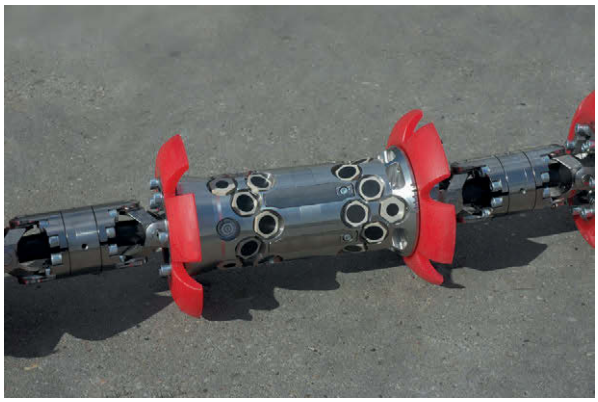
RoCD UT-A Service
In-line High-Resolution Circumferential Crack Analysis

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

Our RoCD UT-A service offers the greatest sensitivity and spatial resolution when detecting and sizing circumferential cracks. These pipeline anomalies, along with fatigue cracking, are exacerbated by demanding loading conditions and exterior movements such as landslides, earthquakes, expansion loop torsion, offshore free span and sagging.



- Ultrasonic wave technology applied in crack detection
- Reliable service backed by technology and experience
- High availability and wide range of tool configurations

Benefits of RoCD UT-A Service

- Special probe design and high-resolution features deliver enhanced anomaly characterization
- Robust, flexible sensor carriage gives exceptional precision and resolution
- Versatility of tool configurations addresses varying operating requirements of individual pipelines

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Technical Specifications

Standard Operating Specifications

Tool sizes available	4"–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

Standard Operating Specifications

Wall thickness range	6–40 mm (0.24–1.57")
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 Circumferential 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 girth weld)	2 mm (0.08")	
	Minimum length (in parent medium)	20 mm (0.79")	
	Minimum length (in girth weld)	30 mm (1.18")	
	Orientation to pipe axis	±18°	
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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