



SN Integrity



inductosense

# Simple and Repeatable Wall Thickness Monitoring with **WAND**

# About Us

SN Integrity Pty Ltd, founded in 2017 in Australia, specializes in advanced ultrasonic technologies for asset integrity management. With over 30 years of experience and partnerships with leading firms, the company offers cost-effective, high-quality solutions for onshore and offshore asset inspection and corrosion management.

WAND technology is an embeddable wall thickness monitoring system that enables accurate, repeatable measurements at a fraction of the cost and time of alternative methods.

The product range is modular, providing solutions that enable our customers to digitise their data, whether they require manual or remote data capture.

The system has several advantages over alternative thickness monitoring methods. Our customers realise significant cost savings by replacing existing methods and adopting the WAND technology at scale.



# Benefits

The WAND system has several advantages over alternative thickness monitoring methods. Our customers realize significant cost savings by complementing existing methods and adopting the WAND technology at scale.



## Reduce Inspection Campaigns

Use skeleton crew to collect data manually or log data remotely with the RDC.



## Eliminate Insulation Removal

Collect data through coatings, insulation, wrap, cladding – eliminating the cost of removal.



## Reduce Unplanned Shutdowns

Accurate data allows operators to calculate corrosion rates and make informed maintenance decisions.



## Reduce Accessibility Costs

Reducing need for rope access or scaffolding with the ECHO, Reach or RDC.

# WAND-TMS

Thin, embeddable, permanently installed, battery-free ultrasonic sensors



The WAND sensors are designed to be permanently installed on the surface of pipework and vessels to provide reproducible thickness readings free of human-error. Each sensor comes with an RFID for traceability and automated data management.

Inductosense offers the standard TM sensor, where the measurement point is in the centre of the sensor, or alternatively the offset TM sensor, where the measurement point is offset to the side for monitoring in places such as next to welds.

## Features:

- Low-profile and embeddable
- Battery-free – wirelessly activated by the WAND data collection hardware
- ATEX/IECEX approved for Zone 0
- Install in a matter of minutes
- Each sensor comes with an RFID



ATEX Approved  
Intrinsically Safe



RFID  
Tagged



Simple to  
install



Battery Free

# WAND-HDC

## Handheld Data Collector



An easy-to-use handheld device that wirelessly activates and collects a thickness reading from a WAND sensor when in close proximity.

The interface displays the wall thickness, A-scan and sensor location information. The WAND is designed so that anyone can take an ultrasonic thickness measurement in the field, with the simple press of a button.



Rechargeable  
battery



Inductive  
coupling



Easy to use



Storage for  
readings

# WAND-RDC

## Remote Data Collector





The WAND Remote Data Collector (WAND- RDC) is an intrinsically safe, battery-powered device designed to be used with up to 8 WAND sensors.

It can be programmed to collect ultrasonic thickness data from the WAND sensors at predefined intervals and the data can then be downloaded via Bluetooth 5.0 at a range of up to 200m.

## Features:

- ATEX/IECEx approved for Zone 0
- Take reading at pre-defined intervals
- Quick installation
- No network required



5 year\* battery life



Multiple locations



ATEX Approved  
Intrinsically Safe



Stores 1500 Readings

\*based on 1 reading per day from 8 sensors

# Software & Accessories

## ECHO

The Inductosense ECHO is an extension cable designed to work with WAND sensors.

One end of the ECHO is applied over a pre-installed sensor (over the sensor coating), and the other end becomes the new data collection location. The ECHO is ideal for difficult-access locations such as underneath insulation, confined access, or at height.

The ECHO comes in a variety of set lengths, including 45cm, 100cm, 200cm and 400cm.



## REACH

The REACH is an extendable accessory for the WAND handheld data collector. It can be readily attached to the WAND so that data can be collected from WAND sensors up to 4m away.



# iDART

The Inductosense Data Analysis and Reporting Toolkit (iDART) is a cloud-based software package for use with the Inductosense WAND system. iDART enables configuration of the WAND data collectors, as well as management, analysis and export of the WAND ultrasonic thickness data.



View and manage  
WAND data



Cloud  
Based



Calculate  
corrosion rates



Set critical  
thresholds

# Applications

## Accurate and Repeatable Data with WAND

The WAND system has been designed to overcome the limitations of manual ultrasonic testing and the costs associated with fully wireless permanently installed monitoring systems. The low-cost sensors can be installed on thickness monitoring locations.

Thickness measurements can then be quickly acquired by anyone on the asset using the WAND-HDC or remotely using the WAND-RDC.

The thickness data is accurate, repeatable and trendable which can support predictive maintenance decisions, reduce costs, emissions and improve asset safety.

- Improve safety
- Eliminate the need for scaffolding or rope access
- Insulation and coatings do not need to be removed to take readings
- Improve reliability
- Reduce emissions
- Modular system can be adapted to meet customer needs
- Reduce inspection campaigns leading to lower emissions.

# Oil and Gas



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## Maximise Asset Performance

By providing real-time data on the condition of oil and gas equipment, these sensors can help prevent costly failures, reduce downtime, and improve safety.

The WAND system can provide operators with valuable insights about the integrity of their asset, and the accurate and repeatable data allows them to make more informed decisions than with traditional methods.

Applications include:

- Measuring internal wall thickness of pipelines
- Monitoring sand erosion in pipelines
- Monitoring the condition of critical infrastructure



Real time  
data



Improve  
safety



Lower risk  
of failure



Less  
downtime

# Chemical



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## Accessible Data

The ultra-thin WAND sensors can be easily installed under insulation and can provide an accessible thickness measurement point in high risk and challenging locations.

The availability of data, online, can optimise the maintenance scheduling to provide more cost-effective asset integrity management across a site and an organisation.

Applications include:

- Automated thickness monitoring points at height on tanks and vessels
- Localised monitoring of high corrosion areas on ethylene plants
- Amine system asset integrity monitoring



Real Time  
Data



Online Data



Reduced  
Costs



Improved  
Safety

# Nuclear



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## Maximise Safety, Minimise Risk

Deployment of the WAND technology can maximise safety and minimise risk of personnel exposure to radiation environments by providing real-time remote data collection.

Regular, easy to capture data collection can ensure the infrastructure safety is maintained and mitigate the possible risk of piping leakage.

Applications include:

- Localised monitoring of high corrosion areas in cooling systems
- Automated thickness monitoring at high radiation exposure locations
- Piping, tubing and storage tank asset integrity monitoring



Improve  
Safety



Minimise  
Risk



Real Time  
Data




Efficient Data  
Collection



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If you'd like to know more about our products or would like a demo, please get in touch.


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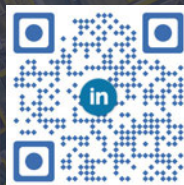
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