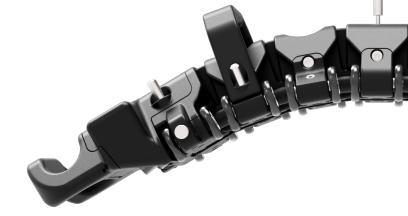
SpyneTM



A faster, less operator-dependant, screening than PT/MT

- > Very high PoD: leave no crack behind
- > Repeatable and reliable results
- Minimal surface preparation required; no need to remove coating
- Data archiving
- Compatible with a wide variety of flexible-PCB probes, coils diameters, and topologies



COVERAGE	200 mm (8 in)
NUMBER OF CHANNELS REQUIRED	128
OUTER DIAMETER RANGE	150 mm (6 in) OD to flat surfaces
SMALLEST DETECTABLE DEFECTS	As small as 2mm (0.080")L × 1mm (0.040")D
MAX. MEASURABLE CRACK DEPTH	No depth sizing
SCAN SPEED	Up to 600 mm/s (24 in/s)
	*With full data recording
LIFT-OFF TOLERANCE	Up to 3 mm (0.120 in)
	*Lift-off compensation to be available
	**Non-conductive coatings and paints, with monitoring and autocorrection
MATERIALS	All pipeline alloys

OTHER FEATURES

Grid-As-U-Go™

Embedded spring-loaded encoder

Pre-calibration/calibration check tool

Combined with Magnifi: assisted detection and on-the-spot reporting

Control buttons for single operator use

Max. operating temperature: 150 °C (300 °F)

The information in this document is accurate as of it's publication. Actual products may differ from those presented herein.



Sharck™ HR



Simultaneous detection and depth sizing of longitudinal SCC in parent material on pipelines and ERW welds.

- Very high POD
- > Repeatability at ±0.1 mm
- Assisted detection tool: allows the quick identification and positioning of deepest cracks among SCC colonies
- Controls human factor
- Fast
- Data traceability

ENGINEERED FOR

COVERAGE	71 mm (2.8 in)		
NUMBER OF CHANNELS REQUIRED	64		
COMPATIBLE PIPE DIAMETERS (NPS)	254–1220 mm (10–48 in)		
MIN. DETECTABLE LONGITUDINAL CRACK	 Length: 1.5 mm (0.060 in) Depth: 0.25 mm (0.010 in) Results may vary according to crack location, lift-off, surface conditions, etc.		
MAX. MEASURABLE CRACK DEPTH	3 mm (0.12 in)		
	*Can detect deeper cracks **Cracks shorter than 4.5 mm can slightly be undersized		
DEPTH SIZING ACCURACY	±10–15%		
	*Presence of corrosion and high density may impact accuracy, results may vary according to crack location, lift-off, surface conditions, etc.		
LONGITUDINAL RESOLUTION ON SCC	Can resolve cracks distanced by 1.0 mm		
CIRCUMFERENTIAL RESOLUTION ON SCC	Can resolve cracks distanced by 1.0 mm		
SCAN SPEED	Up to 600 mm/s (24 in/s)		
	*With full data recording		
LIFT-OFF TOLERANCE	Up to 1 mm (0.040 in)		
	*Detection still possible with up to 2 mm of lift-off but accuracy on depth sizing may be affected		
	**Non-conductive coatings and paints, with monitoring and autocorrection		
MATERIALS	Permeability compensation for X42, X46, X52, X56, X60		



Sharck HR Butt Weld



Featuring all advantages of the Sharck HR but managing what it can't mechanically do. Detection and depth sizing of:

- > Longitudinal SCC on pipe diameters ≤ 254 mm (10 in)
- SCC along seam welds
- > Cracks in A.O. Smith Flash welds
- SCC in dents
- Circumferential SCC
- > Circumferential SCC in girth welds



COVERAGE	37 mm (1.46 in) 64		
NUMBER OF CHANNELS REQUIRED			
COMPATIBLE PIPE DIAMETERS (NPS)	152–1220 mm (6–48 in)		
MIN. DETECTABLE LONGITUDINAL CRACK	 Length: 1.5 mm (0.060 in) Depth: 0.25 mm (0.010 in) Results may vary according to crack location, lift-off, surface conditions, etc.		
MAX. MEASURABLE CRACK DEPTH	3 mm (0.12 in)		
	*Can detect deeper cracks **Cracks shorter than 4.5 mm can slightly be undersized		
DEPTH SIZING ACCURACY	±10-15%		
	*Presence of corrosion and high density may impact accuracy, results may vary according to crack location, lift-off, surface conditions, etc.		
LONGITUDINAL RESOLUTION ON SCC	Can resolve cracks distanced by 1.0 mm		
CIRCUMFERENTIAL RESOLUTION ON SCC	Can resolve cracks distanced by 1.0 mm		
SCAN SPEED	Up to 600 mm/s (24 in/s)		
	*With full data recording		
LIFT-OFF TOLERANCE	Up to 1 mm (0.040 in)		
	*Detection still possible with up to 2 mm of lift-off but accuracy on depth sizing may be affected		
	**Non-conductive coatings and paints, with monitoring and autocorrection		
MATERIALS	Permeability compensation for X42, X46, X52, X56, X60		



