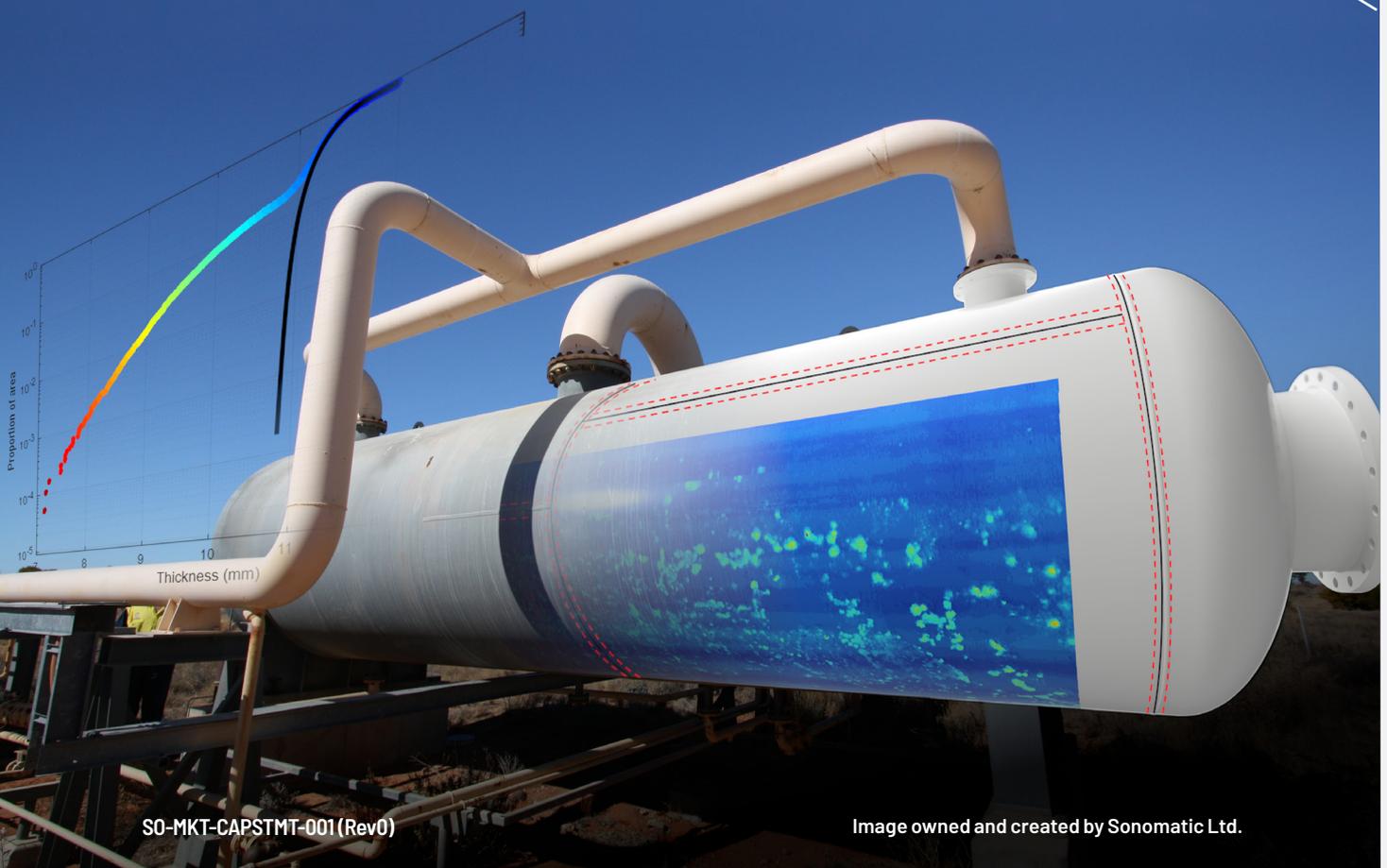


CAPABILITY STATEMENT

INTEGRITY SERVICES

THE PURPOSE

This document is composed to assist our clients and the supply chain to understand our group operating structure along with a high-level understanding of the benefits, services and specialist packages associated with our integrity and engineering capabilities.



WHO WE ARE



Sonomatic is part of a group of companies, an international consortium that delivers a comprehensive range of asset integrity, inspection, maintenance and specialist access services across a wide range of industries and sectors.



FTI-INTL



Sonomatic specialise in the design, development and application of Non-Destructive Testing (NDT) inspections. Since the company's formation in the 1980s, we have combined these NDT processes with integrity engineering capabilities to provide fully integrated inspection packages that directly meet the needs of the client.

