

A photograph of an industrial facility, likely a refinery or chemical plant, featuring large, complex piping systems and tall distillation columns. The scene is set against a dramatic sunset sky with a bright sun low on the horizon, creating a lens flare effect. The foreground shows a dense network of pipes and structural steel beams.

**Drive Operational Reliability,
Safety, and Profitability**

Corrosion and Erosion Monitoring

Emerson's comprehensive portfolio, expertise, and service capabilities provides your facility a complete, custom solution





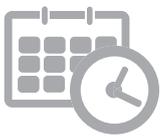
Corrosion and erosion invisibly attack your plant from the inside. If not well-understood or controlled, it can lead to poor plant availability, high reactive maintenance costs and potentially major incidents due to loss of containment of the process fluid. Corrosion and erosion are also limiting factors in terms of how hard you can drive your plant. In order to drive your plant to its maximum capability, you need to monitor both the risk of corrosion or erosion and the impact it is having on the plant's integrity.

With corrosion and erosion so broadly affecting industrial facilities, do you have a strategy to properly overcome those challenges and drive plant performance? Emerson can partner with you to best address the impact corrosion and erosion has on your facility.



How do you ensure your profitability?

Emerson is uniquely positioned to provide true insight into your plant's health and performance. Emerson's corrosion and erosion monitoring solutions deliver real-time data and insights, enabling enhanced decision making to help you drive your assets to their maximum capability.



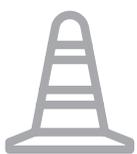
What determines your maintenance routines?

By utilizing Emerson solutions, you will be provided an up-to-date picture of plant integrity and an understanding of how it is coping with the corrosion and erosion demands placed upon it. This enables early detection of corrosion events, resulting in less frequent walkdowns and helping avoid unplanned outages. Insights provided also drive optimization of timing and scope for planned maintenance.



How do you monitor and control your corrosion mitigation strategy?

Emerson solutions enable online optimization and validation of chemical corrosion inhibition programs, ensuring that corrosion is kept within tolerable levels and spend is controlled.



How do you help ensure process and personnel safety?

Early detection of corrosion and erosion events is critical to avoiding a loss of containment and helps ensure process safety. Automatic online data retrieval enabled by Emerson monitoring solutions can reduce the need to send personnel to hazardous locations.

Corrosion and Erosion Monitoring Technologies

Emerson's comprehensive portfolio of best-in-class solutions combined with our advanced expertise brings you the opportunity to implement a tailored, custom solution and help you work to achieve Operational Certainty.

Rosemount™ Wireless Permasense Sensors



Rosemount Wireless Permasense Sensors provide direct measurement of wall thickness, the most accurate indication of asset integrity. These systems are both simple to deploy and maintain, being non-intrusive with wireless data delivery to desk. The system provides facilities with continuous corrosion and erosion monitoring for improved decision making. Sensors are available to monitor any metal operating at any temperature up to 600 °C (1100 °F).

Rosemount Wireless Permasense Sensors

- ET210
- ET310
- WT210
- ET410

No maintenance, easy-to-install, deployable anywhere.

Corrosion and Erosion Monitoring Analytics Software



Part of Emerson's Plantweb™ Digital Ecosystem, pre-built software applications take a facility's corrosion and erosion data and transform it into actionable insights using best-in-class processing, visualisation, and analytics features.

Turn data into valuable insights.

Corrosion and Erosion Probes and Coupons



Our line of intrusive probes and coupons measure the corrosive and erosive nature of the fluid and provide early risk detection for a site. Our probes provide the highest sensitivity in the market. When instrumented with our transmitters, changes in corrosion risk can be detected in minutes or hours, enabling sites to take corrective actions before damage occurs.

- Probes available in retractable (up to 1500 psi) and retrievable (up to 10000 psi) versions
- Probes available for hydrocarbon and water service
- Offline coupons

Highly responsive to process changes.

Transmitters for Inline Probes



Our line of wired and wireless corrosion and erosion transmitters deliver highly accurate in-line corrosion probe readings. With these more efficient data management capabilities, facilities gain a more integrated integrity and process monitoring solution providing improved corrosion and erosion control. These transmitters can be used with Emerson probes or existing legacy probes from other vendors.

- Transmitters for corrosion probes and erosion probes
- Available in wired and wireless versions

Bring your inline corrosion and erosion monitoring online.

Sand Erosion Monitor



The SAM Acoustic Sand Monitor provides real-time production sand information. Utilizing acoustic technology and proprietary algorithms, this instrument enables production optimization, sand separator efficiency monitoring and other onshore and offshore upstream applications.

Enabling maximum sand-free production.



FSM Area Corrosion Monitor



The FSM Area Corrosion Monitor is a non-intrusive solution that can permanently track general and localized metal loss over a pre-defined area in steel pipes, bends and vessels. The multi-pin matrix coverage provides a detailed picture of the pipe area wall thickness, providing a clearer picture of localized corrosion.

