RoCD UT-C Service
In-line High-Resolution Axial Crack Detection and Sizing

External factors such as stresses, earth movements and fatigue 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.

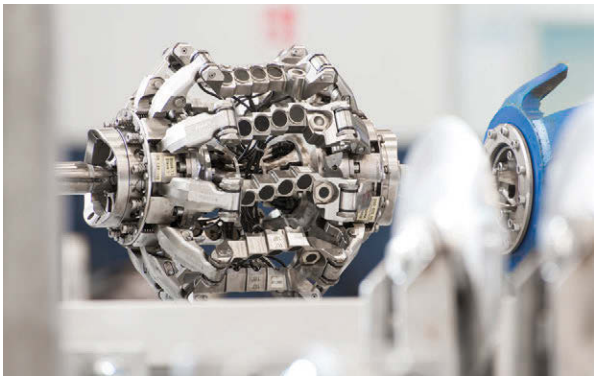
Accurate crack detection, sizing and characterization

Global availability and largest tool fleet in the world

Technologies suitable for both liquid and gas pipelines

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.

- 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 of RoCD UT-C Service

- 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

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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	5–40 mm (0.20–1.57")
Maximum operating time	50 hours
Maximum inspection length	300 km (186 miles)

Location and Orientation Capabilities

Axial position accuracy from reference marker 1 m on 1000 m (3.3 ft on 3000 ft) marker distance	1:1000
Axial position from closest weld	±0.1 m (±0.33 ft.)
Circumferential position accuracy	±10°

Performance Specifications for Axial Anomalies

Axial sampling distance		2 mm (0.08")	
Circumferential sensor spacing		7 mm (0.28")	
Crack detection	Minimum depth (in parent medium)	1 mm (0.04")	
	Minimum depth (in long seam)	2 mm (0.08")	
	Minimum length	25 mm (0.98")	
	Orientation to pipe axis	±15°	
Crack sizing	Length sizing	±10 mm (±0.39")	
	Depth sizing	for depth < 4mm	± 1 mm (0.04")
		for depth ≥ 4mm	reported as > 4 mm (>0.16")

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

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