

Sharck™ — Fillet Weld Probe

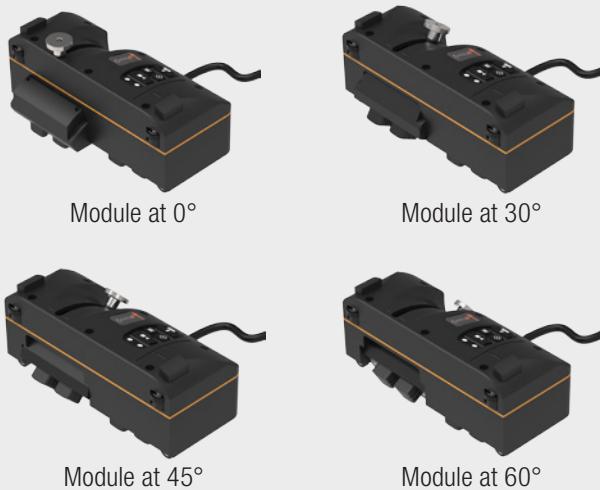
Fast Inspection of Surface-Breaking Cracks without Surface Preparation



Benefits and Features

- Ergonomic design
- Embedded control buttons
- Detection and sizing of cracks with tangential ECA (TECA) technology
- Designed for 90° fillet welds
- Independent spring-loaded fingers enable easy calibration and 30°/45°/60° weld cap inspection
- Robust and durable
- High-precision encoder for easy flaw positioning
- Compatible with Reddy® and Ectane®
- Complies with ASTM E3052

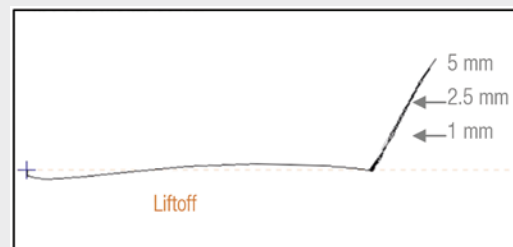
This probe packages the innovative Sharck and the TECA performance into one clever mechanical design to inspect carbon steel fillet welds. The probe's robustness makes it a perfect addition to the Sharck probe family, covering an ever expanding range of welds. Thanks to its mobile, modular elements, the probe can be easily calibrated, while being able to adjust for the cap angle (30°, 45°, 60°).



TECA Technology Overview

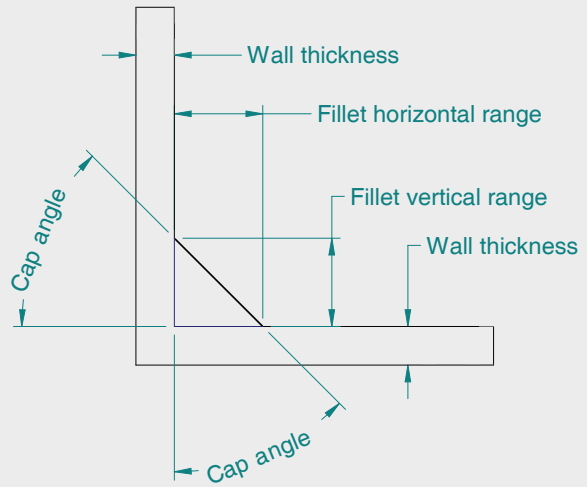
TECA technology incorporates coils that yield a very specific eddy current signal for surface-breaking cracks in carbon steel.

Induced eddy currents flow perpendicular to the scan direction. They are forced to dive under cracks they meet. The generated liftoff signal is horizontal and crack-like defects are 90° with an vertical amplitude proportional to the defect's depth.



Specifications

	SHARCK-FW028-G2-R-N05S SHARCK-FW028-G2-E-N05S
Casing	Medium
Coverage	28 mm (1.10 in)
Fillet range	12.4–23.0 mm (0.50–0.91 in)
Fingers	12 (6 on cap, 6 on HAZ)
Minimum required channels	32
Encoder	Built-in, IP68 rated, 20.53 counts/mm
Cable	5 m (16.4 ft)
Maximum surface temperature	100 °C (212 °F)
Minimum weld curvature radius	31.8 cm (15 in) concave and convex



Performances

Item	Value	Note
Minimum detectable longitudinal crack length	3.0 mm (0.12 in)	Results may vary according to crack location, liftoff, etc.
Minimum detectable longitudinal crack depth	0.5 mm (0.02 in)	Results may vary according to crack location, liftoff, etc.
Maximum measurable crack depth	7.0 mm (0.28 in)	Typical, with good accuracy, but can detect deeper cracks
Length sizing accuracy	±2.0 mm (0.08 in)	Typical when using 0.5 mm (0.02 in) scan resolution
Depth sizing accuracy	±10–20 %	Depending on weld conditions
Scan speed	Up to 200 mm/s (7.87 in/s)	With full data recording
Liftoff tolerance	Up to 3 mm (0.12 in)	Non-conductive coatings and paints, with monitoring and auto-correction
Materials	Wide variety of carbon steels	Tested on: <ul style="list-style-type: none"> • AISI 1018, 1020, 1045, 1117, 4140 • SA516, 537, 387 • API 2W60 • ABS A131 • Others

