



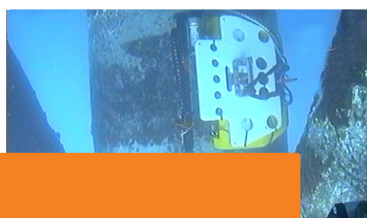
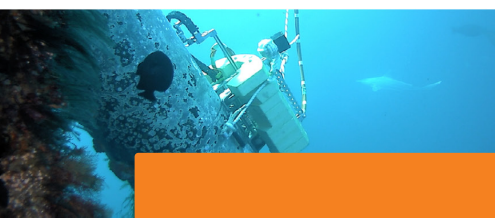
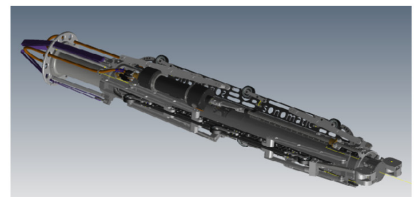
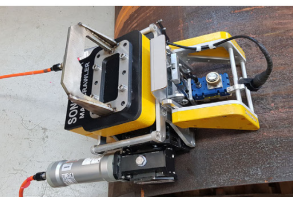
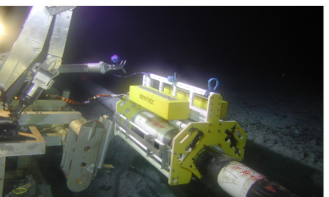
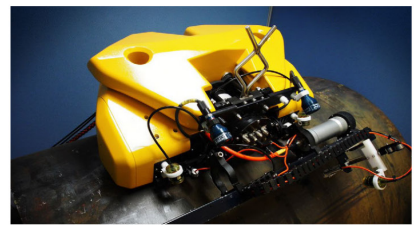
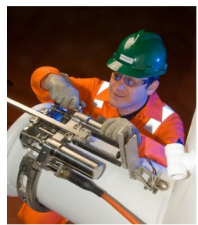
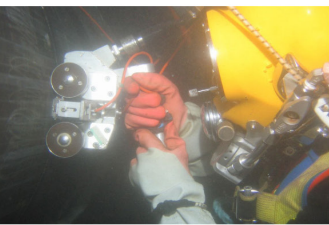
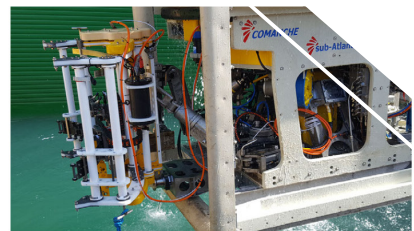
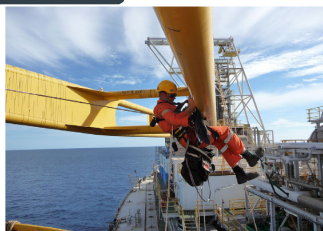
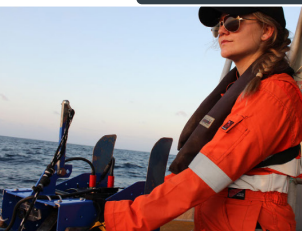
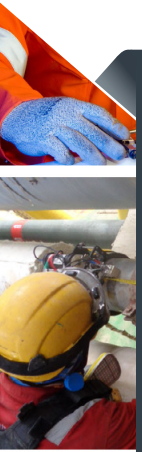
SONOMATIC

DATA SHEET

HIGH TEMPERATURE INSPECTION

THE PURPOSE

This document is composed to assist our clients and the supply chain with a high-level understanding of the benefits and services associated with our High Temperature Inspection.



