

## Fluid Control Technologies for Oil and Gas Industries Proven automation and monitoring solutions, along with local expertise,

help you overcome your toughest challenges.





Our enabling technologies include redundant valve systems, smart wireless products and more—all from a single supplier.

# Technologies that provide diagnostics and real time insights to help you improve your oil and gas operations

The last thing you need is an unplanned shutdown. We understand how important it is to predict and prevent equipment failure—all while keeping your workers safe and your project on schedule. Whether you're a plant operator, engineering and procurement contractor (EPC), original equipment manufacturer (OEM) or project engineer, the right components make all the difference. As your onestop shop supplier of automation technologies, Emerson can help you achieve operational excellence. We combine an extensive product offering with over 100 years of industry experience to help you optimize your upstream, midstream and downstream processes—all while ensuring your project meets your deadline and achieves the highest levels of reliability and functional safety.

One of the biggest challenges for oil and gas producers is controlling operational and maintenance costs—especially when production assets are exposed to harsh environments.



To keep personnel out of harms way, oil and gas producers need to manage operations remotely, with greater real-time visibility of equipment condition to support predictive maintenance strategies.



Digital Transformation is a movement within the oil and gas industry to adopt and integrate sensor-based technologies that capture and create the right data, enabling you to enhance operational performance and drive profits.



## Comprehensive solutions for your upstream, midstream and downstream operations

Emerson offers reliable fluid control and pneumatic technologies that address every step of your oil and gas operation—from low-power solenoid valves deployed on offshore equipment, to valve controllers with wireless capabilities. Choose from a wide variety of products, including:

- Offshore pilot valves, high-pressure wellhead control solutions and chemical injection flow control technologies for upstream operations.
- Valve piloting systems and position sensors for midstream operations.
- Emergency shut-down valves, redundant valve control systems and wireless products for downstream operations.



## Adopt Digital Transformation to lower the frequency, duration and impact of unplanned events

- Extend production run times with reliable technology
- Anticipate, predict and avoid impending equipment failure with remote control and monitoring capabilities
- Minimize equipment shutdowns

- "My operation includes miles and miles of pipeline. Checking on the status of my components is impossible without a remote option."
- Mechanical engineer of an energy company



## Implement functional safety systems that reduce risks to equipment and personnel

- Meet global approvals for hazardous environments
- Ensure equipment safety using systems with built-in redundancy
- Conduct necessary maintenance with reduced risk

"Product reliability is important to me. The last thing I want to deal with is an unplanned shutdown and the costs associated with that."

- Plant manager of an oil refinery



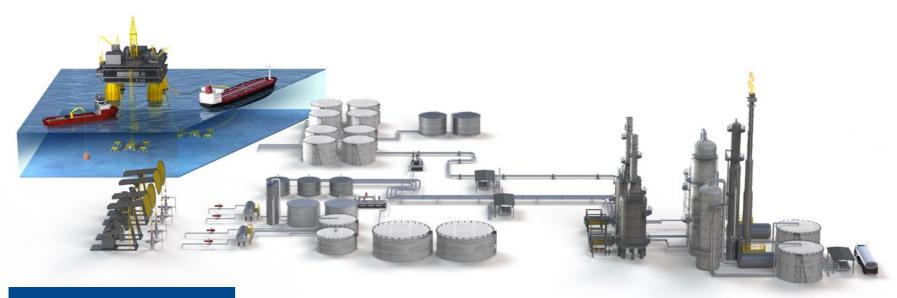
## Work with a single supplier that delivers superior product and application knowledge

- Simplify your complex supply chain—and get ahead of schedule
- Collaborate with experienced partners to solve your toughest challenges
- Receive customized solutions and ongoing technical support

"My deadlines are tight. I need a supplier that can deliver what I need quickly."

