



Locate – Survey - Detect

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HMG Water Solutions is a leading supplier of the world's best branded equipment to the grey, black and potable water, gas, electric, communication, construction and civils industries. Focused on locating, surveying and detecting, underground infrastructure and utilities, *HMG Water Solutions* are the experts to find the solutions;

Locate

HMG Water Solutions are experts in location devices and systems. As an independent supplier of location equipment, *HMG Water Solutions* can offer the right equipment for the right job, ensuring accurate fast results every time.

Survey

HMG Water Solutions prides itself on being able to supply the best survey equipment available to provide the vision our customers require. Whether it is in a sewer or a live potable water drink pipe, *HMG Water Solutions* can supply and support the best survey equipment that provides the detail that allows informed decisions to be made.

Detect

HMG Water Solutions is a leading supplier of leak detection equipment for live water pipes. Whether it is a simple listening stick, correlators combined with an in-pipe acoustic leakage system or, a fully integrated intelligent leak detection and management system for a whole network, *HMG Water Solutions* has a range of options that will help to eliminate water leakage. *HMG Water Solutions* delivers 'Business As Usual' solutions every day.

Underground Locators

Underground Locators are used to identify underground plant, pipes and cable from above ground. Underground Locators are basic tools used for simple surveys before excavation or piling. HMG Water Solutions recommend C-Scope, Radiodetection and Vivax depending on your individual requirements.



The latest underground locators or cable avoidance tools are truly amazing developments. They have dual frequency working at 33 and 131kHz for maximum exposure of underground plant. The cable avoidance tools have Power, Radio and Generator modes for identify varying types of plant underfoot. The systems use the latest technology to be energy efficient and even have swing alerts to ensure that the systems are used correctly.

Options available include depth location, data logging, Bluetooth connectivity and GPS location to provide confirmation that a site has been surveyed before a spade has even broken ground.

The latest systems can even self-calibrate, allowing self-certification or third-party calibration if required.

Its never been safer to dig after using one of these cable avoidance tools



Precision Locators

Precision Locators are used to map underground plant, pipes and cable from above ground. Precision Locators are survey tools used for involved and complex surveys. HMG Water Solutions recommend C-Scope, Radiodetection and Vivax depending on your individual requirements



Precision locators are high performance multi-frequency location tools that not only work at 33 and 131kHz, but also on a range of frequencies from 16Hz up to 200kHz, allowing the tracing of high impedance utilities as well as high frequency assets.



The dashboard available on the systems allows visual directional confirmation brought together by multiple antennas to provide the most accurate location available.

It's never been easier to provide a detailed survey of the underground utility world.



Signal Generators

Signal generators are the tool required to induce a signal into a tracing wire, a cable or a pipe to aid its location and survey.



Whatever the requirements for a signal generator, from its multi-frequency ability to its power output, HMG Water Solutions has the range available.



Sondes

Sondes are self-contained transmitters used to pinpoint a location out of a pipe or some ducting. They are generally attached to push rods to allow maximum push distance for location.



Sondes are generally available in 512 / 640Hz for use in cast iron and metallic pipes, 8kHz and 33kHz for non-metallic pipes at depth.

Ability to receive a signal will always vary with soil conditions, but there are a range of sondes that can be used from the standard 2m down to 15m in depth. Not all pipes are straight, so HMG Water Solutions are able to supply flexible sondes for negotiating bends.



Tracing Wires

Tracing Wires are thin flexible wires that can be used for tracing both the line of the pipe along the wire and the tip of the wire to pinpoint the end. Used with a signal generator, these systems allow long distances to be easily traced.



A line trace is carried out by connecting the signal generator to the tracing wire and putting the earth stake at 90 degrees to the line.

To trace the tip of the tracing wire, both the connections from the signal generator are connected to the tracing wire.



HMG Water Solutions provides pipe tracers from 4.5mm to 9mm in diameter over lengths up to 200meters. Whatever is required, whether it is flexible for bend negotiation, to integrated slip rings for tracing during insertion, we have a solution available.

Access Systems

Using tracing wires is fine when there is an open end of a pipe and it's not under live conditions. HMG Water Solutions can provide tracing wires that are able to be inserted into live Gas and Water pipes using the Stargland System. The Stargland System is a live access tool for access into pipes of varying diameters and pressures for both live distribution gas and potable water.

