

# 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 (ILI) 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.



Cost-effective pipeline tracking



Fast and easy application for immediate reaction to geohazards



Enables integrity assessments of buried and offshore 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 up to 8 m/s 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
- Cost-efficient solution for high frequency of inspections in areas with high geohazard risk; no above-ground markers required

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### Technical Specifications

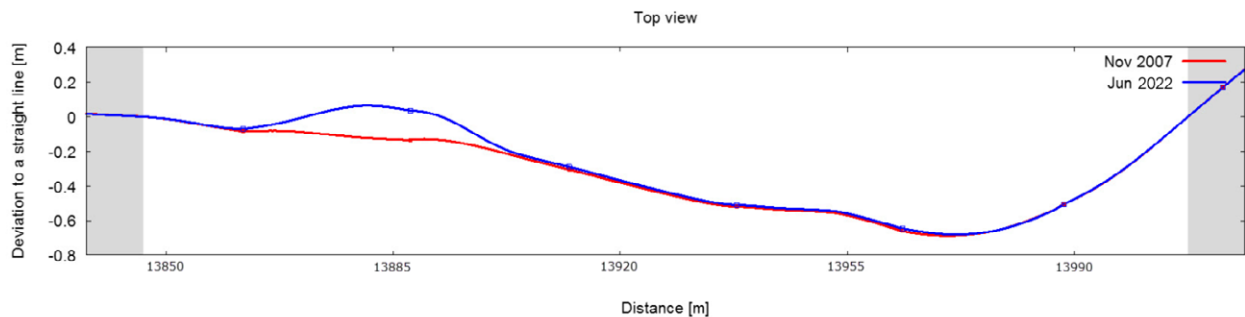
#### Standard Operating Specifications

Product temperature range	0°C – 55°C (32°F – 131°F)
Maximum operating pressure	15 MPa (2175 PSI)
Operating speed range	Up to 8.0 m/s (26,3 ft/s)*
Max. velocity variation per joint	0.3 m/s (1 ft/s)
Minimum pipeline bend radius	1.5D (3D in 8inch)
Maximum operating time	Up to 80 hours @ 20°C (68 °F)
Maximum inspection length**	1440 km (880 miles)

Notes: Please contact ROSEN for more detailed information.

\* This speed range may vary if the cleaning tool in use has a lower maximum allowed velocity.

\*\* Specifications are subject to change due to specific requirements or tool configurations



#### 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