– OEM at an industrial machinery company

## With Emerson, you can overcome your upstream, midstream and downstream challenges



#### Upstream

- Meet operational demands in mid-ocean equipment using low-power solenoid valves. Reliability pp9
- Reduce equipment costs and footprints in offshore operations, thanks to compact valve designs. Reliability > p9
- Regulate high-pressure water glycol and extend regulator life using cutting-edge wellhead control solutions. Operations pp13
- Optimize the flow of chemicals to production infrastructure with chemical injection valves minimizing costs. Operations ▶ p13

#### Midstream

- Monitor and control equipment in remote locations using valve controllers that utilize wireless technologies and fieldbus protocols. Safety ▶ p5
- Improve process reliability and safety—thanks to advanced valve pilot systems with built-in redundancy. Safety ▶ p5
- Receive critical operational data and equipment status using standard communication protocols. Operations ▶ p13

#### **Downstream**

- Extend production run times using lowpower and manual reset valves with superior solenoid technology. Operations > p13
- Avoid unwanted process valve closure with redundant control systems that facilitate valve maintenance and avoid downtime. Reliability > p9
- Deploy valves, sensors and pressure regulators with rugged designs for reliable use in demanding or corrosive environments.
   Reliability ▶ p9



#### **Implementing Functional Safety**

Plant and personnel safety is a top priority. You need reliable systems and processes that not only meet this requirement, but are also simple to implement. Learn more. ▶ p5

#### **Improving Plant Reliability**

Each equipment delay has serious financial repercussions due to contract penalties and production losses. The right senors and components make it easy to predict and avoid impending failures. Learn more. ▶ p9

#### **Optimizing Process Operations**

Achieving operational excellence is paramount. You need superior technologies that not only work as expected, but improve your process operations. Learn more. ▶ p13

#### **Staying on Schedule**

Working with a single supplier reduces engineering time and simplifies your supply chain, enabling you to meet tight deadlines. Learn more. ▶ p17

### **Implementing Functional Safety**

Above all else, your oil and gas operation must be safe. You need to identify potential safety hazards early enough to prevent incidents, eliminate manual processes that require unnecessary trips to the field, and prevent safety issues by using better control processes and more reliable equipment. Emerson's advanced automation technologies are designed to minimize risks to plant equipment and personnel, from redundant valve control systems that facilitate online maintenance, to digital controllers that allow technicians to understand valve health and status remotely. These solutions can help you prioritize maintenance, avoid costly downtime and safeguard your workers—all while meeting functional safety guidelines.



#### What's your opportunity?

- Receive valve position, status and diagnostic information from remote or inaccessible equipment
- Conduct maintenance on critical instruments without going offline—minimizing personnel risk and avoiding costly equipment shutdowns.
- Meet global certifications for hazardous environments, including SIL3, IECEx, ATEX, UL, FM, CSA and CRN.





## Implement new safety systems and processes that reduce risk to plant equipment and personnel. Connect with an Emerson expert.

You can avoid many safety hazards by conducting maintenance on critical equipment. At the same time, implementing products with built-in safety features and certifications means your equipment continues to run as it should—and your workers stay safe. We can help.



#### Services offered...

- QuickShip programs for many frequently needed products
- Local support during design, commissioning and startup
- In-house engineering capabilities
- Ongoing technical support

#### **Featured Functional Safety Solutions**

#### ASCO™ Redundant Control System (RCS)



The RCS is a fully assembled pilot valve system that has no single point of failure that could result in an unwanted closure of the process valve. Thanks to its redundant, fault-tolerant architecture, it reduces spurious trip rates, achieves a higher level of process reliability and maintains required safety levels in a variety of process industries.

- No nuisance trips
- · Automated online testing
- Keyed bypass for online maintenance without process interruption
- SIL3 capable
- Optional stainless steel construction
- 2002 and 2003 configurations available

#### **ASCO Advanced Redundant Control System (ARCS)**



The ARCS is a redundant solenoid valve piloting system for emergency shutdown valves. Available in various redundant configurations—1002, 2002 and 2003—the system achieves a higher level of process safety and reliability.

