

ROGEO XT SERVICE

IN-LINE HIGH RESOLUTION GEOMETRY AND DENT ANALYSIS

The operational performance of a pipeline is strongly depending on its internal and external geometry. During the lifetime the design shape may change through external interference like upheaval, landslides, anchor drop or machinery approaching the right of way.

Our RoGeo XT is a high definition service to manage the pipeline integrity affected by dents, buckles, ovalities, stress induced geometric features and pipeline bending. All aspects from the inspection request to the final report are covered with the flexibility to choose from various service options.

THE SOLUTION

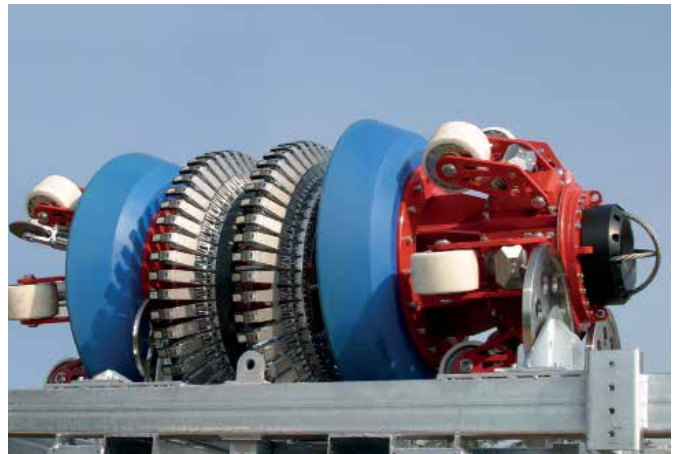
The combination of traditional mechanical caliper arms with a touch less, electronic measurement system provides unprecedented accuracy with 100% circumferential coverage for the characterization of any stress induced geometric anomalies. With our touch less sensing technology typical dynamic lift-off effects at increased inspection tool speed and the influence of debris and wax are compensated. Our well-structured, certified data evaluation process enables ROSEN's data analysts to provide the required high quality assessment on-time.

The reporting and data management software ROSOFT ensures easy data visualization and facilitates the broad use of inspection results.



KEY ADVANTAGES

- High precision geometry mapping and dent sizing using contour following sensor technology even at tough operational conditions.
- Accurate discrete stress and strain gridding derived from high resolution inspection raw data.
- Quantitative determination of scale, debris and wax achieved by touch less pipeline surface sensing.
- High availability and a wide range of proven tool configurations addressing individual operational pipeline requirements.
- High quality service with certified processes (API 1163), personnel qualification (ASNT) and equipment (CE, ATEX).



SERVICE OPTIONS

All aspects from the inspection request to the final report are covered with the flexibility to choose from various service options.

- Cleaning – operational and pre inspection
- Speed Control – inspection at high flow rates
- XYZ – route mapping and strain assessment
- Multi-Diameter – pipelines with varying diameter
- Combo – multiple inspection technologies in one run
- Offshore – long distance and high pressure
- Post ILI – data alignment and combined evaluation
- Integrity – RBI, FFP, CGA
- ROAIMS – versatile asset integrity software suite

TECHNICAL SPECIFICATIONS

Standard Operating Specifications

Tool sizes available	6"-56"
Pipeline product	Gas or liquids
Product temperature range	0 °C-65 °C (32 °F-149 °F)
Maximum operating pressure	15 MPa (2175 psi) 25 MPa (3625 psi) optional
Operating speed range	Up to 5.0 m/s (11.2 mph)
Product flow range*	Up to 12.0 m/s (26.9 mph)
Minimum pipeline bend radius	1.5D
Maximum operating time	400 hours
Maximum inspection length	800 km (500 miles)
Minimum clearance/passage	80 % of nominal diameter

*Fitted with optional speed control system (gas lines only)

Note: Contact ROSEN for conditions outside these specifications.

Performance Specifications

Feature	OD (inch)	Accuracy ¹	Detection threshold*	
OD² Changes		±0.8 mm (0.03")	0.8 mm (0.03")	
Ovalities	Ovality	±0.5 %	0.5 %	
	Length	±15 mm (0.6")		
	Orientation	±12°		
Dents³	Depth	6"-16"	±0.50%	2.5 mm (0.1")
		18"-28"	±0.30%	
		30"-38"	±0.20%	
		40"-48"	±0.15%	
		>48"	±0.15%	
	Length	±7 mm (±0.3")		
	Width	±25 mm (±1.0")		
	Orientation	±12°		
Roof topping	Depth	±0.8 mm (±0.03")	0.8 mm (0.03")	
Pipe Expansions	Depth	±1.5 mm (±0.06")	1.5 mm (0.06")	

¹Values are given for a certainty level of 80 %.

²Or ID, respectively

³Including wrinkles and buckles

Remarks and Features

- Other tool sizes are 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 subjected to change according to specific requirements or tool configurations