FAST CORROSION SCREENING

Most corrosion monitoring programmes are focused on time based monitoring of pre-defined measurement locations. But what if corrosion occurs in other locations or suspected locations are hard to access?

New technologies like Fast Corrosion Screening and Guided Wave will identify the corrosion locations that need to be monitored. These technologies add value to your Asset Integrity Management (AIM) systems by increasing the effectiveness of inspection programmes.

FAST CORROSION SCREENING TECHNOLOGY

Fast Corrosion Screening is a medium range ultrasonic screening technique which provides full volume inspection of the material between the transmitting and receiving probes. Fast Corrosion Screening can be used on both pipes and plates and is especially suitable for inaccessible geometries such as clamps, saddles and pipe supports. This eliminates the need for expensive shutdowns, but provides sufficient information to indicate areas of corrosion, thereby allowing effective decision-making in ensuring the long term integrity of equipment. Fast Corrosion Screening provides reliable data between an extended probe separation of up to 1 metre. Fast Corrosion Screening is an excellent addition to Guided Wave inspections. Where Guided Wave inspections are more suitable for screening large distances (hundreds of metres piping per day) Fast Corrosion Screening is the best option for assessing specific areas i.e. saddles and clamps.

DEFECT CLASSIFICATION

The ultrasound signals provide an indication of defect severity. The signal responses can provide an indication of any changes in the vessel/pipe wall (either external or internal) and based on current experience, the responses are divided into three categories that correspond to the following defect extent:

A) Nominal wall thickness loss of < 10% (approximately) of through-wall extent for any defect present
B) Defect present has a through-wall extent which is likely to be between 10% and 30% - 40%
C) Defect presence that has a through-wall extent which is likely to be greater than 30% - 40%

ADVANTAGES

- Probe separation up to 1 metre
- 100% coverage of material between the probes
- Suitable for steel pipes and plates
- Sensitive to both internal and external surface degradation
- Signal response gives information on defect severity
- Tolerant to typical field surface conditions and thin coating
- Recommended for wall thickness -3 to 100 mm
- Pipe diameters > 4 inches
- Suitable for inaccessible geometries such as inspecting under clamps and saddles, pipe supports, tank floors and half buried pipes

THE SGS EXPERTS

SGS Industrial Services has the knowledge, expertise and experience to perform conventional and advanced NDT inspections around the world using our unique network. Our services offer variations from Guided Wave and the conventional NDT techniques to Risk Based Inspection (RBI/AIM), Time of Flight Diffraction (TOFD), Corroscan, Positive Material Identification (PMI), Magnetic Flux Leakage (MFL), ACFM, Leak Testing, Thermography, Electromagnetic Testing (ET), RFEC, IRIS, Digital Radiography, Radiation detection, RVI and Endoscopy Inspections.

We are pleased to provide services to any location around the world, pertaining as to how SGS can help you in improving the reliability of your processes and assets.

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