- Compact and fully integrated module
- Status indication and feedback facilitate maintenance
- Bypass option allows easy online maintenance
- Direct valve-to-valve design eliminates pipework and fittings
- Cv up to 0.9 (0.78 Kv)

#### **Featured Functional Safety Solutions**

#### **ASCO Series 362 and 562 Solenoid Valves**



Ideal for upstream, midstream and downstream applications, these three- and four-way valves feature superior solenoid technology and deliver the best flow per pipe size—increasing your throughput.

- Size range: 1/4 to 1-inch NPT
- Max pressure: 200 psi (14 bar)
- Cv range: 1.8 to 15.5 (1.6 to 13.4 Kv)
- Temperature range: -40° to 200°F (-40°C to 93°C)

#### **ASCO Series 316 Solenoid Valve**



Ideal for high-flow applications, these three-way valves require zero minimum pressure and are certified to SIL3. Low-power options provide additional energy savings.

- Size range: 1/4 to 1/2-inch NPT
- Max pressure: 150 psi (10 bar)
- Cv range: 1.5 to 4 (1.3 to 3.5 Kv)
- Temperature range: -4° to 125°F (-20°C to 52°C)

RLE

For more information, visit www.Emerson.com

#### **Featured Functional Safety Solutions**

#### **ASCO Series 327 Solenoid Valve**



These high-flow piloting valves require zero minimum operating pressure, while their balanced poppet construction permits high flows at minimum power levels—making this series ideal for power plants, upstream to downstream oil and gas and chemical processing facilities.

- Size range: 1/4 to 1/2-inch NPT
- Max pressure: 150 psi (10 bar), special constructions up to 235 psi (16 bar)
- Cv range: 0.5 to 2 (0.43 to 1.7 Kv)
- Temperature range: -76° to 194°F (-60°C to 90°C)
- SIL 3 capable certified by Exida

#### **ASCO Series 381 Solenoid Valve**



These high-flow three-way valves can endure extremely harsh and corrosive environments, including offshore oil platforms. Certified to SIL3, units are compatible with speed control, allowing you to control flow and prevent abrupt opening and closing of the actuator.

- Size range: 1/4, 3/8 and 1/2-inch NPT
- Max pressure: 200 psi (14 bar)
- Cv range: 2.2 to 6.2 (1.9 to 5.4 Kv)
- Temperature range: -76° to 176°F (-60°C to 80°C)

#### **Featured Functional Safety Solutions**

#### **ASCO Series 308 Solenoid Valve**



Series 308 valves include high-flow, high-pressure bodies with manual reset—preventing inadvertent valve startup. Suitable for SIL3 applications, units can only be reset manually once tripped.

- Size range: 1/4 to 1-inch NPT
- · Brass or stainless steel
- Constructions—electrically tripped (trips when energized), no voltage release (trips when de-energized) or free handle
- Cv range: 0.4 to 13 (0.35 to 11.2 Kv)

#### **ASCO Series 551 Solenoid Valve**



These compact, pilot-operated spool valves include threaded port connections and pipeable exhaust ports—providing superior protection in harsh environments. Units are watertight and explosion-proof with single- and dual-solenoid constructions available.

- Convertible from 3/2 to 5/2
- NAMUR mount construction
- Mountable in any position
- Low-power options available
- Cv range: 0.7 to 2.1 (0.61 to 1.82 Kv)
- SIL capable certified by TUV and Exida







#### **Featured Functional Safety Solutions**

#### ASCO™ Series 800 Accessory Valves



Series 800 accessories offer superior corrosion resistance and are suitable for challenging process applications.

