



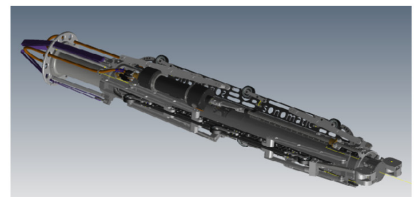
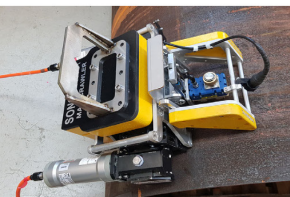
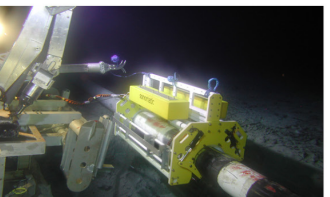
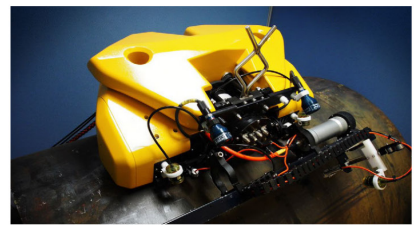
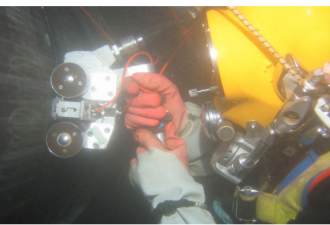
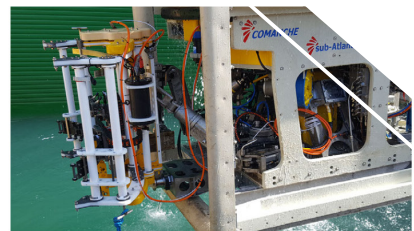
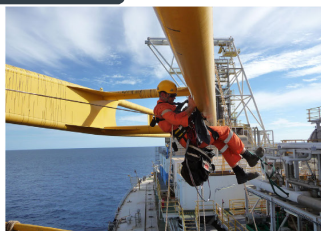
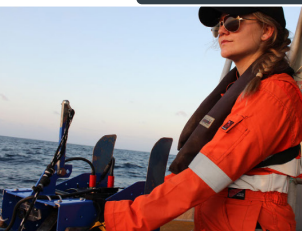
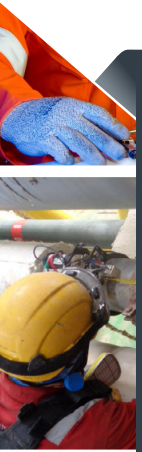
# SONOMATIC

## DATA SHEET

### SUBSEA INSPECTION - MAG-ROVER

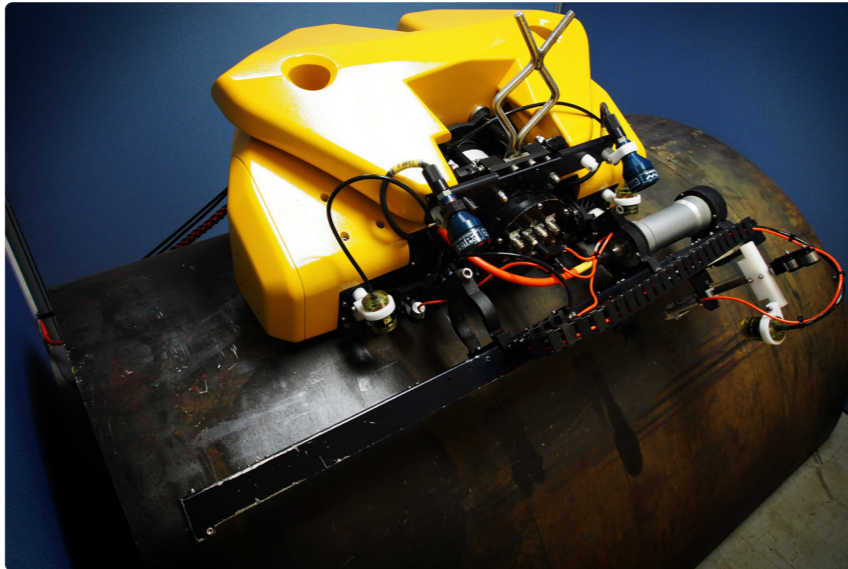
#### THE PURPOSE

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 MAG-Rover system.



