

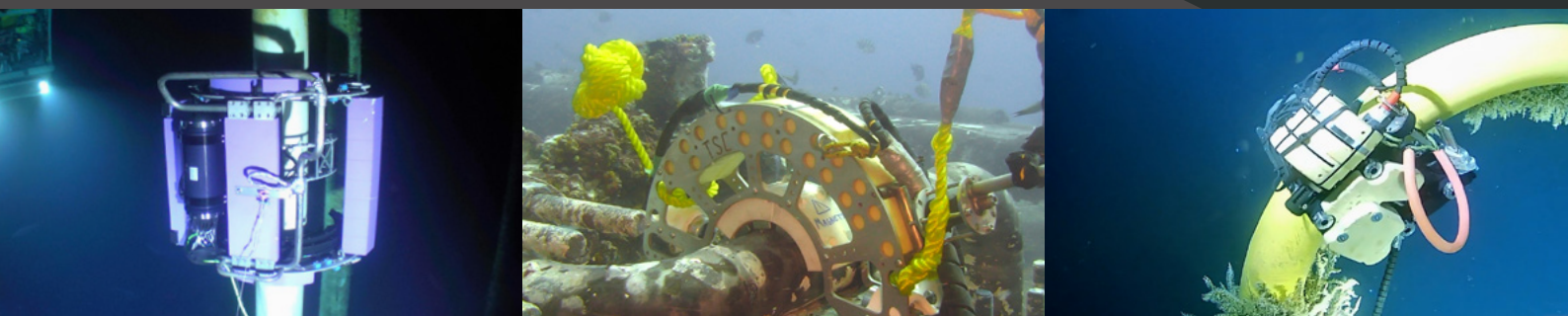


ADVANCED SUBSEA ROBOTIC INSPECTION SERVICES

TSC Subsea combines patented and proprietary NDT inspection technologies with award-winning robotic systems to solve the most challenging subsea inspections.

From the routine to the seemingly impossible.

www.tscsubsea.com

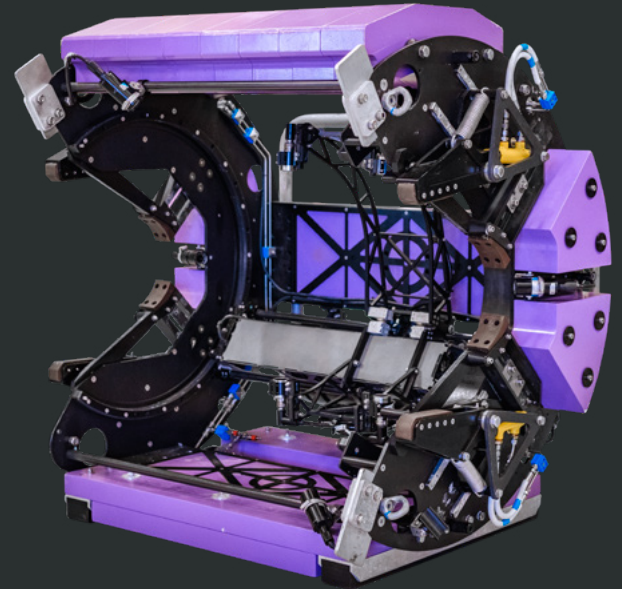


TSC Subsea Innovation

Delivering Solutions, Ensuring Integrity

Through our exclusive underwater Non-Destructive Testing (NDT) technologies and remote robotic scanners, we empower our customers to perform integrity assessments on their subsea assets, including pipelines, flexible/rigid risers, offshore structures and vessels while minimising costs, reducing environmental impact, and enhancing personnel safety.

We are committed to delivering superior quality and reliable inspection data on time, every time. We assure our customers of accurate subsea asset integrity assessments, enabling them to make well-informed decisions and instilling confidence in their operations.



APPLICATIONS

We distinguish ourselves by providing a wide array of NDT techniques and subsea robotic inspection systems deployable via remotely operated vehicles (ROVs) or divers. This versatility enables us to carefully choose and utilise the most suitable NDT methods that align with the unique needs of our customers.

- > Pipelines
- > Flexible Risers
- > Subsea Structures
- > FPSOs and Vessels

- > Grouting Integrity
- > Splash Zone
- > Manifold Piping
- > Jumpers
- > Jackets / Pontoons
- > Caissons
- > Spud Cans
- > Uwild
- > Flow Assurance

INSPECTION CAPABILITIES

With a track record of over ten years in resolving subsea inspection challenges across various water depths, ranging from the splash zone to ultra-deepwater, we possess the knowledge and experience in assessing the following types of damage mechanisms and typical issues associated with vital subsea assets:

- > Validation of In-Line Inspection (ILI) surveys.
- > Evaluation of internal pipeline corrosion and erosion.
- > Inspection of welds in subsea structures.
- > Corrosion Under Insulation (CUI) assessment.

