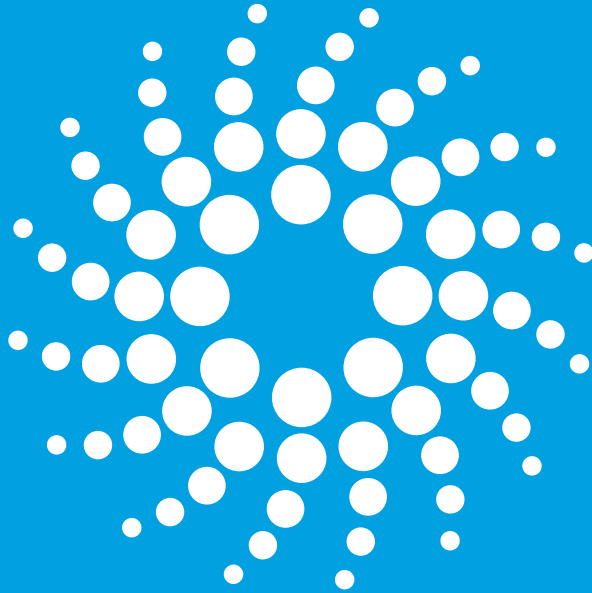


FULL PRODUCT GUIDE



SYNTHOTECH

LOCATE | SURVEY | DETECT
CONSTRUCT | MAINTAIN | MANAGE

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synthotech.com
synthotech-water.com

May 2026

SPLG-010526-0.1

WHO IS SYNTHOTECH?

[Synthotech](#) is an innovative engineering company that manufactures and supplies the world's best branded equipment to the grey, black, and potable water, gas, electric, communication, construction, and civils industries. Focused on locating, surveying, detecting, constructing, maintaining, and managing underground infrastructure and utilities.

WE INNOVATE

[Synthotech](#) are the experts to find the solutions. We are a leader in the research and development of pipe renovation technology for Gas Distribution and Transmission, Potable Water, Drainage and Sewage Networks, and Telecom networks both in the UK and around the world. [Synthotech](#) is an Award-Winning Innovation company that has developed world firsts in robotics, vision, and pipe systems that are used globally.

WE ENGINEER

[Synthotech](#) is a British based Engineering Company, designing and developing new products and processes from our headquarters in Harrogate, North Yorkshire. A local company with global support, [Synthotech](#) has a multi-disciplined engineering team, that doesn't just think outside of the box, they 'think inside the pipe'™. This allows for innovative elegant solutions to be engineered to the highest standards by [Synthotech's](#) precision engineering team.

WE DELIVER

[Synthotech](#) consistently delivers high quality products and services, working tirelessly with customers to ensure that new ways of working become 'business as usual'. This is underpinned by [SynthoCARE](#), an exceptional product support service that not only provides workplace support, but also provides loan equipment to ensure customers remain operational all year round.



WHO IS SYNTHOTECH?

HIRE

Synthotech hire a wide range of cable avoidance tools, cameras, safety and survey equipment.

SERVICE AND REPAIRS

Synthotech provide a fully auditable Service and Repair process for cable location equipment and survey camera systems. Manufacturer approved for Radiodetection, C-Scope, Vivax, SebaKMT, Esders, FAST, Easysight and SynthoCAM™ full certified and warranted repairs, service and calibration can be carried out.

TRAINING

Synthotech offers comprehensive training on a full range of equipment including Easysight, Radiodetection, Vivax, C-Scope, SebaKMT, Esders, FAST GMBH, Ijinus and Synthotech. Our trainers have years of experience 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 at the customers location and at an agreed time, or individuals may wish to sign up to one of our courses held at our offices in 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. Synthotech staff have years of experience in applying a range of techniques and accessories to locate, trace and avoid buried assets in complex environments. We are proud to work with and represent the following brands.



WHO IS SYNTHOTECH?

This catalogue has been put together with our full product range of standard items. This doesn't mean that we don't have specials available, upon request. As an innovation business, we supply all sort of solutions to our customers and are happy to modify them to meet our customer requirements.

We have colour coded our catalogue as follows:

PIPE
LOCATION
PRODUCTS

PIPE
SURVEYING
PRODUCTS

PIPE LEAK
DETECTION
PRODUCTS

PIPE
CONSTRUCTION
PRODUCTS

PIPE
MAINTENANCE
PRODUCTS

NETWORK
MANAGEMENT
PRODUCTS

The industry products are coded.

-  Potable Water
-  Gas Industry Products
-  Dirty and Grey Water Industry Products
-  Electricity Industry Products
-  Telecom Industry Products



PIPE AND CABLE LOCATION PRODUCTS

Underground Locators	6
Precision Locators	6-7
Signal Generators / Transmitters	7
Sondes	8
Tracing Wires	8-9
DuctRods	9
Under-pressure Tracing Systems	10-11
StarGLAND™	11
Acoustic Non-metallic pipe location	12
SynthoPULSE	13
Metal Detectors	13
Magnetometers	13

PIPE LOCATION PRODUCTS

UNDERGROUND LOCATORS



Underground Locators are used to identify underground plant, pipes, and cable from above ground. They are avoidance tools used for simple surveys before excavation or piling. [Synthotech](#) recommend C-Scope, Radiodetection and Vivax.

The latest underground locators or cable avoidance tools are packed with technology options. They have dual frequency working at 33 and 131kHz for maximum exposure of underground plant.



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 generation of cable avoidance tools can even self-calibrate, allowing self-certification or third-party calibration if required. It has never been easier and 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 and complete complex surveys. [Synthotech](#) recommends C-Scope, Radiodetection and Vivax depending on your individual requirements for the type of jobs being surveyed.

Precision locators are high performance multifrequency location tools that not only work at 33 and 131kHz, but also on a range of frequencies from 8Hz 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.



PIPE LOCATION PRODUCTS

Precision Locators can have omni directional capability to make location even easier.

Depth measurement, data logging and inbuilt GPS means that all the information from below ground can be stored in the cloud for traceability.

Modern precision locators make it easier to get accurate below ground location.



SIGNAL GENERATORS / TRANSMITTERS



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

Standard signal generators produce 33kHz to 131kHz.

Advanced transmitters have the capability to supply a range of frequencies From low frequency for use in metal pipes to high frequency for use in plastic pipes and cables.

Whatever the requirements for a signal generator, from its multi-frequency ability to its power output, [Synthotech](#) has the range available.

