- Hydrostatic
- Electromechanical
- Safety

- **Pressure:**

Choose from an extensive range of smart pressure transmitters to diagnose, correct and prevent process issues. These products set the industry standard for measurement systems; they will significantly improve your efficiency.

- **Temperature:**

Whether wireless, single-point, high-density, general use or application specific solutions, it's really up to you to choose. Our factory-tested and ready-to-install measurement solutions employ leading transmitters, sensors and thermowells for enhanced reliability

- **Flow:**

The Rosemount range of flow meters and flow products are sought worldwide to enhance productivity and safety. They employ innovative technology to expand and enhance your flow measurement capabilities.

- **Level:**

Emerson's level transmitters are designed to increase savings and safety by giving precise and reliable level data under most process conditions. Based on five different measurement principles, non-contacting radar, guided wave radar, ultrasonic, differential pressure and vibrating fork, these transmitters cover a wide range of level measurement and control technologies fulfilling both simple and demanding applications.

Saudi FAL Co. LTD. is dedicated to providing process control and automation solutions that will optimize your productivity and profits.

Call us [_____](#)

for Rosemount safety-tested transmitters for all types of industries in Saudi Arabia.

Complete Line-up of Measurement Control Systems for Every Application Need

Cost-control begins with streamlining industrial processes. Process control and automation can help you realize hidden savings while improving productivity and product quality. Sophisticated measurement products like Rosemount have been proven to repeatedly maximize return on investment.

Saudi FAL Co. LTD. has the expertise and capabilities to meet your specifications while delivering the performance and reliability you expect. Whether in oil and gas, petrochemicals, power, water, pharmaceuticals or general contracting, our advanced measurement control systems serve virtually every application need.

Our partnership with industry-leader Emerson Automation Solutions allows us access to cutting-edge process automation technology. We pass this technology on to you in the form of sophisticated control systems designed to make a difference to your business.

As our valued customer you will enjoy localized manufacturing facilities with rapid turnaround and round-the-clock service for emergency or urgent needs. Our engineering and industry experts are trained to “think customer” meaning your bottom line is always our top priority.

Through improving efficiency and safety, we will optimize your budget and while allowing your business to remain highly competitive.

Contact us

for efficient transmitters and measurement control systems tailored to the unique needs of industries in Saudi Arabia.



Trademarks & logos owned by respective manufacturers, please visit their websites for more information.

► ISOLATION VALVES

Isolation Valves
for utilities to the most
extreme industrial conditions

As part of the Final Control portfolio, Emerson's isolation valve products provide a complete range of standard and customized solutions, whatever demand you have on a valve. Meeting your needs Working with us, we'll help you take the complexity out of the procurement arm and ensure compatibility of technologies. In terms of your projects, as Emerson a single manufacturer, we can positively impact timing and delivery and on the lifecycle side, we bring an expanded range of services at the site level.

Some of our key brands include

CLARKSON
KEYSTONE
KTM

NEOTECHA
SEMPELL
VANESSA



► BUTTERFLY VALVES

Emerson manufactures a complete range of butterfly valves from general purpose through to heavy duty and high performance models. This includes resilient seated valves for long service life and tight shut-off; high performance valves capable of temperatures of 538°C (1000°F) and pressures to PN 50 (class 300); double flanged valves in sizes up to DN 3000 (NPS 120) and lined valves suitable for highly corrosive liquids, gases and slurries.



► KEYSTONE

Keystone butterfly valves set the standard, with a reliable and robust construction and have a higher cycle life with lower total cost of ownership than comparable products.



► LINED VALVES

Emerson supplies a diverse range of ball, butterfly and sampling valves the wetted parts of which are lined for resistance to corrosion in a multitude of applications in industries such as chemical, petro-chemical, pharmaceutical, pulp and paper, semiconductor (UPW), foundries and mining. A dedicated reactor sampling valve enables samples to be taken from reactors or vessels containing poisoned, biological, corrosive or environmentally unfriendly media.



► NEOTECHA

Neotecha PTFE, TFM and PFA lined valves are designed for highly corrosive media. The molding technique of applying PFA over a metal core achieving mechanical strength from the core and chemical resistance from the encapsulation has given Neotecha valves a worldwide reputation for reliability in the most severe corrosive applications.



► FLOATING BALL VALVES

With an outstanding portfolio of proven brands, Emerson manufactures and markets an extensive range of full and reduced bore floating ball valves serving a wide spectrum of applications in the oil and gas, petrochemical, chemical, pharmaceutical and allied process industries. The Emerson ball valve portfolio includes a diverse range of standard and customized ball valves that can be configured to suit most process applications or project packages.



► KTM

KTM soft and metal seated designs are capable of a million cycles a year, making them the reliable, efficient and long lasting solution in arduous conditions. Hindle, Richards, Virgo, Mecafrance and Chemat products are now part of the KTM brand.



► TRUNNION MOUNTED BALL VALVES

Emerson's broad range of trunnion design ball valves services the upstream oil and gas industry with models up to DN 1500 (NPS 60) and pressures up to 1,034 bar (15,000 psi).

The trunnion design ensures that the ball is fixed within the valve body and the seats are energized to the ball.

The differential pressure loading is distributed to the trunnion plates and bearings, resulting in smaller seating surface designs and greatly reduced break to open and operating torque.



► KTM

End Users worldwide specify KTM trunnion ball valves on some of their most demanding applications where zero leakage is required and valves must comply with stringent fugitive emissions regulations



► TRIPLE OFFSET VALVES

Triple offset valves are an alternative lower-cost solution to traditional process valves providing premium performance, long service life and minimum maintenance in extreme operating conditions.



► VANESSA

Vanessa triple offset valves are lighter, easier to install and virtually maintenance free, with advanced reliability, durability and reduced total cost of ownership. According to 'Leakage Rate A' when tested with high pressure water and low pressure air of ISO 5208 and EN 12266-1 standards and the 'Resilient Seat Valves' requirement of API 598.



► KNIFE GATE VALVES

Emerson manufactures knife gate valves for light to heavy slurry service in the mining and mineral processing, power, pulp and paper, waste water and chemical industries. Customers rely on our knife gate valves for reliable, longer service life and lower total cost of ownership.



► CLARKSON

Clarkson high performance knife gate valves can be relied on to deliver a 100% bubble-tight isolation shut off where absolute zero downstream leakage is essential.

► KEYSTONE

Keystone knife gate valves are designed for light to medium and arduous duty service suitable in water, process and mining industries.



► ANGLE SLURRY & ISOLATION VALVES

Angle slurry / isolation valves are designed and engineered specifically for the mining and process industry or other applications where built up scale or settled slurries need to be cleared to allow flow. These include: Alumina - bauxite slurries, digestion slurries, flash vessel vapor return, green and spent liquors, washer underflow/overflow, tertiary and secondary thickeners, press filter isolation, mudline disposal; precipitation; filtrate underflow; hydrate slurry storage.



► LUNKENHEIMER

Lunkenheimer high quality isolation valves are used in severe applications such as alumina, nickel and gold mining, they are relied on for critical isolation preventing expensive downtime.



GATE, GLOBE & CHECK VALVES

► FOR POWER APPLICATIONS

Emerson's forged and cast gate, globe and check valves serve the DIN and ASME power generation markets.

Applying cutting-edge material science and valve designs, Sempell isolation and non-return valves are designed for all types of power plants, including ultra supercritical plants, which operate at temperatures up to 720°C (1328°F).



► SEMPELL

Sempell gate, globe and check valve solutions are manufactured in high quality forged and cast steel for harsh service conditions, where leaktight performance, absolute safety and 100% reliability is vital at high pressures and temperatures.



► FOR PROCESS AND OIL & GAS APPLICATIONS

globe and check valve solutions for large diameter pipe, noble alloy materials, cryogenic service and steam turbine extraction applications in the upstream oil and gas, power and petrochemical markets.



► FASANI

Fasani high integrity gate, globe and check valves are purpose designed to withstand high pressures, abrasion and extreme temperatures - reducing maintenance and increasing uptime.



► BOILER TRIM VALVES

Emerson's throttling and blow-off valves protect boilers against the destructive forces inherent in high pressure drop service and the ingress of dirt, sediment and scale



► YARWAY

Yarway isolation valves are instrumental in maximizing efficiency and lowering costs for the power industry.



VALVE AUTOMATION FOR IMPROVED RELIABILITY AND FUNCTIONALITY

Leading Process Control Systems Available in Saudi Arabia

Systems integration and valve automation assists manufacturers in achieving their most important goals in regards to both product reliability and cost savings. Therefore the selection of the right control systems, more specifically, control valves design/assembly and automation solutions, becomes a key decision in your manufacturing process

Saudi FAL Co. LTD. has both the proven technology and industry specialists to assist you implement the automation bested suited to your vertical and valve operating conditions. We have a suite of world-renowned Emerson Automation Solutions solutions from which to select and that are readily adaptable to your specifications

As the leading provider of valve & automaton solutions in Saudi Arabia & Bahrain , Saudi FAL has partnered with selected group of suppliers to provide first-in-their-class valves and automation products. We Our services may be scaled to meet the demands for specific solutions or even large projects.

Either through our local Manufacturing / Repair facilities (located in Yanby and Jubail) or on site Saudi FAL Valve Automation Division (VAD) provides valve Automation services to customers any where in the region.



OUR AUTOMATION SERVICES INCLUDE:

- The procurement and supply of fully assembled automated valves .
- Building of automation packages with either free issue valves or free issue actuators

Building of automation packages with both valves and actuating free issued.

OUR VALVE AUTOMATION CHOICES:

- **Bettis:** One of the first brands to be established in the valve actuator business and used in almost every energy-related industry. Today the actuator range includes: linear; quarter-turn scotch-yoke; rack and pinion, and electric options These actuators are powered by compressed gas, hydraulic and electric sources to satisfy a vast range of automation requirements.
- **Dantorque:** The market leader in sub-sea actuator technology, Dantorque concentric and compact valve actuators have been used increasingly in deep water applications in many major sub-sea developments around the world.
- **El-O-Matic:** Firmly established for over 30 years, this brand represents a wide range of pneumatic and electric actuators together with control accessories used throughout the chemical and utility industries in North America, Europe, and Asia.
- **Hytork:** Associated with high quality valve automation and specializing in high performance pneumatic actuators, Hytork recently expanded to include a range of customer-requested features and specialized solenoid valves. Hytork systems continue to deliver excellent performance in some of the most difficult on-off process applications.
- **Shafer:** Primarily used in the gas transmission pipeline industry and recognized as “guardians of the world’s pipelines” involving the safe control of critical applications. These also include the demands of offshore platforms and sub-sea pipelines plus highly challenging pipeline applications in metals, mining and other process industries.

- **EIM Electric Valve Actuators**

offer a wide range of sizes, ratings and output speeds and adapted to your specific applications. EIM actuators have been serving industry standards for over 60 years in installations around the world.

- **REXA Actuators: Saudi FAL Co. LTD.**

is the local business partner for REXA Actuators. Rexa produces stable & precise electro-hydraulic actuators, which can fit to any type of valves. Available in Linear, Rotary and Drive configurations, REXA's two models, Xpac and Mpac, can fulfil virtually any positioning application. REXA electro-hydraulic actuators improve control and extend the life of severe service trims, providing:

- o Low power consumption,
- o Lots of force in a small package
- o Tight and rugged control
- o Environmentally friendly design

for more information : www.rexa.com

Smart process automation efficiently captures process data for optimized asset management and profitability.

Call Saudi FAL Co. LTD. Controls Division

For control valves automation tailored to the specific needs of Saudi industries.



Valve Automation Solutions Backed by Industry Experts

Value automation experts believe that focusing on actuator and control system selection is critical to the reliability of control valves. **Saudi FAL Co. LTD.** offers an extensive selection of valves, actuators and positioners to meet the wide-ranging needs of an equally diverse set of industries in Saudi Arabia.



