

# Onshore Production Optimization

Enhance production control and increase flow assurance with solids and erosion monitoring solutions.



## Maintain Asset Integrity and Optimize Oil and Gas Production

Solids production can result in erosion leading to loss of containment events and flow lines clogging resulting in unplanned outages. Detection and monitoring of solids production and erosion impact on the asset health enable optimized production through evidence-based decisions.

### Quantify the Risk of Solids Production

When oil and gas production takes place, solids will be produced at different stages throughout the well's lifecycle. Measuring the rate of solids particles and fluid erosivity are key indicators of risk that help operators maximize their production.

### Quantify the Erosion Impact of Solids Production

Produced solids can erode asset infrastructure invisibly from the inside. The rate of metal loss increases rapidly with flow rate, forcing operators to produce below optimal production rates. Operators can monitor this challenge using online wall thickness sensors to maximize the well's production potential.

### Reduce Choke and Rotating Equipment Failure

Engines, pumps, and chokes are heavily affected by sand production. Based on solids production data, enhance your reliability programs and avoid unplanned outages.

### Enhance Reservoir Performance

Historical solids production and erosion rates reveal insights about your fracking and reservoir performance. Seamlessly gather, store, and share solids production risk and erosion impact across key decision makers to enhance reservoir performance.

For more information, visit [Emerson.com/CorrosionSandMonitoring](https://www.emerson.com/CorrosionSandMonitoring) or contact your local Emerson Sales Representative



Overcome volatile market conditions by maximizing oil and gas production through improved solids production and continuous monitoring of metal loss and fluid erosivity.



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## Real-time Sand and Erosion Measurements

### Wall Thickness Measurement

The Rosemount™ Wireless Permasense ET210 Corrosion and Erosion Monitoring System is a non-intrusive device designed to continuously measure wall thickness in pipes and vessels using ultrasonic technology (UT). The ET210 Sensor system is non-intrusive and battery-powered, allowing for quick and straightforward magnetic installation over erosion hotspots in both single or multiple unit arrangements. The ET210 delivers data via *WirelessHART*®, enabling secure and cost-effective data retrieval to desk.



### Solids Intensity and Rate Measurement

The Roxar™ SAM Acoustic Sand Monitor is a non-intrusive device designed to measure intensity of solids as well as the rate in oil and gas flow lines using acoustic technology. The Roxar SAM is installed at a bend and data is retrieved via a Modbus Remote Terminal Unit (RTU), providing actionable information directly to your Distributed Control System (DCS).

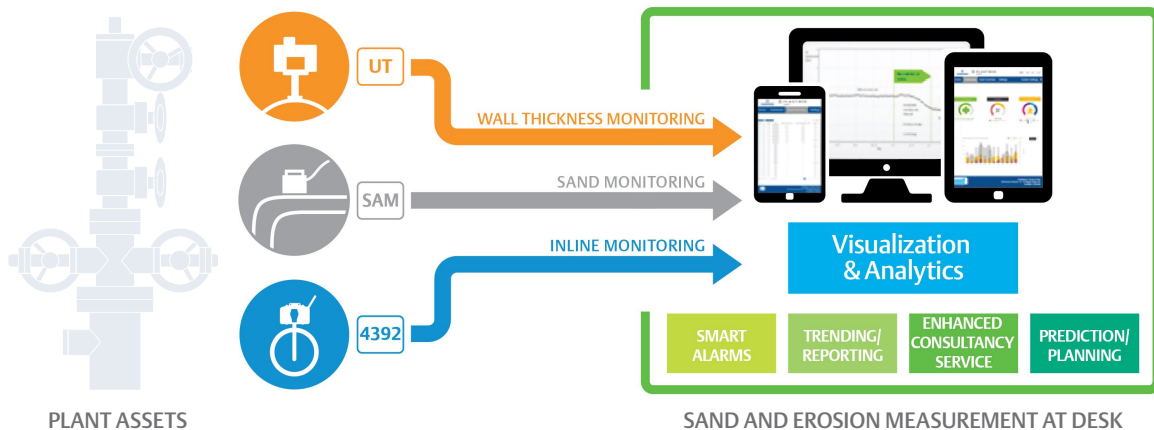


### Fluid Erosivity Measurement

The Rosemount 4392 Erosion Wireless Transmitter is an inline device designed to measure fluid erosivity in oil and gas flowlines using Roxar's multi-element sand probe. The Rosemount 4392 delivers data via *WirelessHART*®, enabling secure and cost-effective data retrieval to desk, sharing wireless infrastructure with other devices.



## Complete Onshore Production Optimization Solution



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### Consider It Solved.

Emerson Automation Solutions supports you with innovative technologies and expertise to address your toughest challenges.

For more information, visit

[Emerson.com/CorrosionSandMonitoring](https://www.emerson.com/CorrosionSandMonitoring)

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