Vivax vScan Transmitter



Radiodetection Genny4



Radiodetection TX-5, TX-10 and TX-10B



Vivax Loc3 Transmitter
TX5, TX10 and TX25

CScope SGA4, SGV4 and
MXT4 Transmitters



PIPE LOCATION PRODUCTS

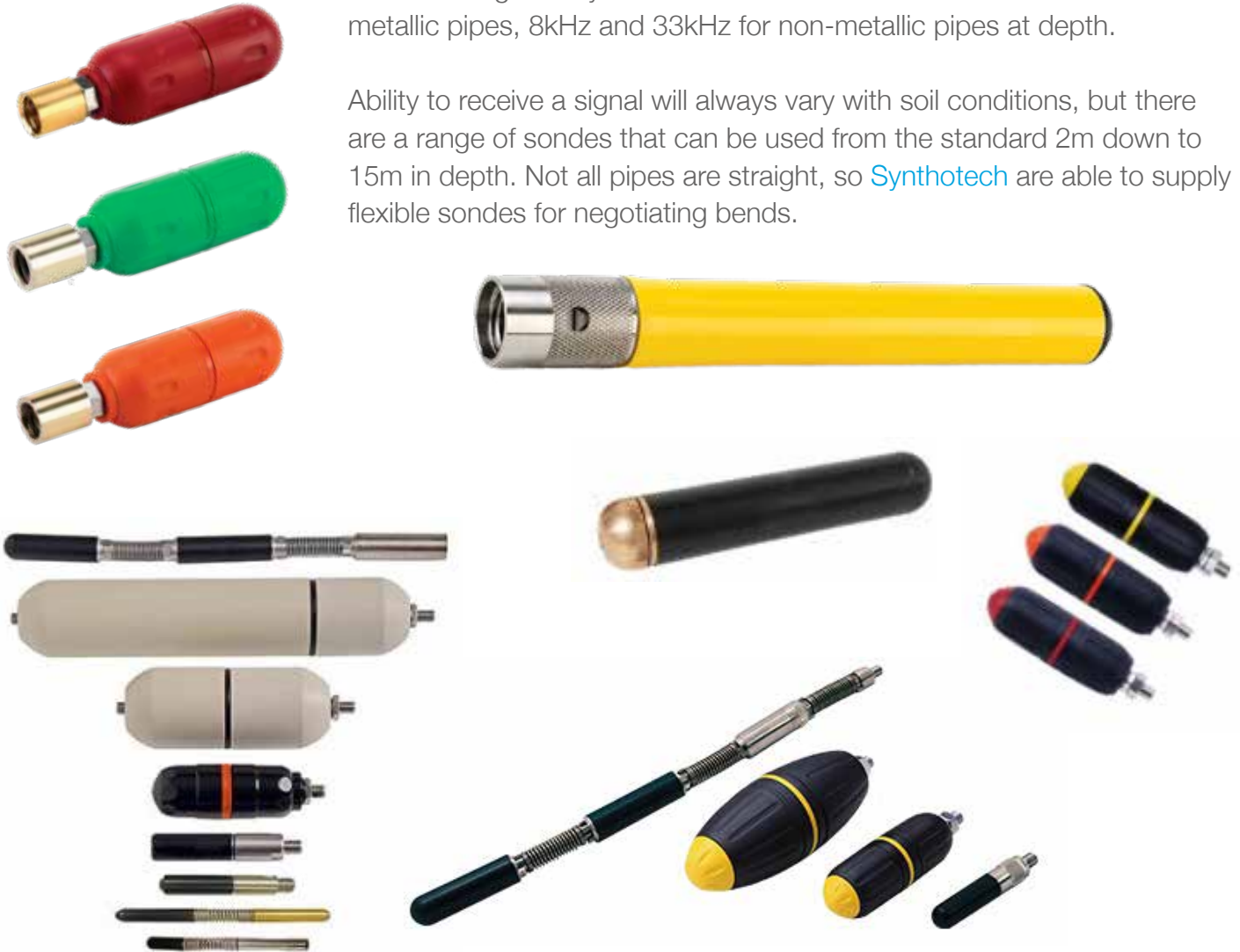
SONDES



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 [Synthotech](#) are able to supply flexible sondes for negotiating bends.



TRACING WIRES



Tracing Wires are thin flexible wires or fibre glass cables 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.



PIPE LOCATION PRODUCTS

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.



Synthotech 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.

DUCTRODS



These are a tough, compact, semi flexible duct rod system manufactured from composite fibreglass rods with polypropylene sheath, there are brass end fittings with smooth profile bullet tips and an integrated brake. Available in five different diameters, 4.5mm, 6mm, 9mm, 11mm and 14mm.



DuctRods are used for both pushing and pulling within pipes and ducts for both pinpoint location when connected to a Sonde as well as used for cabling over long distances.

Key Features

- Fast easy Cable Installation or pin-point location
- Lightweight for easy transportations
- Strong robust fibreglass rod
- Robust Zinc Plated steel frames
- Cost effective
- Range of adaptors available.

PIPE LOCATION PRODUCTS

UNDER-PRESSURE TRACING SYSTEMS



Synthotech are experts in live access methodologies into potable and pressurised water pipes as well as live gas pipes.

Using tracing wires is fine when there is an open end of a pipe and it's not under live conditions. **Synthotech** can provide tracing wires that are able to be inserted into live Water and Gas 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.

The **Synthotech** range of live access tracer wires have been manufactured using WRAS traceable material or material tested to BS6920. This allows the products to be used inside potable water pipes.



Live access water tracer

The Live access water pipe tracer has been manufactured so that all wetted parts are either WRAS material, traceable to WRAS material or meet BS6920. The 4.5mm diameter x 80meters fibreglass rod has a specially manufactured outer coating that uses a WRAS material. This combined with the special water gland allows safe operation in pipes up to 10bar water

Live Access Water Tracer WRAS material 50m p/n 201000
Live Access Water Tracer 50m p/n 201001

StarGLAND™ Live Access Water Insertion Gland

The StarGLAND™ system allows live access into potable and pressurised water pipes. The simple patented access system can be connected onto any Philmac type connector for life access into a pipe after the squeeze off has been removed.



PIPE LOCATION PRODUCTS

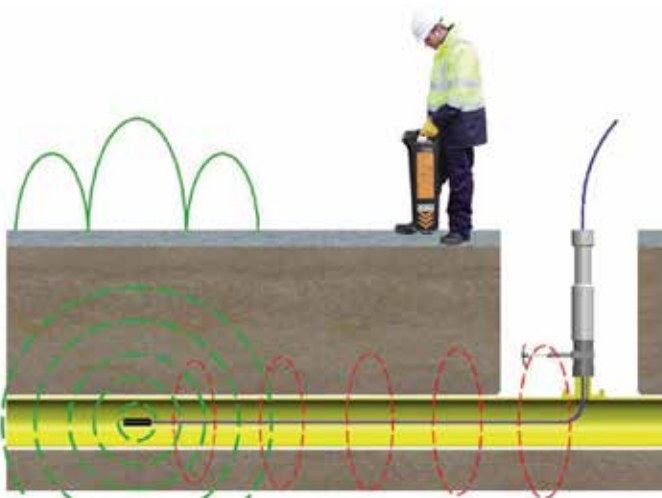
STARGLAND LIVE ACCESS INSERTION SYSTEMS



The StarGLAND™ system is a versatile safe and efficient ‘live access tool’ that enables tracing of polyethylene (PE) gas pipework systems. Tracing of PE pipes is achieved by inserting a tracing wire and sonde through the ‘live access tool’. The tracer wire and sonde is energised by use of a signal generator and located by an underground locator (cable avoidance tool). The ‘live access tool’ has been specifically designed using our unique StarGLAND™ gas seal technology.

Live access into:

- Emergency Control valves
- House Entry Tees
- End on into PE service pipes
- 16, 20, 25 and 32mm service entry
- Access into 40mm PE and above from a 32mm Top Tee
- Access into 63mm PE and above from a 63mm Top Tee
- For use in Low Pressure (up to 75Mbar) and Medium Pressure UK (up to 2Bar) and medium Pressure (up to 5.5Bar) networks.



Significantly reduces excavation, reinstatement, and associated activities. Enables PE gas pipe systems to be accurately identified, while reducing operational costs.

Used by all UK gas networks, and multiple gas networks around the world.



PIPE LOCATION PRODUCTS

ACOUSTIC NON-METALLIC PIPE LOCATION

SebaKMT Pipe Pecker RSP3

A simple device for acoustically locating non-metallic pipes.



The Pipe Pecker simply connects to a pipe via a chain. The system then sends an acoustic pulse (knock) down the pipe at different frequencies depending upon the distance required. The noise from the pipe can be detected above ground by using a ground microphone. The system works particularly well on non-metallic potable water pipes such as asbestos cement, PE and PVC.

Distance is dependent upon the depth of the pipe type of soil and pipe material. The Pipe Pecker can also be used on metallic pipes. Particularly useful on pipes with Tyton sleeves and where there is significant electrical interference.