- Quick exhaust valves provide faster actuator response time, improving equipment shutdown efficiency
- Flow control valves provide both metered and free flow—ideal for unidirectional speed control of actuators
- Check valves with sealed poppet technology provide virtually zero leakage for energy savings
- Pressure relief valves limit system pressure to protect the actuator
- Exhaust protector reduces the risk of flow restriction and blocking of valve functioning, especially in extreme environments

## TESCOM™ Anderson Greenwood Instrumentation Primary Isolation Valves



These valves are suitable for double block and bleed applications, including pressure, level and flow measurement, as well as sampling, chemical seal isolation and injection services. Mount units directly to the valve outlet or remotely with gauge lines and impulse pipe work.

- Includes F2569, F3869 and F5069 Series
- Compact design—55-percent less weight and 60-percent smaller envelope size compared to fabricated arrangements
- Single body joint for fewer potential leak paths
- With face-to-face lengths equivalent to hard piped valves, no changes are required when replacing existing installations

## TopWorx™ DX-Series Discrete Valve Controller



The DX-Series enables ON/OFF valve control using FOUNDATION Fieldbus, DeviceNet, AS-Interface, Profibus, HART and Wireless HART protocols. Units attach to rotary and linear valves and actuators, operate in the most demanding environments and carry a variety of global certifications.

- Simple, reliable and easy to use
- Various bus networks and sensor options
- Tested to over 3.5 million cycles
- Global Certifications

#### **Featured Functional Safety Solutions**

#### **TopWorx TX-Series Switchboxes**



TX-Series switchboxes deliver exceptional value by providing full functionality in compact, direct-mount enclosures. Explosion-proof and flameproof, these units are available with a variety of position sensors, integral solenoid valves and bus networks.

- Type 4, 4X, IP66/67
- IECEx, ATEX and UL certifications
- Temperatures range: -76° to 176°F (-60°C to 80°C)
- · Aluminum, composite and stainless steel

#### **TopWorx GO™ Switch Proximity Sensing**



GO Switch is an all-in-one proximity sensor and limit switch that excels in harsh and hazardous environments. Featuring a snap-action response, units include sealed contacts, rugged all-metal housing and noncontact detection of ferrous metal and magnetic targets.

- Ability to withstand vibration, extreme temperatures and subsea conditions
- Includes no exposed moving parts
- Immune to electrical noise, weld fields and radio
- Multiple wiring options, including lead wires, cables and quick disconnects

#### **TopWorx Predictive Valve Maintenance**



The HART 7 & FOUNDATION Fieldbus protocol gives you access to critical operational data and diagnostic information for your automated ON/OFF valve package. Intelligent diagnostics for valve state, transition dwell and Last Open/Close stroke time, internal Device Temperature (Max / Min), cycles.

- Simple, reliable and easy to use
- Push button interface for local commissioning
- Understanding Health of Assets To Maintain Uptime
- Improving Functional Safety & Reliability
- Connectivity







### **Improving Plant Reliability**

Oil and gas operations require robust and reliable equipment that maximizes availability and productivity. Emerson products provide assured performance in the most demanding applications, with valves that integrate advanced solenoid technology to reduce thermal degradation, and pilot valve systems with built-in redundancy to eliminate single points of failure. Our redundant control systems maintain plant safety levels, while allowing online maintenance and automated testing to prevent spurious trips that cause process interruptions. Unexpected downtime can also be prevented using our advanced automation solutions that provide remote monitoring of equipment health that supports predictive maintenance strategies.



#### What's your opportunity?

- Boost system reliability and analytical accuracy with high-quality vaporizing regulators for sampling systems.
- Receive valve position feedback, enable ON/OFF control and check equipment status using built-in communication capabilities.
- Extend the life of your valves with superior solenoid coils designed to dissipate heat more effectively than traditional coils.
- Have confidence that your remote or inaccessible equipment is working as expected, thanks to remote control and monitoring capabilities.
- Reduce the number of personnel on offshore rigs using components that support wireless operation.





## By selecting the right components, you can improve your plant's reliability—and even predict impending failures. Connect with an Emerson expert.

