

RTD – Incotest

A Method for Surveying Insulated Ferrous Components

RTD-INCOTEST is the fast, accurate and reliable way of surveying ferrous pipes and vessels - through their thermal insulation. In operation, it does not disturb insulation or coatings and provides accurate results through aluminium, stainless or galvanized steel claddings. With RTD-INCOTEST, insulation may be hot or cold, wet, rough or encrusted, irregular or heterogeneous or even with wire mesh. Through its excellent repeatability, RTD-INCOTEST is ideally suited for baseline and periodic monitoring surveys.



RTD-INCOTEST – Fast and Versatile

With a crew of two and dependent on accessibility, RTDINCOTEST can survey and store up to 1,000 points per day. It monitors the decay of an eddy current pulse within a steel wall, computing the average metal thickness by comparing the transient time (echo) of selected signal features with similar calibration tests. The resulting measurement can be influenced by a number of factors like metallurgy variations (magnetic and electrical properties) and temperature. Depending on metal thickness typical surveys can take from 2 to 40 seconds. Computed average wall thicknesses can be easily logged, and the validation signal displayed on-screen. Raw data is stored for later retrieval.

RTD-INCOTEST – Operational Benefits

RTD-INCOTEST provides a reliable solution for a variety of applications

- RTD-INCOTEST enables the detection of CUI (Corrosion Under Insulation) and FAC (Flow Accelerated Corrosion)
- Riser average wall thickness can be gauged without removing marine growth, neoprene or Monel
- Non-contact 'dry' wall thickness measurements can be carried out even with dirty, coated rough and/or high temperature object
- The robust design of RTD-INCOTEST is electrically, although not intrinsically safe Operation is possible across a wide range of climatic conditions with consistently high levels of reproducibility
- Measuring through any non-conductive or non-magnetic material, RTD-INCOTEST detects and calculates average general levels of corrosion or erosion and provides an instant site report in a measuring matrix format

Applus⁺ RTD
clear insight

RTD-INCOTEST – Technical Information

RTD-INCOTEST provides a reliable solution for a variety of applications.

- Survey capability of up to 1,000 points per day depending on accessibility
- Reliable measurements can be obtained in a wide range of climatic conditions and environments where temperatures can go up to 500° C (930° F) and as low as -100° C (-150° F)
- Constant operation of up to 8 hours with a single battery pack
- The system transducer may be located up to 100 m (328 ft) from the base unit
- Provides a computed thickness reading within 2 to 40 seconds dependent on wall thickness High levels of reproducibility +/- 2%
- Measures through any non-conductive and non-magnetic material such as insulation concrete (with cladding of aluminium, stainless steel or low alloy galvanized steel), or fire retarder up to 100 mm (4") thick and up to 150 mm (6") when pipe or vessel wall thickness is less than 12.7 mm (0.5")



Incotest being carried out on a insulated pipe.

The 'AIM' of Applus RTD

Optimal Asset Integrity Management (or AIM) is the ultimate goal for every plant operator in the oil and gas, petrochemical, processing and handling, water and power generation industries. The advanced solutions and systems from Applus RTD are designed to maximize AIM operations, thereby enhancing plant and equipment performance and productivity, whilst minimizing potential risks for safety and the environment.