- Location of non-metallic pipes
- Useable for different pipe diameters
- Independent of electrical interference
- Robust housing for field use
- Long operation time and integrated rechargeable Batteries
- Variable hammer-frequencies



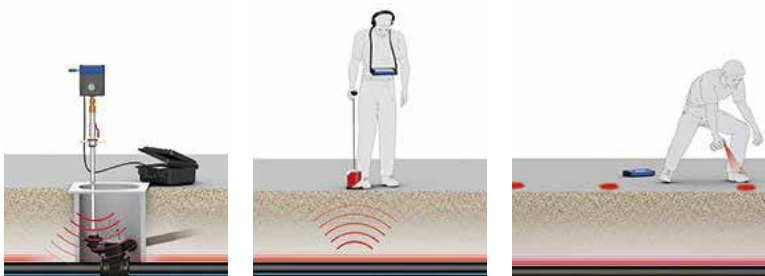
FAST PWG-II

A special location tool for all water pipes irrelevant of whether they are metal, plastic, or another material.



The PWG-II injects an acoustic pulse wave into the pipe, which makes up to 600meters of pipework detectable. The system is simply connected onto the pipe from the meter, valve, hydrant, or top tee. The battery powered unit is switched on and the acoustic waves are injected into the pipe. Using any ground microphone such as the FAST Aqua M-Series, the noise from the pipe can be located, and the subsequent line of the pipe traced.

- Easily locates non-metallic potable water pipes
- Operates at pressures as low as 2 Bar
- Compatible with any ground microphone
- Simple to use
- Cost effective pipe location
- Up to 600meters location



SYNTHOPULSE



SynthoPULSE is an Acoustic Pipe Tracer (APT) device used for detecting/locating non-metallic (PVC, ferro cement, etc.) pipes.



SynthoPULSE is an acoustic pipe tracing device designed to locate non-metallic water pipes, such as PVC and cement, which cannot be detected using traditional electromagnetic methods. It works by connecting to an external tap and generating controlled water pulses via a solenoid valve, creating pressure waves that travel through the pipe network. These pulses produce a detectable “heartbeat” sound that can be picked up at ground level using a microphone.

The system allows users to adjust pulse frequency through an app, optimising detection based on pressure and ground conditions. This enables accurate pipe tracing and supports more effective leak detection in challenging networks.

METAL DETECTORS



To locate lost metal objects such as a manhole covers, and stopcock covers or to locate lost metal assets that are just below the ground surface whether it is soil, grass paving or tarmac.

 C.Scope CS1MX Ultimate simplicity for a basic metal detector.	 C.Scope CS440XD Lightweight performance with variable determination	 C.Scope CS880 A powerhouse in the metal cover locator world
 Radiodetection RD312 0 The workhorse of the metal cover locator world	 Viking WASP One of the original cost effective simple to use metal cover locators.	 Viking WASP II The pinpointing version of the original WASP

MAGNETOMETERS



Locate deeply buried ferrous objects such as manholes, septic tanks, valve boxes, line identification markers, survey and boundary marker pegs and cast-iron gas/ water pipes and joints up to 5m deep.



PIPE SURVEY PRODUCTS

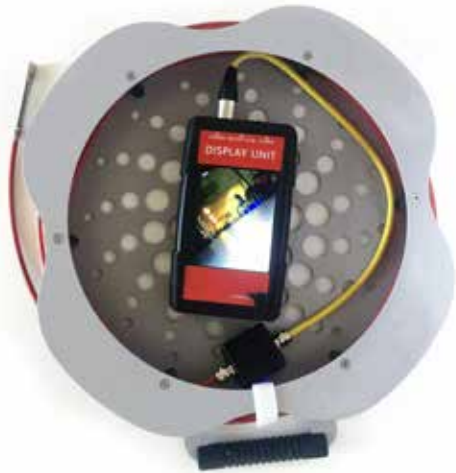
Pipe Survey – Non Pressurised Pipes	15
Pipe Survey – Non Pressurised Crawlers	16-18
Pipe Survey – Directional Float System	18-19
Pipe Survey – Pole camera	20
Pipe Survey – Easy-Sight Vision Systems	21
Live Access Potable Water Service Pipe CCTV	22
Live Access Potable Water Mains Pipe CCTV	23
Live Access Gas Service Pipe CCTV	24
Live Access Gas Metallic Mains Pipe CCTV	25
Live Access Gas PE Mains Pipe CCTV	26
Live Access Gas PVC Mains Pipe CCTV	27
Live Access Gas Pan and Tilt CCTV	28
Live Access Gas Mains Crawlers	29-30
Measuring Wheels / Survey Paint	31

SURVEY SYSTEMS FOR NON PRESSURISED PIPES

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 enough to survive the knocks of everyday life, a good in-pipe CCTV system is invaluable for use.



Synthotech can offer a range of systems to meet all pipe requirements.



INSPECTACAM C10

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 C10 comes with a 5.6" daylight visible screen with a 5-hour battery as standard.



INSPECTACAM C20

An entry level look-see camera system. A 24mm camera on an 80m x 4.5mm fibreglass rod. Perfect for 40mm to 100mm diameter pipes. The C20 come with a 5.6" daylight visible screen with a 5- hour battery as standard.

INSPECTACAM C30

This system has a 24mm camera on an 80m x 6mm fibreglass rod. Perfect for telecom ducts from the house to the street.

Both the C30 come with a 5.6" daylight visible screen with a 5-hour battery as standard with the option to upgrade to a recording 8" screen.



INSPECTACAM C50

This system has a choice of either a 24mm, 34mm or 46mm camera on 60 or 120 meter lengths of fiber glass rod. The system comes with an 8" daylight visible screen and a 4-hour battery. The line can be traced with a 33kHz signal genny. The C50 with a 24mm camera is perfect for use with 100mm telecom ducts. Recordable and non-recordable control screens are available.

PIPE SURVEY PRODUCTS

CRAWLER SYSTEMS FOR NON PRESSURISED PIPES



EASY-SIGHT X5-HMA

A robust and reliable small crawler for use in harsh environments.

Designed for use in pipe diameters from 140mm to 300mm (up to 600mm with an extender arm).

EASY-SIGHT X5-HT

A reliable medium sized crawler for use in harsh environments. Designed for use in pipe diameters from 300mm to 1000mm with an extendable arm.

The X5-HMA and X5-HT use a provides unparalleled in-pipe vision using high definition 2.1-megapixel cameras. Axial Pan and Tilt or Pan Tilt and Zoom.



Axial 50m
Camera



Optional Pan
and Tilt Camera



Optional Pan Tilt and
Zoom Camera

PIPE SURVEY PRODUCTS

Both the X5-HMA and the X5-HMT operate with either 150 or 300meter automated cable drums. The operating system is via a laptop or tablet with optional joystick. Both systems are fully integrated with the optional iTouch Once Control and reporting Box.



Optional iTouch One
Control and Reporting



Control Tablet / Laptop

150m or 300m
Motorised Umbilical



EASY-SIGHT X5-HS

A robust and reliable medium sized crawler for use in pipe diameter up to 3 meters. Designed for use in pipe diameters from 300mm to 3000mm. The X5-HS provides unparalleled in-pipe vision using high definition 2.1-mega-pixel cameras. Incredibly simple to use via a touch screen system either via a tablet / laptop or via the iTouch One inspection and reporting solution. The H5-HS has a motorised cable drum of up to 300m.



PIPE SURVEY PRODUCTS

CRAWLER SYSTEMS FOR NON-PRESSURISED PIPES



EASY-SIGHT X5-HW

This series is our long-distance crawlers for pipes from 500mm to 3000mm diameter can survey up to 2km.



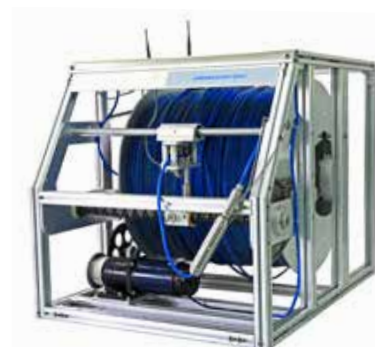
Control Tablet

The X5-HW1 has a 1000-meter (1km) umbilical, which from a single access point can provide up to 2km of survey.

The X5-HW2 has a 2000-meter (2km) cable and has a vision capability of a 3m diameter pipe.



