

# RoCorr IEC Service

## In-line High-Resolution Internal Metal Loss Detection and Sizing



Detect pipeline corrosion before it impacts performance



Direct measurement of internal corrosion in liquid and gas pipelines



Assess the integrity of your onshore and offshore pipeline assets

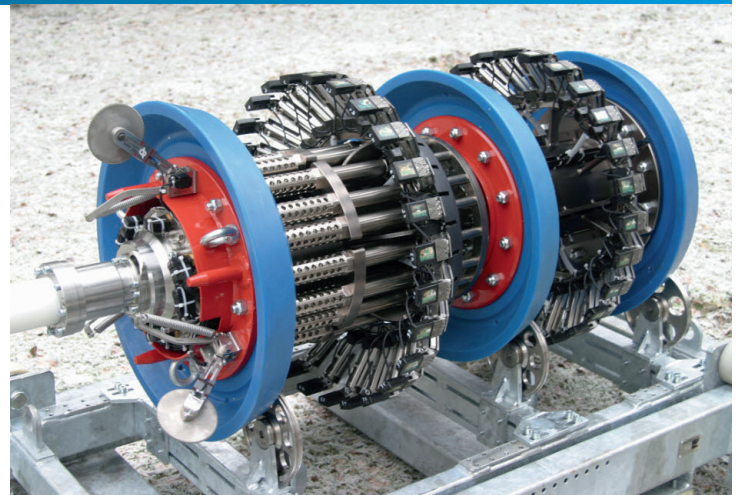
Undetected and untreated corrosion within your pipeline assets will lead to performance loss and containment failure. Making in-line inspection (ILI) services a part of your integrated pipeline threat management strategy will help you manage this risk. Our RoCorr Service Suite is designed to detect, evaluate and locate metal loss due to corrosion and associated threats.

This allows you to take remedial action before your pipeline integrity suffers.

Drawing on the largest ILI tool fleet in the world, our RoCorr features multiple and flexible options to suit your inspection needs while minimizing impact on pipeline operations. This includes a wide range of sensors that incorporate leading technologies to address your pipeline threats. The data gathering is supported by our unique data analysis and reporting tools, delivered by a dedicated team of experts. RoCorr reduces your corrosion and metal loss threat risk.

Extra heavy wall pipelines – typically found in offshore applications – often need to operate at higher pressures. This makes identifying any internal corrosion an early-stage imperative. Our eddy current technology uncovers the incidence of shallow internal corrosion by coupling the application of high-density eddy current sensors with high sampling rates. In addition, extra heavy wall pipelines also require very collapsible in-line inspection tools to pass through them. Equipped with our well-proven RoGeo XT geometry tools, our eddy current sensors offer optimum passage options.

- Accurate, reliable detection of internal corrosion
- Outstanding bend and passage capabilities
- High-precision mapping under tough operating conditions



## Benefits

- Optimally suited for gas and multiphase lines, as our eddy current technology eliminates the need for a liquid medium
- Captures geometric profile data for advanced integrity assessment of deformation
- Assessment of shallow internal corrosion, general wall thinning, bottom line erosion and pipeline deformations in one ILI tool run
- Highly flexible and collapsible ILI tool, which is also suitable for challenging pipeline designs, e.g. with tight bends or extra heavy pipe walls
- Multi-diameter ILI tools available upon request

# Remarks and Features

- API 1163 compliant services
- CE and ATEX certification available
- Tailored solutions with different specifications upon request: multiple tool sizes or multi-diameter tools, higher pressure rating
- 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

<b>Tool sizes available</b>	6" - 56"
<b>Pipeline product</b>	Gas or liquids
<b>Product temperature range</b>	0 °C - 65 °C (32 °F - 149 °F)
<b>Maximum operating pressure</b>	15 MPa (2175 psi) 25 MPa (3625 psi) optional
<b>Operating speed range</b>	Up to 3.0 m/s (6.7 mph)
<b>Minimum pipeline bend radius</b>	1.5D
<b>Maximum operating time</b>	400 hours
<b>Maximum inspection length</b>	1000 km (620 miles)
<b>Minimum clearance/passage</b>	80% of nominal diameter

Note: Please contact ROSEN for conditions outside of these specifications.

## Sizing Capabilities for Metal Loss Anomalies

<b>Depth at POD = 90%</b>	1.5 mm (0.06")
<b>Depth maximum*</b>	10 mm (0.40")
<b>Depth sizing accuracy at 80% certainty</b>	±1.3 mm (0.05")
<b>Length sizing accuracy at 80% certainty</b>	±6.0 mm (±0.24")
<b>Width sizing accuracy at 80% certainty</b>	±5.0 mm (±0.20")

\* Deeper features will be reported at Dmax.  
Note: The wall thickness is not measured by the tool.  
Abbreviations: POD = Probability of Detection

	<b>Pinhole L = W ≥ 10 mm (0.39")</b>	<b>Circumferential slotting</b>
<b>Depth at POD = 90%</b>	≥ 1.5 mm (0.06")	≥ 1.5 mm (0.06")

## Performance Specifications for ID Anomalies

Feature	OD [inch]	Accuracy <sup>1</sup>	Detection Threshold	
<b>OD<sup>2</sup> Changes</b>		±0.8 mm (0.03")	±0.8 mm (0.03")	
<b>Ovalities</b>	Ovality	±0.5 %	0.5 %	
	Length	±15 mm (0.59")		
	Orientation	±12°		
<b>Dents<sup>3</sup></b>	Depth	<10"	±0.5 %	1.0 %
		10"-16"	±0.5 %	0.8 %
		18"-28"	±0.3 %	0.5 %
		30"-38"	±0.2 %	0.3 %
		40"-56"	±0.15 %	0.2 %
	Length	±7.6 mm (0.3")		
	Width	±25.4 mm (1.0")		
	Orientation	±12°		

<sup>1</sup> Values are given for a certainty level of 80 %

<sup>2</sup> Or ID, respectively

<sup>3</sup> Including wrinkles and buckles

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