

# Magg™ 310 ACFM

Crack Assessment and Remote Visual Inspection



# GOING THE DISTANCE FOR WELD INSPECTION

The Magg™ 310 with ACFM® probe enables crack detection of critical components in hard-to-reach areas without jeopardizing the operator's safety.

## ACFM and Remote Visual Inspection (RVI)

ACFM technology has developed a solid reputation for accurately detecting and sizing surface-breaking cracks through paint and coatings.

ACFM is a rugged, tolerant NDT technique ideal for as-is inspection of coated structures, rough welds, and complex geometries. High Probability of Detection (POD) and sizing is possible even in the most challenging conditions. When inspecting for cracks that often develop in high rising structural steels, ACFM is the perfect NDT technique.

The ACFM package allows for surface-breaking crack detection in addition to visual inspection up to a distance of 50m (164ft), making the Magg a unique and versatile inspection solution.

## Ultimate magnetic crawler

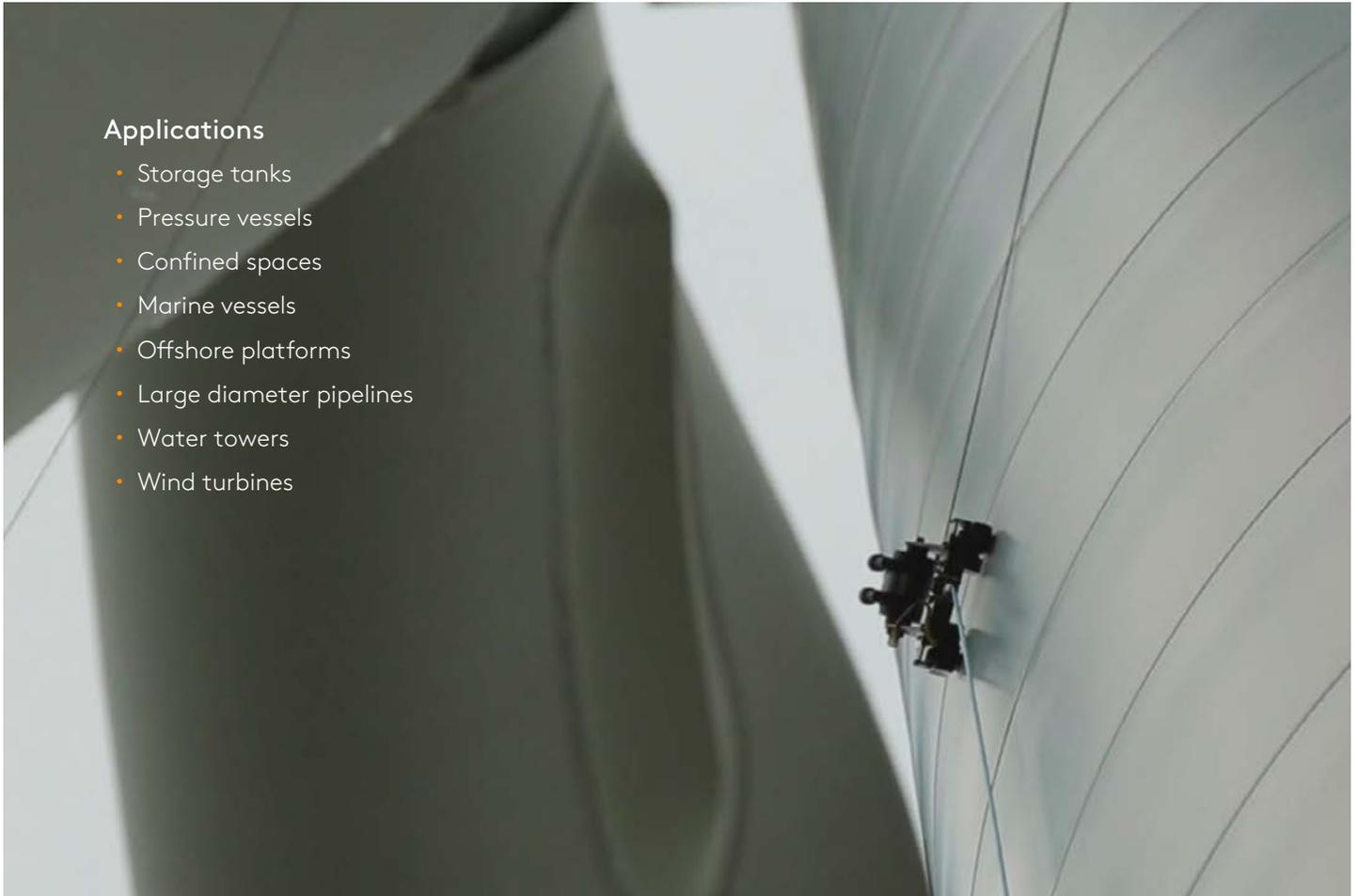
The Magg 310 is a proven and reliable remote inspection crawler system designed to withstand harsh conditions and industrial environments.