Bringing innovative bespoke inspection solutions to the market through in-house development of equipment, software and robotics, Sonomatic resides as the global leader for ROV-deployed subsea inspection and Non-Intrusive Inspection (NII) technologies.

Our team is committed to providing accurate, proactive inspection and engineering solutions that enable clients to manage the integrity of newly constructed assets and make informed decisions crucial to the safe continued operation of maturing ones.

GLOBAL FOOTPRINT



WHAT WE DO

Sonomatic provide integrity engineering and NDT services at every stage of a project's life cycle. NDT subject matter experts assess each scope of work individually to ensure that the inspection solution(s) will meet the desired deliverables. If a unique solution is required, our R&D department can design and manufacture inspection technologies and scanners that will exactly meet our client goals. Our integrity service offerings provide industry leading inspection and engineering evaluations of the inspection data to enable recommendations for repeatable inspection programmes.

INTEGRITY SERVICES



SUBSEA



ONSHORE/ TOPSIDE



RESEARCH & DEVELOPMENT



INTEGRITY SERVICES

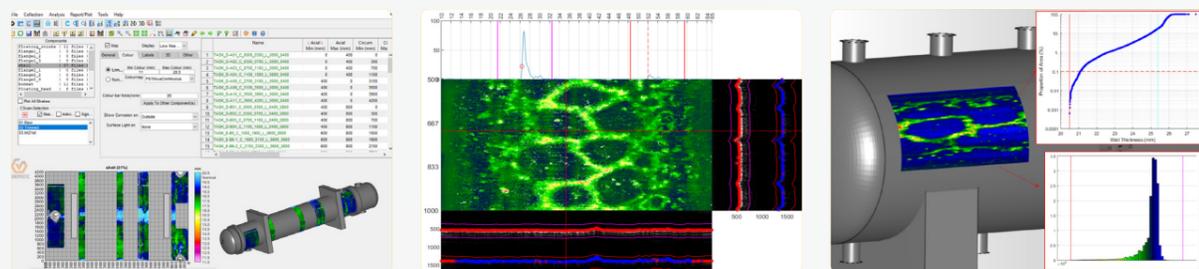
Sonomatic's integrity services team strives to maximise the value of advanced inspection in the context of integrity management and provide operational support and integrity services for our clients to maximise the production and life of their assets. We achieve this by combining years of experience in this field with specialised engineering, mathematical analysis, and custom software developments. With headquarters in the UK and South East Asia (SEA), we can service regions with a local interface and execution team for our clients. Our Integrity Services Group covers the broad range of Asset Integrity Management requirements such as Non-Intrusive Inspection (NII), Fitness for Service (FFS), Failure Investigation, Risk Based Assessment (RBA), and Asset Life Extension and Project Management/Consultancy. Sonomatic has pioneered the formal industry approach for NII and has developed practical statistical methods for analysis of inspection data as well as inspection planning through simulation. Sonomatic is well-positioned to support the integrity management sector in its inevitable transition to increased data-driven decision making. Our Integrity Service Group strives to ensure maximal value for our clients, driving down the cost of Integrity related OPEX.

KEY OFFERINGS

FULLY INTEGRATED NII PACKAGE



SONOMATIC INTEGRITY MANAGEMENT SOFTWARE - SIMS

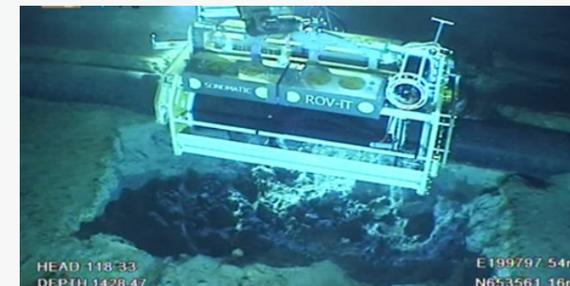


FULLY INTEGRATED INTEGRITY MANAGEMENT PACKAGE



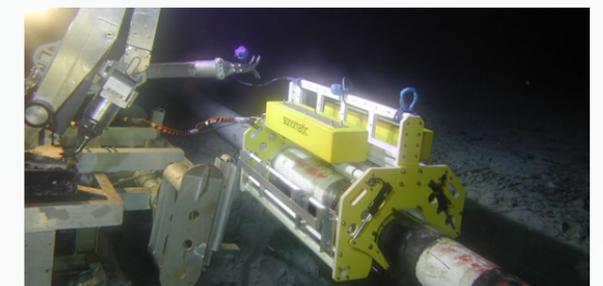
CASE STUDIES

KEY SONOMATIC SUCCESS STORIES



DEEPWATER PIPELINE INSPECTION

Sonomatic were engaged by an operator to carry out a deepwater inspection in SEA. Performed at 1400m below sea level, at that time, it was the deepest inspection in the world. The data acquired equated to 9.5% of the total length of the line but was adequate to allow Sonomatic to statically extrapolate the results to determine the condition of the overall line.



