

PIPELINE PERISCOPE

Stationary Zoom Camera System for Inspection of Large-Diameter Live Gas Mains

The PTZ150 Pipeline Periscope is a high-resolution stationary pan-tilt zoom camera system developed by ULC Robotics specifically for the inspection of live gas mains from 8 to 48-inches in diameter. The highly reliable PTZ150 is designed for rapid deployment and provides detailed video data suited to a wide range of pipeline evaluation needs.

Accurate Inspection

The PTZ150 has a unique laser distance measurement system that allows you to accurately locate sources of infiltration, cracks, joints, damaged pipe, areas of corrosion and obstructions so that repairs can be made by excavation or trenchless technology. The PTZ150 can help you determine the quantity of debris present in a main so that the type and amount of cleaning that will be required prior to robotic rehabilitation or lining can be assessed. The PTZ150 can also aid in maintaining and upgrading pipeline networks by helping you accurately map the location of features within your mains.

Rapid Deployment

The PTZ150 can be deployed quickly, through a 4-inch tapped hole using virtually any tapping machine (including the ALH System Three). No fitting is required for pipe sizes between 16 and 48 inches.

Long-range Visibility

The Pipeline Periscope's high magnification zoom capability lets you view over a 150 feet of pipe in each direction, for a total range of more than 300 feet. A key contributor to the PTZ150's extended vision is our unique fiber optic light system, which produces an incredibly-bright collimated beam of light.

Safety

As with all of our live gas systems the PTZ150 Pipeline Periscope is not an off the shelf system: It is purpose built to provide protection from risks associated with live gas work in open excavations. The PTZ150 enables operators to perform inspections at a safe distance from the excavation, minimizing risk of accidents and injury. A key-operated main power switch ensures that the system is de-energized or "locked out" while the camera is placed in or removed from the launch tube. The PTZ150 is designed and constructed for no-blow operation up to 60 psi. When used with the ALH System Three tapping system, all work from drilling and inspection to tapping and plug installation can be performed completely no-blow.



*Plug within a
16-inch gas main*

Applications

- Rehabilitation assessment
- Location of water infiltration sources
- Location of broken pipe, cracked pipe, branches and taps
- Valve inspection for proper operation, setting and type
- Inspection of tanks and vessels under pressure
- Viewing confined spaces to eliminate risk to workers

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Features

- Rapid deployment, and easy setup and operation
- High-resolution color camera with auto and manual exposure controls
- Key-operated power switch de-energizes system while camera is in launch tube
- Visibility over 150 feet in each direction from entry point into pipe (over 300 feet total range)
- Unique fiber optic lighting system extends visibility into pipe
- Laser distance measurement system for accurate location of features and defects
- Monitor displays laser distance measurements for precise location
- Utilizes completion plug to complete main
- Designed to work with ALH System Three or other conventional tapping equipment



Specifications

Environment

Pressure Rating: 60 psi

Access Hole: 4-in dia, tapped vertically

Entry System

Description: Launch tube for entry into 8 to 48-in pipe

Requirements: 4-in tap hole; control valve such as ALH System Three

Construction: Aluminum

Camera

Description: High-resolution color camera with 360° pan and 270° tilt

Magnification: 25X optical zoom, 12X digital zoom

Camera Head Seal: Water and gas tight (to 100 psi) O-ring

Resolution: 480 lines, color

Light Sensitivity: 1.0 lux

Construction: Stainless steel

Control Unit

Description: Compact, rack-mount unit with integrated exposure and pan and tilt controls

LCD Monitor: 12-in screen monitor mounted in rack mount case

**ULC
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*Innovative pipeline inspection and
rehabilitation equipment and services*