What are the advantages of choosing Saudi FAL?

- Technical advice from a qualified and experienced team
- Local manufacturing facility for valve design/assembly and valve integration (Yanbu – Jubail)
- Prompt response to customer needs
- Reliable after-sales support
- Valve testing and repair shop
- 24/7 emergency or urgent service

The Emerson suite of field devices and process automation solutions offers a combinations of the best-in-class technologies of pneumatic, hydraulic, gas-hydraulic, electro-hydraulic, and electric actuators with controls. As the sole representative for Emerson products in Saudi Arabia (an association that spans more than 25 years) Saudi FAL Co. LTD. Controls Division offers easy and unlimited access to world-leading technology to fit your needs

Consider your process control and automation issues solved!

Contact us

For performance and reliability-tested valve automation solutions in Saudi Arabia.

► FLOW METERS

Flow Meters for Wide-Ranging Industry Applications in Saudi Arabia

Efficient Control Systems Rosemount and Micro Motion

Flow meters are used for monitoring, measuring, or recording the rate of flow, pressure, or discharge of liquids or gases. They may also control the rate of flow when equipped with flow control valves. Both product selection and calibration affect the efficiency and productivity of these field devices. If your goal is reliability and durability, having the right control systems is crucial. Only an industry expert who has the technical know-how should guide your selection.



You can rely on Saudi FAL Co. LTD. to identify and install appropriate process automation solutions for your manufacturing facility. Local industry expertise combine with world-class technology provided by Emerson Automation Solutions puts us in a unique position to match all your specifications. We possess a wide-range of flow meters, control valves, and smart instruments customized to your job requirements. Plus we have the capability to provide in-Kingdom support utilizing our local manufacturing/repair facilities in Jubail and Yanbu any and every time you may need them.

Advantages of the flow applications we offer?

- **Top quality products** from trusted brands like Daniel, Rosemount and Micro Motion
- **Superior performance** that includes enhanced accuracy, safety and reliability
- **Intelligent diagnostics** that meet any variety of industrial needs
- **Superior measurement** practices for increased plant efficiency

Saudi FAL Co. LTD. will assist in meeting all your process automation goals in the most cost-efficient manner. By helping you choose the appropriate control systems and customized applications to your production environment, we will equip you with the tools to improve operational efficiency and increase your profit margins.

Contact us

for flow meters, control valves, regulators and other control systems that will enhance the efficiency of all your industrial processes.

Selecting Flow Meters for Optimized Process Automation

Identifying the right flow meter for your application is a complicated yet crucial process. While we recommend that you consult an industrial process automation specialist, here are a few tips to get you started.

How to select flow meters?

- Consider the liquid or gas that is being measured (water or air for instance)
- Pay attention to liquid viscosity
- Determine if you need rate measurement or totalization
- Check if the fluid is clean or not
- Decide if you want electronic signal output or a local display
- Note minimum and maximum flow rates as well as process temperature and pressure
- Check if the fluid is chemically compatible with flow meter vetted parts
- Determine pipe size in process applications

Size, type, installation and calibration of flow meters are vital to the success of your process automation efforts. Years of training and experience combined with access to cutting-edge control systems allows **Saudi FAL Co. LTD.** to offer superior solutions specially designed to make a positive difference.

Contact us

for smart control systems that will dramatically increase efficiency and safety for any manufacturing operation in Saudi Arabia.



► SMART WIRELESS TECHNOLOGIES

Emerson Smart Wireless

Emerson's Smart Wireless products and solutions extend PlantWeb predictive intelligence into areas that were previously out of physical or economic reach, opening the door for new possibilities in process improvement. Remote locations, physical obstructions, and the high cost of engineering and integrating new technologies, all once considered to be costly barriers now no longer exist.

Wireless Field Network Services

Although our wireless field network architecture and applications do not require a site survey, and are designed for ease of engineering, installation, and use, we do offer a broad range of services to help you get up and running quickly and make the most of wireless technology. Our wireless experts ensure that your business needs are met; these experts help you decide and implement the best combination of wired and wireless technologies and products to meet your specific goals.

Emerson also offers SmartStart™ Services, which include on-the-job training in network fundamentals, basic operations as well as troubleshooting. Our skilled technicians will provide training on not only how to use the equipment correctly, they will also perform routine maintenance, and diagnose and resolve any potential issues.

With vast their experience in wireless technologies, our factory trained technicians can easily assist you with creating the layout of your Wireless HART network using AMS Wireless SNAP-ON™. This expert assistance insures connectivity to your whole network to guarantee the gathering of the best data from your wireless devices. Our technicians will verify that the Wireless Gateway is properly mounted, configured, and performing at its very best. They will assign network addresses and verify the devices' readability at the interface or router, thereby making integration into your control system or PLC a simple one-step process. In addition, our technicians will provide a complete assessment of the transmitters including:

- **Checking the process connections to the transmitters to insure accurate mechanical installation**
- **Determining configuration and health**
- **Confirming WirelessHART connections Performing a communications check**



► WIRELESS PLANT NETWORK SERVICES

System integration services are critical to the success of a Wireless Plant Network system. Emerson offers a comprehensive services portfolio to help customers design and deploy a Wireless Plant Network.

Site Survey

Emerson engineers will visit the customer site to conduct an RF study, determine access point locations, and collect other on-site Information

System architecture design

Based on the site survey result and the customer's business requirements, engineers will design the overall system architecture including the network infrastructure and applications.

Physical network installation management and system commissioning

Install and configure network components. Commission the entire network.

Application implementation

According to your business requirements, engineers will design and implement the applications into the solution

Training

Emerson will work with the customer to specify a training curriculum that meets that customer's specific needs.

► SMART WIRELESS SOLUTIONS - AFTER PROJECT SUPPORT

Emerson provides After Project Expert Technical Support and critical On-site Services to help maintain uptime, performance and deliver a better return on your Wireless Plant Network investment. Emerson's Smart Wireless Plant Network Solution for After Project Support is designed to help our customers maximize the availability of the Smart Wireless Plant Network, keep applications running at peak performance, ensure Wireless Plant Network Security and deliver lower maintenance cost. As a part of the total SureService solution, Emerson's Smart Wireless Plant Network support allows our customers to select the right service for the right time: Emerson considers process criticality and the customer's level of resources and interests. Emerson's After Project Support for Smart Wireless will include:

- **Expert Technical Support**
- **On-Site Emergency Service**
- **Preventive and Reliability Maintenance**
- **Spares Support Program**
- **Application Enrichment**

► REGULATORS

Top Quality Regulators Locally Manufactured in Saudi Arabia

Expert Process Control and Automation Solutions from an Industry Leader

Regulators manage or maintain a range of valves (or control valves) in machines. Regulators are essential to reliable and efficient pressure and flow control. More importantly, they can be designed to effectively control anything—gas, fluids, electricity, etc.

Saudi FAL Co. LTD. employs Emerson products and technology to help us customized solutions for a wide-range of applications including:

- **Process /specialty gases**
- **Liquids**
- **Steam**
- **Natural gas and**
- **Liquid propane**

As part of our think customer policy all our process automation solutions are specifically designed to make a difference to your particular bottom line. In terms of versatility, durability and reliability Emerson's Fisher brand (including Fisher Control, Fisher Propane and Francel) is second to none. Used in thousands of installations worldwide, they are the pressure regulators of choice.

Our long standing partnership with Emerson (over 25 years) allows us the privilege to offer industries in Saudi Arabia the opportunity to incorporate the world's best control systems and process automation solutions. Access to Emerson products will improve and optimize productivity, safety and increase profits.

The biggest advantage we offer our customers is that these top quality pressure regulators will be manufactured locally and to your specifications at our state-of-the-art facilities in Jubail and Yanbu.

Contact us

for reliable pressure regulators and other process automation solutions including, control valves and systems integration software in Saudi Arabia

ISO 9001 Standards for Local Manufacture of Regulators

Quality, reliability and performance are crucial components of control systems and process automation. At Saudi FAL Co. LTD. Controls Division we believe giving our customers exactly what they want and need. In fact, we are constantly researching ways to not only meet but exceed their expectations.

As an ISO 9001 certified company, we conform to extremely high standards in all our processes, be it design, manufacture/assembly or repair. Whether seeking regulators, control valves, smart instruments or asset management solutions, our customers can be absolutely assured of quality products, expert installation and continual support—we promise full value for their investments.



Regulators not only control pressure and flow to enhance productivity and cost efficiency, they are important to workplace safety. Our engineers and industry experts consider every aspect of your manufacturing process before they design then apply any process automation solution. The Fisher regulators that we offer industries in Saudi Arabia don't just conform to approved standards, they are considered the industry benchmark for process control systems.

The team at **Saudi FAL Co. LTD.** is not only trained and experienced in Emerson control systems, they are also market specialists in oil production, transportation, refining, and associated downstream industries. Consider your challenges and problems with regulators resolved!

Contact us

for advanced regulators and control systems for smart process automation in Saudi Arabia.



EMERSON™

Emerson Products

► MEASUREMENT & ANALYTICAL DEVICES

PRODUCTS

- Pressure Measurement
- Density & Viscosity Measurement
- Flow Measurement
- Liquid Analysis
- Corrosion & Erosion Monitoring
- Gas Analysis
- Level Measurement
- Flame & Gas Detection
- Temperature Measurement
- Marine Measurement & Analytical
- Tank Gauging System
- Hygienic & Sanitary Measurement
- Industrial Wireless Technology
- Safety Measurement

BRANDS

- Rosemount
- Micro Motion
- Daniel
- Roxar
- Plantweb™ digital ecosystem



Rosemount Analytical Overview

Gas Analysis

- **Combustion Analyzers**
- Continuous Gas Analyzers
- Quantum Cascade Laser Analyzers
- Process Gas Chromatographs
- Natural Gas Chromatographs
- Gas Analysis Systems



Liquid Analysis

- Sensors:
 - pH
 - Conductivity
 - Chlorine
 - Dissolved oxygen/ozone
 - Turbidity sensors
- Transmitters
- Liquid Analysis Systems



Flame and Gas Detection

- Gas Detectors
- Ultrasonic Leak Detectors
- Flame Detectors
- Air Particle Monitors
- Aspirators
- Controllers



Liquid Analysis Solutions for pH, ORP, conductivity, dissolved oxygen, ozone, chlorine and turbidity Rosemount liquid transmitters and sensors provide the most complete range of continuous inline measurement for pH, ORP, conductivity, dissolved oxygen, ozone, chlorine and turbidity. Applications are in chemical process, power, refining, food & beverage, pharmaceutical and water & wastewater.

Full Line of Industrial Flame and Gas Detection Systems No matter how extreme or demanding the conditions, your people and facilities come first. That is why Emerson is dedicated to offering the most comprehensive and advanced flame and gas detection technologies available. Our integrated flame and gas monitoring systems are designed to excel under the toughest conditions to help you streamline day-to-day operations and, more importantly, keep your people safe.

► MEASUREMENT INSTRUMENTATION

Real Time Insight to Run at Your Peak Potential

The rigorous demands of your process operations require you to have reliable, accurate devices that give you the measurements you need. Emerson delivers field-proven technologies that can handle the toughest conditions or analytical challenges to allow you to maximize the performance, profitability and, most importantly, safety of your applications.

Improve Your Productivity with Pressure Measurement

With over 10 million devices installed worldwide, comes unmatched reliability and improved capabilities that help you to increase plant productivity and lower total cost of ownership. Rosemount™, Paine™, Daniel™ and Roxar™ products provide a broad offering available to suit virtually every application.