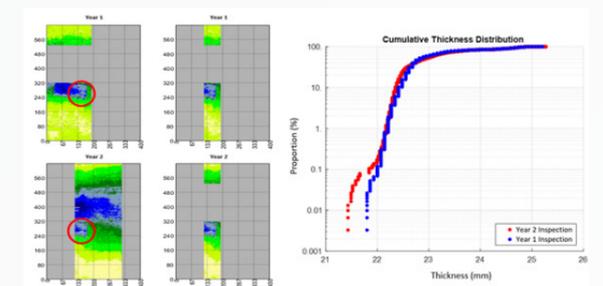
FEASIBILITY STUDY & EXECUTION PLAN

Sonomatic identified the integrity threats to our clients asset, recommending the optimum techniques for detecting the known threats and deployment methods to be used for the campaign. The subsea work scope was developed along with the inspection execution strategy and plan to ensure the Integrity Management Plan update and the required asset life extension study were carried out successfully.



APPLICATION OF NII AT A GAS PLANT

Sonomatic assessed more than 100 pressure vessels at a gas plant for a major oil and gas client. Sonomatic performed NII assessments and Sonomatic integrity staff visited the site along with their technicians to collaborate on the work scope development to ensure that recommended inspection areas were both representative of potential degradation threats and attainable by the inspection. In total, 80% of assessed vessels were suitable and inspected using NII. This significantly reduced the planned shutdown and resulted in production savings of approximately £4 million per module.



ADDED VALUE FROM REPEAT INSPECTIONS

Using specialist statistical analysis, Sonomatic adds value to repeat inspections by providing in-depth data comparisons. Where an inspection indicated a significant change in the wall thickness, Sonomatic's proprietary SIMS software allowed advanced data analysis to highlight an external feature, aiding scan alignment. The improved results showed no change to the extent of degradation across the repeated area, and a minor reduction in the absolute minimum. SIMS allows Sonomatic to store comparison data in one project, meaning future inspections can be easily added and compared.

SERVICES

NON-INTRUSIVE INSPECTION (NII)

NII is a safe and viable alternative to conventional internal visual inspection (IVI) that, when executed effectively, offers an equivalent or improved level of assurance, provide significant cost benefits and eliminates the need for Confined Space Entry (CSE).

As key authors of the HOIS recommended practice for NII, published as HOIS-RP-103, Sonomatic is a global leader in the implementation of NII. We are uniquely positioned to offer fully integrated NII, including comprehensive planning and evaluation services as well as advanced NDT capabilities. Our integrity services group has a strong track record of successful NII delivery, with extensive experience in assessments for suitability, workscope development, on site execution, and evaluation for more than 1000 pressure equipment items worldwide.

INSPECTION SUPPORT

Sonomatic provide pre and post integrity support to both subsea and topside inspection campaigns. The specific application is driven by the client's needs but our regular inspection support work includes: providing formal justification for externally applied sampling inspection of piggable and unpiggable pipelines, verification of ILI data against UT data, statistical evaluation of inspection data, comparisons of repeat inspection campaigns to calculate the most representative corrosion rates and 3D modelling of inspection results.

INTEGRITY MANAGEMENT SERVICES

Our integrity services bring together all aspects to ensure safe and sufficient asset operation as well as optimising the asset life. Our teams work with our clients to ensure that, where required, all aspects of an integrity management program are addressed; be it onshore or offshore. Our integrity services include Root Cause Analysis and Failure Investigation, Risk Assessment (RBI, QRA), Fitness for Service (Level 1 to Level 3 finite element analysis), Asset Life Extension (remaining life strategy and life cycle costing), Defect Assessment (corrosion, gouges, dents, ovality, wrinkles, cracks etc.), Audits (compliance audit and system effectiveness audits or gap analysis), Corrosion and Materials Assessment (materials selection, damage threat assessment and corrosion study), NACE Direct Assessment for challenging pipelines, Project Management and consultancy.