- > Measurement of pipeline geometry, including ovality and dents.
- > Flange face corrosion inspection.
- > Wall thickness measurement for elbow extrados, duplex, and steel.
- > Detection and measurement of hydrates.
- > Evaluation of grout integrity.
- > Identification of flooded annulus in flexible risers.
- > Flooded Member Detection (FMD).
- > FPSOs hull surveys and bilge keel welds.

ADVANCED NDT TECHNOLOGIES

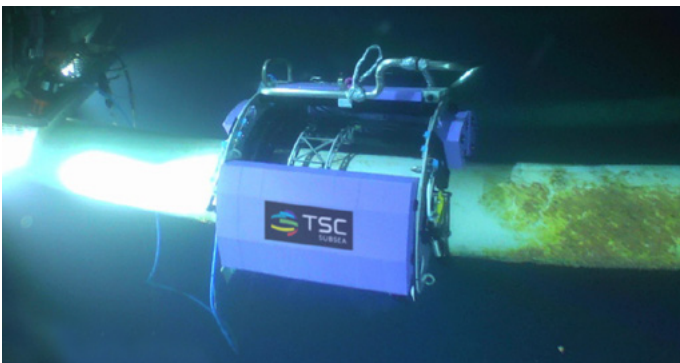
Our comprehensive portfolio encompasses a range of NDT inspection technologies. These advanced techniques seamlessly integrate with a variety of subsea robotic scanners, all of which can be deployed via remotely operated vehicles (ROVs) or divers.

ART™

ACOUSTIC RESONANCE TECHNOLOGY

Through Coating Wall Thickness Measurements

Our proprietary ART has gained significant recognition within the subsea inspection field. Its exceptional capabilities for coating penetration of attenuative materials and high accuracy in conducting through-wall inspections from the external surface make ART an excellent choice for inspecting pipelines, flowlines, risers and flexible risers.

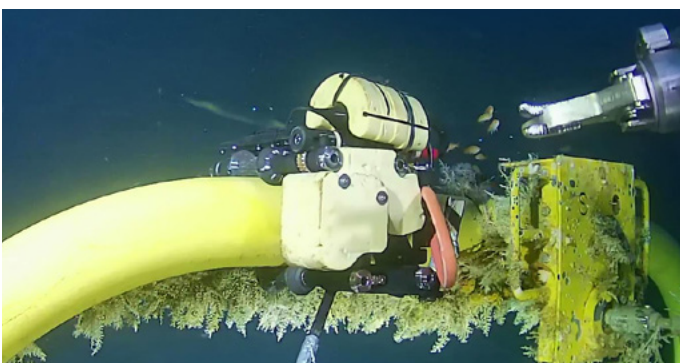


SPA™

SUBSEA PHASED ARRAY

High-Resolution Corrosion Mapping and Weld Inspection

Phased Array Ultrasonics Testing (PAUT) is the standard in-service inspection discipline for high-resolution corrosion mapping and crack assessment for topside operations. We have brought the many benefits of PAUT into the subsea inspection world. The resulting SPA system incorporates conventional PAUT and ToFD but also advanced techniques such as TFM (Total Focusing Method).



ART

ACFM

SPA

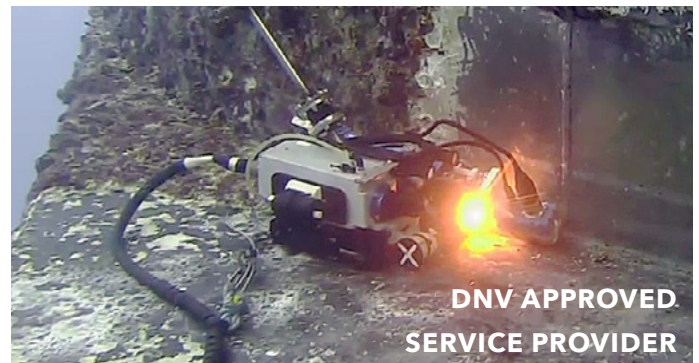
SPECTA

ACFM®

ALTERNATING CURRENT FIELD MEASUREMENT

Surface-Breaking Crack Detection and Sizing

ACFM electromagnetic inspection technology is the method of choice for detecting and sizing subsea surface-breaking cracks in critical welds. Recognised and approved by many certification bodies, including DNV, ABS and Lloyds, the technique has superseded traditional non-computerised and more user-dependent methods, such as magnetic particle inspection (MPI).