With its industry-leading tracks, the Magg can quickly and easily navigate critical restricted access areas, whether the surface is clean or close to unpracticable. The unique combination of raw power, agility, and magnetic downforce allows the Magg to accomplish inspections that most wheeled vehicles and crawlers could not.

Any owner or service provider required to perform ACFM or RVI in confined spaces with limited access needs to add the Magg as an essential part of their NDT toolkit.

## Applications

- Storage tanks
- Pressure vessels
- Confined spaces
- Marine vessels
- Offshore platforms
- Large diameter pipelines
- Water towers
- Wind turbines



# INSPECTING THE NEAR IMPOSSIBLE

Combining field-proven solutions to overcome the most challenging applications.

## Sensu2 ACFM® probes

Sensu2 ACFM probes can inspect ferromagnetic and austenitic alloys. The Sensu2 range of probes stores configuration information directly on the probe, making setup time quick and easy.

The Sensu2 range of probes comes in several formats, from simple pencil style probes covering up to 15mm (0.6in) to the more advanced compliant array probe, covering 90mm (3.5in) in one pass. Underwater probes are also available.

The range of compliant array probes features spring-loaded sensor modules for a 12mm (0.47in) travel. This makes the probe ideal for inspecting butt or lap welds with raised profile weld caps. The probe also features a wheeled encoder for position feedback and rapid sizing of defects in any orientation.



## Rugged inspection camera

The fully integrated HD continuous tilt camera allows incredible details and clarity. Whether your close, far, underwater, or in a dark tank, the image will provide you with an astounding amount of detail.

The Magg 310 comes with auxiliary lighting, lasers, 10x optical zoom, and much more. From top to bottom, the system has been uniquely optimized to allow a clear image streamed in a matter of milliseconds, allowing real-time decision-making.

## Amigo2 instrument

The Amigo2 is engineered around a highly advanced signal acquisition and processing system able to process data significantly faster than any other ACFM instrument.

This results in smoother butterflies, an incredible signal-to-noise ratio (SNR), and higher resolution indications that increase the detectability of small defects and the coating thickness through which you can inspect, all at a fast scan rate.

Amigo2 is a self-contained unit incorporating electronics, and storage in one rugged enclosure. Experienced ACFM operators will feel immediately at home with familiar Bx/Bz traces and butterfly signal taking center stage while the multi-touch interface offers a highly intuitive access to all software functions.



## Robotic NDT solutions

Eddyfi Technologies offers a range of standard, off-the-shelf, proven robotic NDT solutions to inspect critical components in difficult to reach locations or confined spaces, reducing the risks to inspection personnel.

Built with a multi-mission modular design approach that enables the delivery for bespoke remote operations using multiple NDT techniques, including Ultrasonics (UT), ACFM, Eddy Current (EC), Magnetic Flux Leakage (MFL) and more.

**Talk to our experts to discuss which robotic crawler is best suited for your application.**

# SPECIFICATION

## WHATS INCLUDED

Crawler controller	ICON Controller (IPC)
NDT instrument	Amigo2
Software	ICON STD SS1 Assist SS1
Crawler	Magg310 with NDT option
Tether length	50m (164ft)
NDT package	ACFM for the Magg 310 with 50m cable

## MAGG 310

Maximum scan speed	3.6m (11.8ft) per minute
Tether length	50m (164ft)
Depth rating	60m (without the probe)
Weight	10.9kg (24lb)
Dimensions	310 × 295 × 200mm (12.2 × 11.6 × 7.9in)
Camera	160° pan, FHD, 10x opt. zoom, 12x dig. zoom
Lighting	LED auxiliary lighting
Mounting	Universal actuator

## IPC

Operating power	Input: 100-240VAC, 50/60Hz Output: 70VDC, 450W Max
Computer	i7-8650U, 16Gb DDR4+2666, 500Gb SSD
I/O	1x USB 3.0 1x USB 2.0 Gigabit Ethernet 1x HDMI auxiliary video and RS485 1x Tether connector
Display	17,3" touchscreen FHD, 1000 nits
Control	Remote Controller Mouse/Keyboard
Weight	24kg (53lbs)
Dimensions (W × H × D)	620 × 492 × 223mm (24.4 × 19.4 × 8.78in)

## ACFM PROBE

Type	Sensu2 Compliant 90
Coverage	Up to 90mm (3.5in)
Frequency	5kHz
Number of modules	Up to 16
Maximum cable length	50m (164ft)
IP rating	Designed for IP65

## AMIGO2

Dimensions (W × H × D)	355 × 288 × 127mm (14.0 × 11.3 × 5.0in)
Weight (with battery)	6.6 kg (14.5 lb)
Power requirements	100-240 VAC, 50-60 Hz
Power supply	Direct VAC or onboard batteries
Display	26.4 cm (10.4 in) high contrast resistive screen
Resolution	1024 × 768 px
Video output	HDMI
IP rating	Designed for IP65

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