The Experts in Industrial Wireless Technology

Gain access to all your facility data with industrial wireless infrastructure for process instrumentation and wireless networks from Emerson™, the expert in industrial wireless technology. Our wireless solutions provide your facility with reliable, continuous data that improves safety, efficiency and the environment through monitoring of process measurement. And now you'll be able to monitor points that previously were too costly or unsafe to access.

Reliable, easy-to-use level instrumentation, designed with you in mind

Our wide range of devices for liquids and solids measurement covers the whole spectrum from basic point level detection to challenging continuous level, interface and volume measurement, even in extreme conditions. Use Emerson's Rosemount level measurement technologies to optimize your processes, plan for maintenance, and anticipate and correct issues before they become problems.

Achieve Precision Flow Measurement and Process Control

Flow Measurement is the process of measuring fluid in your plant or industry. You can measure flow through a variety of different devices such as Coriolis, differential pressure, vortex, magnetic, ultrasonic, turbine and positive displacement meters.

Complete Gas Analysis Solutions

From C6+ natural gas measurement to combustion, to complex processing applications and emission monitoring solutions for regulatory compliance, Emerson's Rosemount analyzers and integrated systems can solve the toughest gas analysis challenges for a wide range of industries and applications.

Benefit from High Performance Bulk Liquid Measurements

Tank gauging means liquid measurement in large storage tanks to determine product volume. Rosemount™ Tank Gauging System ensures accurate level, temperature, and pressure measurements for inventory control, oil movement and overfill prevention, securing efficient operations.

Achieve Your product quality and consistency targets with inline density & viscosity measurement With an installed base of over 175,000 densitometers and viscometers worldwide, we are at the forefront of concentration and density measurement. Our density & viscosity measurement devices offer unbeatable performance for applications in alcohol concentration, API gravity, specific gravity and more.

Liquid Analysis Solutions for pH, ORP, conductivity, dissolved oxygen, ozone, chlorine and turbidity Rosemount liquid transmitters and sensors provide the most complete range of continuous inline measurement for pH, ORP, conductivity, dissolved oxygen, ozone, chlorine and turbidity. Applications are in chemical process, power, refining, food & beverage, pharmaceutical and water & wastewater.

Full Line of Industrial Flame and Gas Detection Systems No matter how extreme or demanding the conditions, your people and facilities come first. That is why Emerson is dedicated to offering the most comprehensive and advanced flame and gas detection technologies available. Our integrated flame and gas monitoring systems are designed to excel under the toughest conditions to help you streamline day-to-day operations and, more importantly, keep your people safe.

Drive your plant to its maximum capability using corrosion and erosion monitoring

Corrosion and erosion are some of the leading challenges in the oil and gas and process industries, causing unplanned outages and limiting operational performance. It is essential for operators to monitor both the risk of corrosion and erosion and their impact on asset health. Emerson offers a uniquely broad corrosion and erosion measurement portfolio within Emerson's Plantweb ecosystem to deliver best-in-class data directly to desk. Emerson delivers a complete understanding of the corrosion and erosion risks and an up-to-date understanding of how the plant is coping with those risks. Operators use this data to make better informed decisions - maximizing plant performance, safety, and profitability.

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PROJECTS & ENGINEERING SERVICES

Power and Water Solutions with Smart Instruments and Field Devices

Efficient Control Systems Powered by Leading Process Automation Technology

Is your power plant or water treatment facility facing process automation challenges? Consider these challenges faced and solved! Saudi FAL Co. LTD. Controls Division offers cutting-edge applications tailored to your specific requirements. We understand that efficiency and savings are crucial to your operations. Our engineering and industry specialists will design a solution that is suited to your particular industrial environment.



For the past 100 years our product and technology partner, Emerson Automation Solutions has been serving international power and water process control needs. That experience translates into reliable control systems with optimized performance and reliability for our customers. Most of our field devices and smart instruments are made or assembled in our local manufacturing facilities in Jubail and Yanbu. This reduces project turnaround time while providing 24/7 service for emergency or urgent requirements. We communicate directly with our customers

How do our process automation solutions make a difference?

- **A proven Distributed Control System (DCS):** The Ovation™ DCS is backed by over four decades of experience in process control. It provides a seamless interface with the most widely adopted standards for enhanced availability, reliability and environmental compliance.
- **Optimized process control:** The SmartProcess™ Optimization software offers adaptive improvement solutions to help utilities achieve optimized equipment performance for emissions compliance, temperature control, efficiency, and overall continuous operational improvement.
- **Performance improvement applications :** An array of modular service and support offerings, like SureService, have been designed to help you achieve optimal efficiency while reducing and containing your operating and service costs. Our performance applications keep your process control systems running at peak performance.

Our Services and Support includes the following:

- **Technical Support:** Via local Support Agreements, Saudi Fal provides rapid access to certified technical support professionals for onsite support whenever required. Local Support Agreements provides 24/7 priority availability through standard after-hours support.
- **Back-up Support:** In order to assure all aspects of product support and the back-up of local support organizations, Saudi Fal maintains excellent relationships with all Emerson Automation Solutions Division organizations. Hundreds of fully qualified product engineers from each Emerson Automation Solutions Division provide customers detailed troubleshooting support using full phone, internet, and modem based diagnostics.
- **Warranty Support:** Saudi Fal assumes the primary warranty support for the total Emerson Automation Solutions scope of supply.
- **Maintenance and Spare Parts Agreements:** Staffed by resident technicians and engineers, Saudi Fal offers a comprehensive range of maintenance services to provide routine maintenance, and “call-out” services. We also offer access and rapid replenishment of spares required to support Emerson’s customer-installed base.
- **Prompt after sales support:** Even the most sophisticated systems experience occasional problems. Knowing that you have a live, expert close-by to promptly answer your questions and service your requests reduces unnecessary downtime.
- **Local repair facilities:** In order to carry out repairs of valves, regulators, Hart communicators, vibration analysers and systems, with a minimum disruption to your daily activities, our local manufacturing units at Jubail and Yanbu come equipped with the latest technology and are backed by an extensive parts inventory.

The “think customer” philosophy governing all aspects of Saudi FAL Co. LTD. Controls Division services assures our clients that protecting their bottom line is always a top priority for our team.

Contact us

For process control, automation and safety solutions dedicated to the power and water industries in Saudi Arabia.

Array of Control Systems for Optimal Operations and Maintenance Savings

Possessing world-class control systems means little if these systems fail to deliver the performance and reliability you need. Saudi FAL Co. LTD. Controls Division offers a wide array of process automation solutions that successfully and consistently meet the various needs of industries within Saudi Arabia.

The real value of the Ovation™ DCS lies in its embedded advanced algorithms and proven industry-specific control routines. These features allow you to optimize your operations thereby maximizing efficiency, productivity, and profitability. Likewise SmartProcess™ offers adaptive improvement solutions which can be specifically designed to meet your needs with similar results.

Market competitiveness, operational efficiency, plant safety, cost-control and environmental responsiveness form the key concerns for all industries particularly power and water/water treatment.

The experienced team at **Saudi FAL Co. LTD.** combines industry and engineering expertise to offer solutions designed to make a difference. We streamline all operational costs and compliance issues.

Contact us

For sophisticated power and water solutions in Saudi Arabia including field devices, smart instruments and DCS.

Trademarks & logos owned by respective manufacturers, please visit their websites for more information.

► ANALYZERS

Smart Instruments and Transmitters for Optimal Process Automation

Advanced Analytical Solutions for Liquid, Gas, and More

Smart instruments and transmitters for analytical applications help reduce both operational costs and regulatory compliance issues. Having acquired years of experience utilizing proven field devices, Saudi FAL Co. LTD. Controls Division can design a customized process analysis packages suitable to your needs. For decades our technologically advanced products have served water and gas industries and we possess the versatility tailor our products to any type of required application.



Our partner is **Emerson Automation Solutions**, an acknowledged leader in smart analytical instruments, automation, HART communicators and systems integration. We adapt their cutting-edge technology (the Rosemount Analytical line) to provide turnkey analytical solutions combined with a low-cost ownership to our customers in Saudi Arabia.

These are some of our core analytical capabilities

- **Liquid transmitters, sensors and analyzers:** Smart wireless transmitters and wireless solutions, plus sensors and analyzers create continuous process measurement. These are widely used in the chemical process, food and beverage, power, mineral processing, petroleum refining, pharmaceutical, primary metals, pulp and paper, semiconductor, textile, water and wastewater industries.
- **Combustion gas analysis applications:** these specified solutions improve combustion efficiency and are drawn from a premier, worldwide supplier of combustion analysis, process analysis and emissions monitoring analysers and solutions.
- **Process gas analysers:** Our sophisticated field devices retain the ability to measure multiple components using a variety of measurement principles while delivering the accuracy and reliability required by your specific process. In addition, our smart instruments for CEM (Continuous Emissions Monitoring) help prepare your business for the challenges of today's regulatory environment.
- **Gas chromatographs:** Our Rosemount Analytical's process gas chromatographs offer an advanced combination of innovative technology and hardened instrumentation. They are used in a wide array of applications found in remote areas, harsh climates and critical processing facilities such as refineries, chemical plants, and power plants.

• **Net Safety Monitoring :** we design, develop, and manufacture Fixed Toxic & Combustible Gas Detectors | Flame Detectors | Safety Systems | Ancillary Safety & Security Products

- Designed for hazardous and non-hazardous locations
- Engineered for continuous performance in the most extreme conditions
- All flagship products are certified to FM, CSA, ATEX, ANSI-ISA/UL, GOST-R and INMETRO safety, technical and performance standards with SIL 2 Ratings

Saudi FAL Co. LTD. offers process automation and analytical solutions designed to create a tangible difference in your level of efficiency.

Contact us

to obtain smart analytical instruments including transmitters, analysers and sensors that will boost your productivity, while increasing safety and regulatory compliance in Saudi Arabia.

Intelligent Process Control Systems Increase Efficiency and Compliance

Having issues with process efficiency and regulatory compliance? Consider this solved! Process analysers and applications from Saudi FAL Co. LTD. Controls Division promote optimal productivity and savings while maintaining the highest standards in safety compliance.

• We offer our clients the sophisticated Rosemount Analytical line of process control systems that employ advanced smart instruments with the capability to:

- o Monitor emissions
- o Reduce process variability
- o Improve process quality
- o Maximize productivity and profitability
- o Lower capital, engineering and maintenance costs
- o Streamline regulatory reporting



Our systems can detect and analyse industrial process issues before they turn into major breakdowns and replacement issues, or worse still, regulatory problems. We can assist with process automation, systems integration, measurement and analytical applications to optimise process efficiency and quality as well as providing you with excellent environmental responsiveness.

Saudi FAL Co. LTD. has earned a reputation for high-quality instrumentation with advanced diagnostics and lower lifecycle costs.

Contact us

first for smart instruments for analysis and measurement within the water and gas industries or any other type of analytical application.

Trademarks & logos owned by respective manufacturers, please visit their websites for more information.

► SYSTEMS & SOFTWARE

SERVICES:

Design & Engineering

Engineering services Dept:

We cater to customer service requirements related to Pre-commissioning, Commissioning, Startup &, Training activities. Engineering support to all customers to perform Troubleshooting and diagnostic on all Emerson products.

Training

Training

Saudi Fal Co. LTD. Controls Division is providing the training you need, when and where you need it. We also provide on-site training to bring your staff up-to-speed with new equipment and procedures. We host factory training courses in which the student will attend class in our fully equipped training laboratories.

Providing the training you need, when and where you need it.



With over 65 years of training experience, Emerson Educational Services remains committed to providing quality training to over 20,000 individuals, when and where you need it.

Factory Training: We host factory training courses in which the student will attend class in our fully equipped training laboratory. Our courses include small group hands-on sessions, one-on-one time with instructors, and a facility tour. Our workshops are simply the best investment you can make today in your employees and your business.