# SUBSEA INSPECTION - MAG-ROVER

Sonomatic – the world's leading provider of automated ultrasonic Subsea inspection for more than 20 years – has developed a remotely steerable UT scanner capable of deep-water operations. The MAG-Rover can be ROV or diver deployed and can be remotely maneuvered to the exact inspection location, making it among our most versatile tools yet.



Sonomatic has strategically placed offices which allow us to respond to clients globally and supply a range of quality products, backed by outstanding customer service. As well as providing field services, we also offer Integrity consultancy at our UK bases and at clients' premises anywhere in the world.

Our commitment is to enhancing asset performance through applied, innovative technology, and delivering these benefits to our customers through our products and services. We are also committed to working with our customers as value-added partners to fully maximize the benefits of Subsea inspection technology.

## HOW IT WORKS

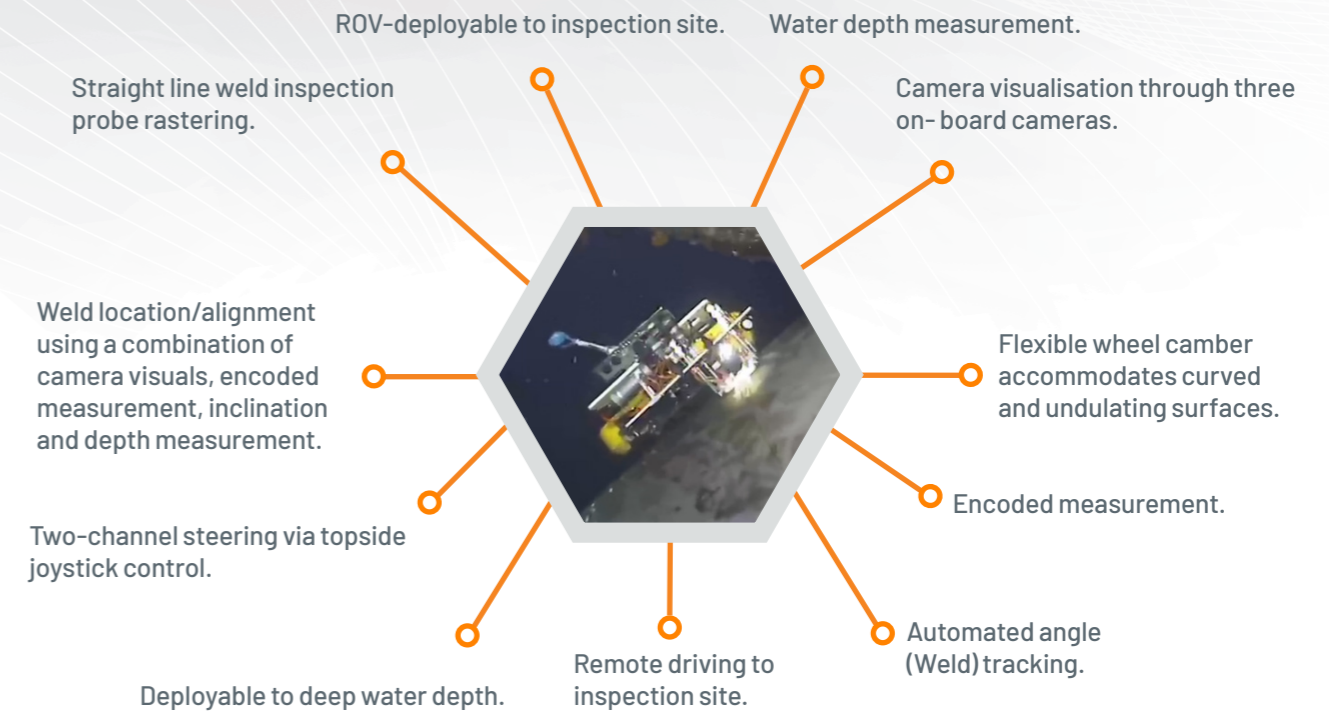
Sonomatic's MAG-Rover has been specifically designed for Subsea (deep-water) ultrasonic inspections, and can be uniquely steered under remote control to the work site. The tool is ideally suited for use in areas where the risk to human life is not acceptable, or depths beyond saturation diver limits.

When deployed via an ROV (large inspection class/Work class) the MAG-Rover harnesses its power supply and data communication feeds from the ROV, making it a very versatile system. The scanner has a short umbilical, enabling deployment in a number of challenging locations, such as inside a jacket structure to conduct structural weld inspections.

