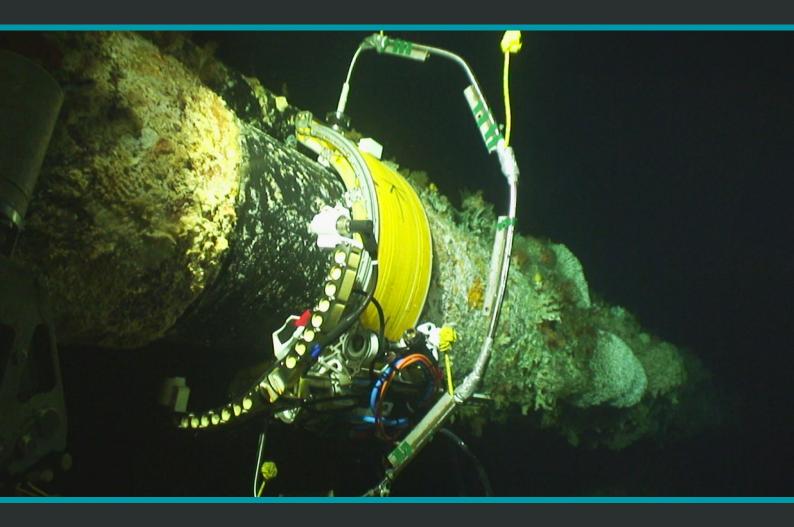


# **vCompact**<sup>TM</sup>

Multi-Technology Inspection for Subsea Pipelines and Structures in Tight Access Areas.



- Corrosion mapping, wall thickness measurements and ILI verification assessments.
- > Versatile design for axial and circumferential measurements.
- > Ideal for splash zone and tight access areas.

2 TSC Subsea vCompact

# vCompact<sup>TM</sup>

# ROV-Deployed Solution for Corrosion Mapping, Wall Thickness Measurements, ILI Verification, and Weld Inspections.

This system is engineered to work seamlessly with Inspection and Work Class ROVs, making it the ideal solution for the remote inspection of pipelines and structures in challenging and confined spaces.

The vCompact is equipped with advanced Non-Destructive Testing (NDT) Technologies, including Acoustic Resonance Technology (ART), Subsea Pulsed Eddy Current Testing Array (SPECTA<sup>TM</sup>) and Subsea Phased Array (SPA<sup>TM</sup>).

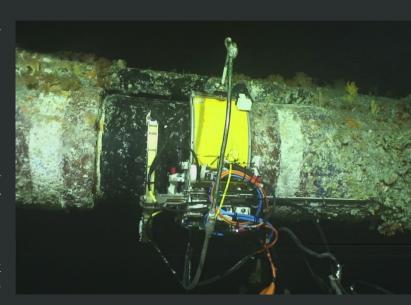
These technologies enable high-resolution wall thickness measurements, even through thick subsea attenuative materials and concrete weight coatings (CWC), ensuring precise and reliable data collection.

## **Ideal for Tight Access Inspections:**

The vCompact is designed for complex subsea inspection tasks, particularly in tight access areas such as:

- > Field joints
- Tight access tubular structures
- Subsea jumpers, risers, and riser guides
- Hot tapping locations

One of the major benefits of the vCompact is its ability to perform inspections without the need for coating removal, saving time and reducing operational complexity.



## **Proven in Harsh Conditions:**

The vCompact is designed to withstand challenging subsea environments, including swell and currents, making it highly effective for splash zone inspections and tight access areas.

Strong magnetic feet or hydraulic clamps ensure the scanner can be securely fixed to both ferrous and non-ferrous surfaces. After deployment, the ROV can detach and stand off, eliminating the need for long-term station keeping, thereby reducing operational strain and improving efficiency.

It can accommodate brace and pipe diameters ranging from 89mm (3in) to 3,000mm (118in), and is configurable for inspecting confined areas around conductor guides and gusset/stiffener plates.