Regional Training Centres: Our worldwide regional training centres are strategically located to support your training needs.

On-site, Local Training: We develop hundreds of customized on-site courses providing an alternative to sending employees off-site incurring expensive travel and lodging costs. We can tailor training - in your local area - to meet your specific needs.

eLearning Training: This convenient and flexible on-line learning tool is an excellent way to help manage your time and costs when you can't attend a factory, regional, or local training session.

Virtual Learning (V-Learning): Delivers an affordable, live, interactive, instructor-led training experience that saves time and travel.

COURSE OFFERINGS

Automation Systems

DeltaV / Ovation / PROVOX / RS3 Systems / Terminal Automation / WDPF

Field Devices

Control Valves / Daniel / Liquid Analytical / Measurement / Micro Motion / Process Analytic / Regulators & Gas Control / Valve Automation

Plant Optimization

PlantWeb / AMS Suite: Intelligent Device Manager / FOUNDATION fieldbus / smart Safety Instrumented Systems / Refining Process Training / Machinery Health Management

Packaged Training

Video based training and comprehensive course documentation.

The Fisher control valve is a critical part of the control loop. The control valve manipulates a flowing fluid, such as gas, steam, water, or chemical compounds to compensate for the load disturbance and keeps the regulated process variable as close as possible to the desired set point. Fisher control valves are categorized sliding stem (linear motion) and rotary valves

Sliding Stem Valves Type (easy-e series):

► EZ

The Fisher easy-e EZ control valve is your solution for throttling or on/off control in chemical or hydrocarbon processing applications, or wherever control of non-lubricating, viscous, or other hard-to-handle fluids is necessary.

Single-seated, post-guided globe or angle valve, Unbalanced, size range from NPS ½ to 4 inch

<https://www.emerson.com/en-us/catalog/fisher-ez>

► ET

The Fisher easy-e ET valve is your solution for all general applications with high process temperatures, featuring a balanced plug design and cage-guided trim. Available in globe or angle body, these valves can provide up to Class V or VI shutoff.

Cage-guided globe or angle valve, Balanced trim, Cage-retained seat and size range from NPS 1 to 8 inch

<https://www.emerson.com/en-us/catalog/fisher-et>



► ES

The Fisher easy-e ES valve is your solution for a wide range of applications, including sulfide and chloride stress-cracking environments common to the oil and gas production industries. Available in globe or angle body, these valves can provide up to Class V or VI shutoff.

Cage-guided globe or angle valve, Unbalanced, Cage-retained seat, size range from NPS ½ to 8 inch

<https://www.emerson.com/en-us/catalog/fisher-es>

► ED

The Fisher easy-e ED valve is available in globe and angle bodies. This single-port control valve has a balanced valve plug design, cage guiding, and metal-to-metal seating for all general applications over a wide range of process pressure drops and temperatures.

Cage-guided globe or angle valve, Balanced trim, Cage-retained seat, size range from NPS 1 to 8 inch

<https://www.emerson.com/en-us/catalog/fisher-ed>

► Fisher™ EW Series (EWD/EWS/EWT)

The Fisher easy-e EW series product line is available for a wide range of applications common to the oil and gas production industries. These valves meet a variety of service requirements, such as power plants where oversized piping is used to limit fluid flow velocity. They also perform well in noise abatement applications; for example, high pressure gas reducing stations where sonic velocities are often encountered at the outlet of conventional valve bodies.

Cage-guided globe or angle valve, Balanced trim, Cage-retained seat, size range from NPS 4 x 2 through 24 x 20

<https://www.emerson.cn/en-cn/catalog/fisher-ew-en-cn>



EW Valve
and Actuator System

► YD and YS

Three-way valves for flow-mixing or flow-splitting service. The YS unbalanced, and the YD is balanced.

Cage-guided three-way globe valves Balanced or unbalanced trim

<https://www.emerson.com/documents/automation/product-bulletin-fisher-yd-ys-control-valves-en-125150.pdf>



Fisher YD Valve with 667 Actuator

Size range from NPS 1/2 through 6

► ET-C and EZ-C Cryogenic Sliding-Stem Control Valves

Easy-e stainless steel cryogenic valves for liquefied natural gas and other special chemical and hydrocarbon applications with temperatures up to -198 °C, size range from DN80 through 250 x 200 or NPS 3 through 10 x 8 (ET-C), DN 15 through 100 or NPS 1 through 4 (EZ-C)

<https://www.emerson.com/documents/automation/product-bulletin-fisher-easy-e-cryogenic-sliding-stem-control-valves-en-122402.pdf>



TYPICAL FISHER easy-e CRYOGENIC VALVE
WITH EXTENSION BONNET

► Fisher™ Large ED/EWD and ET/EWT Valves

Fisher NPS 12 through 30 CL150 through CL600 ED/EWD and ET/EWT series control valves are used for either throttling or on-off control of a wide variety of liquids and gasses

<https://www.emerson.com/documents/automation/product-bulletin-fisher-large-ed-ewd-et-ewt-valves-nps-12-through-30-en-122576.pdf>



Fisher NPS 24x20 Valve Assembly with Piston Actuator

► Fisher™ HP Series Control Valves

Fisher HP series control valves are single-port, high-pressure, globe- or angle-style valves with metal seats, cage guides, and push-down-to-close valve plug action. These valves are designed for high-pressure applications in process control industries such as power generation, hydrocarbon production, chemical processing, and refining. For high-pressure and severe-service applications. Available with special trim to combat noise and cavitation. Often used in power generation applications, cage-guided globe or angle valve, balanced or unbalanced trim, size range from NPS 1 through 20

<https://www.emerson.cn/en-cn/catalog/fisher-hp-series>



► Fisher™ GX Control Valve and Actuator System

The Fisher GX valve and actuator system can meet a wide range of flow and pipeline sizing requirements. A three-way construction is available, which is suited for accurate temperature control. The engineered passages within the valve body provide optimal capacity and create a stable flow pattern for smooth operation

Single port, flow up globe style valve, Stem-guided or port-guided, balanced or unbalanced, Screwed-in seat ring, size range from NPS ½ to 4 inch

<https://www.emerson.cn/en-cn/catalog/fisher-gx-en-cn>



► RSS Valves

Lined valve for severely corrosive or toxic process fluids. An economic alternative to alloy bodies. Limited in pressure and temperature. Fully lined, single-seated, unbalanced globe valve Includes bellows stem seal, size range from NPS 1 through 4 (face-to-face dimensions to DIN or ANSI/ ISA specifications)

<https://www.emerson.cn/en-cn/catalog/fisher-rss-en-cn>



► Fisher™ TBX Steam Conditioning Valve

The Fisher TBX Steam Conditioning Valve is designed to handle the most severe applications in today's cycling power plants as well as provide precise pressure and temperature control for process applications. The TBX incorporates over 30 years of steam conditioning experience and product development. The valve body is designed with the latest finite element analysis (FEA) and computational fluid dynamics (CFD) tools to optimize performance and reliability for demanding steam systems.

Flow up design, simplified trim configuration thermally compensated to handle rapid changes in temperatures without sticking or binding, incorporates a spray water manifold of variable geometry AF nozzles that produce an optimized spray pattern over a wide operating range.

NPS 6 x 8, 8 x 12, 10 x 16, 12 x 18, 12 x 20, 16 x 24, 20 x 30, and 24 x 36

<https://www.emerson.com/documents/automation/product-bulletin-fisher-tbx-steam-conditioning-valve-en-127354.pdf>



TBX Steam Conditioning Valve

SLIDING STEM ACTUATORS

► 657 & 667

Fisher 657 and 667 actuators are designed to provide dependable on/off or throttling operation of control valves. These spring-opposed diaphragm actuators position the valve plug in the valve in response to varying controller or valve positioner pneumatic output signals.

The 657 actuator is direct-acting, while the 667 is reverse-acting



<https://www.emerson.com/en-us/catalog/fisher-657-and-667#:~:text=Fisher%20657%20and%20667%20actuators,valve%20positioner%20pneumatic%20output%20signals.>

585C and 685

The 585C linear piston actuator is a powerful, double-acting actuator that provides accurate throttling or on-off operation for sliding-stem control valves. The 585C piston actuator family is available in sizes 25 to 130 to cover a wide range of thrust and travel length requirements. It can be used with switching valves for on-off control, or with the DVC6200 digital valve controller or 3600 positioner for throttling applications.

The Fisher 685 is a double acting piston actuator that provides accurate, high thrust output for short to long travel sliding stem valve applications.

<https://www.emerson.com/documents/automation/product-bulletin-fisher-585c-piston-actuators-en-124804.pdf>



FISHER 585C PISTON ACTUATOR
WITH FIELDVUE™ DVC6200f DIGITAL VALVE CONTROLLER

Fisher 685 Piston Actuator & Fisher 585C Linear Piston Actuator

► Fisher™ 655 and 655R Diaphragm Actuators

Fisher 655 and 655R actuators provide control for a wide variety of pressure regulation applications. The 655 actuator is used for pressure reduction service on push-down-to-close valves, and the 655R actuator is primarily for pressure relief use on push-down-to-open valves. These actuators may be either self-operated or remote-loaded.

<https://www.emerson.com/en-us/catalog/fisher-655-and-655r>



► Fisher™ 1008 Manual Hand wheel Actuator

The Fisher 1008 manual hand wheel actuator is used in applications that require a throttling type of control valve that can be manually operated and set. This actuator can be used on nearly all standard globe style or angle style control valve body assemblies.

No special valve body adaptor is required for use with the 1008 actuator, so that future conversion from manual to automatic control can be accomplished at minimum cost. The 1008 actuator is capable of giving precise manual throttling control. A travel indicator mounted on the actuator yoke provides a visual indication of valve plug position at all times. A dial-type valve plug position indicator is also available as optional equipment.

<https://www.emerson.cn/en-cn/catalog/fisher-1008-en-cn>



► Fisher Vee Ball Valve

The Fisher Vee-Ball V150 control valve is your best choice for performance and cost-effectiveness across a broad range of applications.

The precision-machined parts and pressure-balanced seal designs allow smooth, precise valve operation, size range from NPS 1 - 24 x 20

<https://www.emerson.com/en-us/catalog/fisher-v150>



► 8580 High Performance Butterfly Valve

The Fisher 8580 high performance Butterfly valve provides the capability for enhanced shut-off and features an eccentrically-mounted disk with either a soft or metal seal.

Experience excellent throttling and on/off performance with this control valve.

Wafer and single flange, Size range from 2 to 12

<https://www.emerson.com/en-us/catalog/fisher-8580>



► 8532 High Performance Butterfly Valve

The Fisher 8532 high performance Butterfly valve offers outstanding performance under extreme pressure and temperature conditions. The 8532 valve maintains tight shutoff, is available in a fire-tested construction, and can be specified for cryogenic applications. Available as either a flangeless (wafer style) design, single flange (lugged), or Double Flanged design. Size range from NPS 14, 16, 18, 20, 24

<https://www.emerson.com/en-us/catalog/fisher-8532>



► 8560 High Performance Butterfly Valve

Fisher 8560 high-performance butterfly valves feature a stainless steel disk with a stainless steel seal ring. The pressure-assisted metal seal ring provides excellent shutoff against pressure applied in the recommended flow direction for both liquid and gas applications. Size range from NPS 3 to 12 inch

<https://www.emerson.com/documents/automation/product-bulletin-fisher-8560-high-performance-butterfly-control-valve-en-123828.pdf>



Fisher 8560 Lugged Valve

► Fisher™ 9500 Butterfly Control Valve

The Fisher 9500 butterfly valve is a fully lined valve for use with corrosive fluids and where tight shutoff is required. The nitrile or PTFE liner totally isolates the valve body and shaft from the process fluid and maintains excellent shutoff at pressure drops to 15.2 bar (220 psi), and temperatures to 121°C (250°F).

