

Teletest Permamount

Guiding the Wave of Innovation

Plant Integrity Ltd. has developed a permanently installed guided wave monitoring tool called Teletest Permamount. This device consists of a transducer array attached directly to the pipe surface providing all the benefits of a Teletest Focus⁺ guided wave Inspection without the potential problems associated with regular access. Permamount is a low-cost, long-life tool installation intended for regular corrosion monitoring of piping systems in environmentally hostile, safety critical or difficult to access areas.



Figure 1: The 4 inch Teletest Permamount system

An Engineered Solution

Plant Integrity has recognised that two main elements are of critical importance to a permanently installed product: longevity and repeatability of data. With this in mind, the enclosure has been engineered to subsea specifications to give confidence that once the tool is installed, it will remain unchanged for years whatever the environment. The enclosure has passed IP68 rating, IEC standard for ingress protection – dust tight and protection against complete and continuous immersion in water.

To ensure repeatability of the results, the coupling force of the transducers to the pipe has been carefully controlled ensuring that there is minimum variability with temperature. This is provided by a backing mass on the transducer, a controlled bond line between the transducer and the pipe and finally an individual transducer pressure. Temperature is also monitored at the tool during data collection.

The tool head is connected to existing Teletest Focus⁺ units via an external communication box that can be located up to 20 metres from the tool head. The data collection is very simple to execute and can be either be analysed on site by a CSWIP trained operator or remotely.

Applications

Typical Applications for this technique include the corrosion monitoring of:

- Road or River Crossings
- Jetty lines
- Elevated lines
- Insulated lines
- Off shore risers
- Buried lines

Features

- Automated 3 mouse-buttons click data collection. Provides the flexibility for on-site analysis or remote analysis by CSWIP Trained operators.
- Multimode Wave Form: Tailored for local needs to maximise monitoring capability. Options include: longitudinal, 3-ring torsional or 2-ring torsional.
- Excellent Data Stability & Repeatability: Data collected from Permamount tool heads is highly repeatable allowing very small changes in pipe condition to be detected.
- Wide Temperature Range: Permamount can operate across a wide range of temperatures from -40°C to +80°C (Optional Higher temperature range is available on request).
- Internal tool temperature is collected via active electronics within the enclosure. This allows dynamic temperature compensation of Guided Wave Test (GWT) data.
- Pipe Size Range: ASME Schedule 2" to 48".
- Unique Serial Numbered Tool Heads for traceability and control.
- Low Profile

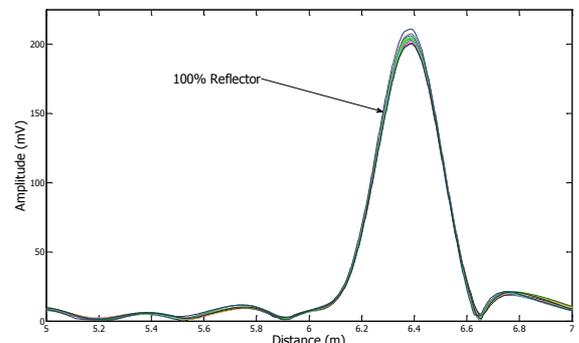


Figure 2: Several Permamount collections overlaid showing array stability