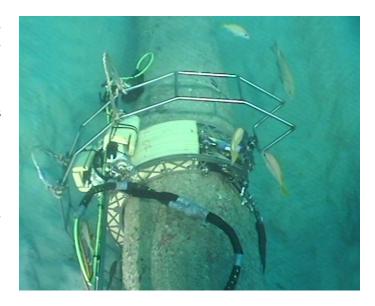
3 TSC Subsea vCompact

# **DEPLOYMENT/PROBE CONTROL**

The scanner incorporates TSC Subsea's unique teach and learn technology, which allows the probe to accurately follow the area to be inspected.

The probe is held in contact with the inspection surface using passive compliance, which ensures correct alignment with the inspection surface during inspection. Adjustments of position can be made in both parallel and transverse directions, allowing full coverage of the area to be inspected.

The vCompact is the ideal solution for ensuring the structural integrity of subsea pipelines and structures, even in the most difficult-to-reach locations.



# **NDT TECHNOLOGIES**

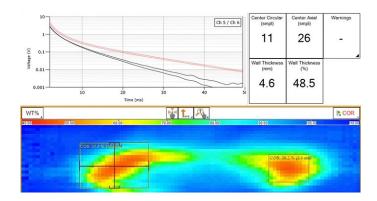
# **ART**®

- > Through coating wall thickness measurements
- > Exclusive to TSC Subsea.
- > Inspect through thick subsea coatings and materials with high attenuation >100 mm (4 in).
- > Highly accurate depth sizing of +/- 0.2 mm.

# 050 Jerm 250 Jerm 250

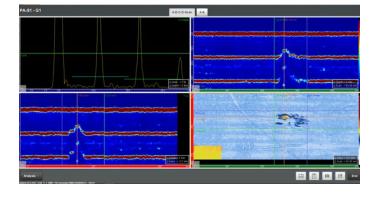
#### **SPECTATM**

- > Semi-quantitative screening method.
- > Wall thickness measurements through coatings such as concrete.
- > Substantial cost savings by eliminating coating removal.
- > Scan in 'screening mode' for greater efficiency.



## **SPA**<sup>TM</sup>

- > High-resolution corrosion mapping and volumetric weld assessment.
- > Advanced techniques, including ToFD and TFM.
- > Improved defect detection with a high probability of detection from a single probe position.
- Suitable for ferrous and non-ferrous assets.



VCOMPACT® SPECIFICATIONS		
NDT technology options	Acoustic Resonance Technology (ART) Subsea Pulsed Eddy Current Testing Array (SPECTA <sup>TM</sup> ) Subsea Phased Array (SPA <sup>TM</sup> )	
Depth rating	3000 meters (10,000 ft)	
Weight in air	35 kg (77 lbs)	Cameras & other tooling excluded
Weight in sea water	16.0 kg (35 lbs)	Buoyancy is depth specific
Diameters	89mm (3in) - 3,000mm (118in)	Frame modification could be needed outside these diameters
Remote operated vehicle options	Inspection Class / Work Class	
*Electrical interface	90VAC to 264VAC / 47-63Hz / 127-370VDC	5-meter-long pig tail
*Communications interface	Oil filled pressure balanced pig tail with single mode fiber optic or Copper Ethernet	100mbit Ethernet (CAT 5E) or Fiber optic
Temperature Operating	-20°C to + 45°C (-4°F to +113°F)	Deck and subsea
Minimum data collection step	1 mm radial / 1 mm axial	
Inspection Speed	60mm/s	Example 500mm 360 degrees scan on 4" riser ~15 minutes
Magnetic Attraction (permanent)	300kg	Adjustable to suit application
Inspected coatings	Polymer coatings and epoxies.  Coal Tar/Tape/Bitumen wraps/Shrink sleeves. Novolastic and rubber coatings	PP/PE/IMPP/IMPU/SPU Multilayered Canusa/ Raychem etc. Typical for jumpers

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