You need products that offer superior reliability in demanding upstream, midstream and downstream operations. At the same time, the ability to monitor equipment can help you better predict points of failure—preventing unexpected maintenance, shutdowns and financial loss. We can help.



#### Services offered...

- QuickShip programs for many frequently needed products
- Local support during design, commissioning and startup
- In-house engineering capabilities
- Ongoing technical support
- Personalized Digital Transformation introductory sessions to support your predictive maintenance strategies

#### **Featured Reliability Solutions**

#### **TESCOM 44-6800 Series Vaporizing Regulator**



The 44-6800 Series features superior heat transfer technology that promotes greater system reliability and analytical accuracy. It integrates remote and local monitoring capabilities, PID heater control and safety features, making it the best vaporizing regulator for sampling systems.

- Remote and local monitoring
- Standard thermal cutoff (TCO) fuse
- · PID heater controller
- Coatings for corrosive environments and inert applications

#### **ASCO Series 316 Solenoid Valve**



Ideal for high-flow applications, these three-way valves require zero minimum pressure and are certified to SIL3. Low power options provide energy savings and increased reliability.

- Size range:1/4 to 1/2-inch NPT
- Max pressure: 150 psi (10 bar)
- Cv range: 1.5 to 4 (1.3 to 3.5 Kv)
- Temperature range: -4° to 125°F (-20°C to 52°C)

#### **Featured Reliability Solutions**

#### **ASCO Series 327 Solenoid Valve**



These high-flow piloting valves require zero minimum operating pressure, while their balanced poppet construction permits high flows at minimum power levels—features a non-breathing design for enhanced reliability.

- Size range: 1/4 to 1/2-inch NPT
- Max pressure: 150 psi (10 bar), special constructions up to 235 psi (16 bar)
- Cv range: 0.5 to 2 (0.43 to 1.7 Kv)
- Temperature range: -76° to 194°F (-60°C to 90°C)

#### **ASCO Series 381 Solenoid Valve**



These high-flow three-way valves can endure extremely harsh and corrosive environments, including offshore oil platforms. Certified to SIL3, units are compatible with speed control, allowing you to control flow and prevent abrupt opening and closing of the actuator.

- Size range: 1/4, 3/8 and 1/2-inch NPT
- Max pressure: 200 psi (14 bar)
- Cv range: 2.2 to 6.2 (1.9 to 5.4 Kv)
- Temperature range: -76° to 176°F (-60°C to 80°C)







#### **Featured Reliability Solutions**

#### ASCO Series 362 and 562 Solenoid Valves



Ideal for upstream, midstream and downstream applications, these three- and four-way feature superior solenoid and sealing technology, while providing the best flow per pipe size in the industry to increase your throughput.

- Size range: 1/4 to 1-inch NPT
- Max pressure: 200 psi (14 bar)
- Cv range: 1.8 to 15.5 (1.6 to 13.4 Kv)
- Temperature range: -40° to 200°F (-40°C to 93°C)

#### **ASCO Series 551 Solenoid Valve**



These compact, pilot-operated spool valves include threaded port connections and pipeable exhaust ports—providing superior protection in harsh environments. Units are watertight and explosion-proof with single- and dual-solenoid constructions available.

- Convertible from 3/2 to 5/2
- NAMUR mount construction
- Mountable in any position
- Low-power options available
- Cv range: 0.7 to 2.1 (0.61 to 1.82 Kv)

#### **Featured Reliability Solutions**

#### **ASCO Series 308 Solenoid Valve**



Series 308 valves include high-flow, high-pressure bodies with manual reset—preventing inadvertent valve startup. Suitable for SIL3 applications, units can only be reset manually once tripped.

- Size range: 1/4 to 1-inch NPT
- · Brass or stainless steel
- Constructions—electrically tripped (trips when energized), no voltage release (trips when de-energized) or free handle
- Cv range: 0.4 to 13 (0.35 to 11.2 Kv)

#### ASCO™ Series 800 Accessory Valves



The 800 Series accessories are made from 316L stainless steel for superior corrosion resistance. They are suitable for both indoor and outdoor process applications.