The 9500 valve is available in NPS 2 through 12 and is compatible with ASME B16.1 CL125B, with ASME B16.34 CL150 and CL300, or with DIN flanges



Fisher 9500 Valve with 1052 Actuator and FIELDVUE™ DVC6200 Digital Valve Controller



Fisher 9500 Valve with 1066SR Actuator

<https://www.emerson.com/documents/automation/product-bulletin-fisher-9500-butterfly-control-valve-en-127084.pdf>

► Fisher™ V500 Rotary Globe Control Valve

The Fisher V500 eccentric plug rotary control valve controls erosive, coking, and other hard-to-handle fluids, providing either throttling or on/off operation. The flanged valve features streamlined flow passages, rugged metal trim components, and a self-centering seat ring (figures 1 and 2).

With these components, the V500 rotary control valve combines globe valve ruggedness with the efficiency of a rotary valve. Matched with a Fisher power or manual actuator, the V500 rotary control valve dependably controls fluids in many process industries

Size range from NPS 3 to 8 inch

<https://www.emerson.com/documents/automation/product-bulletin-fisher-v500-rotary-control-valve-en-122382.pdf>

► Fisher™ CV500 Rotary Globe Control Valve

The Fisher CV500 Cam Vee-Ball™ control valve combines the rangeability of the cammed-segmented V-notched ball, with the inherent ruggedness found in the V500 heavy duty bearings, seals and body. This combination provides a balance of erosion resistance and pressure control for gas and liquids.

Size range from NPS 3 to 8 inch

<https://www.emerson.com/documents/automation/product-bulletin-fisher-cv500-rotary-control-valve-en-122380.pdf>



► Fisher™ 2052 Diaphragm Rotary Actuator

Fisher 2052 spring-and-diaphragm rotary actuators are used on rotary-shaft valve bodies for throttling or on-off applications. The 2052 may be used for throttling service with a positioner, or it may be used for on-off service without a positioner. The 2052 has an ISO 5211 mating interface that allows installation to non-Fisher valves.

<https://www.emerson.com/documents/automation/product-bulletin-fisher-2052-diaphragm-rotary-actuator-en-123412.pdf>



► Fisher™ 1061 Pneumatic Piston Rotary Actuator

The Fisher 1061 actuator is used to operate splined shaft rotary control valves, such as Fisher Vee-Ball™ valves, eccentric disk valves, and Butterfly valves. The actuator/valve body linkage of this actuator can be positioned for either push-down-to-open or push-down-to-close action. Additionally, the 1061 actuator can be used with a two-position control signal for on/off service or with a valve positioner for throttling service.

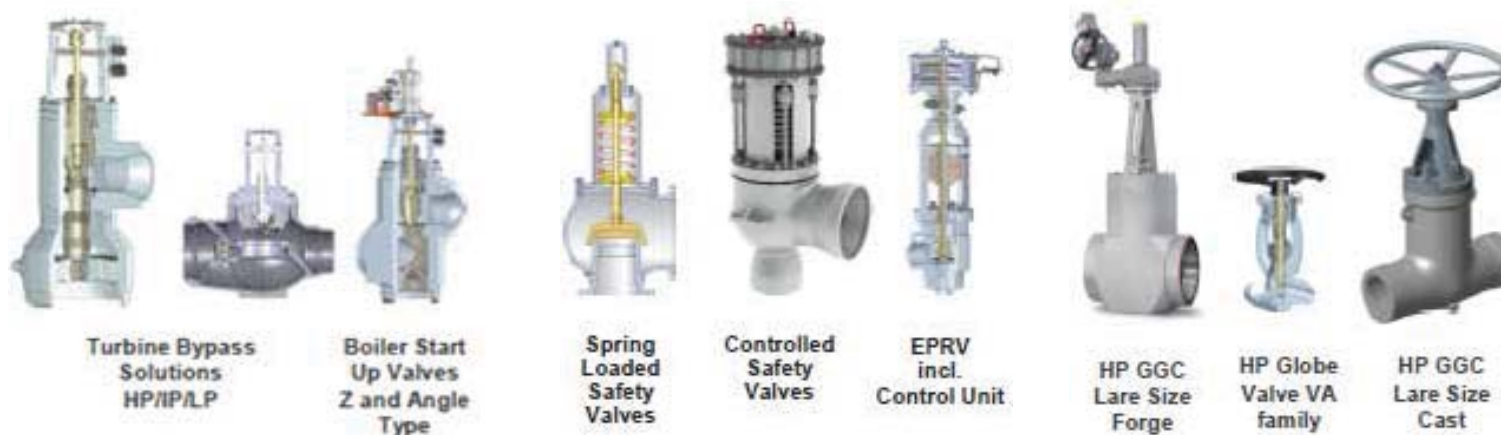
<https://www.emerson.com/en-us/catalog/fisher-1061>



► Sempell Steam Solutions

Specially designed for the most difficult environments, Sempell products offer greater reliability, accuracy and flexibility for all your steam applications in commercial power generation and in industrial processes

<https://www.emerson.com/en-us/automation/valves-actuators-regulators/sempell>



► Yarway Valvest

Yarway valves, desuperheaters and pump protection solutions have a strong reputation across various industries. Recognized by users all over the world as high quality products, the current Yarway valves and controls portfolio features advanced technologies that facilitate heavy-duty performance and excellent reliability

<https://www.emerson.com/en-us/automation/valves-actuators-regulators/yarway>





RELIABILITY SOLUTIONS

► RELIABILITY SOLUTIONS

INTRODUCTION

With Industry 4.0 revolutions to automate and monitor your rotating assets by digital representations of real data improving efficiency and productions sustainability, SAUDI FAL has gained the knowledge and experience over the years to provide modern, predictive intelligence and integrated protection technologies solutions that focus on the health, maintenance and protection of your plant's valuable assets.

OFFERED SOLUTIONS

SAUDI FAL Reliability department offers a variety of assets management & condition indicator technologies such as Portable Vibration Analyzer (AMS 2140), Wireless/Online Vibration systems for continuous monitoring and On-site oil lubrication analysis (ML 153) and more to achieve top-quartile reliability & enhance your digital transformation journey. Our Reliability team will complete a foundational study of your current program, recommend known improvement practices from selecting the proper software and hardware application and assist in system design, professional installation, startup/commissioning and vibration data analysis.

PARTNERSHIPS

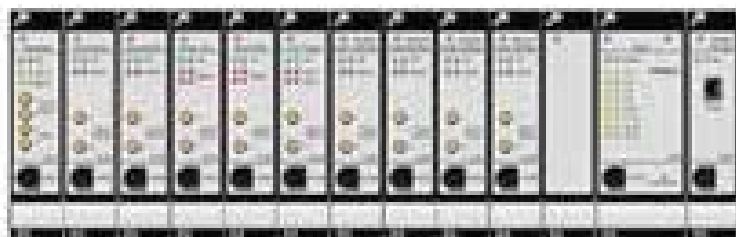
By leveraging our relationships with leading reliability OEMs, such as Emerson, Ametek Spectro Scientific & Connection Technology Centre (CTC). We can assure the accuracy of our proposed solutions to meet your budget and objective with the proper technology and application.





Predictive technologies and Vibration analysis from Emerson

We are a long-established authorised KSA Partner of Emerson portable products Vibration Analyzer (AMS 2140), Wireless/Online Vibration systems for continuous monitoring and Field Device management. Emerson provides cutting-edge products and technologies that enhance the ability to provide industry-leading solutions and unique peak detection capabilities for the earliest indication of bearing and gearbox degradation. Use Smart Field Device Diagnostics to Drive Reliability Goals Predictive diagnostics from field devices enable you to keep these devices configured and operating effectively.





•On-Site Oil Lubrication Analysis from Spectro Scientific

Since 1983, Spectro Scientific has been one of the largest suppliers of fuel, oil, and fluid analysis instruments to the military, industry, and laboratories. 8000 instruments have been sold in six continents. They can be termed as the leader in the field of condition bases maintenance and oil and water analysis. They are certified with ISO 9001:2015 company. Saudi Fal has an exclusive representative agreement with Ametek Spectro Scientific in Saudi Arabia to provide full application along with after sales support services by certified engineers.





- **Vibration hardware products and accelerometers from CTC**

As the exclusive Distributor for Connection Technology Center (CTC) in Saudi Arabia, Saudi Fal offers a complete line of Connection Technology Center (CTC) which offers the world's most durable and reliable industrial accelerometers, piezo velocity transducers, 4-20mA vibration sensors, and proximity probes as well as all related mounting hardware, cabling, and junction boxes. CTC products enable efficient vibration monitoring for predictive maintenance in a wide variety of industries and applications, including automotive, medical and pharmaceutical, mining with lifetime warranty. The accelerometers are supplied with a NIST traceable calibration certificate from CTC's ISO 9001:2008 certified factory.



All CTC Line products (indicated by the red CTC logo) are backed by our industry-leading lifetime warranty. Should your CTC product fail for any reason, at any time, CTC will repair or replace it, free of charge.





Introduction:

Sungov is a designer and manufacturer of engineered industrial equipment and systems for the oil & gas, petrochemical, power and environmental industries. Founded in 1986, Sungov's manufacturing plants hold ISO 9001, ISO 14001, ISO 45001, ASME U, US National Board, Canadian Registration Number (CRN), Indian Boiler Regulations (IBR) certifications. These quality, safety and environmental accreditations coupled with inhouse design and R&D has facilitated Sungov's offerings to be installed in over 35 countries worldwide.

Focused Industries:

- Oil & Gas
- Petrochemical & Chemical
- Environmental
- Power Generation
- Utilities

Products Portfolio:

- Y, T & Basket Filters
- Cartridge Filters
- Centrifugal Separators
- Coalescer Filter Separators
- Knockout Drums
- Self-Cleaning Filters
- Strainers
- Fuel unloading skids
- Gas conditioning skids
- Bespoke skids
- Oil conditioning skids
- Indirect Heaters
- Shell and Tube Heat Exchangers
- Pipeline Equipment - Pig Launchers and Receivers
- Pipeline Equipment - Quick Opening Closures
- Pressure Vessels & Tanks

FILTRATION & SEPARATION

Sungov has developed and continues to develop filtration and separation technologies for solid-liquid, solid-gas, liquid-gas, liquid-liquid and multi-phase separation for treatment of various industrial fluids.



HEATING & COOLING

Sungov has developed and continues to develop filtration and separation technologies for solid-liquid, solid-gas, liquid-gas, liquid-liquid and multi-phase separation for treatment of various industrial fluids.



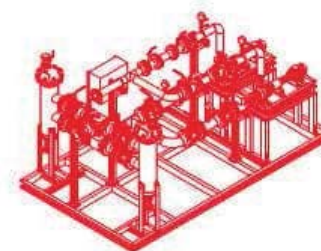
PIPELINE EQUIPMENT

Sungov manufactures specialty engineered equipment accessories called quick opening closures or quick actuating closures for pigging systems and process vessels.



MODULAR ENGINEERED PROCESS SKIDS

Sungov's multi-disciplinary plant engineering experiences offers bespoke skid mounted equipment from simple pumping skids to complex process skids, ready to plug & play and solve customer challenges.



PRESSURE VESSELS & TANKS

Sungov manufactures pressure vessels and tanks, designed and constructed to ASME Section VIII Division 1 in its ASME Certificate of Authorization holding plant(s).



