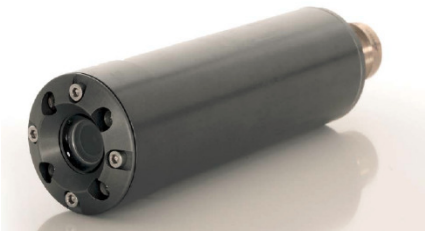
Global Asset Management Engineering
TRENCHLESS CONSULTANTS

Technical Data Sheet
LDS1000™



The LDS1000™ system is the most advanced long distance CCTV and leak detection system available for use in pressurised trunk mains having a diameter of 300mm (12-in.) and over. As the name indicates, we can achieve inspection surveys up to le 1,000 m. (3,200-ft) and include state of the art High Definition CCTV technology couples with ultra-high response hydrophone technology along with a high powered sonde for precise leakage and acoustic surveys. All three technologies are compiled into one small sensor head, which dramatically increases survey distances per day. Maximum operating pressure is 16 bars (232-psi). Due to the efficient design of the system, results are achievable in very low flow scenarios.

Key benefits of the technology include the ability to launch the system through small pressure fittings (≥ 50mm or ≥ 2-in.), air valves and gate valves. Utilizing such network components drastically reduces implementations costs and eliminates excavation requirements which have been a huge drive for the technology. Keeping the speed constant during the insertion and extraction process allows for better equipment control. The launch system is also used as a chlorination station, thus protecting the water quality.

LDS1000™ Platform

- High Definition Camera System
- Hydrophone Technology
- High Powered Sonde
- Electronic Cable Drum with 1000 m (3,200-ft) cable
- Automatic Self Stacking Cable system
- Pressurized Launch Station
- Auto Chlorination and Disinfection System

Applications:

- Leak detection
- Tuberculation assessment
- Identification of structural defects
- Lining quality assessment
- Pre-lining condition assessment
- Valve assessment and locating
- Hydrostatic pressure testing
- Water quality investigation
- Pipeline mapping

Operation:

The LDS1000™ has a small footprint and is operated from the back of a standard utility vehicle which minimizes the impact of inspection on traffic and local residents - No Customer Interruptions!

The system uses a drive mechanism to feed and retract the sensor head within the water main. This ensures a consistent feed rate and increases control and position of the sensor. The drive mechanism also has a built-in disinfection functionality which ensures the protection of potable water supplies. The LDS1000™ technology is robust, allowing reliable results to be achieved within harsh environments.

The hydrophone is operated in parallel with the camera system, offering visual and acoustic data all from one operation, greatly increasing inspection efficiency. The sensitivity on the hydrophone technology is very high due to a variety of advanced filtering and frequency options. This results in accurate locating and marking of small and large leaks.

LDS1000™ Advantages:

- Pipelines remain in service during video/leak inspection
- Reduced costs due to entry points
- High Definition quality video, high sensitivity hydrophone
- Efficiency of combining both CCTV and hydrophone into one system allows up to double the distance to be achieved per day
- No need for post processing of video file
- Tethered system minimizes risk of lost sensors

Inspection data can include:

- Assessment of tuberculation inside of pipe
- Location of any leaks located inside the pipeline
- Assessment of the interior lining and liners
- Location and assessment of accessories

The LDS1000™ is a critical tool to help ensure the operability and efficiency of water transmission networks.

Information gained from water main assessments can be interpreted and mapped by experienced GAME Trenchless Consultants experts.