



WATER, GAS & INDUSTRIAL Pipeline assessment solutions

www.jd7.co.uk

NEXT PAGE



Introduction

JD7 is a specialized technology provider focused on Pipeline Assessments and Inspection solutions.

JD7 have pioneered none-disruptive pressurized water main CCTV and NDT condition assessment technologies with support from the world's leading utilities.

JD7 technology is globally used for water, gas and industrial pipeline investigations focussing on corrosion, CCTV and leak detection assessments.

Our design and development engineers are at the forefront of NDT, CCTV and acoustic technology with a huge portfolio of pipeline industry products and projects.

Our fully trained operatives are available 24/7 to sustain our clients requirements and are ready to be deployed anywhere around the world.

JD7's business model is simple; we have the best industry engineers and we partner the best organizations in specific fields. Following this model has allowed the JD7 brand to grow significantly throughout the water and gas industry with an ongoing international technology exploitation programme.



**OUR DESIGN AND
DEVELOPMENT ENGINEERS
ARE AT THE FOREFRONT OF
NDT, CCTV AND ACOUSTIC
TECHNOLOGY.**

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

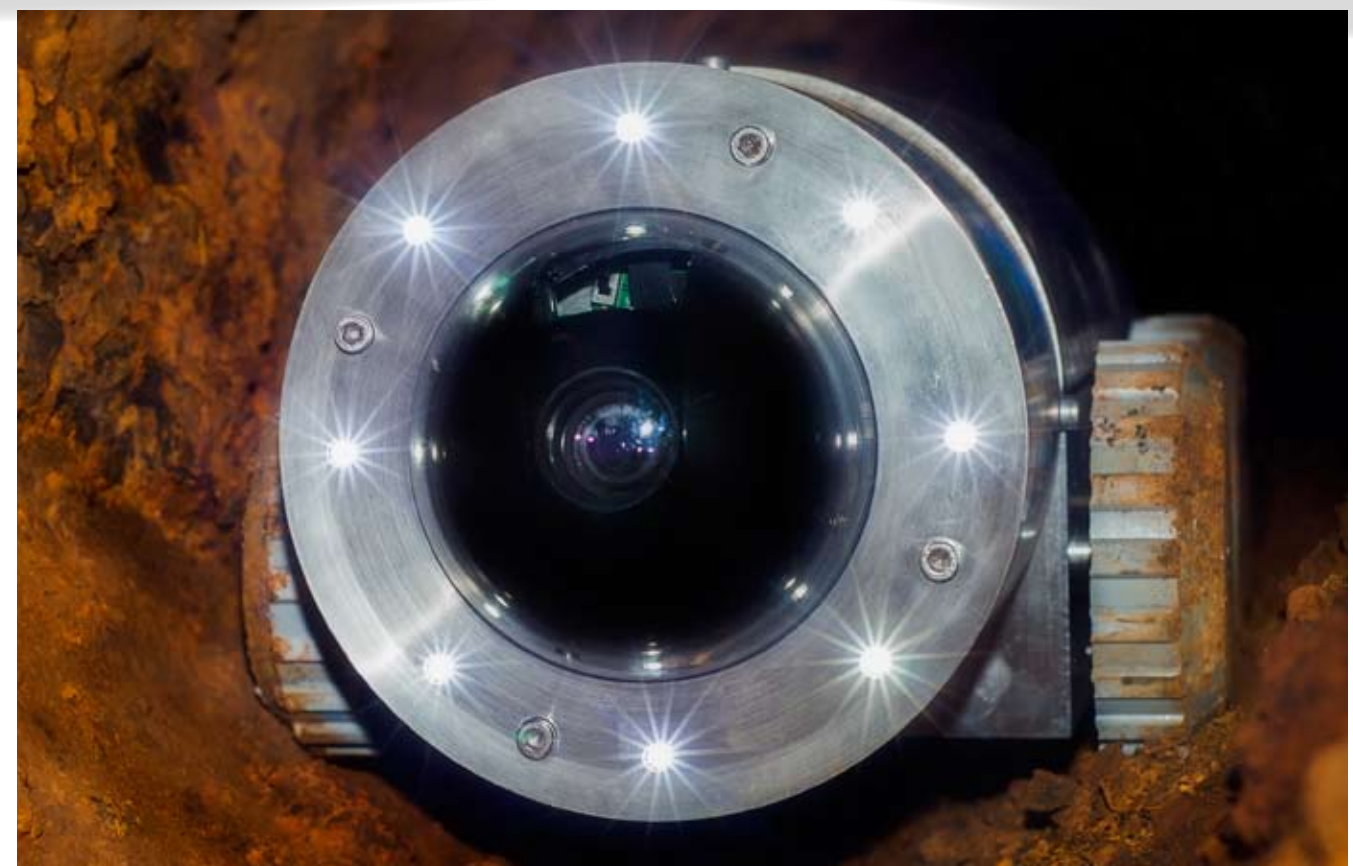
20
13

20
12

Finalists for the Water Industry
Achievements award for the
best technology

20
10

UKSTT Most Innovative
Technology award



Click to visit our website
www.jd7.co.uk

JD7 LDS1000™

The LDS1000 is a long distance trunk main live CCTV inspection and leak detection platform designed for internal investigation and leak detection work in live pipelines.

The system utilises a tri-sensor head incorporating industry leading high resolution digital camera, focussed light system along with an internal hydrophone and sonde for mapping and leak detection. The system is designed to be inserted through Air Valves, tappings or pressure fittings with an internal diameter of 2in. upwards. The system uses the flow within the pipe as the driver and a selection of parachute sizes are selected based upon flow rates which sit behind the camera head to ensure maximum visibility throughout surveys. The LDS1000 is capable of insertion into pressurized pipework up to 16 bar and is reliably launched within 12in. (300mm) diameter and above pipework with a flow rate as low as 0.3m/s. The LDS1000 comes complete as a full package with training and all items required to implement the technology into any business. The system will not be matched with regards to both reliability and performance and has been proven in most territories around the World. The system is compatible with JD7LiveFeed software for maximum performance.



