

Comprehensive Pipeline Inspection Services

DIAKONT

An Innovative Approach to In-Line Inspections

Diakont has developed a fleet of in-line inspection robots, called RODIS crawlers, to support the asset integrity of gas and liquid pipelines by detecting and measuring internal and external metal loss, corrosion, and various other anomalies. Not only is this collected data highly precise, but it can be observed in real time while the inspection is taking place, providing immediate access to crucial information that utilities and pipeline operators require to facilitate integrity management programs and meet federal pipeline safety standards (49 CFR Part 192 and 195). From a single access point, our crawlers can be launched and retrieved to inspect up to 1,800 feet of pipe. Diakont's fleet of robotic ILI tools can accommodate pipelines ranging from 8" to 55" in diameter.

High-Accuracy Data on "Unpiggable" Lines

Diakont's RODIS crawlers minimize or eliminate excavation requirements by travelling to crossings or other target pipe sections from convenient access points close to grade level. In addition to the line types described above, our tools perform pipe inspection on sections previously considered "unpiggable," including:

- Verticals, <1.5D bends, mitre bends, back-to-back elbows
- Significant diameter or wall thickness changes
- No launchers / receivers
- Unbarred T's
- Low-flow
- Road or river crossings
- Cased piping
- High-consequence areas (HCAs)





Advanced, All-in-One NDE Sensory Capability

Diakont's fleet of ILI robots is equipped with multiple NDE sensors to assess the actual integrity data of pipelines.

Combining technologies in a single run improves identification of anomalies, and eliminates the need for separate, costly inspections.

- Shear Wave EMAT UT High-accuracy, non-contact UT that inspects for OD and ID corrosion, pipe wall thickness and laminations
- EMAT CD Non-contact UT for crack detection
- Girth Weld Scanner High-accuracy, non-contact UT that inspects girth welds and adjacent heat-affected zones for cracks, voids, or crack-like defects
- Laser Profilometry Laser measurement system for highprecision mapping and characterization of ID anomalies and dents
- High-Resolution Cameras Video for surveying pipeline features and detecting foreign objects



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Inspection Applications

- Comprehensive inspection
- Insulated or lined pipes
- Road or river crossings
- Offshore pipelines
- Upstream gathering systems
- Buried or cased refinery piping
- Municipal steam or water pipe
- Compressor and pump stations
- Survey of lines with missing or suspect documentation



Nitrogen Purging for Safety

Safety is Diakont's first priority. To ensure safe conditions for inspecting liquid pipelines, Diakont offers nitrogen (N_2) purging services. Diakont technicians typically pump five times the pipe volume worth of inert N_2 gas into the pipe before powering on any inspection equipment. Once the air quality readings within the pipe confirm that the oxygen (O_2) concentration is below 10%, the robotic crawler is powered on for the pipe inspection.

After successfully purging O₂ from the pipe, Diakont

inspection technicians then secure a flange covering to the open end of the pipe to prevent O_2 from entering the line during the inspection. Air quality readings are monitored throughout the inspection to ensure O_2 concentration remains below 10%.



World Class Service, from Start to Finish

Partnering with Diakont will ensure maximum value for your integrity management program. Our expert team of project managers, ILI engineers, and NDE technicians will guide you through the entire inspection process, meeting or exceeding your schedule requirements. Following each inspection, Diakont delivers a complete pipeline features list, including absolute thickness measurements, weld locations, weld defects, pipewall anomalies, and information about all fittings. The Diakont inspection group will support your pipeline and girth weld inspection needs, from pipeline cleaning, excavation, spool removal, verification digs, and more.

Additional reasons to choose Diakont as your inspection vendor include:

- Replacing OD examination with ILI of the entire pipe section, at a lower cost
- Gathering pipeline details to supplement missing or suspect documentation for Integrity Verification Process (IVP)
- Minimizing pipeline or facility downtime due to inspection by leveraging Diakont's advanced technology solutions

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