SMS Ltd provides erosion & corrosion monitoring technology using best in class, field proven technology. After extensive testing we identified the instrumentation to give our clients the edge they require.

System Overview
A non-intrusive sensor-based solution for continuous corrosion or erosion monitoring. The system combines established ultrasonic wall thickness measurement technology with industry standard WiHART wireless communication to deliver accurate and repeatable results.

Easy to deploy, sensors are battery powered and clamped externally to the pipewall, making installation safe, efficient and cost effective.

Benefits

Improve data accuracy and repeatability
- Metal loss indentification from 10s of microns compared with +/- 0.7 for manual UT
- Repeatable measurements – no potential for operator error / variation between results
- Real time monitoring ensures changes to wall thickness can be quickly identified and trended

Reduce integrity monitoring costs
- Fit and forget inspection solution – no requirement for repeat visits to re-inspect
- Minimises requirement for conventional UT inspection

Increase operational safety
- No need for personnel to inspect high risk areas
- Minimise requirement to access difficult to reach / hazardous locations
Specifications

Weight and Dimensions (individual sensor)
- Weight: 520g (1.1lbs)
- Width: 114 mm
- Height: 190 mm
- Depth: 100 mm

Materials
- Waveguide: Duplex steel
- Sensor foot: Duplex steel
- Housing: PC/PBT antistatic
- Potting compound: Epoxy
- Electronics components: ROHS compliant
- Tip seal (optional): Silicone rubber
- Sealant: Bostik Idenden 40-297

Environmental
- Pipe Temperature: Up to +150 °C (high temperature version available)
- IP Rating: IP67

Wireless
- Radio: Compliant with EN 300 328 V1.7.1.
- RF Power: 8dBm (EU, China, Brazil) 17dBm (US/Canada)
- Network Type: Self-forming, self-managing, self-healing mesh
- Range: Short range: Up to 50m (160ft) line of sight between devices
- Maximum Devices: Up to 100 sensors per gateway
- Maximum Data Hops: 8 hops from gateway to furthest sensor

Mounting
- Clamped: Externally mounted, around the pipe, clamp material to suite application (Carbon steel, stainless steel etc)

ATEX Intrinsic Safety
- Certificate number: Baseefa 14ATEX0053X
- Markings: I I G, Ex ia IIC T4 Ga, Tamb = -50°C to +75°C, IP67
- Use only with approved battery types.