



Solutions Designed by Experts - 2020



### **Purpose**

- ◎ To deliver best in class monitoring solutions based on client's application

### **Value**

- ◎ Uniquely positioned to supply products and services that can compliment, integrate and support projects from the design stage, through to maintenance and data retrieval and analysis

### **Experience**

- ◎ A team comprised of experts in all major monitoring brands hardware and systems

## Access Fittings - All Types

- ⦿ HP Hydraulic and Mechanical
  - Flanged or Welded
  - Up to 10k psi
  - A105/LF2, 316/316L, F51/F55 as standard material options
- ⦿ LP Retractable
  - Flanged or Threaded
  - Up to 1500psi
  - 1" and 1.5" connections supported

## Safety

- ⦿ Pressure Retaining Covers Recommended for All HP Fittings
- ⦿ Rigid Safety Clamps, 5/8" OD Device Body, and Drag Force Calculations Provided

## Devices

- ⦿ Corrosion Coupons, ER & LPR Probes, Erosion Probes, Bio-Film Detection, Hydrogen Probes, Injection Quills & Atomizers and Sampling Tubes

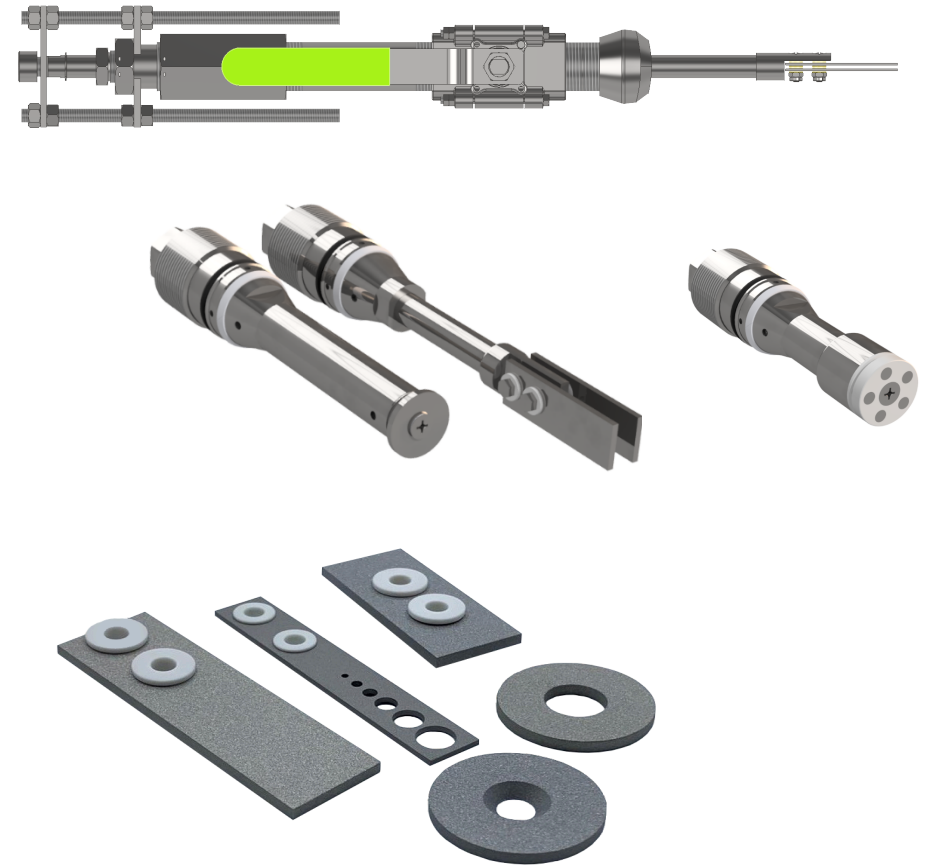


## Coupon Holders

- ◎ Strip, Flush, Ladder, Multi Disc Holders & Bio-Film Probe
  - 316 Supplied as Standard
  - Flush Adjustable Option
  - Welded or Non-welded
  - Wake Frequency and Drag Calculations Supplied

