Uncork your knowledge on how Emerson can help improve the quality of your wine production

Proven Automation Solution for the Winery Industry
Proven automation solutions and local expertise to help you overcome your toughest challenges.
Quality and Control of Fermentation and Blending

Ensure product quality and consistency, keep your wine batches on spec all while reducing manual processes with automation solutions.

Get greater control over the flow of heating and cooling media while also minimizing installation and maintenance time. Emerson’s ASCO 6-port Direct-Acting Temperature Control Valve is the first and only unit of its kind designed for winemaking applications. A single 6-port valve can regulate both hot and cold flows for a fermenter. This valve seamlessly integrates with Emerson’s intelligent valve blocks bringing greater levels of automation, feedback and monitoring. This provides the winemaker with flexibility and control over the fermentation process.

Achieve repeatable and reliable fluid control for single cooling operations, Emerson’s ASCO 2-Way Solenoid Valves and 290 Angle Body valves are the industry standards. These valves can be compact in size, feature low electrical consumption, and the 290 Series handles both hot and cold flows for a fermenter. This valve can regulate both hot and cold flows plus providing greater control and precision. Ideal for applications such as wine fermentation.

Benefits include:
- Single construction valve design handles both hot and cold flows for a jacketed tank
- Eliminates potential for glycol plugging
- Direct acting piston valve reduces the need for check valves
- Enable full automation valves coupled with Emerson’s G3 Platform

Achieve precise level control of the blending process and ensure repeatable fluid control with Emerson’s ASCO 2-Way Solenoid Valves and 290 Angle Body valves. These valves can be compact in size, feature low electrical consumption, and the 290 Series handles both hot and cold flows for a fermenter. This valve can regulate both hot and cold flows plus providing greater control and precision. Ideal for applications such as wine fermentation.

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Real-time density and Brix concentration during the wine fermentation process enables the improvement in wine quality and consistency for every batch. Emerson’s Micro Motion Fork Density Meter solution, with an integrated Resistance Temperature Detector (RTD), can be mounted directly into the fermentation tank or on the pump over loop and frees-up 50% of winemaker’s time, letting you focus on the important artistic decisions that can only be made when tasting the wine.

Benefits include:
- FMCW technology for robust and repeatable measurement
- Detect when a batch is fermenting too quickly or too slowly
- Eliminates potential for glycol plugging
- RTD for integrated temperature measurement
- Fast-response, direct-insertion Fork Density Meter with a Tri-clamp connection and polished stainless steel wetted material and surface finish offers continuous, real-time accurate measurement of density (±1 kg/m3) and Brix concentration (±0.2%) in fermentation vessels, and bypass loops.

The valve can regulate both hot and cold flows plus providing greater control and precision. Ideal for applications such as wine fermentation.

Benefits include:
- Single construction valve design handles both hot and cold flows for a jacketed tank
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- Direct acting piston valve reduces the need for check valves
- Enable full automation valves coupled with Emerson’s G3 Platform

Emerson’s Micro Motion Fork Density Meter solution is the world leader in density and Brix measurement. The fast-response, direct-insertion Fork Density Meter with a Tri-clamp connection and polished stainless steel wetted material and surface finish offers continuous, real-time accurate measurement of density (±1 kg/m3) and Brix concentration (±0.2%) in fermentation vessels, and bypass loops.

Benefits include:
- Detect when a batch is fermenting too quickly or too slowly
- Eliminates potential for glycol plugging
- RTD for integrated temperature measurement
- Faster read for manual sampling
- Eliminates product waste associated with manual sampling
- Detect when a batch is fermenting too quickly or too slowly

Contact us now for world-class technologies and services that can maximize your return on investment. Visit www.Emerson.com/FoodandBeverage
Proactive Monitoring Solutions

Process and condition monitoring of your assets, including leak detection that provides clear and actionable data over the entire wine production process.

Minimize downtime and troubleshooting of your devices by capturing real-time status and diagnostics. Emerson’s Edge Gateway and AVENTICS G3 and AES Electronic Fieldbus Platforms monitors your assets, providing actionable information so you can easily and more effectively plan your maintenance activities and minimize troubleshooting across the wine production process. Emerson PLCSystem RX2 Industrial PC can be used to implement edge computing for enhanced insight and optimizing machine health and asset monitoring.

Benefit from a comprehensive range of compact, easy to use, hygienic pressure, temperature and level monitoring solutions from Rosemount.