- · Quick exhaust valves provide faster actuator response time, improving equipment shutdown efficiency
- Flow control valves provide metered flow in one direction and free flow in the opposite direction ideal for unidirectional speed control of an actuator
- Check valves with sealed poppet technology provide virtually zero leakage for energy savings
- Pressure relief valves limit system pressure to protect the actuator and increase safety
- Exhaust protector reduces the risk of flow restriction and blocking of valve functioning, especially in extreme environments







#### **Featured Reliability Solutions**

#### **ASCO Redundant Control System (RCS)**



The RCS is a fully assembled pilot valve system that has no single point of failure that could result in an unwanted closure of the process valve. Thanks to its redundant, fault-tolerant architecture, it reduces spurious trip rates, achieves a higher level of process reliability and maintains required safety levels in a variety of process industries.

- No nuisance trips
- Automated online testing
- Keyed bypass for online maintenance without process interruption
- SIL3 capable
- · Optional stainless steel construction
- 2002 and 2003 configurations available

#### ASCO Advanced Redundant Control System (ARCS)



The ARCS is a redundant solenoid valve piloting system for emergency shutdown valves. Available in various redundant configurations—1002, 2002 and 2003—the system achieves a higher level of process safety and reliability.

- Compact and fully integrated module
- Status indication and feedback facilitate maintenance
- Bypass option allows easy online maintenance
- Direct valve-to-valve design eliminates pipework and fittings
- Cv up to 0.9 (0.78 Kv)

#### **Featured Reliability Solutions**

#### ASCO Series 342A Stainless Steel Filter Regulator



These filter regulators are designed to meet the rugged demands of harsh process environments. Providing high flow rates up to 10,200 L/Min (ANR) with precise pressure regulation to the actuator. Effective moisture removal ensures clean, dry media to eliminate contamination to downstream devices.

- 1/4 to 1-inch NPT with compact versions available
- Quick Relief option prevents trapped pressure from locking the actuator in the last position if supply pressure is lost
- Wide operating temperature range: -40°F to 194°F (-40°C to 90°C)

## TESCOM 26-1700 and 54-2100 Series Backpressure Regulators



Great for protecting plant equipment like pumps and tanks from failures like cavitation and leaks due to overpressurization or inconsistent pressurization.

- Options available for pressures upto 20,000 psi (1380 bar)
- Hydraulic and NACE certified options suitable for a wide variety of medias including water glycol, sour gas, and flammable and corrosive medias.
- Capable of being automated, remotely monitored, and adjusted using the ER5000

#### **TopWorx Predictive Valve Maintenance**



The HART 7 & FOUNDATION Fieldbus protocol gives you access to critical operational data and diagnostic information for your automated ON/OFF valve package. Intelligent diagnostics for valve state, transition dwell and Last Open/Close stroke time, internal Device Temperature (Max / Min), cycles.

- Simple, reliable and easy to use
- Push button interface for local commissioning
- Understanding Health of Assets To Maintain Uptime
- Improving Functional Safety & Reliability
- Connectivity







### **Optimizing Process Operations**

You're under increasing pressure to get the most out of your process operations. At Emerson, we deliver superior enabling technologies that can help you achieve true operational excellence—from chemical injection solutions that optimize your chemical flow, to high-pressure wellhead control systems for the safe control and operation of offshore wells. Best of all, our products are designed to meet the often-limited power and space requirements of many oil and gas applications, saving you precious real estate and costs in offshore applications. We're ready to work with you to deliver standard or customized solutions that meet your specific upstream, midstream or downstream needs.



#### What's your opportunity?

- Improve your operations with wellhead and subsea pressure regulators that accelerate startup and minimize downtime.
- Enjoy additional cost savings, thanks to low-power, low-temperature product options with compact footprints.
- Have confidence that equipment is working as expected with remote control and monitoring technologies.
- Maintain accurate control of chemical injection rates—avoiding the higher operational costs associated with over- and under-injections.