SONOMATIC INTEGRITY MANAGEMENT SOFTWARE (SIMS)

SIMS has been developed in-house specifically for improving the effectiveness of NII delivery through realisation of a digital twin for pressure equipment condition. This software aims to close the gap between inspection and integrity-related activities in NII by streamlining NII workscope development, data collection, data analysis, statistical analysis and NII evaluation.

A parametrically defined model of the asset is central to linking the key phases of NII. The itemised inspection workscope can be displayed on a 2D or 3D representation of the vessel. The model is used throughout the inspection, allowing accurate recording of inspection locations, data and results. This ensures conformance to the scope, increases reliability, ensures repeatability and provides an intuitive way to access the data. Inspection data can be displayed on the asset model providing improved visualisation and reporting of inspection results for the asset. SIMS also makes this data available for detailed interrogation, facilitating efficient statistical analysis and NII evaluation. Long terms benefits of SIMS include effective data management and detailed comparison of repeat inspection data sets.

INSPECTION DATA ANALYTICS

Data-driven decision making is playing an increasing role in integrity management. Sonomatic is recognised as an industry leader in the development and application of statistical analysis of inspection data. Our approaches facilitate integrity decisions based on the best possible knowledge of the equipment's condition and an understanding of measurement uncertainty. Sonomatic played a key role in the development of the HOIS Recommended Practice for Statistical Analysis of Inspection Data, HOIS12(R8). We continue to innovate our analytical approaches, ensuring the benefits of advances in inspection and monitoring technologies are fully realised in practice.

INTEGRITY OPERATIONAL SUPPORT

Sonomatic provides asset integrity support through our specialised team, giving our clients access to cutting edge industry knowledge. Our team will assist our clients in the planning, engineering and execution of their future inspection campaigns. We can review subsea integrity reports and operating parameters to optimise Integrity Management Programmes (IMP), ensuring design life and maximised production requirements are met. Our engineering service ensures the correct inspection techniques are being executed and your inspection campaigns are optimised.



OTHER SERVICES

RII

RII is the use and application of Remote Internal Inspection systems to internally inspect equipment without the need for Confined Space Entry (CSE). The Sonomatic RII Division is the amalgamation of cutting-edge technology, multi-skilled site-based crews and a technically experienced management team. This strong foundation has allowed us to become the pathfinders of this emerging industry, setting the standard for others who follow.

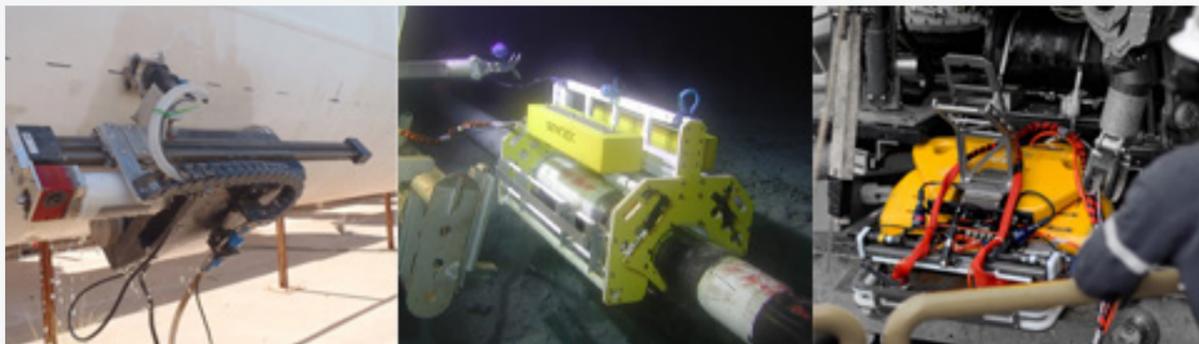
Our staff expect excellence from themselves and each other, which has led to the RII team being known throughout the industry as the service provider of choice. Across the whole of Sonomatic, we pride ourselves on executing and delivering high-profile, technically challenging scopes due to our commitment to innovation, the best people and our absolute client focus.



SONOMATIC FIELD SERVICES

Sonomatic Field Services delivers both topsides and subsea advanced NDT. Sonomatic has a strong capability in the research and development of advanced NDT techniques, equipment design and delivery of advanced inspections. Our Integrity Support Team and Specialist Inspection Division work closely together to design and execute effective inspection solutions for a given combination of expected damage and integrity management requirements.

Sonomatic are uniquely positioned in that we offer advanced NDT execution capabilities in addition to detailed NII planning and evaluation services, thereby providing the full suite of NII services to clients. This can enable huge efficiencies in inspection data management and overall project delivery.



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