Sharck Pencil HR



Detection and depth sizing of:

- SCC in deep dents
- > SCC close to girth or spiral welds
- > Long cracks at seam welds toes

ENGINEERED FOR

Sharck Pencil HR



COMPATIBLE PIPE DIAMETERS (NPS)	All pipe diameters			
MIN. DETECTABLE LONGITUDINAL CRACK	Length: 1.5 mm (0.060 in)Depth: 0.25 mm (0.010 in)			
	Results may vary according to crack location, lift-off, surface conditions, etc.			
MAX. MEASURABLE CRACK DEPTH	3 mm (0.12 in)			
	*Can detect deeper cracks			
	**Cracks shorter than 4.5 mm can slightly be undersized			
DEPTH SIZING ACCURACY	±10–15%			
	*Presence of corrosion and high density may impact accuracy, results may vary according to crack location, lift-off, surface conditions, etc.			
SCAN SPEED	Up to 600 mm/s (24 in/s)			
	*With full data recording			
LIFT-OFF TOLERANCE	Up to 1 mm (0.040 in)			
	*Detection still possible with up to 2 mm of lift-off but accuracy on depth sizing may be affected			
	**Non-conductive coatings and paints, with monitoring and autocorrection			
MATERIALS	Permeability compensation for X42, X46, X52, X56, X60			



Sharck Butt Weld G2



Detection and depth sizing of individual cracks anywhere on pipes, especially in seam and girth welds (crown, toes and heat affected zones).

- > Cracks detection in all orientation within a single pass
- > Depth sizing on cracks down to 7 mm in pipe walls
- High lift-off tolerance



Sharck Butt Weld G2



COVERAGE	53 mm (2.1 in)
NUMBER OF CHANNELS REQUIRED	64
COMPATIBLE PIPE DIAMETERS (NPS)	254–1220 mm (10–48 in)
MIN. DETECTABLE LONGITUDINAL CRACK	Length: 3 mm (0.120 in)Depth: 0.5 mm (0.020 in)
	Results may vary according to crack location, lift-off, surface conditions, etc.
MAX. MEASURABLE CRACK DEPTH	7 mm (0.275 in)
	*Can detect deeper cracks
	**Dynamic compensation for cracks down to 6 mm in length
DEPTH SIZING ACCURACY	±10-20%
	*Weld roughness may have an impact on depth sizing
LENGTH SIZING ACCURACY	±2 mm (0.08 in)
	Typical when using 0.5 mm (0.02 in) scan resolution
SCAN SPEED	Up to 200 mm/s (8 in/s)
	*With full data recording
LIFT-OFF TOLERANCE	Up to 3 mm (0.120 in)
	*Detection still possible with up to 3 mm of lift-off but accuracy on depth sizing may be affected
	**Non-conductive coatings and paints, with monitoring and autocorrection
MATERIALS	Permeability compensation for X42, X46, X52, X56, X60



Sharck Pencil G2



Detection and depth sizing of individual cracks anywhere on pipes, especially in seam and girth welds toes, single crack or low-density SCC in dents.

ENGINEERED FOR

Sharck Pencil G2



COMPATIBLE PIPE DIAMETERS (NPS)	All pipe diameters
MIN. DETECTABLE LONGITUDINAL CRACK	 Length: 3 mm (0.120 in) Depth: 0.5 mm (0.020 in) Results may vary according to crack location, lift-off, surface conditions, etc.
MAX. MEASURABLE CRACK DEPTH	7 mm (0.275 in) *Can detect deeper cracks
DEPTH SIZING ACCURACY	±10-20% *Weld roughness may have an impact on depth sizing
SCAN SPEED	Up to 200 mm/s (8 in/s) *With full data recording
LIFT-OFF TOLERANCE	Up to 3 mm (0.120 in) *Detection still possible with up to 3 mm of lift-off but accuracy on depth sizing may be affected **Non-conductive coatings and paints, with monitoring and autocorrection
MATERIALS	Permeability compensation for X42, X46, X52, X56, X60



Sharck Probes – Summary

PROBE	APPLICATION	DETECTION	SIZING	SIZEABLE DEPTH RANGE	MINIMUM CRACK LENGTH	COVERAGE
	Cracks detection in all orientations	•		N/A	3 mm (0.12 in)	200 mm (8 in)
	Axial SCC in parent material and ERW welds	•	•	0.25–3 mm (0.01–0.12 in)	1.5 mm (0.06 in)	71 mm (2.8 in)
	 Axial SCC on pipe diameters from 152 mm (6 in) SCC along seam welds A.O. Smith Flash welds SCC in dents Circ. SCC 	•	•			37 mm (1.4 in)
	 SCC in deep dents SCC next to welds Long cracks along seam welds toes 	•	•			Single element
	 Detection and depth sizing of individual cracks in welds (cap, toes and HAZ) Cracks detection in all orientations 	•	•	0.5–7 mm (0.02–0.28 in)	3 mm (0.12 in)	53 mm (2.1 in)
	 Detection and depth sizing of individual cracks in welds (cap, toes and HAZ) Long cracks along seam welds toes 	•	•			Single element