X5-HW1 Crawler



1000m Motorised Umbilical

DIRECTIONAL FLOAT SYSTEM



EASY-SIGHT X5-HR4

An innovative directional steerable float system for storm drains and culverts.



PIPE SURVEY PRODUCTS

Suitable for pipe diameters above 600mm with a cable length of over 320meters the HR4 is a versatile system. The Archimedes screw can drive the float system forward as well as steer it away from obstacles. The system has a maximum speed of 0.5meter per second downstream and 0.2meter per second upstream.

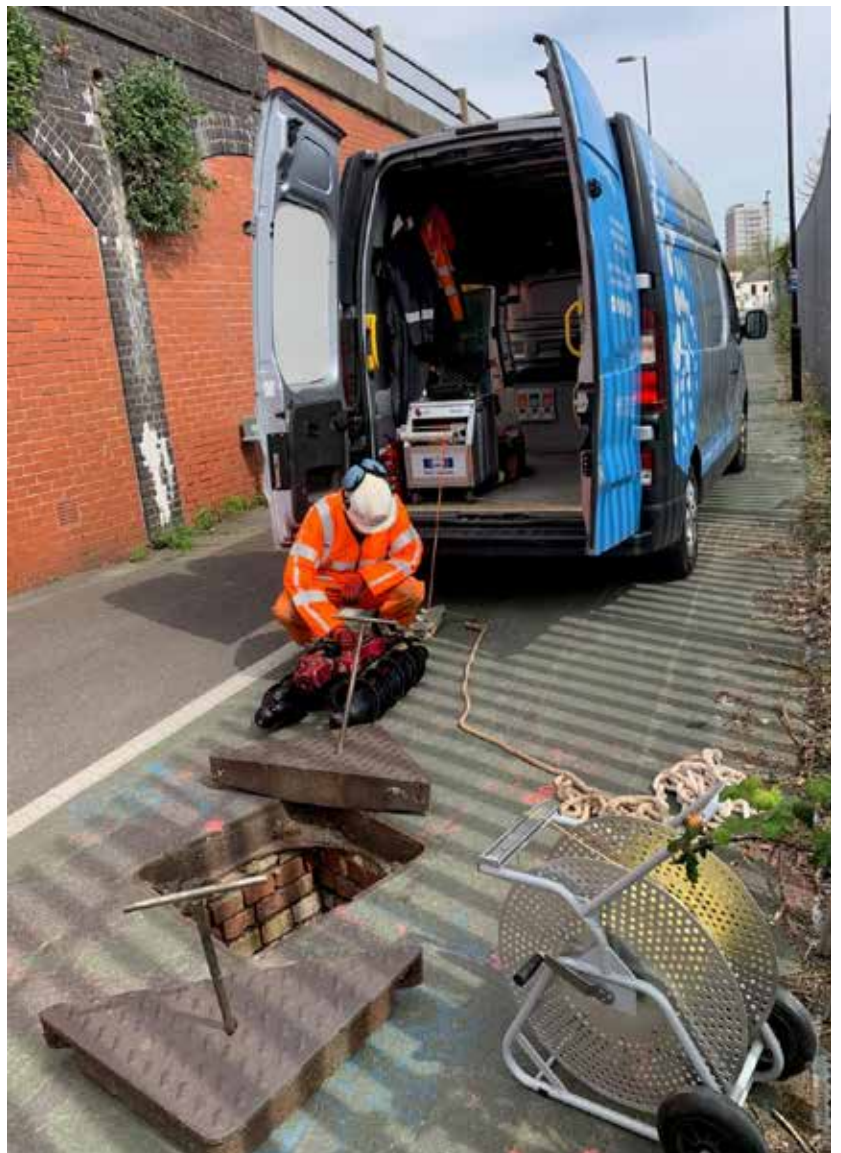
The X5-HR4 has an optional Sonar Probe for an underwater survey.



Control Tablet



Motorised Umbilical



PIPE SURVEY PRODUCTS

POLE CAMERA



EASY-SIGHT POLE CAMERA

A robust and reliable pole camera for inspection of below ground chambers without entry.

The system comes with a standard 4.8meter extendable pole on quick release fittings, and 2.1mega pixel camera with auxiliary and standard lighting for large diameter pipes, and a laser measurement capable of measuring the distance of an item up to 80meters away.

The Easy-Sight Pole Camera is a truly remarkable camera with a 60° pan and a simple rotate via the pole. The system outputs via Wi-Fi to a touch screen control pad that comes with a chest harness so it can be a simple one-person operation.

The system has on-screen distance, laser measurement and is capable of on-screen text that can be recorded to its 128Mb storage card. The whole system uses rechargeable batteries supplied with the kit. The system can be extended up to 25m if required.