Benefits

- Tri sensor head (hydrophone, camera and sonde)
- HD camera sensor
- Proven unmatched hydrophone sensitivity
- Electronic cable drum (silent running)
- Simple to install, configure and operate
- Minimum flow of 0.3m/s required
- Pipelines 12in. and above diameter
- Video and acoustic capturing software for simple reporting
- Light weight heavy duty control cable for increased reliability and durability



JD7 Investigator™

Pressurized pipe inspection and leak detection system. The system is used for 3" diameter pipework and above for complete asset condition examination and leak finding.

Access through fire hydrants*, 1.5in. and above pressure fittings, air valves, gate valves and Quadrina's at full mains pressure.

The JD7 Investigator is an asset management and leak detection tool for insertion into pressurized pipelines up to 16 bar.

The system is mounted onto pipework through a selection of fittings and/or 'hot tapings'. This process makes access into the pipework simple and cost effective.

Monitoring the real-time data captured by the camera and hydrophone sensor head allows the operator to understand internal pipework conditions and leakage points. The maximum distance for each insertion is 100m due to the length of the cable supplied with the system. During insertion the maximum distance achievable will be influenced by the pipe diameter, internal condition and number of bends present. The JD7 software is specific for the Investigator technology 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 JD7LiveFeed software for maximum performance.

Full tailored training courses and on-site assistance engineers available on request.



Benefits

- Tri sensor head (CCTV, hydrophone and sonde)
- Pressurized insertion upto 16bar
- Extremely robust camera head with bend mechanism
- Interchangeable hi-resolution CCTV and hydrophone system
- On-board hydrophone for precise leak detection
- Sonde for above ground location
- Ruggedized control station
- Real-time analysis software



JD7 Investigator Gas™

Piloted in Northern Gas Networks (UK), in 2013 JD7 commercially launched its live gas insertion system capable of 100m travel.

