RoGeo PD Service

Detecting and Locating Pipeline Drift, Associated Stress and Strain Threats Through Routine Inspections

Pipeline assets are at risk of reduced operational performance, damage and eventual failure because of geometrical deformation. High-resolution in-line inspection and mapping of your pipelines can detect, categorize and locate deformation, enabling you to act before minor damage turns into a major shutdown.

You cannot predict geohazards, climate extremes or the actions of third parties that might damage your pipelines. However, you can design and implement a holistic and integrated geometric deformation risk management strategy. This reduces your risk and, as part of a wider integrity management framework, can identify multiple threats to further safeguard your pipeline assets.

Optimize pipeline uptime and performance

World's largest ILI tool fleet ensures high availability

Enables integrity assessments of buried and subsea pipelines

Geohazards, such as seismic events resulting in seabed and ground movements and associated landslips, sediment falls and soil liquefaction, all cause pipeline movement. This, in turn, can cause stresses and strains on the pipelines that threaten performance and integrity. Our RoGeo PD (Pipe Drift) service allows for regular, cost effective inspections of a pipeline that is prone to geo-hazards, and minimizes the impact on pipeline operations.

The corresponding in-line pipeline inspection tool has a robust chassis that incorporates an inertial measurement unit (IMU). It can move at high speeds and quickly identify pipeline movement, minimizing the operational impact of such an inspection.

The multiple instruments collect both linear and rotational inertial and record time data, which can be analyzed to provide bending strain information.

- Regularly identify and locate pipeline movement with minimal operational impact
- Understand resulting pipeline strain and stress profiles
- Act quickly to take remedial action and prevent performance loss

RoGeo PD Can Determine if Your Pipeline Has Moved after Geohazard Events

- Rapid deployment capability to inspect pipeline integrity after major geohazards, such as seismic events and extreme weather, and respond rapidly to prevent or fix pipeline containment loss
- Understand the impact of pipeline movement on the stress profile to determine if bending strains will cause buckles and resulting performance loss
- Simplified tool sensor profile allows high frequency of inspections in areas where geohazard risk is high, with no above-ground markers required

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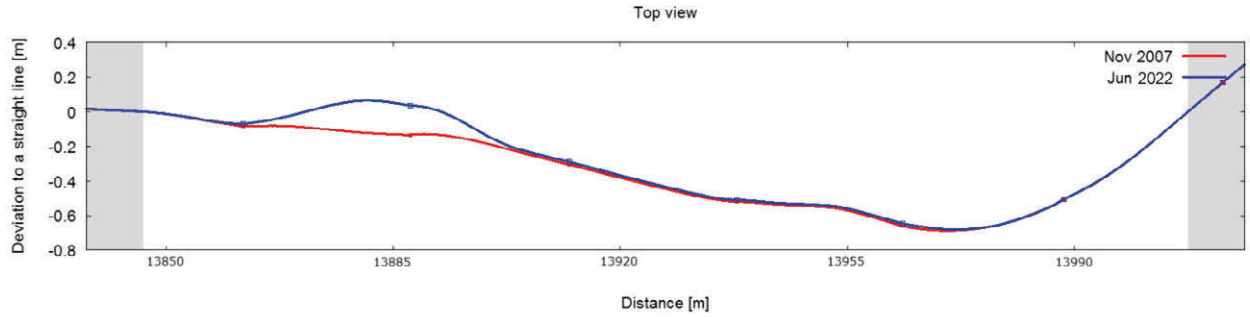
Technical Specifications

Standard Operating Specifications

	RoGeo PD - M	RoGeo PD - XL
Tool sizes available	8" - 18"	20" - 56"
Pipeline product	Gas or liquids	Gas or liquids
Product temperature range	0°C - 65°C (32 °F -149 °F)	0°C - 65°C (32 °F -149 °F)
Maximum operating pressure	15 MPa (2,175 PSI)	15 MPa (2,175 PSI)
Operating speed range	Up to 10.0 m/s (32.8 ft/s)	Up to 10.0 m/s (32.8 ft/s)
Maximum velocity variation per joint*	0.5 m/s (1 ft/s)	0.5 m/s (1 ft/s)
Minimum pipeline bend radius	1.5D (3D in 8")	1.5D
Maximum operating time**	40 hours at 20 °C (68 °F)	Up to 70 hours at 20 °C (68 °F)
Maximum inspection length**	720 km (440 miles)	1,260 km (780 miles)

* higher velocities on demand
** Depending on installed battery types.
Note: Please contact ROSEN for conditions outside of these specifications.



Deviation Graph of Pipeline Movement

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 certification available
- ATEX certification available on request
- 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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