Ideal for buried or remote pipelines.

Corrosion and Erosion Services



From initial start-up and commissioning services, to training, and Connected Services for data monitoring, Emerson has a range of services to fit your facility's needs. A skilled team of experts will review your corrosion and erosion data and ensure you capture maximum value from your monitoring data.

Emerson experts at your service.



Emerson's robust portfolio of complementary corrosion and erosion monitoring technologies helps us recommend a solution that fits your specific industry and application.



**Oil and Gas
Production**



Midstream



Refining



Chemical



Mining

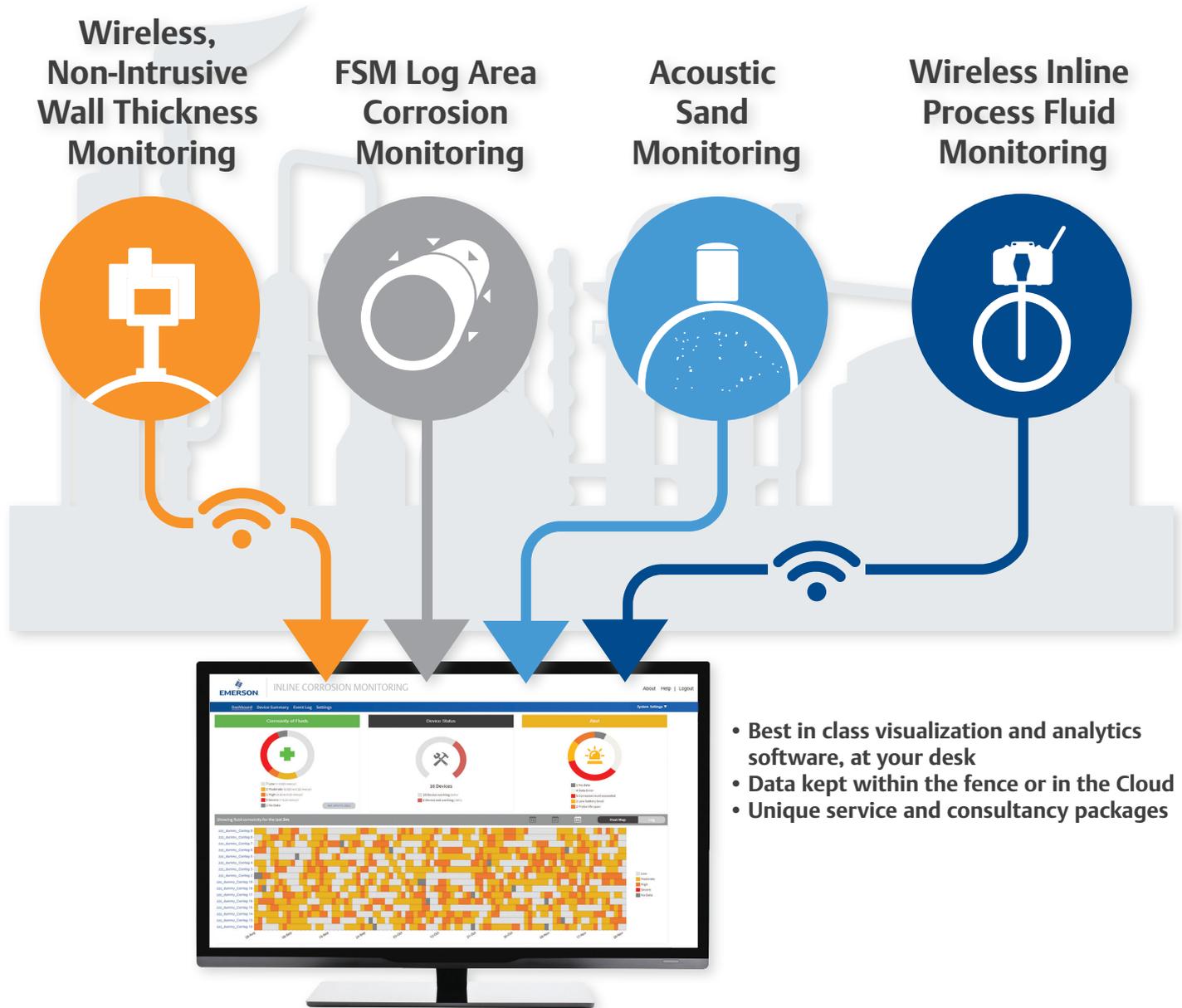


Power



Additionally, our technologies utilizing *WirelessHART*[®] technology offer quicker, easier, and scalable installation.

Setting Up a Connected Corrosion and Erosion Monitoring System with Plantweb



- Best in class visualization and analytics software, at your desk
- Data kept within the fence or in the Cloud
- Unique service and consultancy packages

To learn more about Plantweb, Emerson’s scalable and secure portfolio of transformational technologies, software and services, visit Emerson.com/Plantweb.



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