Stargland CH4

Using the existing C-Scope Plastic Pipe Tracers (20m or 50m), the Stargland System allows live access in to gas service pipes from emergency control valves, house entry tees, or end on live insertion. The system can also be used for live access into 32mm top tees in small diameter Polyethylene mains up to 125mm.



Using a modified C-Scope Flexible Tracer, the Stargland System can be used in Polyethylene mains from 63mm and above through a High Flo 63mm Top Tee for tracing mains up to 160meters from one excavation.

Standard UK pressures are for 75mbar and 2bar but 4 and 6bar systems are available for overseas markets.

Stargland H2O

The Stargland System has been developed for use in potable water with all parts including the tracing wire manufactured from WRAS approved material so that it is acceptable for use in potable water systems in the UK for pressure up to 10bar.



Tracing wires can be inserted end on into a PE service, through a top tee into a polyethylene main, using a through-bore hydrant or through an Elster meter box.

The HMGtrace is a 50meter tracing wire and tip tracing sonde manufactured from WRAS approved material. With an in-built slip ring the system will allow line and tip tracing as the tracing wire is inserted.

Metal Detectors

Metal detectors and Magnetometers are used to locate lost metal objects such as manhole covers, and stopcock covers.

Metal detectors are used to locate lost metal assets that are just below the ground surface whether it is soil, grass paving or tarmac.



Magnetometers are used to identify ferrous items that have been deeply buried, up to 5 meters deep. Perfect for identifying septic tanks, valve boxes, line markers, boundary pegs and iron gas and water pipe joints.



Pipe Survey Cameras

When surveying a pipe, remote eyes over a long distance is important. Balancing rigidity to push a maximum distance, with flexibility to negotiate bends, and robust to survive the knocks of everyday life, a good in-pipe CCTV system is invaluable for use.

HMG Water Solutions can offer a range of systems to meet all pipe requirements.

Outlook C10 is a small camera with a 9.5mm diameter camera on a 6mm by 20meter push rod camera for small diameter service pipes, ducts, drains and wall cavities.



The Outlook C20 is an entry level looksee camera system. A 24mm camera on an 80m x 4.5mm fibreglass rod. Perfect for 40mm to 100mm diameter pipes.

Both the C10 and C20 come with a 5.6" daylight visible screen with a 5-hour battery as standard.

The Vivax vCamMX-2 all-in-one mini inspection system. With either 17mm or 26mm cameras on 30 to 45meter pushrod. The system has multi-frequency sondes, video recording, and 8" screen and a 7-hour battery.



The Vivax vCam6-HD is a full survey system. With either 34mm or 46mm diameter self-levelling cameras on 60 to 120meter pushrods. The system has multi-frequency sondes video recording, and a 9.7" screen and a 4-hour battery.



The SynthoCam H₂O system has been developed from the world's leading supplier of Live Access Gas Systems. After 13 years of supplying under pressure CCTV system for use in live gas transmission and distribution pipes operating up to 100barg. The SynthoCam H₂O system has been designed for live access into potable water pipes through full bore hydrants or under pressure drillings from a vertical insertion system. The SynthoCam H₂O system is made with existing WRAS approved materials and parts allowing us to confirm that all wetted parts are WRAS approved.



The 8.5mm diameter coil has a basalt filled rod inside which provides maximum push distance up to 80meters with a 30mm diameter camera rated for operational use at 10bar with super bright LED lighting. The system has our compact B-SCU which has an 8.6" screen, a 5-hour battery life, DVD and text system and on-screen meterage. The system gains access through a fixed insertion tube or the Synthotech Patented Pressure Equalised System and our unique SealStack system.

