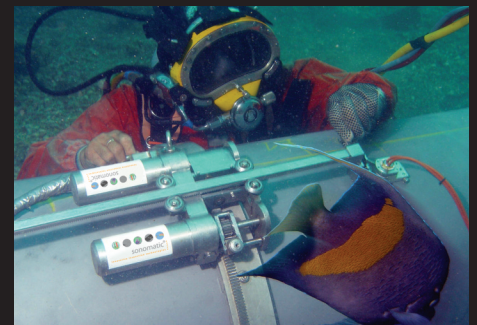


Subsea Inspection – Diver Deployed (Automated UT) Nautilus System

The Nautilus system is a dual or triple axis motorised manipulator designed for the sub-sea inspection of pipework and tubulars at water depths down to 250 metres. The manipulator is diver deployed, controlled from the surface, and is interfaced with a Sonomatic Microplus digital ultrasonic imaging system to display the data in various formats.



A wide variety of ultrasonic inspections techniques can be deployed, including Corrosion Mapping, Pulse-Echo angle shear wave And Time-of-Flight Diffraction. Changes from one inspection method to another can be made with the manipulator in situ, negating the time-consuming recovery of the unit to the surface.

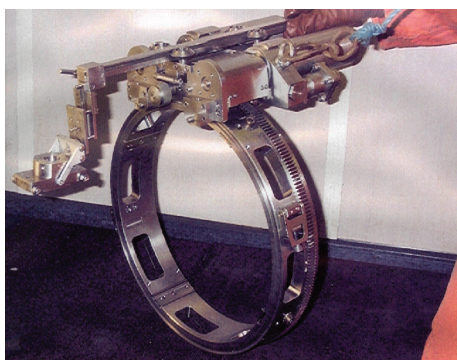
The manipulator is very adaptable and can be deployed in various formats to inspect a wide range of components for pipe wall corrosion mapping, pipe weld inspection, flange weld inspection, complex geometry welds (nozzle Hot Tap welds) and pipe ovality inspections (including measurements of surface dents).

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Sonomatic has offices in strategic global locations so we can respond quickly to customers' requirements wherever they may be situated. Our high quality products are matched only by our customer service. In addition to our field services, we offer training and consultancy at our sites in the UK or at clients' premises anywhere in the world.

Sonomatic is committed to improving asset performance through applied and innovative technology; to delivering these benefits to our customers in the products and services that we provide; and to working with our customers, as value-added partners, to realise the maximum benefits of inspection technology.

The Nautilus system facilitates very precise positioning and movement of the transducers via a rigid, hinged, collar attached to the component by saturation or air divers and is pressure rated to water depths of 250m. The collar provides a stable platform for the dual or triple axis, finely geared encoded scanner. The transducers can be moved in increments down to 1mm (or smaller) both circumferentially and axially around the component taking measurements at every location.

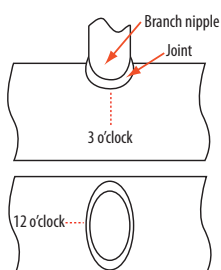


The manipulator can be applied from diameters of 150mm and above, including flat plate and cover a wide range of component geometries. The axial stroke is dependent on the application and access, but stroke lengths of 500mm are typically applied. The Nautilus has a low profile design which allows a minimum clearance of 120mm from the component surface.

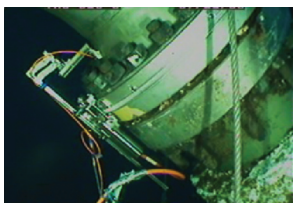
The Nautilus system can deliver many inspection heads/techniques to perform various inspections including

- Hyperbaric weld repairs
- Hot Tap nozzle weld inspections
- Pipeline IP Verification using corrosion mapping and TOFD
- Structural weld inspection
- Ovality inspections including localised dent measurement.

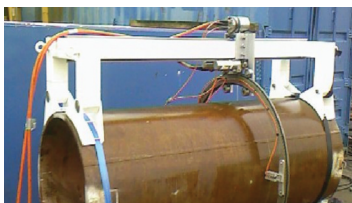
Hot Tap Nozzle Weld Inspection



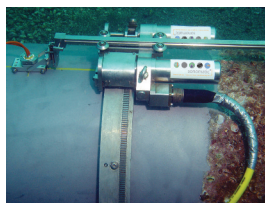
Flange Weld Inspection



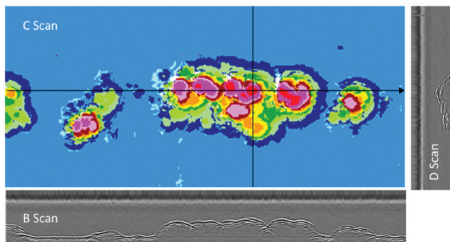
Pipe Ovality Inspection



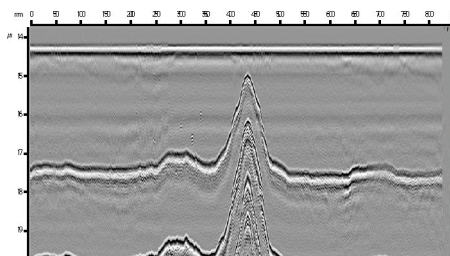
Corrosion Mapping



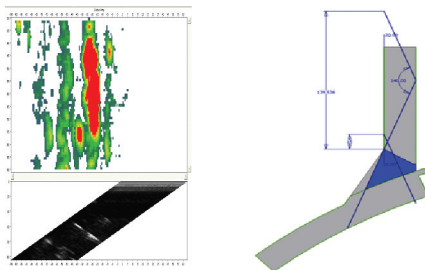
Corrosion Mapping



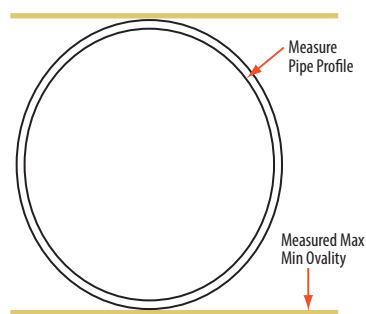
TOFD



Angle Shear Wave



Ovality



QA and HS&E

It is Somatic's ongoing commitment to supply services and products, through the application of technical and engineering excellence, which complement both the customer's and our own QA and HS&E requirements.

Somatic's commitment to quality is maintained through continuous assessment and review of our Quality Management Systems to BS EN ISO 9001:2008. Somatic actively promotes the development, implementation and improvement of our QMS as a part of our ongoing drive to enhance customer satisfaction by meeting or exceeding customer requirements. In 2009 Somatic achieved UKAS accreditation as an Inspection Body to BS EN ISO/IEC 17020 (UKAS IB4276).