SUNGOV ENGINEERING PRIVATE LIMITED



Y Flanged Strainers (YF01)



Y Flanged Strainers (YF02)



Y Flanged Strainers (YF03)



LPG Filter



Y Flanged Strainers (YF04)



Seawater Filtration Systems

STATRON
NON STOP POWER



Introduction:

ince more than 45 years, Statron is THE partner for uninterruptable power supply (UPS) solutions and battery systems. More than 30,000 UPS and battery systems have been successfully delivered, installed and are in operation at more than 3,000 clients in more than 100 countries.

Focused Industries:

- Power Generation
- Transmission & Distribution
- Oil & Gas
- Infrastructure
- Industry
- Railway
- Telecom
- Aviation

Products Portfolio:

- UPS (AC/DC)
- Ground power supply system
- Battery charging systems
- Battery energy storage systems
- Industrial batteries
- Industrial UPS systems
- Modular power supply units
- Power inverter
- Semi- industrial/standard UPS systems
- Voltage stabilizers (AC/DC)

BDT Pol

The Statron polarizing rectifiers are used as standby units to protect the power supplies in systems of system-critical industrial or chemical processes. For this special application, the robust rectifier has a flexible interface for voltage and current specification and monitoring.

- High reliability
- High availability
- Long service life, designed for 25 – 30 years
- Low operating costs
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Integrated battery management
- High degree of flexibility, almost infinite configurations possible



BATTERY CHARGING SYSTEMS (POLARIZATION) RECTIFIERS:

BDTe

The latest development in Statron's proven BDTe rectifier series sets new standards in durability, reliability, functionality and serviceability. The BDTe is a thyristor-controlled, high-performance rectifier designed for demanding environmental conditions in industrial applications such as oil and gas, petrochemical, power generation and distribution plants for worldwide use. The modular system concept combined with a large number of options makes it possible to meet virtually any customer requirement – no matter how specific it is.

- High reliability
- High availability
- Long service life, designed for 25 – 30 years
- Low operating costs 5. Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Integrated battery management 8. High degree of flexibility,
- almost infinite configurations possible



NICKEL-CADMIUM (NI-CD) BATTERIES FOR STATIONARY USE

Ni-Cd batteries are very suitable for use in dynamic requirements and high performance. STATRON has been the exclusive representative of Saft, one of the world's largest suppliers of NiCd industrial batteries, for more than 30 years. The product portfolio includes the following battery types:

- -
 - High reliability
 - High availability
 - Wide temperature range -20°C to +50°C
 - Long service life up to 25 years depending on design
- Different types available for optimum efficiency depending on application
6. High degree of flexibility – adaptation of battery type to customer requirements



LITHIUM-ION (LI-ION) BATTERIES FOR STATIONARY USE

Li-ion batteries are characterized by a very high energy density. Saft energy storage systems for renewable energy and grid management are based on Li-ion battery technology. Saft Flex'ion® Li-ion Backup Power are sized and used for “Mission Critical” UPS applications by STATRON.

- High reliability
- High availability
- High cycle stability
- High energy density
- Wide temperature range -20°C to +60°C
- Long lifetime up to 25 years
- Different types available for optimum efficiency depending on application
- High degree of flexibility – adaptation of battery type to customer requirements
- BMS (Battery Management System) integrated



MODULAR POWER SUPPLY UNITS

Modular power supply units

The modular power supply (Statron Modular Technology – SMT) series is designed to operate in industrial environments and for applications such as power plants, oil and gas production and processing, petrochemicals or power distribution and transmission. The flexible concept with a wide range of options can be optimally adapted to customer specifications.

The SMT series is equipped with clocked high-frequency DC compact power supply modules and offers user-friendly operation, flexible integration into control systems and monitoring functions.

- High reliability
- High availability
- Long service life
- Very flexible configuration possible
- Low operating costs
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Integrated battery management
- High degree of flexibility, almost infinite configurations possible



S6300e

Semi-Industrial Modular UPS System

The next generation of scalable, modular 3-phase online double conversion UPS systems of the S6300e series guarantees highest flexibility and availability. With the gradation in 20kVA and 50kVA modules, an adaptation to customer requirements is possible, up to a power of 60kVA batteries can be integrated in the UPS cabinet. The decentralized parallel architecture of the modules allows easy adaptation to increasing power requirements. Each module has its own inverter, rectifier and controller, and a hot-swap function that eliminates the need to shut down the system for module replacement. The central static switch allows the UPS system to be switched to a manual service bypass without interruption in case of service. The central control unit with color touch screen can be used to query general information about the system up to the measured values and status messages of the individual modules. The S6300e combines maximum efficiency with minimum space requirements.

- High reliability
- High availability
- Long service life, designed for >15 years
- Low operating costs
- Hot swappable – module exchange during operation
- Central static switch – high short circuit performance
- Transformerless design
- Power factor 0.99 at input
- Modular expandable, N+1 redundancy
- $\cos \varphi = 1$ (50kVA module); $\cos \varphi = 0.9$ (20kVA module) at output
- Efficiency >96%
- Compact design
- High energy density
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Remote monitoring via SNMP adapter, ModBus or floating contacts
- Battery management integrated
- Battery can be integrated (system 20-60kVA) or operation with external batteries



SEMI-INDUSTRIAL - STANDARD UPS SYSTEMS

S7300 / S8300

STATRON's high performance standard UPS systems S7300 / S8300 offer state-of-the-art technology and high efficiency in a very small footprint. The IGBT rectifier technology reduces the distortion factor and thus the operating costs. The adaptable system concept and a wide range of options meet different requirements in terms of power, backup time, harmonic control and enables a safe power supply solution for a variety of applications, such as industrial, telecommunication or IT infrastructures.

- High reliability
- High availability
- Long service life, designed for >20 years
- Low operating costs
- Galvanic isolation battery – consumer
- Power factor 0.99 at input
- $\cos \varphi = 0.9$ at the output
- Efficiency >94,5%
- Compact design
- High energy density
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Remote monitoring via SNMP adapter, ModBus or floating contacts
- Integrated battery management 15. Dynamic charging mode (DCM)



S1300

Semi-industrial UPS System

The S1300 is a robust UPS solution for all semi-industrial applications such as data centers, production plants, back-up systems in healthcare, banks, chemical processing units, public buildings or in other infrastructure systems. The compact S1300 UPS system is the reliable solution for all demanding infrastructures.

- High reliability
- High availability
- Long service life, designed for >20 years
- Low operating costs
- Transformerless design
- Power factor 0.99 at input
- $\cos \varphi = 1$ at output
- Efficiency >96
- Compact design
- High energy density
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Remote monitoring via SNMP adapter, ModBus or floating contacts
- Battery management integrated
- Battery can be integrated (30 – 80kVA) or operation with external batteries



S9300

Semi-industrial UPS System

The semi-industrial UPS series S9300 is a transformerless UPS from 10-40kVA with integrated batteries. For longer bridging times external batteries can be used. The application range of the compact S9300 UPS system is diverse from simple back-up systems to highly sensitive infrastructure systems. The informative and user-friendly LCD display ensures easy and safe operation.

- High reliability
- High availability
- Long service life, designed for >20 years
- Low operating costs
- Transformerless design
- Power factor 0.99 at input
- $\cos \varphi = 1$ (10-15kVA); $\cos \varphi = 0.9$ (20-40kVA) at output
- Efficiency >95
- Compact design
- High energy density
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Remote monitoring via SNMP adapter, ModBus or floating contacts
- Integrated battery management
- Batteries can be integrated or operation with external batteries



S5300

Semi-industrial UPS System

The S5300 series semi-industrial UPS is a transformerless UPS from 10-20kVA with integrated batteries, with 1- or 3-phase output. For longer bridging times external batteries can be used. The application range of the compact S5300 UPS system is diverse from simple back-up systems to highly sensitive infrastructure systems. The informative and user-friendly LCD display ensures easy and safe operation.

- High reliability
- High availability
- Long service life, designed for >20 years
- Low operating costs
- Transformerless design
- Power factor 0.99 at input
- $\cos \varphi = 0.9$ at output
- Efficiency >92%
- Compact design
- High energy density
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Remote monitoring via SNMP adapter or floating contacts
- Batteries can be integrated or operation with external batteries



Eaton 93PM

Eaton UPS provide maximum energy efficiently at minimum operating costs.

- Lowest total cost of ownership (TCO)
- Highly scalable and reliable
- Easy handling



Eaton 93PS

The proven standard 93PS UPS system from Eaton is available in the 8 – 40 kW power range.

- Lowest total cost of ownership (TCO)
- Highest availability



POWER INVERTER

IDS/IDT

Inverter System

The IDSe/IDTe inverter series is designed to operate in industrial environments and for applications such as power plants, oil and gas production and processing, petrochemicals or power distribution and transmission. The flexible concept with a wide range of options can be optimally adapted to customer specifications. The IDSe/IDTe series is equipped with state-of-the-art μ P digital technology and offers user-friendly operation, flexible integration into control systems and monitoring functions.

- High reliability
- High availability
- Long service life, designed for 25 – 30 years
- Low operating costs
- Clearly structured operator display for easy operation and intuitive communication
- Latest communication software, complete system monitoring
- Integrated battery management
- High degree of flexibility, almost infinite configurations possible



VOLTAGE STABILIZERS (AC & DC)

Voltage Stabilizers

Depending on the quality of the network and / or the required tolerances, voltage stabilizers are required. The electrically driven actuators of the regulating transformers keep the output voltage in the required tolerance band in AC applications. For this purpose, the devices can be used as a unit or in combination with a UPS / inverter solution.

DC voltage stabilizers are based either on electronic DC-DC converters or on switched counter cells with microprocessor control. This allows critical loads to be supplied with a stable voltage.

- High reliability
- High availability
- Long service life
- Low operating costs
- High degree of flexibility, almost infinite configurations possible



AIRPORT GROUND POWER SUPPLY SYSTEMS

ITW GSE 2400 GPU

Frequency Converters and Aircraft Ground Power Supplies

For the power supply of aircraft and helicopters at the dock, STATRON works with a global partner, ITW GSE (formerly AXA POWER). This enables STATRON to offer ground power units (GPU) and pre-conditioned air (PCA) units for aircraft at the dock. Advantages of the GPU's are the stable output voltage, the smart ITW GSE user interface, the possibility of software update via USB connection, the high overload capacity and the ability that the systems are designed for (almost) all aircraft types. The PCA systems are the most innovative and environmentally friendly systems of this application on the market.

- High reliability and high availability
- Long service life, designed for 20 – 25 years
- Best efficiency even in partial load range
- 400 % overload capability
- Modular design, MTTR <20 minutes
- Easy operation due to color LCD – display with different operator levels
- Smallest dimensions and weight
- Large connection space for input and output cables
- Patented “Plug and Play” system for cable compensation during commissioning or cable exchange
- Low operating costs



ITW GSE 7400

Frequency Converters and Aircraft Ground Power Supplies

For the power supply of aircraft and helicopters at the dock, STATRON works with a global partner, ITW GSE (formerly AXA POWER). This enables STATRON to offer ground power units (GPU) and pre-conditioned air (PCA) units for aircraft at the dock. Advantages of the GPU's are the stable output voltage, the smart ITW GSE user interface, the possibility of software update via USB connection, the high overload capacity and the ability that the systems are designed for (almost) all aircraft types. The PCA systems are the most innovative and environmentally friendly systems of this application on the market.

