



GUIDED WAVE ULTRASONIC INSPECTION



ADVANCED CORROSION INSPECTION & PIPE SCREENING TECHNOLOGY

Guided Wave Ultrasonics is a non-destructive examination technique that projects sound waves along pipe walls to detect corrosion or other damage.

Advanced Non-destructive Screening technique

The Wavemaker Pipe screening system uses guided waves to screen long lengths of pipes for corrosion or cracks from a single test location. The clock position and distance to the anomaly is provided with an approximate wall loss. Conventional ultrasonics or corrosion mapping can then be done on only the corroded areas to determine the exact extent. Setup and data collection generally only takes a few minutes, and the equipment is battery operated and portable. Size from 2" to 48" can be tested using the standard kit, but larger or smaller sizes can be tested using tailor made rings.



HOW IT WORKS

Low frequency guided waves travel along the pipe axis, in both directions saturating 100% of the pipe cross-section. Any change in cross-section greater than 3% will be reflected back to the transducer ring. Test ranges are 10 to 300 meters depending on the configuration, general condition and coating quality of the pipe under inspection.

APPLICATIONS

- Road crossings
- Corrosion under Inspection
- Corrosion under supports
- Buried Piping
- Sleeved Road Crossings
- Offshore riser inspection
- Pipe rack inspections
- Soil air interfaces
- Tube Inspections
- Corrosion Monitoring (PIM's)
- Dock lines
- Overhead Lines

ADVANTAGES

- Long lengths of pipe inspected from a Single location
- Results are immediately available
- In-service inspection up to 120c
- 100% of the pipe inspected within test range
- Data is archived for auditing purposes
- Cost effective and time saving
- Overlays can provide corrosion monitoring
- Detects internal and external corrosion
- Detects corrosion and bends and supports
- Ability to detect cracks and large welding defects
- Inaccessible piping can be screened
- Changes in cross-section of 3% can be detected
- Using overlays changes in cross-section of up to 0.5% Can be detected