This technology incorporates not only high resolution CCTV camera sensors but also a highly sensitive acoustic sensor coupled with a sonde. The acoustic sensor is used for precise leak detection pinpointing in all materials and pressures. The system comes with JD7 software for live viewing and recording throughout surveys. This is the first product in the World to use such acoustic sensors and the results speak for themselves.

The system can be used in pipes 75mm (3in.) and greater and comes with a pressure seal assembly which is extremely robust and easily attached to standard fittings, valves etc.

A 512hz high powered sonde is built into the system which is capable of penetration through metallic pipes. JD7 Gas software has been written specifically for the gas industry which allows not only real time video monitoring and recording, but also shows a detailed range of acoustic graphs to display leakage information. Various filters can be applied and the control station allows for headphones to be used to verify acoustic signatures.

The system is very powerful and extremely simple to use. Piloted by Northern Gas Networks and Balfour Beatty Utilities in the UK has ensured the system captures all industry requirements. The patented robust design of the camera head means minimal down time due to camera failures.

The system is compatible with JD7LiveFeed software for maximum performance.



Benefits

- Interchangeable hi-resolution CCTV system
- Gas Pressurized insertion and seal technology
- Ultra sensitive acoustic sensor for precise leak detection
- Sonde for above ground location
- Ruggedized control station
- Real-time analysis and evaluation software
- Extremely robust



JD7 Investigator Light™

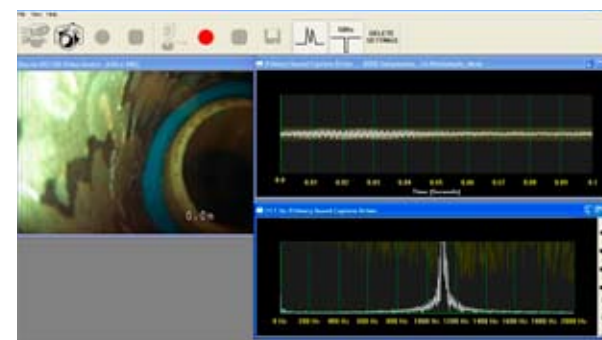
The JD7 Investigator Light™ is a fully integral pressurized pipe inspection and leak detection system designed for harsh environments.

Designed for 3in. diameter pipework and above for complete asset condition examination and leak finding. Access through fire hydrants*, 1.5in. and above pressure fittings, air valves, gate valves and Quadrina's at full mains pressure. The key to the technology is the ability to inspect the condition of pressurized potable water pipes without the need to isolate supplies or services. The sensors head incorporates a camera system as well as a hydrophone for leakage detection and a 512Hz sonde for pin pointing and line location.

The robust design is all housed within a peli-case which includes the cable, mini laptop, switches, drive mechanism and battery making the system fully portable and durable.

Assessment and leak detection in all materials is viable with the JD7 Investigator Light™. The software is specific for the Investigator technology and is used to control the sensor head and view both video and hydrophone results from live surveys. The software displays video in a re-sizable 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.

***JD7 cannot guarantee access through fire hydrants due to variations in design and conditions.**



Benefits

- Fully portable
- Tri sensor head (CCTV, hydrophone and sonde)
- Pressurized insertion upto 16bar
- Extremely robust camera head with bend mechanism
- Interchangeable hi-resolution CCTV and hydrophone system
- On-board hydrophone for precise leak detection
- Sonde for above ground location
- Real-time analysis software



JD7 Voyager™

The JD7 Voyager is the most advanced ROV Crawler system on the market and is compatible with water, gas and industrial pipelines.

The system is a long range 5000m capable crawler with full high resolution laser profiling technology incorporated. The system offers both tethered and untethered configurations. In tethered mode 1km is achievable, allowing full control via steering, pan and tilt CCTV, hi resolution laser profiling and an acoustic sensor systems which make leak detection in all materials possible. In un-tethered mode the system is programmable which allows autonomous control upto 5km in any one survey.