- High reliability and high availability
- Battery capacity at 90 kVA: 160 kWh. Sufficient for up to 16 turnarounds.
- Long lifetime, designed for 20 years
- Best efficiency even in partial load range
- 400% overload capability
- Extremely safe and flexible, can be operated without or with input cable
- Modular design, MTTR <20 minutes
- Easy to operate due to color LCD – display with different operator levels
- Power factor output = 1 (90kVA = 90kW), suitable for the new “All – electric” aircraft (more active power for the same apparent power)
- Patented “Plug and Play” – system for cable compensation during commissioning or cable replacement.
- Low operating costs



ITW GSE 1400 GPU

Frequency Converters and Ground Power Supplies

For the power supply of aircraft and helicopters at the dock, STATRON works with a global partner, ITW GSE (formerly AXA POWER). This enables STATRON to offer ground power units (GPU) and pre-conditioned air (PCA) units for aircraft at the dock. Advantages of the GPU's are the stable output voltage, the smart ITW GSE user interface, the possibility of software update via USB connection, the high overload capacity and the ability that the systems are designed for (almost) all aircraft types. The PCA systems are the most innovative and environmentally friendly systems of this application on the market.

- High reliability and high availability
- Long service life, designed for 20 – 25 years
- Best efficiency even in partial load range
- Overload capability 2400 A
- Modular design, MTTR <20 minutes
- Easy operation due to color LCD – display with different operator levels
- Smallest dimensions and weight
- Large connection space for input and output cables
- Patented system for cable compensation during commissioning or cable replacement
- Low operating costs





Primary Flow Signal



► VENTURI FLOW METERS

Venturi flow meters offer high accuracy and reliability for flow measurement of pressurized line fluids, including liquids, gases, and steam, as well as high-viscosity line fluids, solids-bearing line fluids, and harsh or contaminated line fluids.



HVT-FV Fabricated Venturi

*+/- 0.50% Uncalibrated Uncertainty
Low Loss, Municipal & Industrial Applications*

- Line Size: 1/2 to 144 inches.
- Headloss % of Differential: 3.50 to 10.0 percent
- Recommended pipe Reynolds number: Greater than 75,000



HVT-CI Cast Iron/ HVT-DI Ductile Venturi

*+/- 0.50% Uncalibrated Uncertainty
Low Loss, Municipal & Industrial Applications*

- Line size: 4 to 96 inches.
- Head loss % of Differential: 3.50 to 10.0 percent
- Recommended pipe Reynolds number: Greater than 75,000 for basic accuracy



HVT-FI Fabricated Insert Venturi / HVT-PI Plastic Insert Venturi

*+/- 0.50% Uncalibrated Uncertainty
Low Loss, Internal / Flange Mounted*

- Line size: 3 to 144 inches
- Head loss % of Accuracy: 3.50 to 10.0 percent
- Recommended pipe Reynolds number: Greater than 75,000 for basic accuracy

**HVT-FC Rate of Flow Controller**

*+/- 0.50% Uncalibrated Uncertainty
Low Loss, Control Flow Rate*

- Line size: 4 to 96 inches
- Head loss % of Differential (Venturi): 3.50 – 10.0 percent
- Recommended pipe Reynolds number: Greater than 75,000 for basic accuracy

**HVT-SMS Sealed Meter System**

*+/- 0.50% Uncalibrated Uncertainty
Low Loss, Highly Contaminated Fluid*

- Line sizes: 6 to 14 inches for 2 inch SMS; 16 to 96 inches for 3 inch SMS
- Head loss % of Differential (Venturi): 3.50 to 10.0 percent
- Recommended pipe Reynolds number: Greater than 75,000 for basic accuracy

**CV Classical Venturi**

*+/- 1.00% to 1.50% Uncalibrated Uncertainty
Clean Liquids and Gases*

- Line size: 2 to 48 inches
- Head loss % of Differential: 10 to 25 percent
- Recommended pipe Reynolds number: Greater than 200,000 for basic accuracy. Consult PFS for lower Reynolds use.

**HVT-RV Rectangular Venturi**

*+/- 0.75% Uncalibrated Uncertainty
Low Loss, For Rectangular Conduits*

- Line size: 1/2 to 96 inches. Larger sizes available.
- Head loss % of Differential: 5.0 to 12.0 percent
- Recommended pipe Reynolds number: Greater than 75,000 for basic accuracy

INDUSTRY LEADER IN DESIGN & MANUFACTURING OF QUALITY PRIMARY FLOW ELEMENTS

Flow Nozzles & Meter Runs

ASME MFC-3M, ASME PTC-19.5, ISO-5167
ASME PTC-6 Flow Nozzle Test Sections



VENTURIS - ASME MFC-3M / ISO-5167 / PTC-19.5



- High Flow Capacity
- Coefficient .985 fabricated - .995 machined
- Accuracy – .7 to 1.5% specification dependent
- Beta - .4 to .75 specification dependent
- Low Permanent Pressure Loss (12-20%)
- Less expensive compared to Flow Nozzles due to short upstream piping requirement, pipe honing not required
- Versatile - Available in a wide range of sizes and materials

Turbine Meters

- Liquid Flow Measurement
- Gas Flow Measurement
- Cryogenic Flow Measurement
- Retrofit Kits







DELTA MOBREY – MANUFACTURER AND SUPPLIER OF DURABLE PROCESS INSTRUMENTATION GIVING CUSTOMERS CONFIDENCE IN THEIR PROCESSES

Being able to measure and control pressure, flow, level and temperature accurately, in all environments and in all industries, to ensure safety standards are continually maintained, requires precise and robust process instrumentation. Delta Mobrey has been manufacturing such devices, across the globe, for over 100 years and has garnered an exceptional level of expertise, which we manufacture into all our products.

Our global sales network ensures all customers have access to the product suite they need, where the accuracy of data is as important as supporting safety critical environments. Controlling operations with robust and accurate: switches, transmitters, level controls, boiler controls, water level management and detection and on-site services is essential to the traditional and future focussed markets and Delta Mobrey has the expertise to work with all.



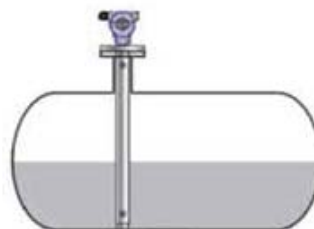
DMCU800 – Programmable Controller

4-20mA Input Controller



level gauges

Glass Tube, Reflex & Transparent Types



D45 SMART LEVEL TRANSMITTER – D SERIES

For pressurised tanks with no outside access



DMSP900SH Level, Contents and Flow Transmitters

Hart Transmitters Ultrasonic Transmitters



DMSP422, DMSP400 and DMSP500 – Ultrasonic Transmitters

Display for chemical and water treatment



DMCU900 Control Unit – Ultrasonic

Universal HART Input Control Unit



MLT100 SMART HART Displacer Level Transmitter

LVDT technology, direct or chamber mounted



Magnetic Horizontal Float Switches

Mobrey Switches - Product Number SO1DB and S36



Vibrating Rod Level Switch for Liquids – VLS Switch

Stainless steel sensor, ATEX approved



Rotating Paddle Level Switch – PLS Series

Full option of available paddles, ATEX approved



Ultrasonic Level Switch – 003 Series

Low cost, universal installation, plastic body



Magnetic Level Switches – Vertical Series

Mounted vertically, hermetically sealed



Analogue Submersible Level Transmitters – 9700 Series



Analogue Level Probes – DSGE Series

Transmitter suitable for clean water, seawater, sludge



NAMDO ENGINEERING CO., LTD

LABORATORY EQUIPMENT

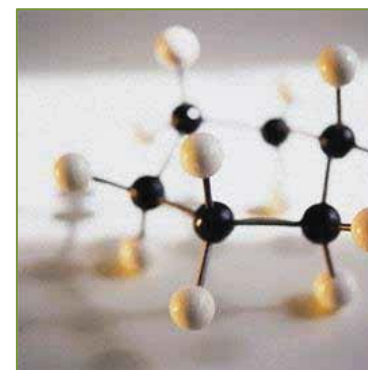
We supply laboratory equipment as a turn-key base to industrial plants such as power, petrochemical, refinery plant or universities etc. This business has continuously been expanding from our experiences with world wide EPC contractors. Our trained staffs offer professional services for this area.

Our customers benefit from saving cost and manpower as our service is ranging from basic design, equipment selection and procurement, installation, commissioning of equipment to training of your staff and further a customer.

Our wide range of experiences and reasonable prices must be helpful for our customer's competitiveness as well. We always try to fulfill your business needs efficiently, with total dedication to complete customers' satisfaction

○ Handling Items

- On/Off Line Laboratory Equipment
- Emission Monitoring System
- Laboratory Furniture
- Chemical Reagent
- Laboratory Glassware & Tools, etc.



AVAILABLE EQUIPMENT LIST FOR LAB.

No.	Description	No.	Description
1	Atomic Absorption Spectrometer	14	TOC Analyzer
2	Gas Chromatography	15	Inductive Coupled Plasma Spectroscopy
3	Liquid Chromatography	16	Bulk Density Meter
4	GC-Mass Spectrometry	17	Bomb Calorimeter
5	X-ray Fluorescence	18	Particle Counter
6	Kinematic Viscometer	19	Auto Titration Apparatus
7	Karl-Fischer Moisture Analyzer	20	Dew Point Meter
8	Digital Density Meter	21	Flash Point Tester
9	Mercury Analyzer	22	Ultrasonic Cleaner
10	Water Purification System	23	Trace Oxygen Analyzer
11	X-ray Diffraction	24	Infrared Spectrometer
12	Sulfur & Carbon Detection Apparatus	25	Water Bath
13	UV/VIS Spectrophotometer	26	Drying Oven

AVAILABLE EQUIPMENT LIST FOR LAB.

No.	Description	No.	Description
27	Furnace	40	Stack Sampler
28	Fume Hood	41	Sieve Shaker
29	Magnetic Stirrer	42	Vacuum Pump
30	Hot Plate	43	Evaporator
31	Analytical Balance	44	pH Meter
32	Gas Detectors	45	Dissolved Oxygen Meter
33	Melt Flow Indexer	46	Conductivity Meter
34	Total Sulfur Analyzer	47	Turbidity Meter
35	Total Nitrogen Analyzer	48	Residual Chlorine Meter
36	Total Chlorine Analyzer	49	Auto Clave
37	Gas Meter Dry, Wet	50	Centrifuge
38	Kjeldahal Digestion Apparatus	51	BOD Tester
39	Incubators	52	Foam Tester

AVAILABLE EQUIPMENT LIST FOR LAB.

No.	Description	No.	Description
53	Pour Point Tester	66	Bulk Density
54	Haze Meter	67	Hardgrove Grinability Index
55	Gas Generators	68	Flue Gas Analyzer
56	Lab Refrigerator	69	Real Time Monitoring Analyzer
57	Tensile Tester	70	Mechanical Strength
58	FT-NIR	71	Microscope
59	Hot Press	72	Glassware and Tools
60	Carbonimeter	73	Chemical Reagents
61	Carbon Residue Apparatus	74	Filtration Apparatus
62	Copper Strip Corrosion Tester	75	Suspended Solid Apparatus
63	Proximate Analyzer	76	Oil in Water Analyzer
64	Vapor Pressure Tester	77	Gloss Meter
65	Volatile Matter Tester	78	Rest of whole lab equipment.

AVAILABLE EQUIPMENT LIST FOR LAB.

No.	Description	No.	Description
79	Balance		
80	Impact Tester		
81	Steam Bath		
82	Film Extruder		
83	Notching Machine		
84	NMR Spectrometer		
85	Rockwell Hardness Tester		
86	HDT -300 Vicat		
87	Gloss Meter		
	Gel Counter		

WORKSHOP EQUIPMENT

We are one of the leading company who has most experiences and professional partners that you can find all over the world for maintenance of workshop equipment as a turn-key base in industrial areas. Our clients can be found in a wide variety of industrial plants, such as power, petrochemical, refinery plant, etc.

Our customers benefit from saving cost and manpower as our service is raging from basic design, equipment selection and procurement, installation, commissioning of equipment to training of your staff and further a customer.

