MIDLINK, Real-Time Monitoring Systems for Enhanced Profitability

Reliable Data
Decreasing Downtime

WELL-HEAD
FRAC
SNUBBING
PRODUCTION
VESSELS
FACILITIES

Midlink System

Proven Innovative Solutions for Erosion Monitoring
Decreasing Downtime.

J & J
pressure management

Innovative, proven technology for better-informed decision making

JJ Pressure New Application Process Proven to Decrease Downtime.

J & J provides complete non-intrusive sensor-based solutions for continuous corrosion or erosion monitoring. We develop and deliver permanently installed monitoring systems that can operate in extreme temperatures and environments, and the remotest of locations.

Ageing iron, downtime, greater fluid corrosiveness, tightening health and safety requirements, and the environmental costs of a leakage are all challenges with which we are familiar.

Direct, accurate, and sufficiently frequent measurement of pipework thickness to accurately identify trends is rarely feasible with manual inspection methods. Coupled with this are the challenges involved with manual inspection, such as accessibility and avoidance of safety risks to personnel.

Continuous corrosion monitoring provides asset and integrity managers with an up-to-date picture of how infrastructure is coping with the ever-changing demands placed upon it.

The reliable, accurate wall thickness data delivered by the monitoring system informs decision making about the timing of maintenance and replacement. It also informs optimization of corrosion prevention and mitigation strategies, and furthers understanding of the impact of feedstock and process decisions.

We have developed sophisticated data management and viewing software as an integral part of the solution to support data interpretation. This software offers both an overview of

Midlink System Benefits

- Real-Time, Accurate Data
- Easy to set up – sensors automatically find and adapt to the best wireless and communication path
- Maintenance-free – network is self healing and automatically reconfigures and finds new communication paths if an obstruction is encountered.
- Integrated On-Site Iron Specialists.
- Remote Tech Support.

Complete System: Better Quality, Continuous Monitoring Data to Desk

The monitoring system combines established ultrasonic sensor technology with wireless communication to deliver data of the highest integrity to the user's desk.

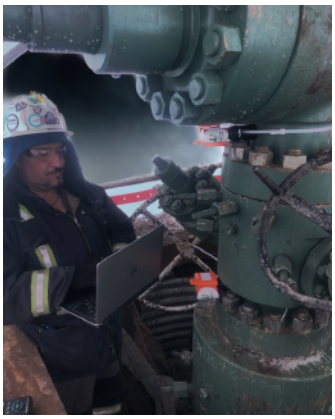
Our WT permanently installed wall thickness sensors use breakthrough waveguide technology, enabling continuous operation even at temperatures of up to 600 °C (1100 °F).

Our ET sensors measure through external coatings and attach magnetically for extremely quick and easy online installation.

The sensors are powered by compact power modules meaning that no cabling is required: this minimizes the cost of installation and enables use in remote areas and on a large scale. The sensors and power modules are certified as intrinsically safe for use in hazardous areas.

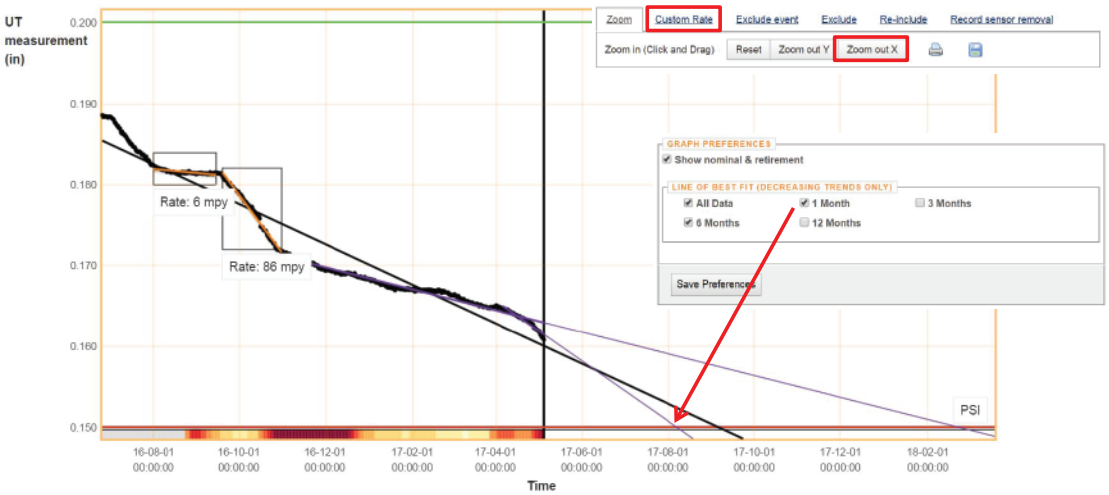
The wireless sensors form a mesh, thus ensuring multiple wireless communication pathways to a gateway. The gateway relays the data to the server, which hosts the Data Manager, giving an up-to-date picture of asset integrity at desk.

The data can also be readily exported from the database to any customer application.



Sensor Measurements Delivered Directly to Desk

We provide metal thickness measurement of unmatched quality and frequency that in many cases is otherwise unobtainable. These measurements enable intermittent or varying corrosion rates to be detected, measured, and acted upon.



Operating Specifications

Performance Specification:

- Metal loss identification: 10s of microns(<1 mil)
- Measurement rate: default - every 12 hours, user configurable down to every 1 hour
- Power module service life: 9 years under typical operating conditions
- Pipework operating temperatures: up to 600 °C (1100 °F)
- Minimum wall thickness: 3mm (0.12 in.)

Certifications:

The sensors are certified for use in hazardous locations:

- ATEX Zone 0 Ⓔx
- FM/SGS (US, C): Class 1, Div 1
- IECEx Zone 0

System Overview

Sensors:
WT210 – waveguide based ultrasonic thickness sensor with temperature compensation.
WirelessHART radio
Operates from -180 °C (-290 °F) up to 600 °C (1100 °F)

ET210 - EMAT based ultrasonic thickness sensor with temperature compensation.
WirelessHART radio
Operates from -40 °C (-40 °F) up to 120 °C (250 °F)

ET310 - EMAT based ultrasonic thickness sensor with temperature compensation.
WirelessHART radio
Operates from -40 °C (-40 °F) up to 200 °C (392 °F)

ET410 - EMAT based ultrasonic thickness sensor with temperature compensation.
WirelessHART radio
Operates from -40 °C (-40 °F) up to 300 °C (572 °F)

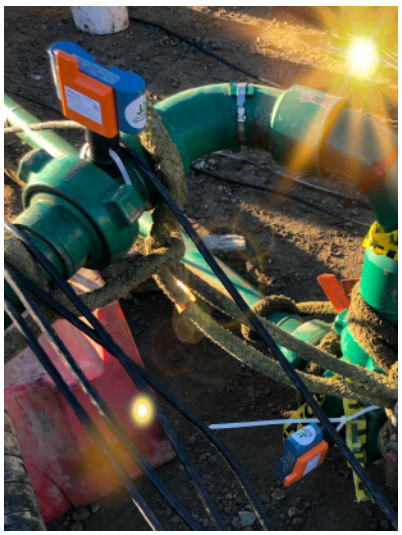
Gateways:
Emerson Wireless Gateways

Software:
Data Manager – data management and visualization suite

Service:
24 hours a day, 7 days a week.

On-site and tech support.

Connected Service:
Use J & J's expertise to remotely monitor your data, ensuring you maximize its value.



J & J pressure management

WITH COOPERATION WITH

SPARTAN CONTROLS

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