

# High-Resolution Sharck™ Probe

The Fastest In-Ditch Pipeline Integrity Solution for Stress-Corrosion Cracking Detection and Depth Measurement



The high-resolution Sharck probe, combined with a Reddy® portable instrument, is the fastest in-ditch pipeline integrity solution on the market. It enables measuring the depth of stress-corrosion cracking (SCC) thanks to TECA technology—the most advanced technology for ferrous materials, monitoring liftoff, managing permeability, and performing live compensation. This new, high-definition probe is not only capable of positioning and sizing SCC clusters, it also enables you to discriminate between most cracking branches and to size their depth even through coatings. All this is performed automatically, effectively removing most operator dependence.

## Benefits and Features

- Simultaneous crack detection and actual depth sizing
- Fast—up to 600 mm/s (24 in/s)
- High-resolution tangential eddy current array (TECA) technology\*
- Single-pass detection and depth measurement of short, shallow cracks such as stress-corrosion cracking (SCC) clusters
- Conformable semi-flexible design compatible with a wide range of pipe diameters (254–1220 mm [10–48 in])
- Tailored computerized tools for rapid SCC depth sizing and characterization

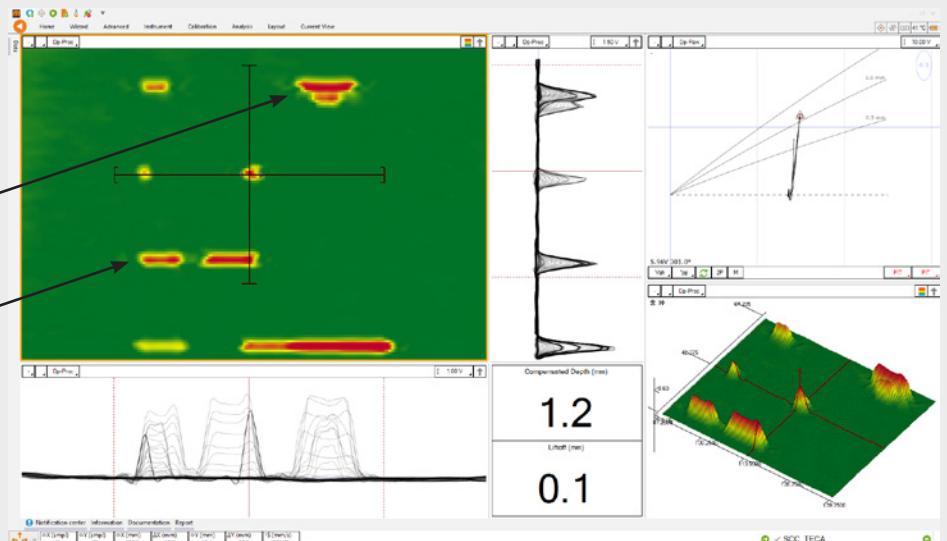
\* Patent pending

## High-Resolution TECA

15 times faster than magnetic particle testing, with the added value of providing full defect mapping and sentencing.

Clearly shows circumferential resolution

Clearly shows axial resolution



## Performances

Item	Description	Note
Minimum detectable longitudinal crack length	2 mm (0.080 in)	May vary according to surface conditions, liftoff, etc.
Minimum detectable longitudinal crack depth	0.25 mm (0.010 in)	May vary according to surface conditions, liftoff, etc.
Maximum measurable crack depth	Typically 3 mm (0.120 in) with good accuracy	Can detect deeper cracks—system yields 3 mm+ (0.118 in+) results
Depth sizing accuracy	±10 %	The presence of corrosion may affect accuracy
Scan speed	Up to 600 mm/s (24 in/s)	With full data recording
Liftoff tolerance	Up to 2 mm (0.08 in)	Non-conductive coatings and paints, monitoring and auto-correction
Materials	X52 grade steel	X56, X60, and more grades to be supported

## Specifications

Item	Description
Casing	Semi-flexible and conformable
Coverage	71 mm (2.8 in)
Minimum channel requirement	64
Compatible pipe diameters (NPS)	254–1220 mm (10–48 in)
Frequency	Tuned and fixed at 100 kHz
Encoder	Built-in, IP68 rated, 25 counts/mm
Cable	5 m (16.4 ft)

For Reddy®: SHARCK-HR-1048-071-N05SR  
 For Ectane®: SHARCK-HR-1048-071-N05SE