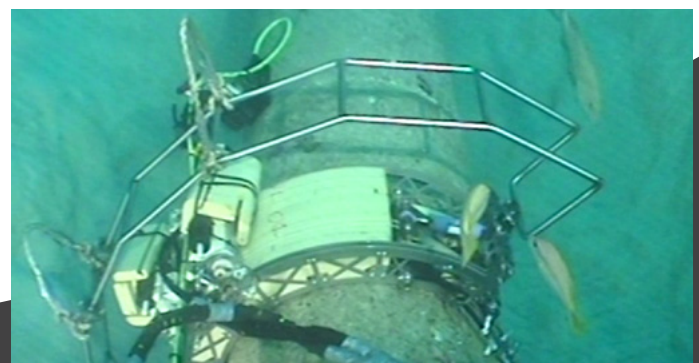


SPECTA™

SUBSEA PULSED EDDY CURRENT TESTING ARRAY

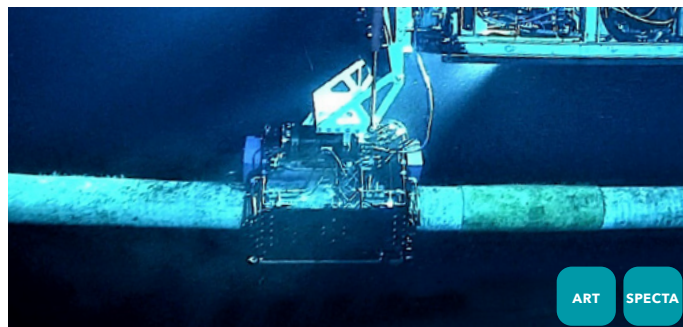
Corrosion Under Insulation (CUI) Assessment

Our exclusive SPECTA technology is an electromagnetic inspection technique designed to combat CUI in applications such as risers, jetty piles, caissons, and underwater piping systems. Capable of remaining wall thickness measurements without removing coatings such as concrete and polypropylene brings significant cost savings to our customers.



ROBOTIC DEPLOYMENT

Our remote robotic inspection technology allows clients to efficiently and cost-effectively monitor their subsea assets and infrastructure. Our field-proven delivery systems ensure high-quality NDT inspection data, enabling clients to make informed operational decisions based on reliable and repeatable inspection results. This approach minimises unscheduled stoppages, incidents, and environmental leaks, ensuring smoother and more sustainable operations.



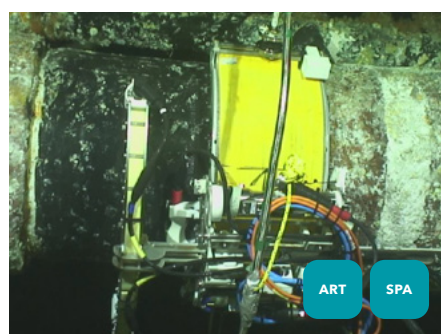
ARTEMIS®



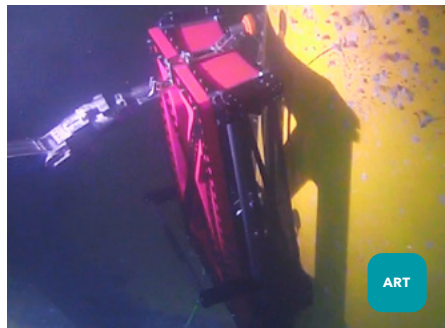
MagCrawler™



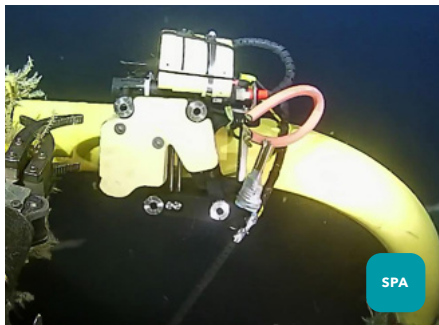
NodeScanner™



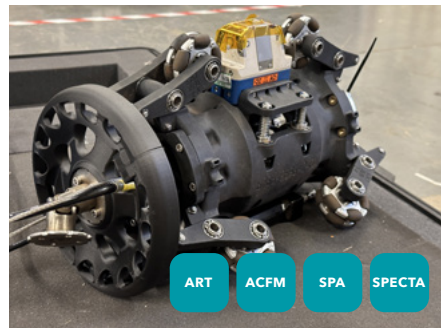
vCompact™



ART GUIDE™



LineScanner™



Customised Solutions

"With TSC Subsea we found a reliable partner with whom we were able to complete the relevant offshore work in a safe manner, within the scheduled time frame and within the planned budget"

Ocean Breeze Energy GmbH (OBE) Project Manager

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