



JD7 Bullet™



Benefits

- Effective in all materials and pipe sizes
- 20km - free flowing mode
- 500m capability - tethered mode
- Pressurized insertion and seal technology
- On-board Hydrophone for leak detection
- Sonde for above ground location
- Simple operation
- Data analysis and reporting software



Description

The JD7 Bullet™ is a pressurized pipework leak detection system with hydrophone and CCTV capability. Designed for 4in. diameter pipework and above (including transmission mains) for complete leakage examination and localising.

Access to pipework is possible through full bore fire hydrants*, 1.5in. (38.1mm) and above fittings, air valves, gate valves and Quadrina's at full mains pressure.

The JD7 Bullet™ offers two modes; free flowing and tethered.

In free flowing mode the maximum distance achievable is 20km. In tethered mode 500m leakage surveys are possible from a single insertion and this is dictated by the system tether wire length. The Bullet utilises the flow of water within the pipe to propel the sensor head along the pipework. All data is captured on-board the sensor head and automatically analysed in minutes following retrieval from the pipe. The system is mounted onto pipework through a selection of fittings and/or 'hot tapplings'. This process makes access into the pipework simple and cost effective.

The acoustic device is capable for use on all pipe materials and diameters, allowing the system to be extremely effective for leak detection on all pipework. The on-board camera technology allows an overview of the pipework to be understood. This is particularly useful on the smaller diameter pipework, however less effective on the larger pipework due to light levels diminishing. During insertion the maximum distance achievable will be influenced by the flow rate, internal pipe conditions and the number of accumulative bends present. The JD7 Bullet™ software is used to analyse all data with an automatic report generation feature included. The software displays both video and acoustic data in a number of detail levels and is extremely simple to operate.

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Winner of the Pipeline Industry
Guild's - Utility Pipeline
Technology Award

Specifications

- 16 bar maximum working pressure
- 0.1m/s minimum flow rate
- Minimum pipe size is 4in. diameter
- Maximum pipe size is not applicable
- Tethered configuration - 500m maximum deployment capability
- Free flowing configuration – 20km in optimum conditions
- Maximum recording capability per individual survey is 2hrs
- Operating temperature: -5°C to +40°C
- Electronic winch and deployment system with 500m spool
- 1.6m deployment rod
- Magnetic encoder with 0.3m resolution
- HD Camera sensor (PAL video system)
- Camera minimum illumination: 3 Lux at F1.2
- Camera solid state memory (2GB standard)
- Hydrophone resonant frequency: 240 kHz (Nominal)
- Hydrophone beam pattern circumferential: Omni \pm 2 dB up to 100 kHz
- Hydrophone beam pattern horizontal: Omni \pm 4 dB up to 100 kHz
- Sonde head: 512Hz
- JD7Bullet Software with filters and auto-reporting features (Ethernet and USB required)



Illustration showing free flowing configuration.

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