Touch screen control system

Extendable poles
4.8m as standard
up to 25m

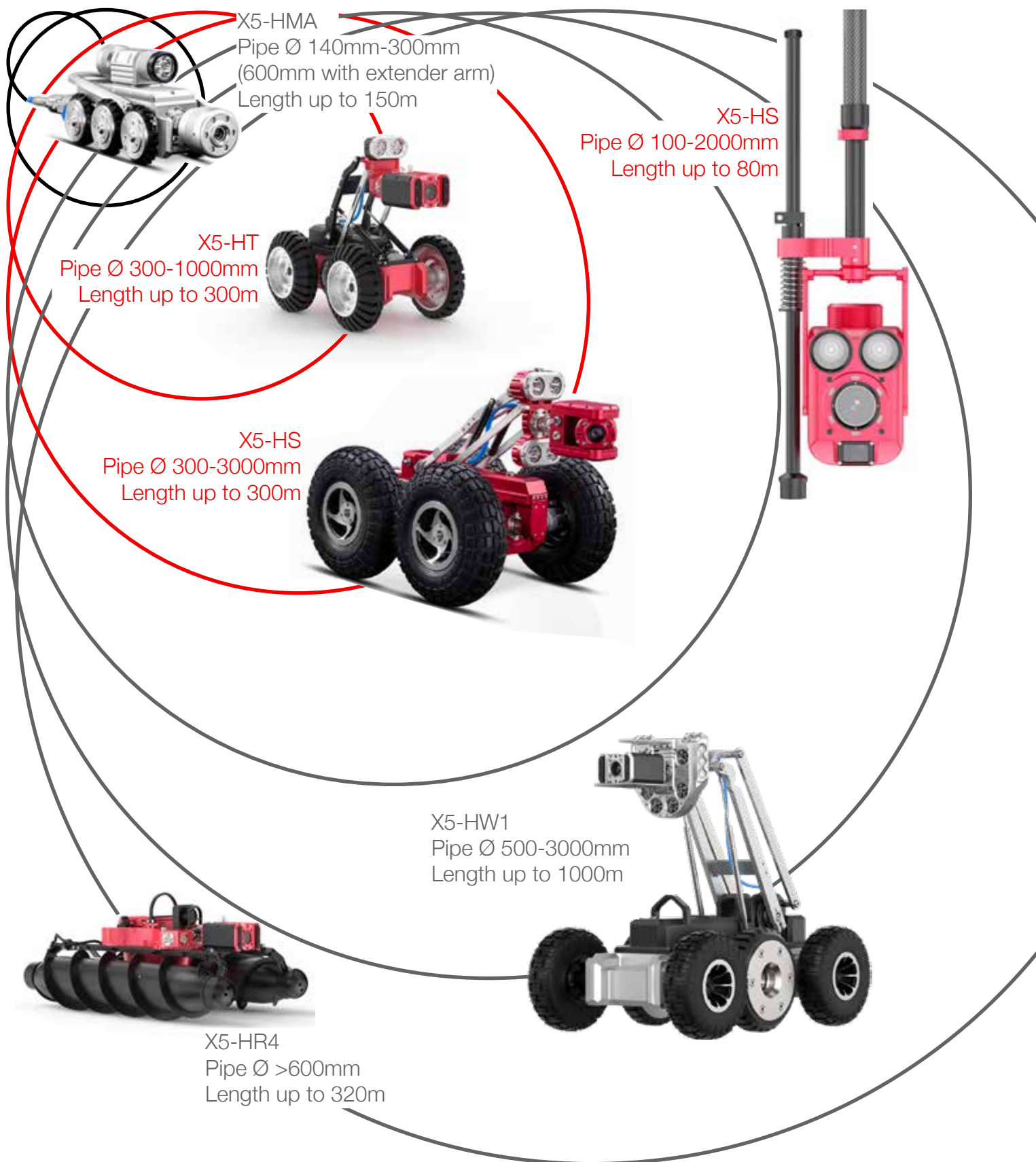


2.1 mega-pixel camera

Support

Laser measurement module

EASY-SIGHT VISION SYSTEMS



PIPE SURVEY PRODUCTS

LIVE ACCESS POTABLE WATER - SERVICE PIPE CCTV



SERVICECAM™ H2O

The ServiceCAM™ H₂O system has been developed from the world's leading supplier of Live Access Gas and Water CCTV Systems. After 10 years of supplying under pressure ServiceCAM™s into the live gas distribution market operating at pressures up to 10 barg, [Synthotech](#) is now able to offer its ServiceCAM™ H₂O. There are two variants of the ServiceCAM™ H₂O, the PRO and the LTE version:

ServiceCAM™ H₂O PRO is a 14mm diameter camera on the end of 50m of 4.5mm diameter semi-rigid fibreglass rod. The CCTV head has an in-built FAST PipeMic™ that allows the system to not only see inside the pipe, but to locate leaks as well. The ServiceCAM™ H₂O PRO has been designed for end on insertion in service pipes from 25mm in diameter, insertion vertically through a standpipe from an Elster (hockey stick type) meterbox, and vertically into small diameter mains from a saddle fitting or through bore hydrant.



The ServiceCAM™ H₂O LTE is a 11.5mm (with up to 15mm guides) diameter camera on the end of 20meters of 6mm diameter flexible nylon rod. The system has line location and provides clear in-pipe vision for multiple short radius bends. The ServiceCAM™ H₂O LTE has been designed for insertion end on from 25mm diameter PE pipe (or similar copper, lead, steel) or vertically through several meter boxes using the [Synthotech](#) Live Launch tube for standpipes.

- Faster - Speeds up pipe problem investigations and reduce time for customers to be off water
- Cheaper - Reduces maintenance costs
- Safer - Can be used with under pressure access systems for insertion into live water pipes
- Leak Location - Able to show leak vortexes, weeping leaks and provide audio confirmation through ServiceCAM™ H₂O Pro in-built FAST PipeMic
- Easier - This system comes with full training and support

FEATURES OF BOTH SYSTEMS

- Choice of 5.4" or 8" screen or a full recording 8" screen (12" option available).
- 8" recording screen includes text overlay and wifi.
- WRAS approved material and chlorination tank included.
- 10bar operational use.
- Used for lead pipe identification.



PIPE SURVEY PRODUCTS

LIVE ACCESS POTABLE WATER - MAINS PIPE CCTV



SYNTHOCAM™ H2O

Developed for live access into potable water mains via a through bore hydrant or 80mm valve fit with an adaptor flange. All the parts that come into contact with the potable water are made from WRAS approved materials and components. The system uses an integrated microphone.



- Faster - quickly locates leakages by simultaneously seeing and hearing within the pipe reducing time for customers to be off water.
- Cheaper - reduces maintenance costs.
- Safer - uses a pressure balanced insertion tube for safe access and egress with the water main, hydrant and or drilling system.
- Further - survey up to 160m from a single excavation.
- Easier - This system comes with full training and support.



FEATURES

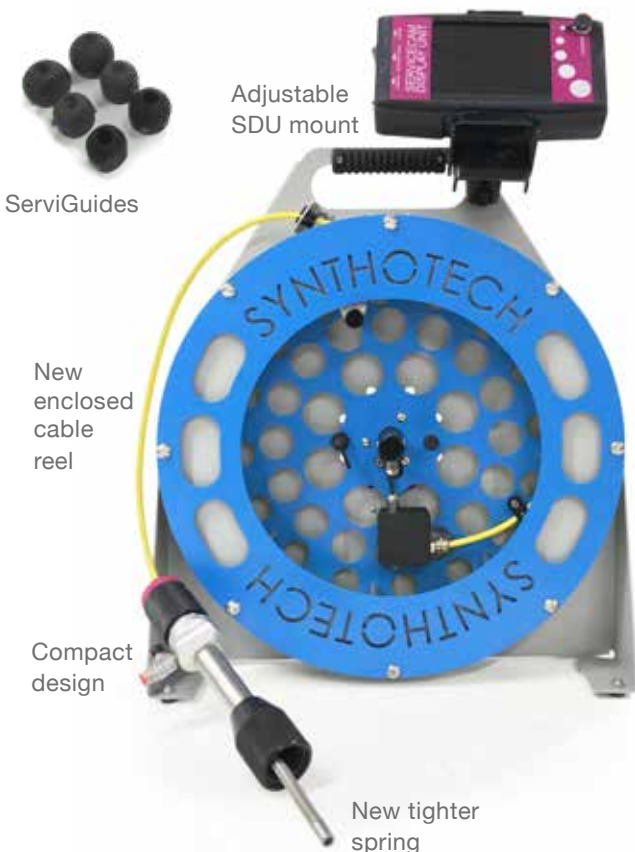
- Interchangeable High resolution 30mm camera for diameters from 4" / 90mm to 10" / 250mm. Optional upgrade to 46mm self levelling camera.
- Removable gland head for easier assembly.
- 80mm flange upgrade for access through a valve.
- 12mm Ø push rod with WRAS approved sleeve.
- Choice of display - 8 hour battery life and selection of data storage systems options.
- Interchangeable Camera head spring with integrated microphone.
- WRAS approved materials and Chlorination unit included.
- For use up to 10bar.
- Integrated Sonde for increased accuracy.

PIPE SURVEY PRODUCTS

LIVE ACCESS GAS - SERVICE PIPE CCTV

SERVICECAM™ PE+M

- For use in PE and Metallic service pipes up to 40mm/2"
- Live gas up to 2bar pressure.
- Access via valves, Emergency Control Valves (ECVs), House Entry Tees, horizontal insertion and wrap around clamps.
- Contains ServiGuides. which will allow the user to navigate around up to 3 bends in metallic service pipes.
- This system also features a new tighter spring which, combined with the ServiGuides will push even further.



SERVICECAM™ PRO

- For use in PE and Metallic service pipes up to 40mm/2"
- Live gas up to 4bar pressure.
- Access via valves, ECVs, House Entry Tees, horizontal insertion and wrap around clamps.
- Can survey up to 20m in each direction.
- Features a tighter spring and ServiGuides.
- Navigates up to 3 bends in metallic service pipes.
- Enclosed reel with a lock and reel function on the frame makes use and tidying up simpler and quicker.
- Meterage shown on display
- Adjustable mount for the ServiceCAM Display Unit (SDU) makes it easier to see in tight spaces.
- Compact design - easier to store and transport.

SYNTHOCAM™ S195

- For use in 2" metallic services in pressures up to 2bar in UK (5bar abroad).
- Access through a 2" full circumferential clamp and access valve and into 55-63mm PE pipe through 32mm and or 63mm Top Tees.
- Can survey up to 80m in each direction.