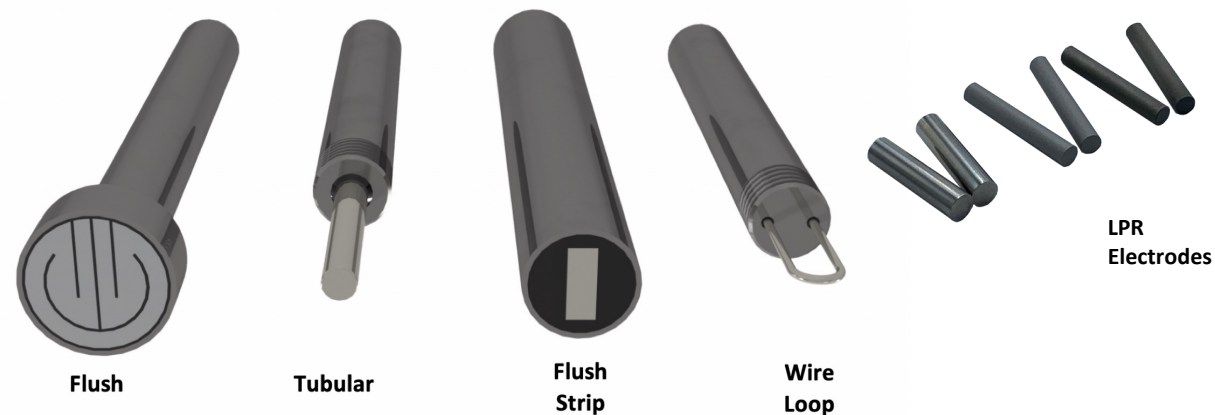
## Coupons

- ◎ 3" Strip, Disc, Ladder and Scale Varieties
  - Superior Finish Designed for O&G Applications
  - Pre-weighed, Stamped & Sealed in VCI Bags
  - Weight Loss & Pitting Analysis Reporting Provided
  - Microbial Assessment



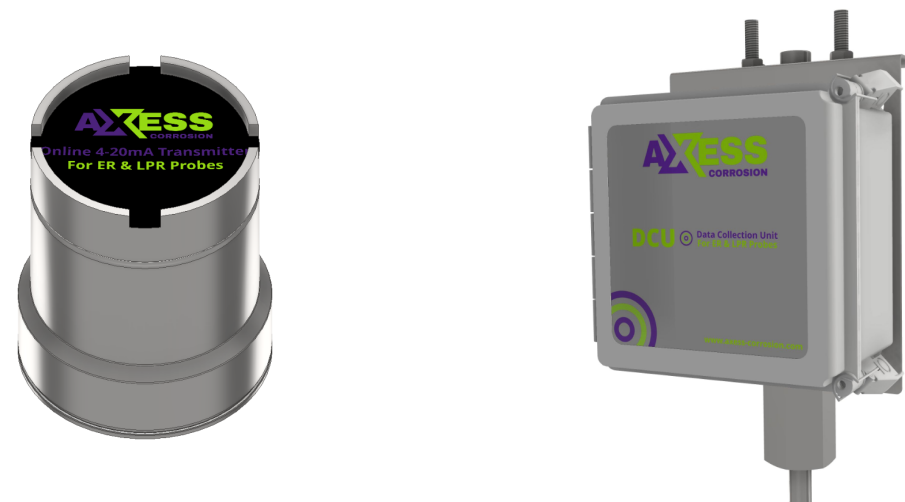
## Intrusive Probes

- ER, LPR & Erosion
  - 316 Bodies Supplied as Standard
  - Cylindrical, Flush & Wire Loop Versions
  - Erosion Probes – Both ER and Sacrificial Options
  - Variety of Materials and Element Thicknesses



