



Advanced Non-Destructive Testing Services

Tubing and Surface Inspections



Company overview

Brookes Bell is a leading international multi-disciplinary technical and scientific consultancy serving the marine and energy sectors. Established in 1903, our people have unrivalled expertise across a range of inter-related disciplines including Marine, Civil and Mechanical Engineers, Master Mariners, Naval Architects, Consulting Scientists, Fire Investigators and Metallurgists, enabling complex projects to be delivered through a single point of contact.

Our NDT services use market leading Eddyfi Technologies and bespoke software systems to provide the most advanced range of non-destructive Asset Integrity Solutions available on the market today.

Non-destructive testing and evaluation

At Brookes Bell we understand that knowledge is power and that the better the quality of data we provide, the more accurate and effective critical decision-making can be. Making your choices as straightforward as possible.

Non-destructive testing (NDT) of critical components is fundamentally important to safety and integrity management in industries such as Marine, Oil & Gas, Nuclear, Power Generation, Renewables and Aerospace.

Our NDT services use market leading Eddyfi Technologies and bespoke software systems to provide the most advanced range of non-destructive Asset Integrity Solutions available on the market today.

Electromagnetic testing (ET) techniques are particularly suited to the inspection of heat exchangers (HX) and boilers and the surface inspection of plate, pipe, welding, castings and forgings.



Image description here

Non-destructive testing and evaluation

Brookes Bell's materials engineering team offers Level 3 NDT expertise and PhD metallurgical support to provide market leading services. We use best-in-class technologies blended with bespoke software systems to provide our clients with the most advanced range of non-destructive Asset Integrity Solutions available on the market today.

Qualified to work onshore and offshore, our expertise lies in knowing which technique or combination of techniques is best suited for the inspection of critical assets in any materials, situation and physical location.

Sectors

- Maritime
- Offshore Oil & Gas
- Renewable Energy
- Nuclear
- Power generation
- Aerospace

Our specialisms

Advanced NDT, Testing and Evaluation Services

Electromagnetic Technologies for Tubing

Electromagnetic Technologies for Surface Inspection

Interactive 3D data analysis scans and reports

Advanced PAUT and TOFD ultrasonic testing of plate, pipe and bespoke components

This combination of experience and in-depth knowledge of global manufacturing and quality standards provides asset owners with a best-in-class service that is tailored to the individual needs of our clients.

Internationally accredited to ISO 9001:2015, we operate across multiple industries worldwide, helping our clients to detect problems before they impact on operations, thereby increasing asset reliability and reducing unplanned downtime.

Conventional NDT and advanced NDT services

- Eddy current testing (ECT)
- Eddy current array (ECA) including tangential eddy current array (TECA) using Sharck probes)
- Remote-field testing (RFT)
- Near-field testing (NFT)
- Near-field array (NFA)
- Magnetic flux leakage (MFL)
- Internal rotating inspection system (IRIS)

In addition we also offer the following services:

- Borescope Examinations
- Ultrasonic testing (UT)
- Phased array ultrasonic testing (PAUT)
- Time of flight diffraction testing (TOFD)
- Semi-automated corrosion mapping (AUT)



Brookes Bell Analysis and Reporting

Our leading-edge software presents the results of NDT inspections and testing as advanced, interactive, 3D images. It enables our clients to see and understand the health of their assets every bit as well as we do, allowing for faster, more cost-effective planning and continuity of operations.

We work in strict accordance with all major international standards governed by our own quality systems which in turn helps to ensure conformance and safety in our clients' systems.

ET Magnifi

Brookes Bell's Magnifi software is powered by Eddyfi Technologies and facilitates all electromagnetic testing technologies for tubing and surface inspections with conventional and array probes.

It can

- Size typical ID and OD pits more accurately than other systems, with specially developed sizing curves
- Detect axial and circumferential cracks in and around tubesheets on heat exchangers
- Generate high-resolution 3D images of ECA scans for more coverage and easier detection capability
- Manage large scale inspection projects and generate detailed reports faster than any other system in the sector
- Enable real-time data processing of C-scans for in-situ analysis of harmful defects
- Be customised and evolved to suit changing client requirements

TubePro

TubePro is a state-of-the-art tube mapping, data management and reporting software developed for the Oil & Gas, Petrochemical, Power Generation and Marine Industries. Used in conjunction with photo recognition technology, it allows for the creation of a detailed tube map and 3D model of your entire system.

A proven success with engineers and plant operators across all sectors, these 3D models of complete tube bundles pinpoint the exact location of defects and their severity, giving you the most real replication of your asset's condition available today.

Data and images are produced in a format compatible with all popular spreadsheet software, allowing for easy incorporation in reports. They can also be updated in real time and linked to TubePro so that reports are updated automatically with project-specific data enabling our clients to have a real-time overview of their plant.



