

## THE INVESTIGATOR™ AN ASSET MANAGEMENT AND LEAK DETECTION TOOL FOR INSERTION INTO PRESSURIZED PIPELINES UP TO 150PSI.

The Investigator™ is a pressurized pipe inspection and leak detection system

DQG LV GHVLJQHG IRU μ GLDPHWHU SLSHZRUN DQG DERYH \$FFHVV WKURXJK ÀUH K\GUDQWV μ DQG DERYH SUHV VXUH ÀWWLQJV DLU YDOYHV JDWH YDOYHV DQG 4XDGULQD·V DW IXOO PDLQV SUHV VXUH

7KH V\ VWHP LV PRXQWHG RQWR SLSHZRUN WKURXJK I WDSSLQJV· 7KLV SURFHVV PDNHV DFFHVV LQWR WKH

Monitoring the real-time data captured by the camera and hydrophone sensor head allows the operator to understand internal pipework conditions and identify leaks. A 300ft (100m) cable is supplied with the system which potentially offers a maximum inspection distance of 600ft (200m) upstream and downstream of WKH LQVHUWLRQ SRLQW 7KLV LV LQÁXHQFHG E\ SLS FRQÀJXUDWLRQ RI WKH SLSH 7KH VRIWZDUH LV VSHF and is used to control the sensor head and view both video and acoustic results from live surveys. The software displays video in a resizable window and also acoustic results in order of amplitude and frequency. The software also operates the sonde which is built into the camera sensor head. The system is compatible with LiveFeed software for maximum performance.

### Overview

- Tri sensor head (CCTV, hydrophone and sonde)
- Pressurized insertion up to 150psi
- Extremely robust camera head with bend mechanism
- Interchangeable hi-resolution CCTV and hydrophone system
- Internal hydrophone for precise leak detection
- Sonde for above ground location
- Ruggedized control station
- Real-time analysis software

## Operational Requirements

Operating mode	Tethered
Application	Potable
Pipe materials	All
Max. operating pressure	150psi
Min. operating pressure	No limit for visual inspection and a minimum of 15psi for leak detection
Min. pipe diameter	3"
Max. pipe diameter	12"
0 D [ Á R Z Y H O R F L W \	No Limit
0 L Q Á R Z Y H O R F L W \	No Limit
Max. inspection distance	600ft (200m) 300ft (100m) on either side of access point

## Insertion Requirements

Access points	Fire hydrants, air valves, ball valves, hot tap
Min. tap diameter	2" full bore min
Min. valve size	2" full bore min
Min. external clearance	I W D E R Y H L Q V H U W L R Q Á W W L Q J

## Specifications

Sensor head	7 U L 6 H Q V R U K H D G Z L W K & & 7 9 + \ G U R S K R Q H D Q G 6 R Q G H P P D Q G P P V focus (PAL system) with illumination 3LUX at F1.2
Sensor material	Stainless steel and interchangeable
Sonde frequency	512hz
Hydrophone frequency	240Hz (Nominal)
Hydrphone beam pattern	& L U F X P I H U H Q F L D O 2 P Q L G % X S W R N + ] + R U L ] R Q W D O 2 P Q L G %
Power	110-240v (Charging)
Operating temperature	23-104F (-5 – 40C)
Cable length	300ft (100m)
Cable drum	Assembly approx. 800x750x350mm with slip ring and encoder
Encoder accuracy	1%
Control box	Control box with Panasonic Toughbook with 12v internal power supply
Chlorination	Chlorination points built in to cable drive systems
Data processing	Investigator™ software, video and acoustic analysis software
Drive system	12vdc electronic drive system with seal arrangement