HIGH TEMPERATURE INSPECTION

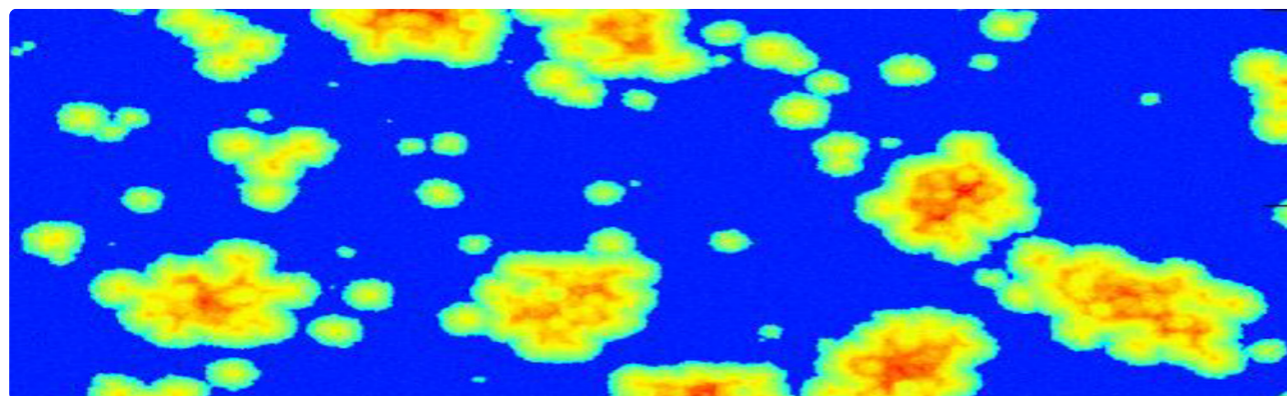
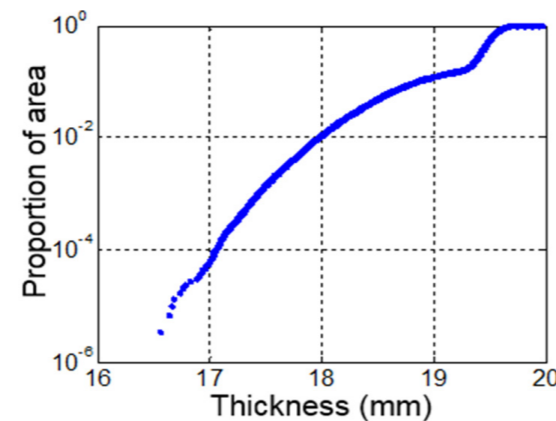
There are significant benefits to in-service inspection of process equipment. In-service inspection is, however, challenging for equipment that operates at high temperatures. Sonomatic has overcome these challenges and developed a high temperature ultrasonic inspection capability. This allows in-service inspections, providing accurate and reliable data, on equipment up to 400 °C.

Sonomatic's high temperature inspection capability allows process equipment operators to perform inspections without the need to shut down plant. This delivers significant economic benefits through uninterrupted production and at the same time, ensures the risks of operation of pressure equipment are managed more effectively.



INSPECTION TECHNIQUES

Four techniques are available at present, 0 degree corrosion mapping, Time of Flight Diffraction (TOFD), automated pulse echo and Time of Flight Corrosion Mapping (TOFD Screening). These techniques allow for inspection of the majority of degradation mechanisms of concern for high temperature process equipment. The data obtained is suitable for input to Fitness For Service (FFS) assessments and for statistical analysis, e.g. using wall thickness distributions.



HIGH TEMPERATURE PROBES AND SCANNERS

Sonomatic's high temperature capability is the result of an intensive R&D programme in which effective methods of high temperature coupling and probe cooling have been developed. The techniques are deployed by a range of in-ouse developed scanners.