When mobilised, 100% redundancy of kit is supplied (2 x operational MAG-Rover scanners), in a self contained workshop container fitted to the vessel back deck. The system is launched/recovered over the side of the vessel, with the ROV and secured in the manipulator.

It can be attached to a structure at a topside location, by a rope access technician, and then driven under an operator's control to the inspection location which may be below sea level.

## KEY FEATURES

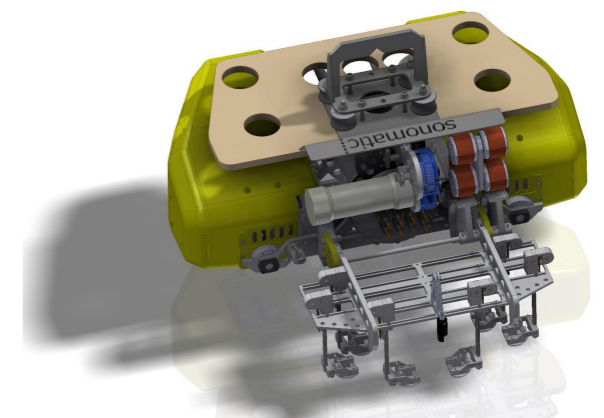


The MAG-Rover can be used for the following applications:

- Inspection in areas of restricted access on pipelines, structures, and subsea oil storage tanks.
- Inspection of jacket closure welds, caissons, conductors.
- Inspection on semi-submersible structures and hulls.

A range of inspection types can be carried out, including:

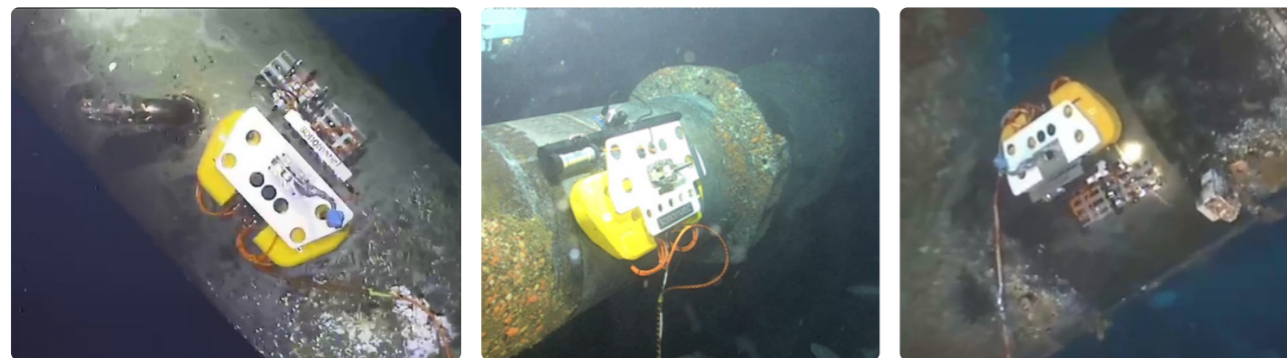
- Time of Flight Diffraction (TOFD)
- Automated Pulse-Echo
- Phased Array
- Corrosion Mapping
- Weld Profiling
- ACFM
- Local Dent Deformation Profiling



## SONOMATIC'S WORLD-LEADING MICROPLUS ULTRASONIC SYSTEM

The standard MAG-Rover unit comprises of a steerable crawler driven by two large permanent magnetic drive wheels which allow the scanner to adhere to any magnetic surface, including those that curve or undulate. At the front of the scanner is the UT transducer array, which gimbals to follow the contour of the surface being inspected. Sonomatic's world-leading Microplus ultrasonic system is incorporated for proven measurement reliability, and set-up options include:

- ✔ Prime— up to eight channels of UT linear scanning (TOFD, 0° corrosion mapping, angled shear wave, pulse-echo UT).
- ✔ Characterisation— up to eight channels of angled pulse-echo shear wave UT reciprocating head with a 550mm max scan stroke length (total).
- ✔ Depth Rating — 600m Standard (1600m option).



All manoeuvring and navigation is carried out from a Sonomatic Control Station connected to the MAG-Rover via an umbilical. The technology includes two-channel steering controlled via a topside joystick, and three on-board cameras. One is focused on the probe contact zone to enable the easy following of Welds; the other two are mounted to the left and right of the scanner for general navigation and probe monitoring. The camera configuration can be adjusted to allow rear viewing for umbilical monitoring.

## 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 |



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