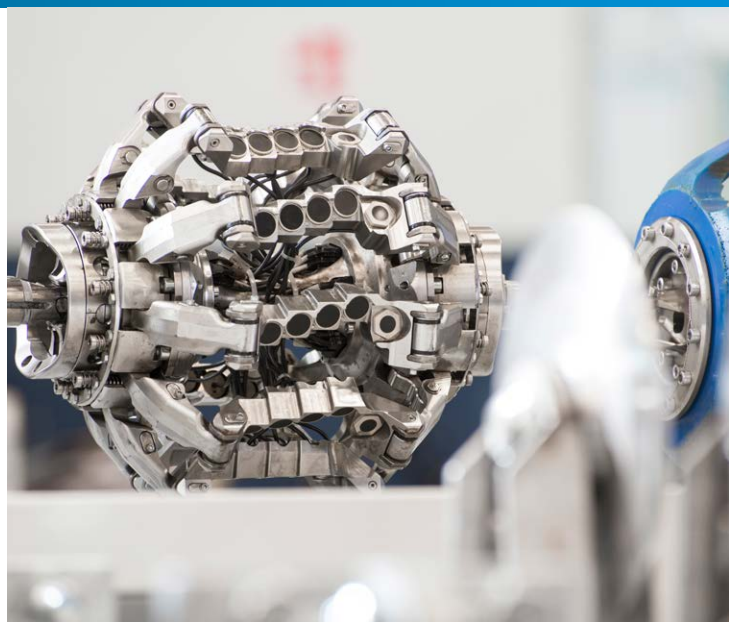
RoCD UT-C Service

In-line High-Resolution Axial Crack Detection and Sizing

Full wall thickness extended depth sizing

Extended sizing for small diameter tools from 6"-12"

Post-ILI crack assessment and a final report in 90 days or less



External factors such as corrosion, stresses, pipeline movements and fatigue cycling may lead to the formation of axial and circumferential cracks in pipelines. Safe pipeline operation and avoiding performance and eventual containment loss demands a complete understanding of cracks and crack progression.
Our RoCD suite of technologies offers comprehensive detection, characterization and analysis of axial and circumferential cracks in your pipeline. RoCD technologies provide superior sensitivity and resolution backed by tailored probe production and industry-leading carrier systems. Our understanding and experience of crack analysis and detection is supported by an in-house crack database that enhances identification and characterization accuracy.

Stress corrosion cracking, axial fatigue cracks, and hook and toe cracks are potential defects to be considered in the safe operation of liquid pipelines. Our RoCD UT-C service delivers the greatest sensitivity and spatial resolution in axial crack detection, providing what is needed for successful pipeline integrity management.

- Full wall thickness extended depth sizing
- Ultrasonic inspection technology delivers highest crack detection sensitivity
- Dedicated tool fleet for small-diameter pipelines
- Full recording of raw data supports lifetime integrity management

Benefits

- Superior carrier system surpasses industry-standard expectations
- Tailor-made probes produced in-house for superior crack detection sensitivity
- In-house crack database supports accuracy of findings and reporting
- Team of technical and data evaluation experts for a successful Post-ILI crack assessment and a final report in 90 days or less
- Crack inspection service for extended sizing helps to reduce the need for dig ups by suppling reliable data
- Robust and reliable service

ROSEN
empowered by technology

Remarks and Features

- Other tool sizes are available on request
- Other operating times and inspection lengths available on request
- Higher pressure rating available on request
- Tailored solutions with different specifications available
- API 1163 certified services
- CE and ATEX certification available
- Contact ROSEN for more detailed information about the presented service
- Specifications are subject to change, depending on specific requirements or tool configurations

Technical Specifications

Standard Operating Specifications

Tool sizes available	6"–56"
Pipeline product	Liquids
Product temperature range	Up to 65 °C (149 °F)
Maximum operating pressure	15 MPa (2175 psi)
Operating speed range	Up to 2.0 m/s (4.5 mph)
Minimum pipeline bend radius	1.5D
Wall thickness range	4-40mm (0.16"–1.57")
Maximum operating time	50 hours
Maximum inspection length	300 km (186 miles)

Location and Orientation Capabilities

Axial position accuracy from reference marker	1:1000 (1 m on 1000 m marker distance) (1 ft. on 1000 ft. marker distance)
Axial position from closest weld	±0.1 m (±4")
Circumferential position accuracy	±5°

Detection and Extended Sizing Accuracy for Isolated Cracks, Crack Like Anomalies and Crack Colonies

	Isolated radial cracks with axial orientation		**Colonies (e.g. SCC colonies)**
	In pipe body	**In longitudinal weld area**	**In pipe body**
Minimum length[1]	20 mm (0.79")		
Minimum depth at POD 90 %	1 mm (0.04")	2 mm (0.08")	1 mm (0.04")
Depth sizing[2] **accuracy at 80% certainty**	for depth < 4 mm (0.16"): ± 1 mm (0.04") for depth < 4 mm (0.16"): ± 1.3 mm (0.06")		
Length sizing accuracy at 80 % certainty	±10 mm (±0.39")		
Width sizing accuracy at 80 % certainty	n/a		±30 mm (±1.18")
Orientation to pipe axis	Detection: -15° < 0° < +15° Detection and sizing: -5° < 0° < +5°		n/a
Inclination to pipe surface	Detection: 40° to ≤ 90° Detection and sizing: 90°		

1 Minimum length is referring to the crack profile length at a depth of 1 mm.
2 The depth sizing accuracy presented for depth ≥ 4 mm (0.16") is valid for anomalies with a remaining wall thickness ≤ 6 mm (0.24").
The depth sizing refers to the peak depth of the anomaly exceeding at least 10 mm (0.39") in length.

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