

TSC U41 DIVER

Detection and sizing of subsea surface-breaking cracks



TSC U41 MODERNIZING SUBSEA SURFACE CRACK INSPECTION

Who else but Eddyfi Technologies to redefine and modernize subsea surface crack inspection with its new TSC U41.

Modernizing Subsea ACFM

For the last 30 years, ACFM® technology has been used globally as the method of choice for the detection and sizing of subsea surface-breaking cracks.

True ACFM is recognized and approved by many certification bodies, including DNV, ABS and Lloyds, the technique has been used successfully against traditional uncomputerized and more user dependent methods, such as MPI.

Applications

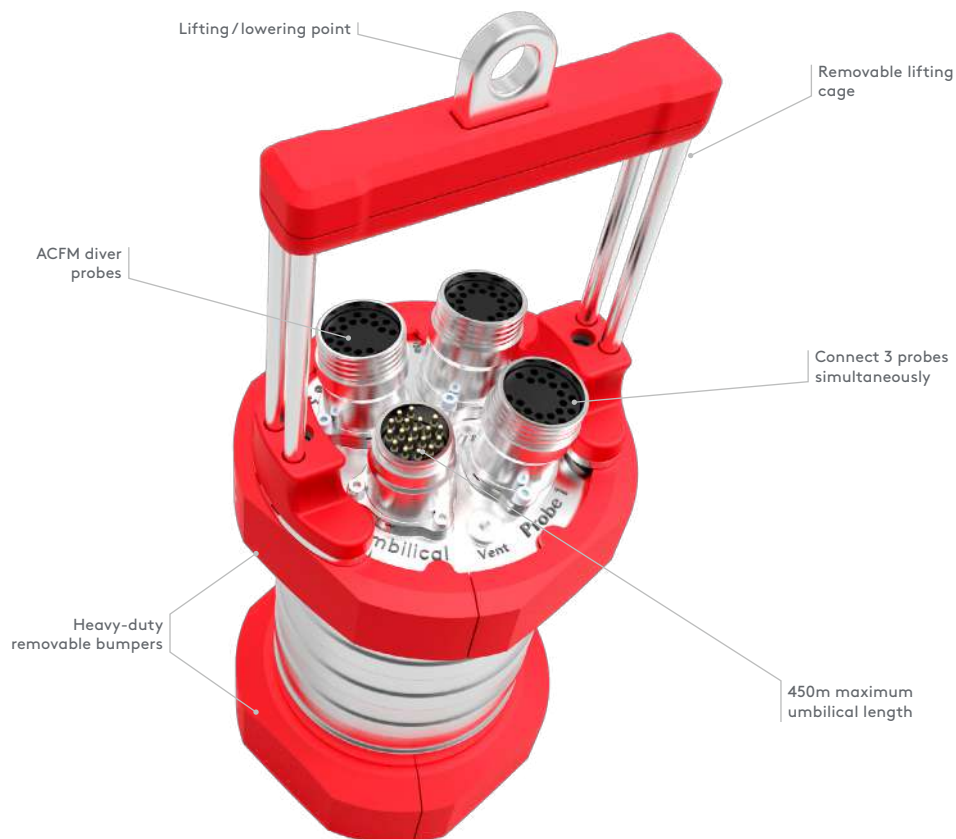
- Structural node welds on jackets
- Caisson inspection
- Pipeline damage
- Spudcans
- Welded plate structures
- Mooring systems including chains

Why ACFM?

- Crack detection with accurate length and depth sizing.
- Inspect corroded surfaces or through coatings and paint several millimetres thick.
- Reduced cleaning, no need to clean to bare metal.
- Auditable inspection data with advanced analysis and reporting software.

What is True ACFM?

- No on-site calibration required.
- A uniform field inducer.
- A constant current drive.
- Orthogonal sensors.
- Discrete phase sampling.



DIVER DEPLOYED FEATURES & BENEFITS

Bringing high-quality True ACFM inspection data to the surface.

Faster inspections

- Connect 3 probes simultaneously to avoid frequent returns to the surface, thus saving time.
- 10 x faster acquisition electronics, improving scanning capabilities and inspection integrity.
- Diver mini-array probe reduces the number of scans and allows for faster recognition and characterization of defects.
- Capable of inspecting corroded surfaces or through non-conducting coatings several millimeters thick.

Easier to use

- Umbilical reel dramatically reduced in size: 1/3 less weight and 1/3 less storage. Up to 3 umbilicals can be connected for a total length of 450 m.
- Global network of service centers.

Improved data quality

- Increased ACFM signal quality with 14 x increase in data resolution, improving the accuracy of data acquisition with the better ability to zoom on acquired signals.
- Lower noise increases the signal-to-noise ratio, inspect through coatings twice as thick compared to previous model.
- Probe calibration files are saved on the probe instead of a remote PC. This removes the potential for incorrect probe calibration being used.

Assist3 Reporting Software

- New Assist3 reporting software version with continuous evolution.
- Simpler and more modern interface



SPECIFICATIONS

MODELS	TSC U41D	TSC U41DA
Connectors	3 × SENSU2 UW	3 × SENSU2 UW
Max umbilical length	450 m	450 m
Array	No	4 × rows mini
Communications	Extended Ethernet only	Extended Ethernet only
Depth rating	300 m	300 m
Topside units type	Topside unit D	Topside unit D
Bottle dimension	with lifting cage	156 × 156 × 430 mm
	without lifting cage	156 × 156 × 292 mm
Bottle weight (in air)	9.2 kg	9.2 kg
Frequency	Single	Dual

GENERAL	
Operating temperature range	0–45°C (32–113°F)
Environmental protection (topside unit)	IP64
Probe cable length	5 m (16 ft)
Umbilical cable length	20 m (65 ft) topside integration cable 150 m (492 ft) umbilical extension (Up to 3 can be used in series) (Max total length topside unit to bottle = 470 m (1542 ft))
Serial communications cable length	5m Ethernet cable to PC (supplied) Longer, off-the-shelf, Ethernet cables also can be used
Power requirements	110 V AC/400 mA

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