## Apply reliable, cost-effective components that can optimize your process operations. Connect with an Emerson expert.

Optimizing your production and driving down operational costs mean a better return on investment for you. We can help.



#### Services offered...

- QuickShip programs for many frequently needed products
- Engineered soutions, pre-assembled, tested, and ready to install
- Local support during design, commissioning and startup
- · In-house engineering capabilities
- Ongoing technical support

#### **Featured Products**

## TESCOM 56 Series Chemical Injection Flow Control Valves



The 56 Series maintains accurate control of injection rates—regardless of downstream pressure fluctuations or flow rates. Units feature high-quality components that reduce maintenance costs and downtime in offshore applications.

- Inlet pressure: 15,000 psig (1034 bar)
- Outlet pressure: 200 to 15,000 psig (14 to 1034 bar)
- Temperature range: -15° to 165°F (-26°C to 74°C)
- Manual and electronic versions

#### **ASCO Series 316 Solenoid Valve**



Ideal for high-flow applications, these three-way valves require zero minimum pressure and are certified to SIL3. Low-power options provide additional energy savings.

- Size range: 1/4 to 1/2-inch NPT
- Max pressure: 150 psi (10 bar)
- Cv range: 1.5 to 4 (1.3 to 3.5 Kv)
- Temperature range: -4° to 125°F (-20°C to 52°C)

#### **Featured Products**

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#### **ASCO Series 327 Solenoid Valve**



These high-flow piloting valves require zero minimum operating pressure, while their balanced poppet construction permits high flows at minimum power levels—making this series ideal for power plants, upstream to downstream oil and gas and chemical processing facilities.

- Size range: 1/4 to 1/2-inch NPT
- Max pressure: 150 psi (10 bar), special constructions up to 235 psi (16 bar)
- Cv range: 0.5 to 2 (0.43 to 1.7 Kv)
- Temperature range: -76° to 194°F (-60°C to 90°C)
- Booster accessories available to increase flow rate range







#### **Featured Products**

#### **ASCO Series 381 Solenoid Valve**



These high-flow three-way valves can endure extremely harsh and corrosive environments, including offshore oil platforms. Certified to SIL3, units are compatible with speed control, allowing you to control flow and prevent abrupt opening and closing of the actuator.

- Size range: 1/4, 3/8 and 1/2-inch NPT
- Max pressure: 200 psi (14 bar)
- Cv range: 2.2 to 6.2 (1.9 to 5.4 Kv)
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Series 308 valves include high-flow, high-pressure bodies with manual reset—preventing inadvertent valve startup. Suitable for SIL3 applications, units can only be reset manually once tripped.

- Size range: 1/4 to 1-inch NPT
- · Brass or stainless steel
- Constructions—electrically tripped (trips when energized), no voltage release (trips when de-energized) or free handle
- Cv range: 0.4 to 13 (0.35 to 11.2 Kv)

#### **Featured Products**

#### **ASCO Series 551 Solenoid Valve**



These compact, pilot-operated spool valves include threaded port connections and pipeable exhaust ports—providing superior protection in harsh environments. Units are watertight and explosion-proof with single- and dual-solenoid constructions available.

- Convertible from 3/2 to 5/2
- NAMUR mount construction
- Mountable in any position
- Low-power options available
- Cv range: 0.7 to 2.1 (0.61 to 1.82 Kv)

#### **ASCO Series 800 Stainless Steel Valve Accessories**



The 800 Series accessories are made from 316L stainless steel for superior corrosion resistance. They are suitable for both indoor and outdoor process applications.