## Instruments

- Spot Reading, Data-Logging, Online
  - Single Hand-Held Unit Reads All Probes Directly
  - Also Reads Both ER & LPR Loggers
  - 4-20ma Transmitter for Online Readings
  - RS485 20 Bit Transmitter For Digital Interfacing



### Non-Intrusive Wall Thickness Monitors

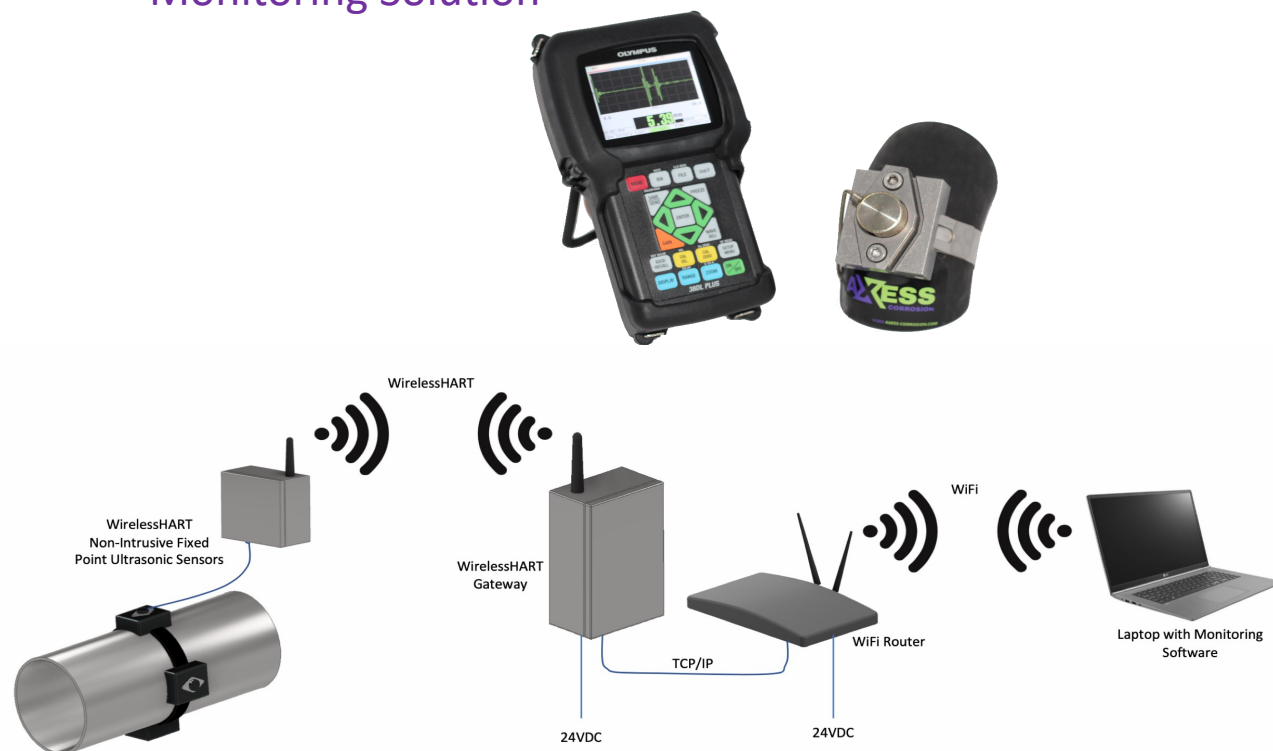
- ⦿ Ultrasonic Measurement
  - Up to 550°C
  - Single Element Transducer
  - Silver Foil Interface
  - No Welding – No Epoxy – No Maintenance
  - Minutes to Install