MAGNETIC MAN-SCANNER



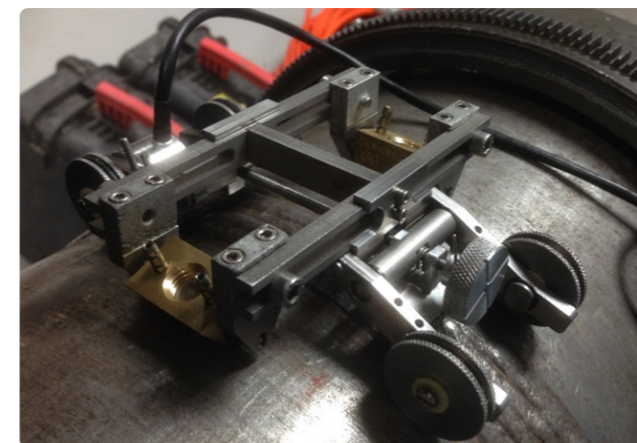
Hinged to accommodate longweld and circweld configurations at temperatures up to 400 °C.

SKU-TOFD NOZZLE SCANNER



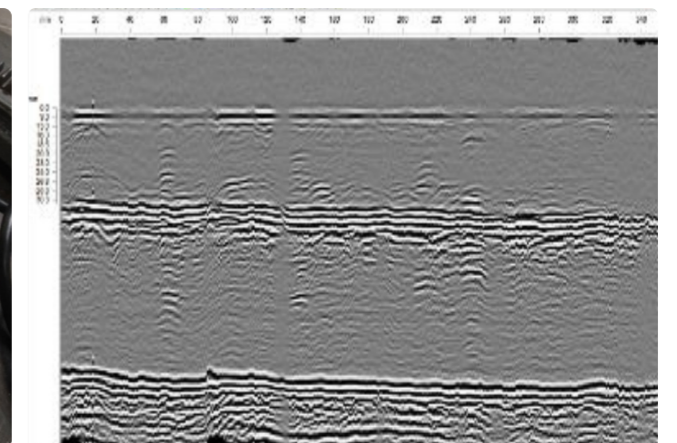
Smaller compact magnetic wheel based scanner to accommodate smaller diameter pipe butt-welds and longwelds at temperatures up to 400 °C.

WELD-ROOT EROSION SCANNER



Magnetic wheel based scanner for the inspection of butt welds at temperature up to 400 °C.

TOFD AT 380°C



QA AND HS&E

Sonomatic operate under an integrated QHSE management system and are committed to the highest quality and safety of service provision | ISO 9001: 2015: 00007140 | ISO 14001:2015:00037371 | ISO 45001:2018:00037372 | ISO 17020: 2012: 4276 | Achilles FPAL Verified: 076712 | SEQual 1988 | British Safety Council Member: S0388440 |



CONTACTS

EUROPE AND AFRICA

Stuart Ley

Topside Project Manager

T: +44(0)1224 823 960

E: Stuart.Ley@sonomatic.com

Graham Marshall

Subsea Project Manager

T: +44(0)1224 823 960

E: Graham.Marshall@sonomatic.com

Danielle Gunns

Project Delivery Manager (Warrington)

T: +44(0) 1925 414 000

E: Danielle.Gunns@sonomatic.com

John Lilley

Senior Technical Consultant

T: +44(0)1925 414 000

E: John.Lilley@sonomatic.com

AUSTRALASIA

Jonathan Millen

Australia West Coast Project Manager

T: +61 415 850 346

E: Jon.Millen@sonomatic.com.au

Judd McCann

Australia East Coast Project Manager

T: +61 488 442 019

E: Judd.McCann@sonomatic.com.au

Zach McCann

South East Asia Regional Manager

T: +61 404 797 670

E: Zach.McCann@sonomatic.com.my

Alex Cesan

Australia & South East Asia General Manager

T: +61 498 442 666

E: Alex.Cesan@sonomatic.com.au

AMERICAS

Esteban Cesan

General Manager Americas

T: +1 832 977 0303

E: Esteban.Cesan@sonomatic.com

MIDDLE EAST

Gordon Reid

Regional Manager

T: +971 26 580 708

E: Gordon.Reid@sonomatic.com



www.sonomatic.com



www.cwl.group