- · Quick exhaust valves provide faster actuator response time, improving equipment shutdown efficiency
- Flow control valves provide metered flow in one direction and free flow in the opposite direction—ideal for unidirectional speed control of an actuator
- Check valves with sealed poppet technology provide virtually zero leakage for energy savings
- Pressure relief valves limit system pressure to protect the actuator and increase safety
- Exhaust protector reduces the risk of flow restriction and blocking of valve functioning, especially in extreme environments







#### **Featured Products**

#### **ASCO Series 342A Stainless Steel Filter Regulator**



These filter regulators are designed to meet the rugged demands of harsh process environments. Providing high flow rates up to 10,200 L/Min (ANR) with precise pressure regulation to the actuator. Effective moisture removal ensures clean, dry media to eliminate contamination to downstream devices.

- 1/4 to 1-inch NPT with compact versions available
- Quick Relief option prevents trapped pressure from locking the actuator in the last position if supply pressure is lost
- Wide operating temperature range: -40°F to 194°F (-40°C to 90°C)

#### **TESCOM 50-2000 Series Hydraulic Pressure Regulator**



The 50-2000 Series incorporates energized roto-seals and rugged materials to reduce wear and galling—extending service life in high-pressure hydraulic applications. Units are ideal for wellhead control panels, chemical injection and Hydraulic Power Units (HPU).

- 316 Stainless Steel body
- Inlet pressures: 20,000 psig (1380 bar)
- Outlet pressure: 15,000 psig (1334 bar)
- Cv: 0.02 to 0.3 (.017 to .26 Kv)
- Meets Class IV shut-off at all pressure ranges

#### **Featured Products**

#### **TESCOM 50-4000 Series HPU Subsea Wellhead Regulator**



The 50-4000 Series accurately controls high-pressure water glycol while decreasing pressurization time and extending regulator life. Units feature an integrated bypass valve that controls large variations in flow rates at pressures up to 15,000 psiq.

- For ultra-deep water installations
- 316 Stainless Steel body
- Inlet pressure options: 20,000, 15,000, 10,000 psi (1380,1334, 689 bar)
- Outlet pressure options up to 20,000 psi (1380 bar)
- Cv = 1.9 (1.6 Kv) Integrated Bypass, 0.12 (1.1 Kv) Control Regulator

#### **Custom Engineered Solutions**





Complete custom panel solutions incorporating best-in-class fluid contol & pneumatics products with PLC and electrical components. An optimized, engineered solution for your pilot valve control and other pneumatic automation needs.

- Engineered, preassembled, and tested and ready to install
- Modular designs for drop-in replacement and turnkey installation
- Simplified layouts for efficiency and space savings





### **Staying on Schedule**

We understand the importance of staying true to your promised schedule. Every delay will cost you—whether in contract penalties or production losses. Working with the right supplier can help you avoid this outcome by simplifying your complex supply chain—and accelerating your project timetable. As your one-stop shop for upstream, midstream and downstream automation components and systems, we combine our industry expertise, strong global distribution network, local presence and QuickShip product programs to help you stay ahead of schedule.



#### What's your opportunity?

- Partner with an industry expert that can help you reach your goals and provide specification support.
- Decrease your project timeline with a one-stop shop supplier that can meet all your automation needs.
- Take advantage of our in-house engineering solutions capabilities and QuickShip programs for accelerated delivery.



#### Services offered...

- · QuickShip programs for many frequently needed products
- Local support during design, commissioning and startup
- · In-house engineering capabilities
- · Ongoing technical support



Work with a reliable global supplier that provides local technical support and delivers products quickly.
Connect with an Emerson expert.

Partnering with a one-stop shop supplier can simplify your complex supply chain and provide you with the technical assistance you need to stay true to your promised schedule. We can help.



With locations worldwide, we're always nearby to help you solve problems. Contact us today.

### **Get Started & Go Further**



Emerson delivers time-tested and innovative fluid control solutions for the oil and gas industry to help you optimize your production process while achieving the highest levels of reliability and functional safety. Wherever you are in the world, contact our experts now for world-class technologies and services that can maximize your upstream, midstream or downstream operation. Getting started is easy.



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