The system supports pipeline lining programmes and the software incorporates an auto pre vs post lining assessment comparison feature. This allows quality control to validate the thickness of lining applied.

The Voyager is used for Water, gas and industrial pipelines and is capable of passing through small access points and navigating harsh environments. The acoustic sensors allow for precise leak location and pin pointing in all materials. The sensitivity can be controlled and the smallest of leaks may be identified by the system.

The same system can be used for pipelines of 100mm (4in. diameter) upto 5m diameter with a different configuration to suite each size range.

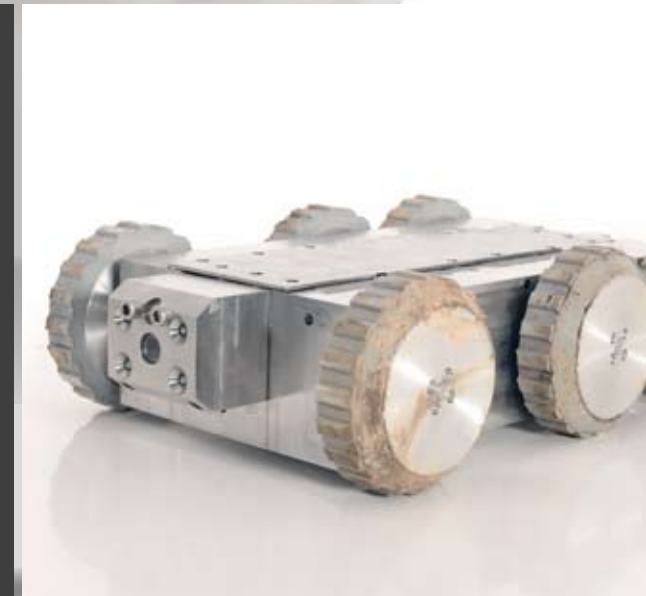
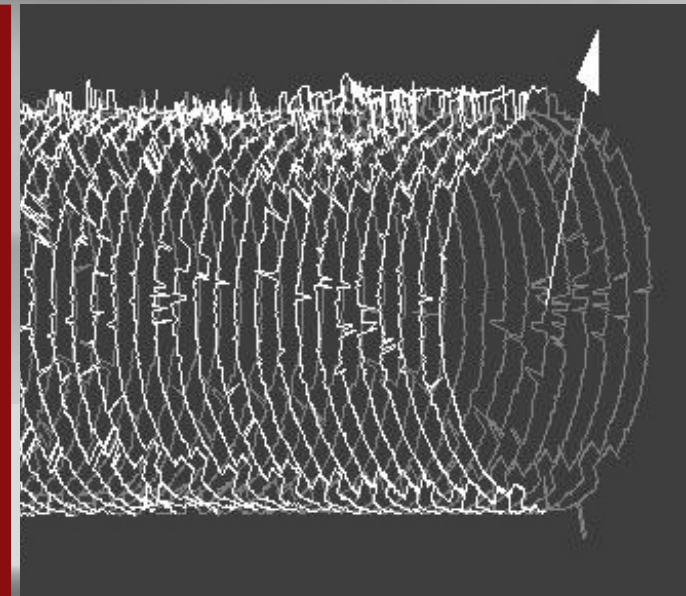
The Voyager uses x6 independent drive motors which ensure smooth control and manoeuvrability but ultimately power to allow maximum survey distances to be achieved.

The system is compatible with JD7LiveFeed software for maximum performance.