### Instruments

- ⦿ Instant Measurement Using Most Flaw Detectors
- Or
- ⦿ 4 Channel Wireless HART (4 Points for Each WiFi TX)
  - Ideal for Flaw Monitoring
  - Convert Inspection to Monitored
  - Reduce Costs Related to Manpower and Access Infrastructure

### Complimentary

- ⦿ When Integrated with ER Probes, Wall Thickness Monitors Deliver a Comprehensive Corrosion & Erosion Monitoring Solution



## Chemical Injection Hardware

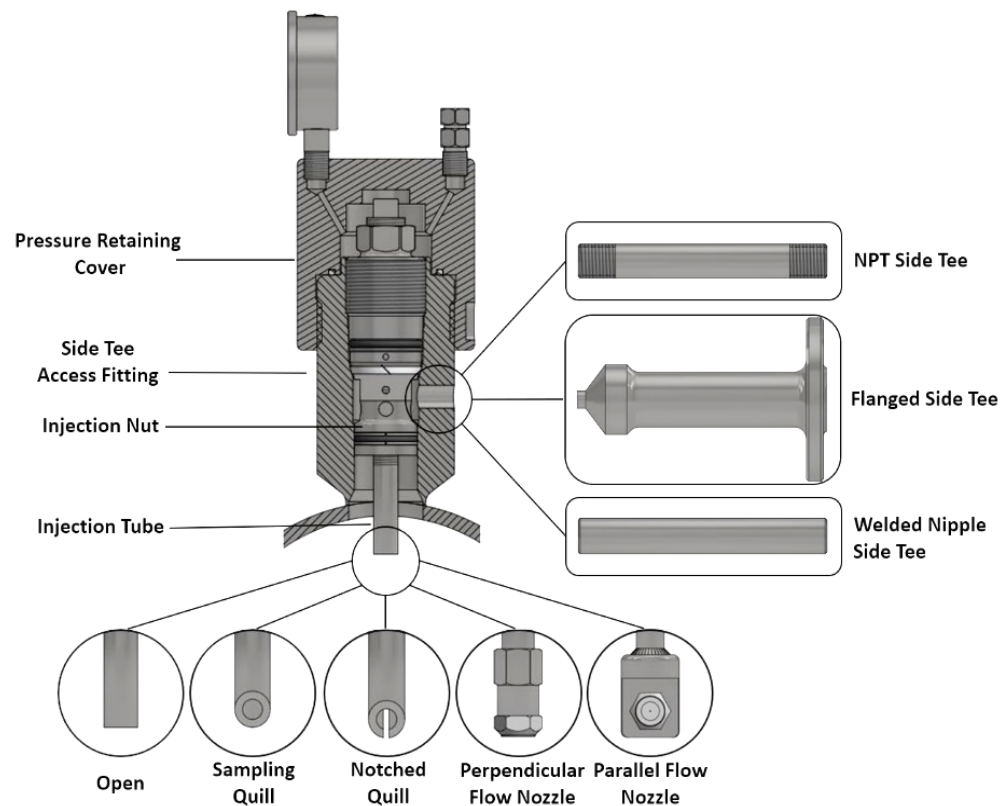
### ☉ Fittings

- Side NPT or Flanged
- Swivel Flange Option for High Alloy's
- Direct (Non-Tee) Method Available - Kamikaze
- Integral Non-Return Valves
- 1" LP Retractable
- Flanged 'spade' Type

### Nozzles & Tubes

### ☉ Atomizers / Cap & Core

- Selected Based on GPH & Pressure Differential
- Range of Spraying Patterns
- Quills and Sampling Tubes
- Wake Frequency and Drag Calculations