- Survey up to 160 metres from a single excavation
- Significantly improves rate of pipe problem investigation
- 10bar operational use
- Pressure balanced insertion tube for safe access and egress with the water main, hydrant and or drilling system



- Interchangeable High resolution 30mm camera for diameters from 4" / 90mm to 10" / 250mm
- Ultralife push rod reduces breakages
- Choice of display and data storage systems
- All systems include comprehensive storage systems
- Reduced maintenance costs
- Interchangeable Camera Head Spring
- Chlorination tank
- Quick release screen display stand
- Optional GPS tracker available



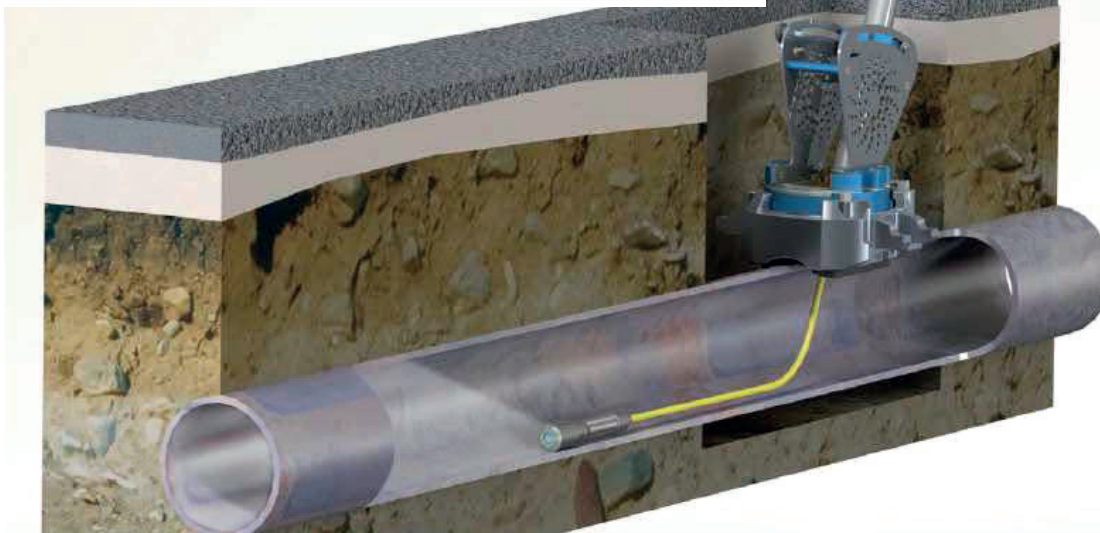
Live Gas Cameras



A “**must have**” for all mains replacement crews, the latest range of live gas approved CCTV systems pay back in as little as 4 weeks.

SynthoCam™ 3

- Survey over 180m from a single excavation
- Significantly improves rate of pipe replacement
- Quicker diagnosis of in-pipe obstructions, poor pressure conditions and gas leakage
- LP & MP Metallic & PE up to 2 barg

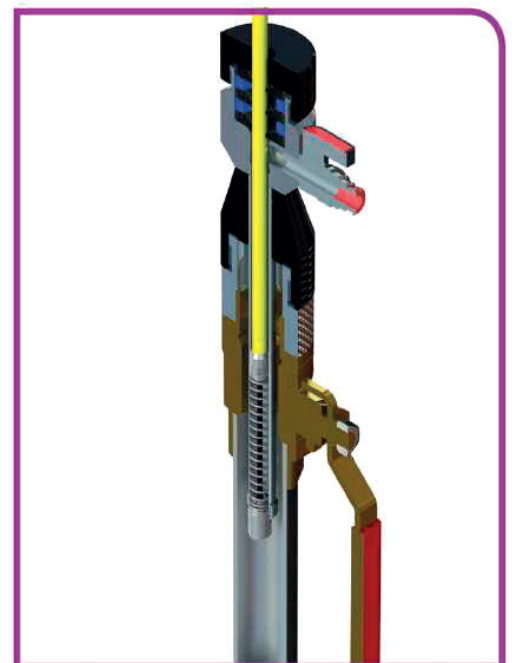


A live gas CCTV system for inspection of 17.5mm to 32mm PE or ServiFlex® lined services & ¾” to 2” Metallic Services.