LIVE ACCESS GAS - METALLIC MAINS PIPE CCTV



SYNTHOCAM™ S3 CONTRACTOR

- Entry level system
- For use in live Metallic gas mains 4-8" up to 2bar pressure.
- 120m length of 9mm cobra rod.
- Non-recording Mini-SynthoCAM Control Unit (Mini-SCU).
- 34mm self levelling camera (S340).
- Modular system so can be upgraded with additional insertions, cameras and screens as



SYNTHOCAM™ 4 - METALLIC

- Latest version of the award winning SynthoCAM™
- Designed for and approved by all Gas Distribution Networks within the UK.
- For use in Metallic gas mains up to 4-10"
- Live gas up to 2bar pressure.
- Modular system for easy upgrades.
- Latest LEDs and designed to ATEX2 with less operational parts making them more robust and quicker and cheaper to maintain.
- IP68 connectors
- Battery pack display screens with hard-drive recording - SynthoCAM Control Unit (SCU) 2.2B



PIPE SURVEY PRODUCTS

LIVE ACCESS GAS - POLYETHYLENE (PE) MAIN PIPE CCTV



Designed for live access into PE pipes through 32mm and 63mm High Flow top Tees. Access through [Synthotech's](#) patented Pressure Balance Tube, means easy SAFE access in and out of medium pressure pipes. All PE systems come with line tracing

SYNTHOCAM™ S195

This system is a 4.5mm insertion coiler for insertion in 55mm to 63mm diameter mains using either a 32mm or 63mm Top Tee. Can survey up to 80m in each direction.



SYNTHOCAM™ 4

This system is modular, it includes a choice of:

- Cameras - S240 and the S300
- Cobras/coilers - 4.5mm, 6mm or 7.4mm
- Insertions x2
- Visual Displays including recording and meterage options.

S240 on a 4.5mm insertion coiler for insertion in 63mm to 180mm diameter mains using a 63mm Top Tee.

S300 on a 6mm insertion coiler for insertion in 90mm to 315mm diameter mains using a 63mm Top Tee.

S300 on a 7.4mm insertion coiler for insertion from 90mm using a 63mm Top Tee.



PIPE SURVEY PRODUCTS

LIVE ACCESS GAS - PVC MAIN PIPE CCTV



SynthoCAM™ PVC has been designed to work with the WAVIN BG access fitting on PVC pipework. Designed for use up to 2bar gas, the system has three access tubes for use in pipes from 50mm to 255mm using the WAVIN BG access fitting. Utilising the standard SynthoCAM™ 4.5mm and 6mm diameter insertion coilers the systems can push up to 70meters in a single direction from an access fitting. Vision is provided by the 24mm, 30mm and 34mm self-levelling cameras.



POWER SUPPLIES

SynthoCAM™ systems can be powered by 110 Volt to 240 Volt mains supply, 12 Volt systems, battery packs and solar panels. Silent and remote working made simple. Ask for which solution will work best for you to meet your energy requirements.



PIPE SURVEY PRODUCTS

LIVE ACCESS GAS - MAINS PAN AND TILT CCTV



SynthoCAM™ TITAN™ is [Synthotech's](#) latest Pan and Tilt Camera system. The camera is a non-glass domed unit which has been designed for insertion in 8" to 24" live metallic gas mains and for above 125mm in live Polyethylene (PE) mains.

It is specifically designed to be launched through a 2" BSP hole, eliminating the requirement of non-routine operations. The camera can Pan 360° and Tilt 270° giving optimal circumferential vision within the pipe. The camera is made from lightweight but robust aluminium, with a fully enclosed polycarbonate camera lens case which maximises the super bright white LED lights that optimise vision in the pipe. The polycarbonate case removes the chance of a broken glass dome of previous models; it also rotates back on itself during insertion to protect the lens from potential damage.

The SynthoCAM™ TITAN™ can be used with a 9mm Cobra for 8" to 12" metallic/above 125mm PE diameter mains and with a 15mm Cobra for 12" to 24" metallic/above 355mm PE diameter mains. It can be used in larger diameter mains, but this will reduce the insertion distance.

The system is compatible with ALH System-1 base unit for use on metallic and PE pipe and with the ALH Bonded Saddle for large diameter surveys using the patented Push To Angle insertion. It is also compatible with the WASK base using the Rotate to Angle patented insertion on Metallic pipe and on PE pipes through a PE purge saddle. The SynthoCAM™ TITAN™ can be inserted up to 70m in either direction.



The SynthoCAM™ TITAN™ is compatible with our vertical insertion pressure balanced tube for use in large diameter PE from 180mm through a purge saddle and a WASK or ALH Base.

LIVE ACCESS GAS - MAINS PIPE CRAWLER SYSTEMS



SynthoTRAX™ is a unique robotic crawler designed to be inserted vertically through a 161.5mm diameter hole into large diameter gas mains, approved for use up to 2 bar operating pressure.

SynthoTRAX™ will survey up to 400meters from a single excavation (200m in either direction) and survey PE mains 250-630mm diameter and metallic mains up to 12-48" diameter.

SynthoTRAX™ is compatible with an ALH System 3 valve, and all AVK/Donkin (or similar) large diameter valves.

SynthoTRAX™ is compatible with full encirclement clamps for vertical insertion into mains less than 24" diameter, minimum diameter for vertical launch is 14". SynthoTRAX™ is compatible with ALH Systems' Bond and Bolt system for keyhole access.



SynthoTRAX™

The SynthoTRAX™ system is a modular platform which has been adapted for many uses.

SynthoTRAX™ 1.5 is used for vision surveys, the small diameter STASS™ leakage reduction system and the SynthoTRAX™ Profiler™ for scanning the profile of butt fusion joints on the inside of PE pipe. SynthoTRAX™ 2.0 is slightly bigger with a distance of up to 500meters from a single excavation.

SynthoTRAX™ 2.0 is the platform for the main STASS™ leakage reduction system and the latest version LeakVISION™ for large diameter gas leakage visualisation.



STASS™



LeakVISION™



Profiler™

PIPE SURVEY PRODUCTS

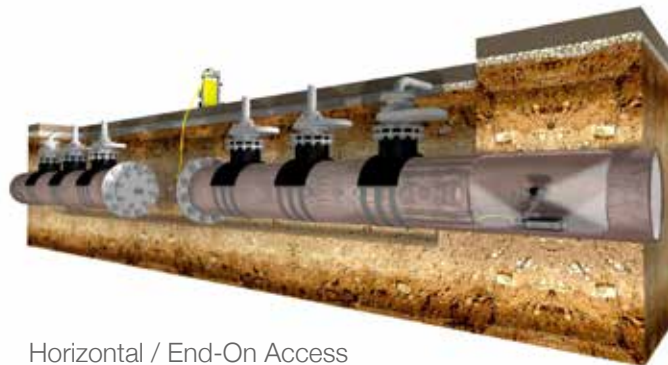
LIVE ACCESS GAS - MAINS PIPE CRAWLER SYSTEMS



SynthoTRAX™ has been designed to meet the strenuous requirements of large diameter surveying. As such the SynthoTRAX™ system has been designed with access as a primary driver.

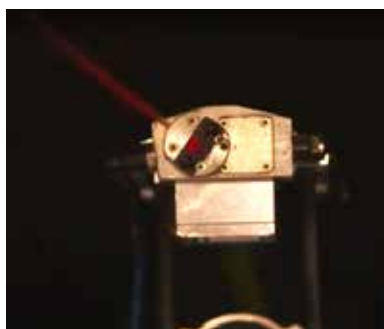


Vertical Access



Horizontal / End-On Access

SynthoTRAX™ has been designed to work with ALH System Bond and Bolt, thus negating the requirement for large diameter excavation, and simply working on the crown of the pipe.



[Synthotech](#) is the developer and manufacturer and patent holder of numerous worlds firsts in robotics. Two worlds first are the TORS™ system for remotely connecting services to mains without excavation. Another is GRAID™ the world's first 100bar gas robot for un-pig-able pipelines. [Synthotech](#) is leading the world in under pressure robotics.