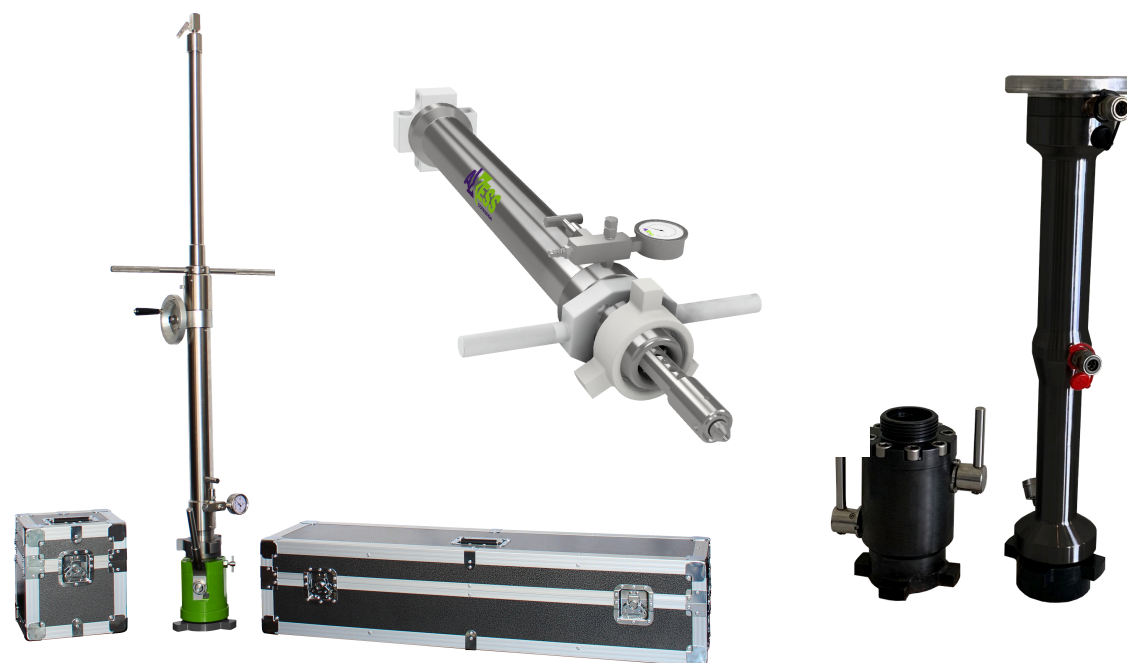


## Services

- ◎ Online retrieval of corrosion coupons and monitoring probes – Hydraulic and Mechanical
  - Coupon analysis and Probe data reporting
  - Site surveys and equipment audits of corrosion, erosion and chemical injection systems
  - Chemical optimization and performance evaluation projects
  - Sidestream monitoring
  - Corrosion and Erosion control well testing services
  - Hot-tapping of new access systems
  - Installation of permanent UT monitors