ServiceCam™

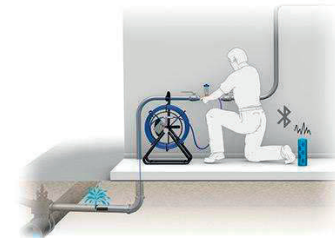
- Carry out pre-enabling inspection of metallic services up to the first bend.
- Entry system through ECV allows for ‘live’ inspection of up to 20m
- Fast diagnosis of poor pressure problems due to water ingress or incorrect installation
- Part of good governance to confirm correct installation of PE or ServiFlex® lined services
- For use on low pressure, up to 75mbarg





PipeMic® and HMGmic™ are innovative live access potable water leak detection systems. The systems have an intelligent head which includes an acoustic tip for leak detection and line and tip tracing for location.

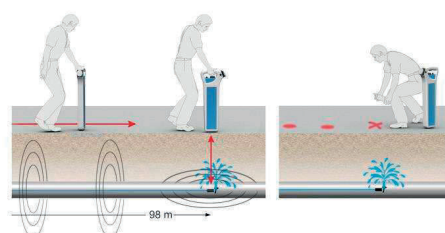
The PipeMic® is designed for use up to 10bar and up to 90metres for the 4.5mm rod and up to 300meters for the 9mm push rod. The systems are designed with no water access glands for ease of access into a pipe.



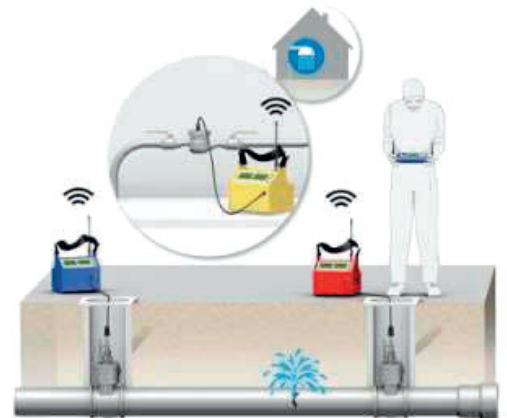
A leak can be identified through the change in noise at the point of the leak. The change in the noise can be listened to through headphones or linked to a high-quality waterproof and shockproof Bluetooth speaker. There is also a visual display via a light bar.

PipeMic® and HMGmic™ can work in conjunction with a FAST Aqua-M300 Geophone for an acoustic and optical display.

PipeMic® and HMGmic™ both come with an inbuilt chlorination chamber to ensure that the system is safe for use on potable water systems.



Correlators



Correlators are used to identify leaks between two points. Generally installed on hydrant valves or meter box positions, the correlators help to pin point where a leak is coming from, providing live information. The systems can be used overnight providing a full data stream of usage and leak profiles.



HMG Water Solutions can provide the latest in innovation and technology for listening systems, as well as the traditional mechanical listening stick.



The latest in innovation can be seen from the FAST Aqua M300 intelligent geophone or the SeabKMT electro-acoustic leak detection with ground microphone, sensor rod and tracer gas.

From a basic mechanical listening stick to one with a piezo-microphone, or a small compact device to pre-locate a leak (Aqua M50)



Accessories

We supply a wide range of accessories and support tools for locating, surveying and detecting.



Hire

HMG Water Solutions hire a wide range of cable avoidance tools, cameras, safety and survey equipment.

Service and Repairs

HMG Water Solutions provide a fully auditable Service and Repair process for cable location equipment and survey camera systems. Manufacturer approved for C-Scope, IPEK, SynthoCam and Vivax full certified and warranted repairs, service and calibration can be carried out.

Training

HMG Water Solutions offers comprehensive training on Cable avoidance Tools and Precision Locators from Radiodetection, Vivax-Metrotech and C. Scope. Our trainers have years of experience with the use and applications of location products, having originally worked on their development. We recognise the broad range of ground worker competences, concentrating on the most important issues relating to safe excavation, protecting both operators and buried assets. Our courses are manufacturer approved. Courses are available as a half day or full day session for up to 10 or 20 people per session at the customers location and at an agreed time, or individuals may wish to sign up to one of our regular half day courses held at our offices in Wiltshire or North Yorkshire.

Technical support

No two excavations or inspection sites are the same, so understanding how specialist equipment can be used in a variety of different ways to locate and trace buried utilities, without compromising the safety of the workforce is important.

HMG Water Solutions staff have years of experience in applying a range of techniques and accessories to locate, trace and avoid buried assets in complex environments.

NOTES:

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