- Ensure line pressures are in tolerance with the Rosemount 326P for measurement of static pressure in pipes and near pumps.
- Maintain production and reduce downtime with the Rosemount 326L Level Transmitter for Guided Wave Radar and Rosemount 1408H Level Transmitter for Non-Contacting Radar monitoring in small- to medium-sized storage, holding, or buffer tanks.
- Improve product quality and batch to batch consistency with the Rosemount 326T or 327T temperature transmitters in storage and fermentation tanks.
- Achieve reliable overfill and run dry prevention with ease for holding, storage and buffer tanks using the Rosemount 2110 Vibrating Fork Level Switch.
- Proactively identify sources of product loss prior to wine maturation in wooden casks or at time of bottling and palletizing with the Rosemount CT4215 Packaging Leak Detection System. Quickly identify improperly sealed casks or bottles, minimizing product spoilage and maximizing product quality.

Proactive Monitoring Solutions

Featured Products For Proactive Monitoring Solutions

Rosemount 326P Pressure Transmitter
Rosemount 1408H Non-Contacting Level Transmitter
Rosemount 326L Guided Wave Radar Level Transmitter

Compact and hygienic pressure transmitter dedicated to measuring pressure and hydraulic level in the food and beverage industry. Comes with an all-stainless steel construction plus a broad offering of modular industry standard process connections. Benefits include:
- Compact form factor
- Easy to install and commission
- 4-20mA outputs and 4-20mA connectivity

Rosemount 326T and 327T Temperature Transmitters

Compact and hygienic temperature transmitter dedicated to measuring pressure and hydraulic level in the food and beverage industry. Comes with an all-stainless steel construction plus a broad offering of modular industry standard process connections. Benefits include:
- Compact form factor
- Easy to install and commission
- Temperature drift diagnostic for higher confidence under changing process conditions (Rosemount 327T only)

Rosemount 2110 Vibrating Fork Level Switch

Reliable fork switch in a hygienic, compact form factor for point level detection applications in the beverage industry in all-stainless steel construction. Benefits include:
- Compact form factor
- Easy to install and commission for compact spaces and in-pipe measurement for pump protection and control
- No moving parts and no calibration
- Always visible heartbeat LED provides clear indication of process state and device health

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Featured Products For Proactive Monitoring Solutions

**PACSystem RXi2 Industrial PCs**

Configured with Emerson’s advanced PACEdge™ software, the PACSystems RXi2 Industrial PCs provide an easy and cost-effective solution for proactive monitoring of assets. Benefits include:

- Reliable, high-performance Industrial PCs built to thrive in harsh industrial environments
- Patented thermal monitoring technology enables 100% performance across specified temperature range, even in -40°C and 70°C options
- Long-life, COMExpress-based designs ensure many years of series production and easy upgrades
- Fanless designs and SSD storage eliminate moving parts prone to failure

**Rosemount CT4215 Leak Detection System**

The Rosemount CT4215 is an in-line leak detection system that accurately tests 100% of products on your line after filling—whether it’s wooden casks prior to the maturation process or bottles and cases. Benefits include:

- Measures up to 200 bottle packs per minute
- Detects leaks from wooden casks or bottles without disruption
- Engineered with patented Quantum Cascade Laser (QCL) technology
- Designed with a small footprint, it is easy to install and configure, and offers lifetime low maintenance costs

**AVENTICS C3, S80 and AES Fieldbus Electronics**

Get real-time localized monitoring of air-operated valves and IO capable devices by integrating the communication interface to the pneumatic valve system. Simple to assemble, install, commission, and maintain.

Benefits include:

- Innovative graphic display enables easy commissioning, visual status, and diagnostics directly from the valve system’s monitoring application
- Highly flexible, distributable architecture scales up with your system’s requirements
- Networks DeviceNet, Ethernet IP, Profinet, Profinet and Powerlink fieldbus protocols
- S80 Communication module supports IO-link
- Compact and robust all-plastic design
- 580 Communication module supports IO-link
- 4-20 mA outputs and FF/250 mA connectivity
- Maintenance-free solution unaffected by any process conditions

**Rosemount 1208A Non-Contacting Flow and Level Transmitter**

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AVENTICS G3, 580 and AES Fieldbus Electronics

PACSystem RXi2 Industrial PCs

AVENTICS C3, S80 and AES Fieldbus Electronics

Rosemount CT4215 Leak Detection System

Rosemount 1208A Non-Contacting Flow and Level Transmitter
Flexible Bottling and Packaging

Technologies that can help bottling and packaging lines increase flexibility, improve reliability, ensure quality and meet regulatory compliance.

