APC Standard Geometry Pigging

Any geometrical deformation influences the integrity of the pipeline and increases the risk of a severe failure. In order to assure a high reliability of the pipeline it is necessary to screen and inspect the pipe for any geometrical deformation. Otherwise external mechanical forces, dents, wrinkles or buckles will affect the safety of your pipeline.

THE SOLUTION

For standard geometrical inspection purposes APC offers ROSEN's RoGeo - Electronic Geometry Service. It is designed to inspect the construction quality of your pipeline, locate hidden third party damages, and to confirm non-obstructive passage for other subsequently used in-line inspection tools.

Obstructions are then identified, sized, and located. In addition to the detailed geometric data features (i.e. bends, ovalities and dents), the RoGeo EC service also provides auxiliary data relating to operating conditions such as speed and temperature. Its unique, touchless measuring system ensures full circumferential coverage of the pipe wall due to its overlapping sensor configuration. RoGeo is a robust and cost-effective approach to surveying the geometric quality of your pipeline.



KEY FEATURES

- Accurate, robust, and reliable
- 100 % circumferential coverage with overlapping sensor measurement
- Detects dents, installations (valves, tees, flanges, welds, etc.), ID-changes, ovalities, and bends
- Touchless sensor design allows operating speed range of up to 8 m/s (17.9 mph)
- Evaluation of recorded data within a few hours to include:
- Speed profile and Temperature profile
- Data check graphics
- Electronic Geometry onsite report containing: Installation Listing (valve, tee, etc.) and Indication Listing (bends, dents, etc.)



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
- Offshore long distance and high pressure
- BiDi single entry pipelines
- Mitred bend detection and sizing
- Wrinkle detection



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TECHNICAL SPECIFICATIONS

Standard Operating Specifications

Tool Sizes Available	3" – 64"	
Pipeline Product	Gas, liquids or multiphase	
Product Temperature Range	-10 °C - 70 °C (14 °F - 158 °F)	
Maximum Operating Pressure	13.5 MPa (1958 psi)	
Operating Speed Range	0.5 – 8.0 m/s (11 – 17.9 mph)	
Minimum Pipeline Bend Radius	1.5 D	
Maximum Operating Time	400 hours	
Maximum Inspection Length	800 km (500 miles)	
Minimum clearance / passage	80 % of nominal diameter	

Performance Specifications

Feature		Accuracy*	Detection Threshold*
ID Changes		1.5 mm (0.06'')	1.5 mm (0.06")
Ovalities	Ovality	2 %	2%
	Length	10 % of OD	
	Orientation	±20°	Joystick controller and software
Dents	Length	10 % of OD	1.5 % of OD
	Width	20 % of OD	
	Depth	1.5 % of OD	
	Orientation	±20°	

^{*}values are given for a certainty level of 80%