Benefits

- Hi Resolution laser profiling for condition monitoring
- Full 1080p HD camera system with pan and tilt
- 1km or 5km configurations
- Auto pipe lining comparison system
- Fully programmable
- On board acoustic leak detection
- Pressurized insertion (upto 10 bar)
- Fully interchangeable and modular build
- Software control
- Fully automated reporting software with 3D imagery



JD7 PipeScan+™

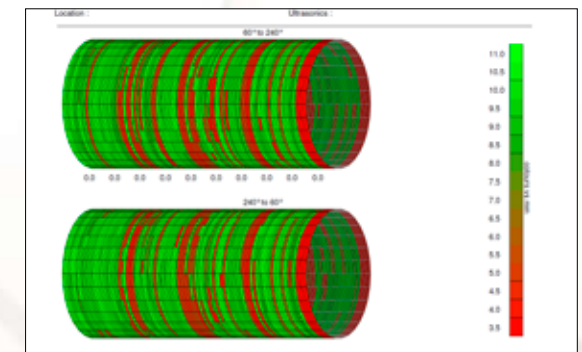
The Jd7 PipeScan+ is an internal ultrasonic manipulator incorporating focussed ultrasonic probes coupled with a hi resolution camera system and 512Hz sonde.

The PipeScan+ allows pipework of all materials to be scanned whilst remaining in service, allowing a full dimensional survey to be achieved including multiple wall thickness measurement, corrosion and flaw identification along with lining thickness. Using this system allows accurate remaining life expectancy of the pipework to be calculated where thousands of measurements can be acquired in minutes. The PipeScan+ is configured onto a 100m semi-flexible umbilical, therefore offering 100m maximum capability. This allows pipework to be scanned along the full length giving reliable data on true asset condition.

The PipeScan+ will not be matched with regards to the quality and detail of data captured from the technology and unlike magnetic flux leakage tools the PipeScan+ not only gives average wall thickness readings, but also fully detailed structural assessments.

Access into live pressurized pipework is possible and auto controlled using a portable electronic drive system which controls the feeding and pullback of the scanner in a controlled manor. The system is compatible with JD7LiveFeed software for maximum performance.

***JD7 cannot guarantee access through fire hydrants due to variations in design and conditions.**



Benefits

- Live insertion to water and waste water pipelines
- Live insertion into petrochemical pipelines
- Fire hydrant access
- NDT wall thickness
- CCTV Imaging
- Fully automatic
- Location mapping





JD7 LiveView™

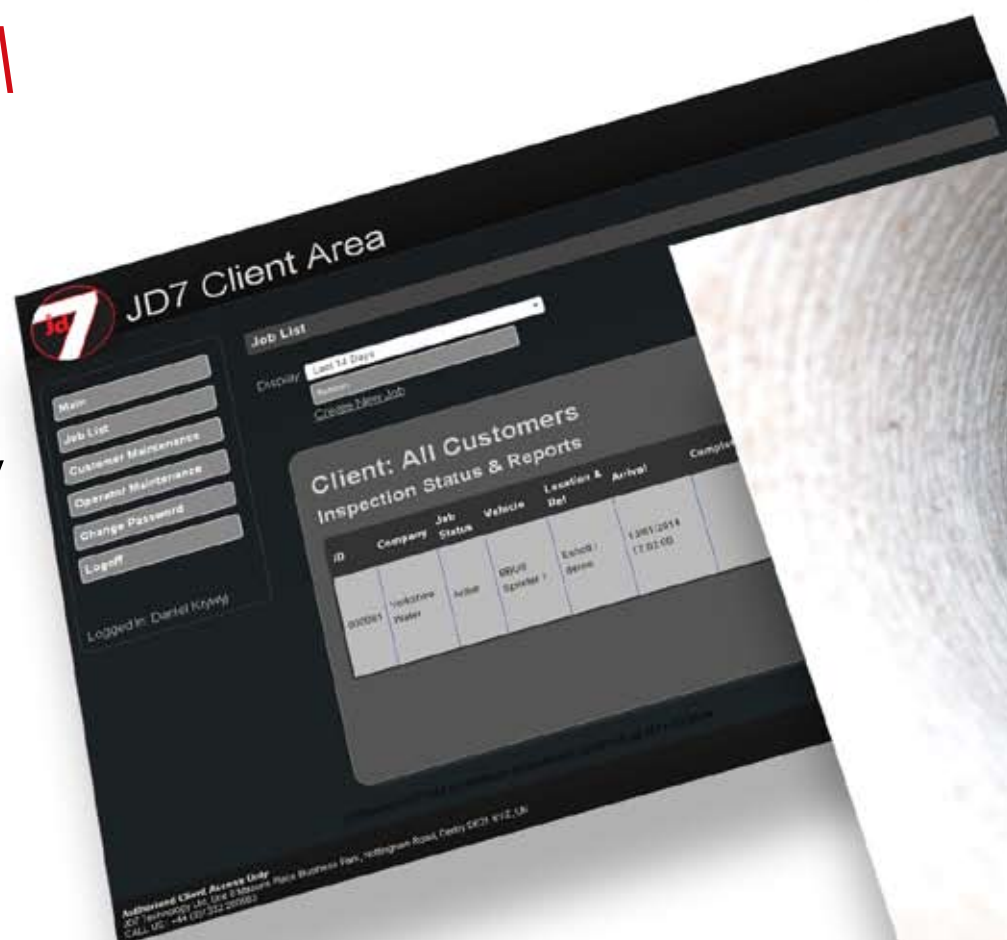
JD7LiveView is a delegated software package designed to allow CCTV, condition assessment and leak detection surveys to be viewed remotely from anywhere in the World via the Internet.