TORS™



GRAID™



MEASURING WHEELS

The RotoSure is the UK's leading supplier of precision measuring wheels and road measurement tools



	Econo 1000		RD100		Classique		
	401080	401081	401092	401083	401084	401085	401086
	Std	Del	Std	Del	Std	Del	Clas
Folds in Half	✓	✓	✓	✓	✓	✓	✓
Push Button Release Clip	✓	✓	✓	✓	✓	✓	✓
Push Button Zero Reset	✓	✓	✓	✓	✓	✓	✓
Kick Down-Side Stand	✓	✓	✓	✓	✓	✓	✓
Debris Removing Scraper	✓	✓	✓	✓	✓	✓	✓
Follows Fine Edges	✓	✓	✓	✓	✓	✓	✓
Runs in Straight Line	✓	✓	✓	✓	✓	✓	✓
Balanced in Line Movement	✓	✓	✓	✓	✓	✓	✓
Better Traction	✓	✓	✓	✓	✓	✓	✓
Wheel Runs on Sealed Roller	✓	✓	✓	✓	✓	✓	✓
Robust Wheel	✗	✗	✓	✓	✓	✓	✓
Heavy Duty Oval Shaft	✗	✗	✓	✓	✓	✓	✓
Built in Carry Handle	✗	✗	✓	✓	✓	✓	✓
Wrist Strap	✗	✗	✓	✓	✓	✓	✓
Carry Bag Included	✗	✗	✗	✗	✓	✓	✓
Trigger Brake in Handle	✗	✓	✗	✓	✗	✓	✓
Reset in Handle	✗	✗	✗	✗	✗	✗	✓
Weight	1.8kg		2.1kg		2.36kg		
Hard Surface			*****				
Paving			*****				
Uneven			*****				
Grass and Carpet			***				
Soft Sand			**				

RotoSure
Classique
Professional

RotoSure
Econo
1000

RotoSure
RD1000
Deluxe



SITE SURVEY LINE MAKERS

Professional line marker for all your survey requirements.



ProSolve™ Temporary Linemarker Paint 750ml Aerosol

ProSolve™ Temporary Line Marker paint. 7 colour variations stay vivid and bright for approx. 4-6 weeks (depending on application and weather conditions). Water-based, easy to remove. Available in white, green, orange, black, red, blue and yellow.

ProSolve™ Semi-Permanent Linemarker Paint 750ml Aerosol

A great quality line marking paint. With 46.7% paint solids. Hardwearing and touch dry in minutes. Available in white, green, orange, black, red, blue and yellow.



	Temporary Linemarker	Semi-Permanent Linemarker
White	401050	401057
Green	401051	401058
Orange	401052	401059
Black	401053	401060
Red	401054	401061
Blue	401055	401062

LEAK DETECTION PRODUCTS

In-Pipe Acoustic Leak Detection	33
PipeMic® Flex V2.....	34
PipeMic® M -100	35
PipeMic® XL and XXL	36
PipeMic® Access Systems	37
Aqua M60, M100, M200	38
Aqua M300 / Listening Stick	39
FAST Gas Check	40
Seba HL 7000	40
Seba HK-50-BT / Seba C3	41
Esders OLLI / HUNTER H ₂	42
LeakVISION™ / GRAID™	43

IN-PIPE ACOUSTIC LEAK DETECTION



The FAST PipeMic® Flex-V2 from **Synthotech** is the latest In-Pipe Leak Detection tool for pressurised live water pipes.

The PipeMic® range of systems allow water leaks to be detected from inside a pipe. The line of the pipe and the tip can then be traced to accurately locate the leak and to ensure that only wet holes are excavated. The success of PipeMic® is driven by the numerous ways that it can be inserted into both service pipes and mains. The leak is identified both visually on a light bar system as well as acoustically through either speakers or headphones.

There are four versions in the PipeMic® range. Each provides a slightly different capability for both services and mains.



PipeMic® FLEX-V2

PipeMic® M

PipeMic® XL

PipeMic® XXL

	Length M					Pipe Size Plastic mm						Pipe Size Metallic mm				Frame Size mm			
	WRAS	50	100	150	300	20	25-40	50	63-150	150-225	>225	1"	2"-3"	4"-6"	>6"	350	650	750	1000
PipeMic Flex	✓	✓	✗	✗	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗
PipeMic MW	✓	✗	✓	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✓	✗	✗
PipeMic XL	✗	✗	✗	✓	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✓	✗
PipeMic XXL	✗	✗	✗	✗	✓	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	✓
Key	✓ Standard					◆ Option				✗ Not Available									
*1 - Manufactured using WARS / BS6920 materials for all wetted parts. Not WRAS certified																			

Part Number	Description
300100	PipeMic© Flex 50m – 4.5mm ultra flexible rod – WRAS material
300106	PipeMic© M 100m – 4.5mm semi-rigid rod – WRAS material
300107	PipeMic© XL 150m – 9mm semi-rigid rod
300108	PipeMic© XXL 300m – 9mm semi-rigid rod

Each PipeMic© system comes with as standard,

- Inbuilt, Acoustic Sensor, Sonde and a mechanical length counter. External Bluetooth Speaker, External Chlorination Tank, Banana Connection Leads (2 x 50cm 4mm connections)

LEAK DETECTION PRODUCTS

PIPEMIC® FLEX-V2

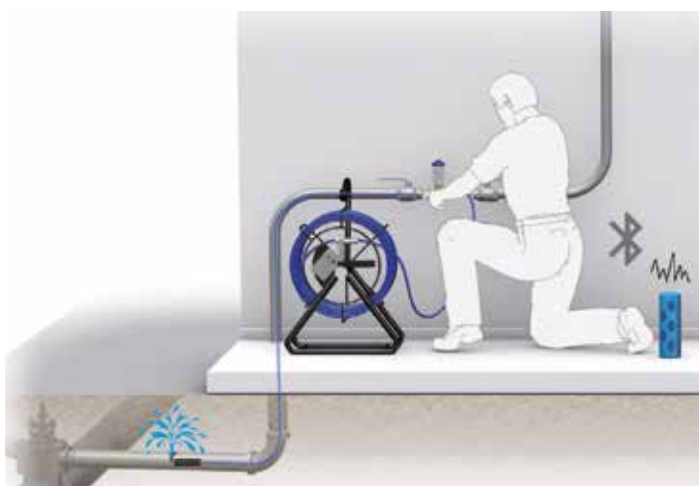


The FAST PipeMic® FLEX-V2 from Synthotech is the latest In-Pipe Leak Detection tool for pressurised live water pipes.

The PipeMic® FLEX-V2 is an in-pipe acoustic leak detection system. The innovative flexible tip houses an acoustic sensor that can detect leaks from within the pipe. When a leak has been located the line of the pipe can be detected by line tracing the PipeMic®, and then accurately pinpointing the tip by tip tracing the acoustic sensor. The PipeMic® Flex-V2 is a fast accurate methodology of tracing service pipes from 20mm diameter.

The PipeMic® FLEX-V2 uses a unique ultra-flexible 4.5mm diameter rod combined with a flexible Synthotech tip which allows it to negotiate up to 3 x 90° short radius bends in 25mm pipe. The ultra-flexible rod has the fine balance between flexibility and rigidity to be able to push long distances. The 12mm diameter brass ball on the end helps to guide it through obstacles, fittings, and stiffeners.

The PipeMic® FLEX-V2 uses a simple Bluetooth connection to either an external speaker or a set of headphones. The unit also contains a light bar to visually show the acoustic noise register all operated by a 9v battery. PipeMic® FLEX-V2 is WRAS material compliant for the UK market.



- High sensitivity
- Can be used down to pressures as low as 1bar
- Uses standard CAT and Genny equipment for tracing
- Bluetooth the sound to either speakers or headphones.
- 10bar aqualock WRAS seal
- Chlorination tank and wiper seal
- Works from standard 9v battery
- Multiple access opportunities

LEAK DETECTION PRODUCTS

PEMIC® M-100M

The FAST PipeMic® M-100m from **Synthotech** is the original In- Pipe Leak Detection tool for pressurised live water pipes, updated to 100m and WRAS material compliant.



The PipeMic® M-100m is an in-pipe acoustic leak detection system. The innovative tip houses an acoustic sensor that can detect leaks from within the pipe. When a leak has been located the line of the pipe can be detected by line tracing the PipeMic® and then accurately pinpointing the tip by tip tracing the acoustic sensor.