Our wide range of experiences and reasonable prices must be helpful for our customer's competitiveness as well. We always try to fulfill your business needs efficiently, with total dedication to complete customers' satisfaction

● Handling Items

Mechanical Workshop
Electrical Workshop
Instrument Workshop
Mobile Equipment
Hand Tools, etc.



AVAILABLE EQUIPMENT LIST FOR WORKSHOP

No.	Description	No.	Description
1	Lathe	14	Crucible Melting Furnace
2	Drilling Machine	15	Molding Boxes
3	Milling Machine	16	Centrifugal Casting Machine
4	Shearing Machine	17	Steel Quench Tank
5	Hydraulic Press	18	Cleaning Machine
6	Shaper Machine	19	Screw Air Compressor
7	Hacksaw	20	Engine Pump
8	Bandsawing Machine	21	Infrared Temperature Measuring Device
9	Boring Machine	22	Rotating Filed indicator
10	Threading Machine	23	Transformer Oil Filtration
11	Welding Tools	24	Coil Rewinder
12	Tube Facing Machine	25	Coil Impregnator
13	Flanging Machine	26	Curing Oven

AVAILABLE EQUIPMENT LIST FOR WORKSHOP

No.	Description	No.	Description
27	Voltage Tester	40	AC/DC Welding Mahcine
28	Pressure Calibrator	41	Argon Welding Mahcine
29	Temperature Bath	42	TIG Welding Mahcine
30	PH Tester	43	Hydraulic Bolts Cutter
31	Measuring Tools	44	Tube Plugging Machine
32	Tube cutter	45	Bearing Heater
33	Pipe Bender	46	Vacuum Cleaner
34	Grinder	47	Soldering
35	Pneumatic Power Hammer	48	Digital Multimeter
36	Pipe Cutter	49	Insulation Tester
37	Universal Folding Press	50	Earth Resistance Tester
38	Lapping Machine	51	Three
39	Valve Grinding Machine	52	Chemical Analysis Set

AVAILABLE EQUIPMENT LIST FOR WORKSHOP

No.	Description	No.	Description
53	Instrument Workbench	66	Hoist
54	Pneumatic Workbench	67	Balancing Machine
55	Multi-function Calibrator	68	Machine For Vehicle Repair
56	Oscilloscope	69	Tools (Spanner , Wrench, Hammer, etc....)
57	Vibration Meter	70	Multimeter
58	Detector	71	Infrared Camera
59	Electronic Chart Recorder	72	Surface Thermometer
60	Flowmeter	73	DC Volt / Current Standard
61	Manometer	74	Function Generator
62	Deadweight Tester	75	Digital Clamp Meter
63	Work Bench	76	Phase Indicator
64	Rack System	77	High Recorder
65	Tool Cabinet	78	Process Meter etc.



YITONG FILTER

YITONG FILTER MACHINERY CO.,



YITONG FILTER

AIR FILTERS

Mainly used in ventilation system; intercept particles, dust, bacteria, etc. Long service life and stable performance for industrial air filters. Energy-saving and affordable price for commercial air filters.



Pleated membrane cartridge filter

It is made from different micro-membranes with big filter area, high flow, high dirty holding capacity, etc. Our products meet the requirements of FDA and GMP, which widely used in food industry and pharmaceutical industry.



Metal filter cartridge

Our products: metal powder sintered filter element, sintered mesh filter element, pleated metal filter element.

Raw material: stainless steel 304/316L/904L, Hastelloy, powder, titanium powder, etc.



Pressure vessel Filter unit

Filter housings of various filter elements Surface roughness upto $0.2 \mu\text{m}$ (meet the sanitary requirement)





► ADVANCED MICRO INSTRUMENTS



Oxygen

NATURAL GAS PRODUCTION



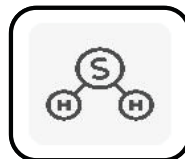
- Trace O₂
- Percent O₂
- Portable

GENERAL INDUSTRY



- Remote Sensor
- OEM

OXYGEN DEFICIENCY



Hydrogen Sulfide

NATURAL GAS PRODUCTION



- Trace H₂ S
- Portable Trace H₂ S



Moisture

TUNABLE DIODE LASER ABSORPTION SPECTROSCOPY (TDLAS)



- Trace Moisture
- 0.25 to 20 lbs
- Continuous Measurement
- Methane Gas Background

Dr. Thiedig



► SAMPLING AND ANALYSING TECHNOLOGY

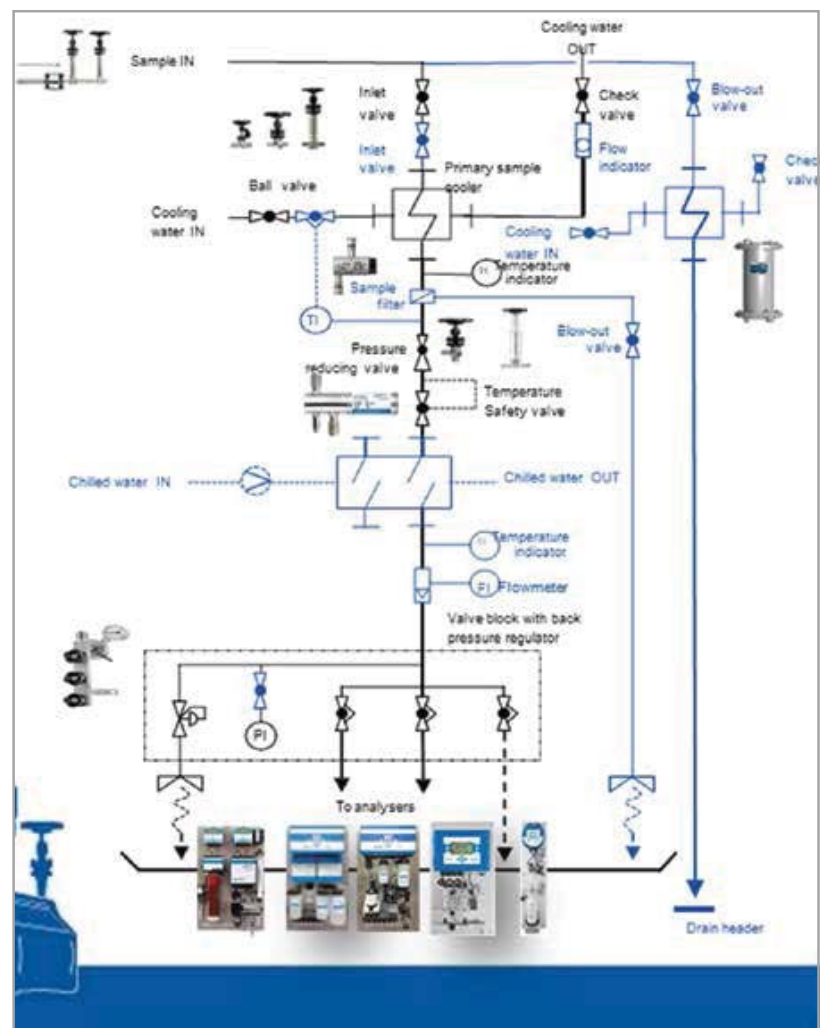
Dr. Thiedig



SWAS

OPTIONAL:

- Double Shut-off valves on inlet for safety
- Flow indicator in the cooling water line
- Temperature control system on cooler's outlet
- Hot blow-down
- Sample filter
- Cold blow-down (on filter)
- Chiller (secondary cooler)
- Flow indicator with alarm in the cooling water line

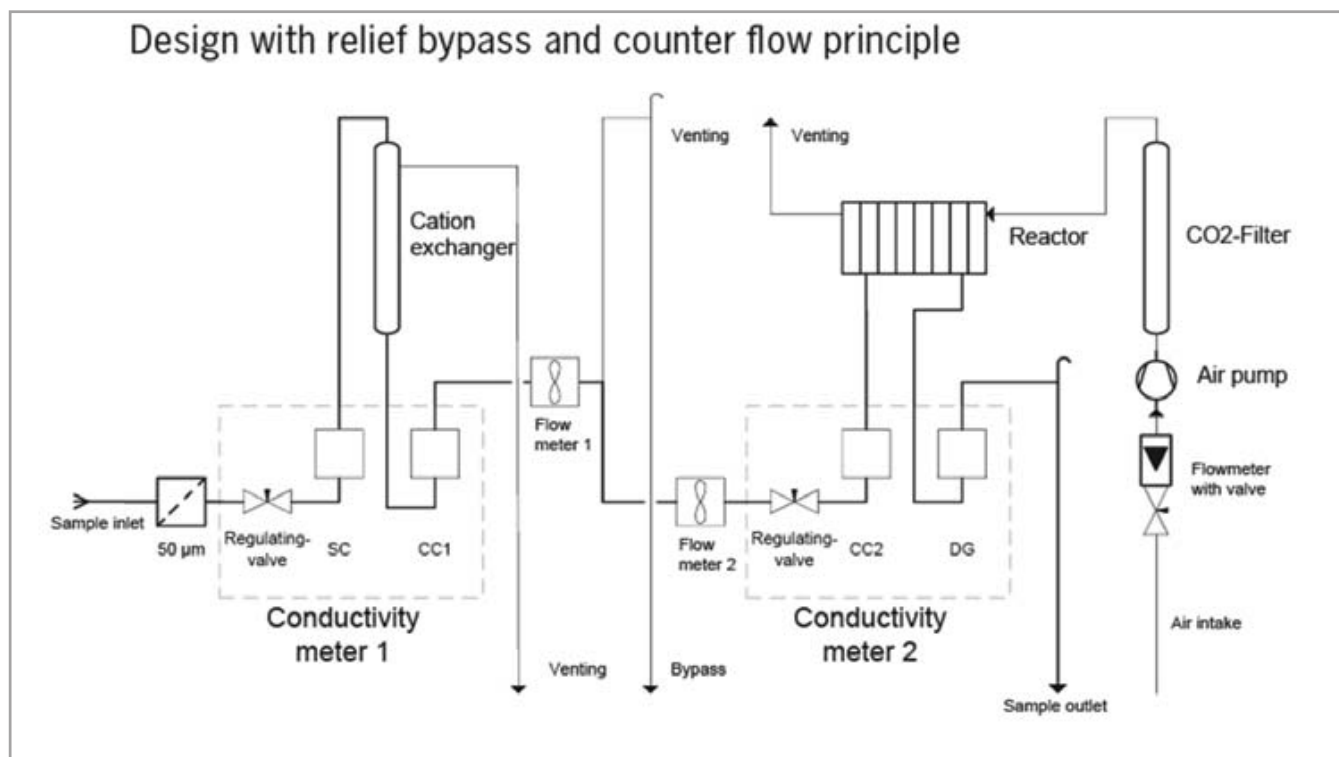


ANALYZING DEVICES

Digox 602 DAC: Degassed acid conductivity



Digox 602 DAC
integrated in
CatControl 6 delta



ANALYZING DEVICES

Digox 602 Silica – Silica Concentration

- Dissolved silicic acid determination
- Range: 0 – 5000 ppb
- Detection Limit: 0.5 ppb
- Method: Heteropoly-blue (no orthophosphate interference)
- 1 to 6 channels (built-in sequencer)
- Grab sample
- Maintenance-free, high-precision micro-dosing pumps for chemicals and stock solution



channels Digox
602 sílica

ANALYZING DEVICES

Digox 602 Sodium – Sodium Concentration

- Sodium concentration determination
- Range: 0.1 – 2000 ppb
- Detection Limit: 0.1 ppb
- Method: Potentiometric with sodium selective electrode
- 1 to 6 channels (built-in sequencer)
- Grab sample
- Maintenance-free, high-precision micro-dosing pumps for stock solution



6 channels Digox
602 sodium

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Fax: 966 13 857 8491
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Tel: +966 9200 13148
Fax: +966 013 340 8760
Email: Sales@saudifal.com.sa

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