The software allows clients to view surveys as they are happening and includes secure access and passwords. The software also allows all data, reports etc to be managed and stored onto a cloud based server meaning the client can view and download reports immediately following survey work. It is very simple to use, however remains a powerful tool for both field teams and clients.

Benefits of the system include the ability to easily view and manage work programmes and field teams as well as using the software as a data upload facility. This means that delivery of reports and surveys to the client is now instant and more importantly automated.

The field overview feature allows real time viewing of field activities to be performed remotely and coupled with the live CCTV images streamed to the system means that decisions can be made remotely as oppose to waiting for survey data to be delivered.

JD7LiveView caters for both small and large organisations with multiple field teams and is an incredibly powerful package when running survey teams nationally or internationally.



Benefits

- Live video streaming
- Live site camera viewing
- Live CCTV viewing
- Real time data upload
- Field team management and monitoring
- Client login and management
- Access anywhere in the World



JD7 Bullet™

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.



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





JD7 Technology

JD7 were approached in 2005 to develop a camera system that could be operated under live mains pressure and be navigated through an existing hydrant into the T piece position of a water main.

This would be the first time world-wide a camera was inserted through a live fire hydrant into a clean water system with no disruption to supplies.

Since 2005 JD7 have now developed a full range of advanced technology platforms including 5000m live pipeline condition assessment system, tethered and free flowing internal assessment systems as well as the most advanced pipeline MRI scanning system for true structural assessment and wall thickness measurements.

JD7 technologies are now applied to water, waste water, gas and fire networks.

Benefits

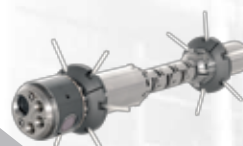
- Pipeline assessments
- Life expectancy through true measurements
- Leak detection (Water and Gas)
- Main renewal prioritization
- Justification and certification of fire mains
- GPS tracking and plotting
- Live video feed
- Location of services, defects, restrictions
- Accurate GIS mapping
- Material validation
- 5000m continuous surveys
- Long distance free flowing solutions
- Highly accurate systems with

20
12



JD7 launch the LDS1000, the next generation long distance internal pipeline leak detection system with combined 3 sensor head technology.

20
13



JD7 launched the JD7 Pipescan+ a 3D MRI condition assessment scanning technology for use in live water pipelines.

20
14



JD7 commercially launched the JD7 Voyager for water and gas pipelines. The voyager is the most advanced ROV crawler system in the world with full condition assessment and leak detection sensors for deployment up to 5000m at full mains pressure.

OUR FULLY TRAINED OPERATIVES ARE AVAILABLE 24/7.

20
13

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

Click to visit our website
www.jd7.co.uk