## Competence & Safety

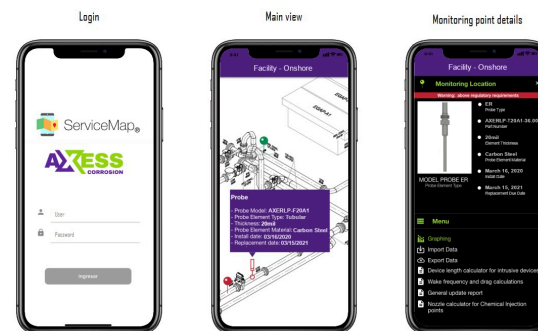
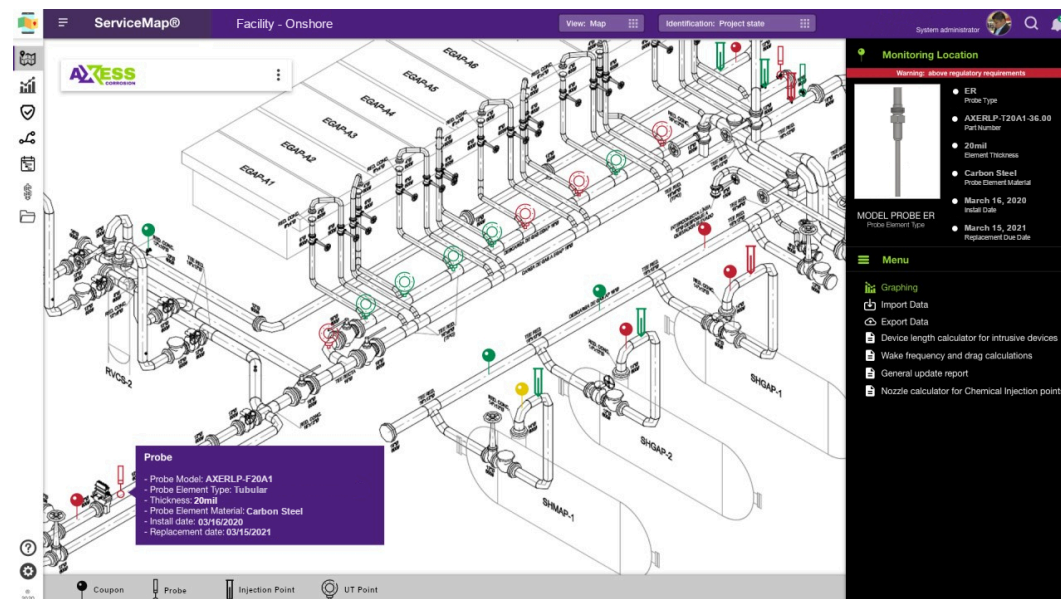
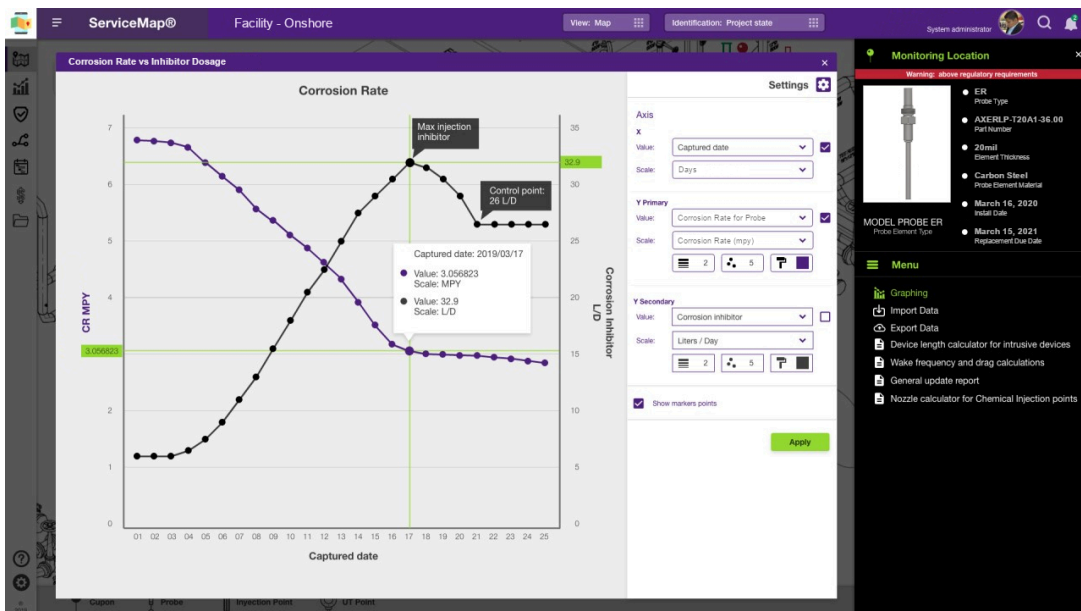
- ◎ Certified trainers in both hydraulic and mechanical access systems
  - Onsite training and technical support in accordance with the latest HSE best practices



### Software

#### Multi – Platform Database

- Coupon analysis and Probe data reporting
- PFD's & Tag ID's (Pictures, GPS)
- Historical Data and Vital Information





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