Simplify regulatory compliance at time of bottling, but also for bulk loading and unloading of wine for custody transfer, with accurate in-line measurement of alcohol concentration, density and temperature with Emerson’s Micro Motion Coriolis flow meter, all from a single instrument.

Ensure high-speed throughput, reliability, and accuracy in pilot filling, labeling, packaging, and palletizing operations. Emerson’s Directional Control Valves offer high flow in a compact package while providing unmatched life cycles. Remotely pilot process actuators and valves or directly mount on the packaging equipment for yielding fast, accurate and repeatable results. Additionally, the directional control valve can be mounted in a high custom Integrated Enclosure Solution. The unique cabinet and panel mount solution saves time and money with a reduced number of interfaces, gateways, components as well as wiring and labor. Emerson’s PACSystems RX3i controller offers high-speed motion capabilities for accurate bottling and packaging positioning and better output. It also has the ability to change motion profiles while running facilitated rapid line changeover for shorter batches.

Achieve long life, control and ease of maintenance for air-operated components in bottling, labeling and packaging operations with Emerson’s robust and versatile family of FRLs. Easy to assemble modular components and assorted mounting options result in the most versatile air preparation units on the market today.

Versatile and reliable motion control cylinders to meet a wide range of beverage contact applications, bottling, and packaging designs that fit your budget. Emerson’s AVENTICS Cylinders provide the most comprehensive portfolio including standard stainless steel, clean to hygienic.

Flexible Bottling and Packaging

Integrated Enclosure Solutions

Emerson offers turnkey solutions of best-in-class ASCO and AVENTICS products mounted in stainless steel integrated enclosures. Components can include directional and ball control valves, G3 Fieldbus electronics, and PLCs. These are most often designed with flexible tubing and electrical connections. Benefits include:

• Comprehensive engineering expertise in enclosure, design to installation
• ASME wasshalung listed enclosures protects Ball actuators components from external environments
• Panel-mounted solution saves time and reduces using complexity

Unmatched accuracy and repeatability of flow and density measurement for liquids using ELITE Coriolis flow meters with a compact and drainable design. Benefits include:

• Measure continuous alcohol concentration to meet local regulatory compliance
• RTD for temperature measurement
• Obtain in-situ diagnostics with SmartMeter verification without external tools or process shutdown
• Elimination need for manual sampling
• Used for custody transfer of alcohol

AVENTICS Directional Control Valves

Poppet, diaphragm or spool and sleeve designs to offer the widest variety of directional control valve technologies to control or pilot air-operated valves and cylinders. Benefits include:

• High flow in compact package
• Easy installation design without compromising performance
• Premium isolation of individual valves for easy maintenance
• Ideal fit for full scale process control low leakage valves
• Seamlessly integrates with Fieldbus connections

Micro Motion Coriolis Flow & Density Meter

Emerson’s Micro Motion Coriolis flow meters with a compact and drainable design.

RX3i CPE330

RX3i controllers provide the foundation for the Industrial Internet connectivity. It is a powerful, modular Programmable Automation Controller (PAC) with a focus on high availability. The RX3i features a single control engine and a universal programming environment to provide application portability across multiple hardware platforms. Benefits include:

• High performance and high availability
• Flexibility and scalability
• Secured with Trusted Platform Module (TPM) and digitally signed firmware. RX3i CPUs have by Achilles IIlevel 2 Certifications

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Featured Products For Flexible Bottling and Packaging Solutions

AVENTICS Air Preparation Products  Filters, Regulators and Lubricators

The product range offers high performance and versatility in compact modular packages. Available in port sizes 1/8”-1” and features one of the highest flow characteristics of any FRL’s on the market compared to its size resulting in a lower pressure drop.

Benefits include:
- Ensures air-operated valves and systems run efficiently by removing particles, oil and mist
- Lower pressure drops can deliver savings in energy consumption
- Available with integrated IoT-ready sensor to monitor air consumption in pneumatic systems, optimizing energy consumption, preventing machine downtime, and reducing costs

AVENTICS Motion Control Cylinders

Automate motion control throughout your plant with the widest range of cylinders ideal for food contact, splash and non-food contact zones.

Benefits include:
- Constructions meet FDA and EHEDG regulations from standard stainless steel, clean, and hygienic
- Design of designs to meet your performance, cost and footprint needs
- Pneumatic positioning capability allows you to position the rod within the stroke providing greater control over the process
With the most complete automation solutions expertise and offering suite for the industry, Emerson is the supplier of choice to simplify and scale your Winery Operations.

Getting started is easy. Just contact us now for world-class technologies and services that can maximize your return on investment.

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