The PipeMic® M-100m is a fast accurate methodology of tracing service pipes for 25mm diameter.

The PipeMic® M-100m uses a robust 4.5mm diameter rod which allows it to negotiate slow (long) radius bends in 25mm pipe. The rod has a rigidity that allows it to be used in smaller diameter mains up to 100mm in diameter.

The PipeMic® uses a simple Bluetooth connection to either an external speaker or a set of headphones. The unit also contains a light bar to visually show the acoustic noise register all operated by a 9v battery. The PipeMic® M-100m is WRAS material compliant version for the UK market.



- High sensitivity
- Can be used down to pressures as low as 1bar
- Uses standard CAT and Genny equipment for tracing
- Bluetooth the sound to either speakers or headphones.
- 10bar aqualock WRAS seal
- Chlorination tank and wiper seal
- Works from standard 9v battery
- Multiple access opportunities

LEAK DETECTION PRODUCTS

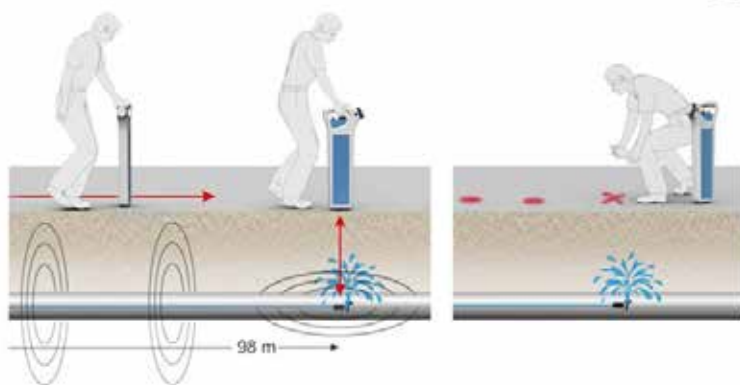
PIPEMIC® XL AND XXL



The PipeMic® XL and XXL from FAST are the original In-Pipe Leak Detection tool for pressurised live water mains.

The PipeMic® XL and XXL are in-pipe acoustic leak detection systems. The innovative tip houses an acoustic sensor that can detect leaks from within the pipe. When a leak has been located the line of the pipe can be detected by line tracing the PipeMic®, and then accurately pinpointing the tip by tip tracing the acoustic sensor. The PipeMic® Flex is a fast accurate methodology of tracing mains pipes over a longer distance.

The PipeMic® uses a simple Bluetooth connection to either an external speaker or a set of headphones. The unit also contains a light bar to visually show the acoustic noise register all operated by a 9v battery.



The PipeMic® XL and XXL are currently not WRAS compliant but can be used under the Drinking Water Inspectorate Small Surface Area Products (regulation 31 (4) (b)).

The PipeMic® XL/XXL use a robust 9mm diameter rod which allows it to push long distances in live water pipes. The XL has 150meters x 9mm diameter rod and the XXL has 300meters x 9mm diameter rod.

- High sensitivity
- Can be used down to pressures as low as 1bar
- Uses standard CAT and Genny equipment for tracing
- Bluetooth the sound to either speakers or headphones.
- 10bar aqualock seal
- Chlorination tank and wiper seal
- Works from standard 9v battery
- XL - 150m and XXL - 300m
- Multiple access opportunities

PIPEMIC® ACCESS SYSTEMS



Accessing Live Water Pipes has never been easier with the Synthotech range of Live Access Systems.

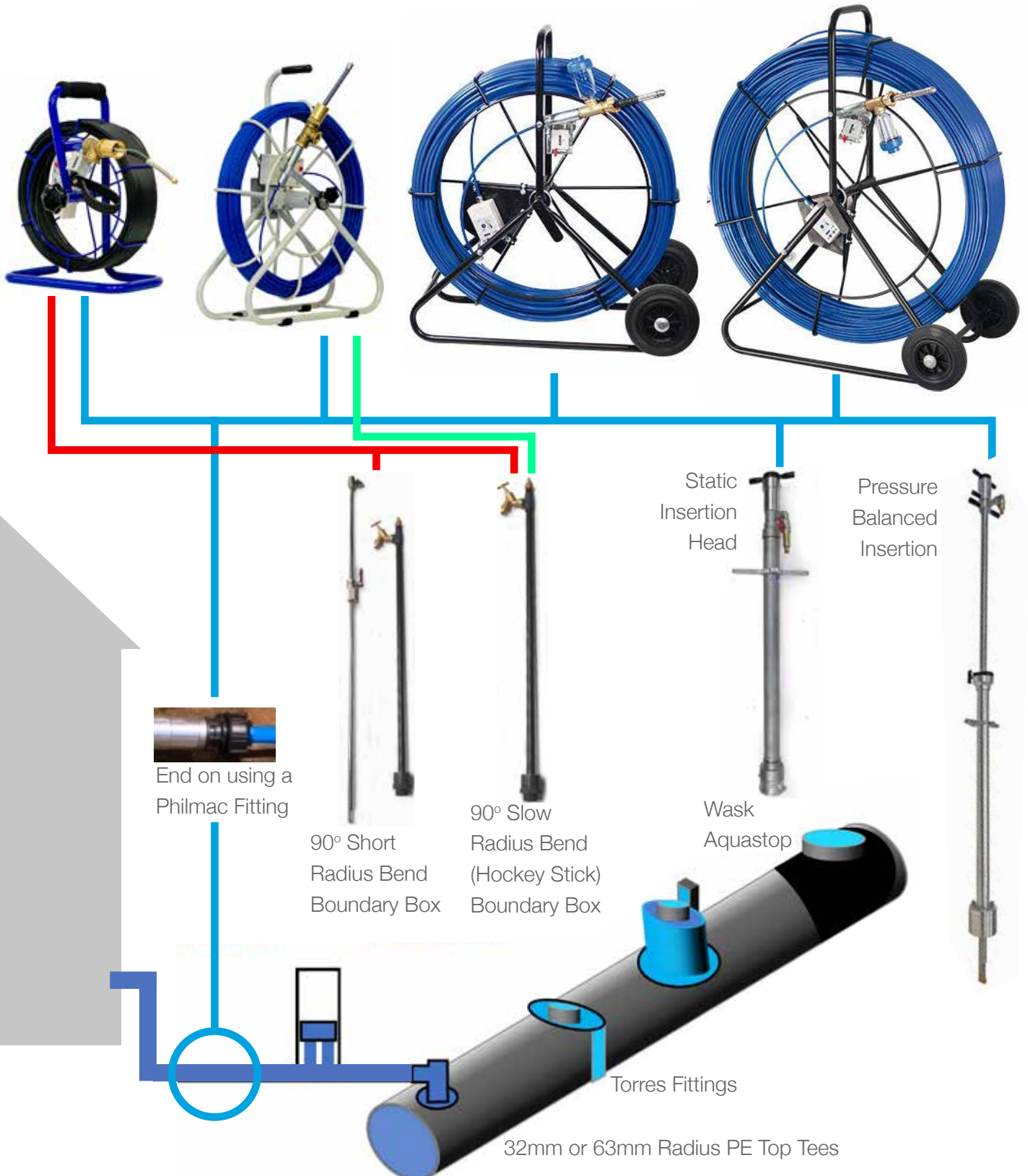
The PipeMic® range of in-pipe leak detection systems are so easy to use due to the wide range of access fittings available to get into live water service and mains.

PipeMic® FLEX-V2

PipeMic® M

PipeMic® XL

PipeMic® XXL



LEAK DETECTION PRODUCTS

AQUA M-SERIES

The Aqua M Series of Acoustic, Gas and combination kits are at the cutting edge of above ground water leak detection.

The range of acoustic, gas and combination kits makes the FAST M-series of water leak detection equipment the most comprehensive in the world. From the compact M60 systems with internal acoustic sensors for use inside and out, to compact but powerful external acoustic M100 system, or large LCD display M200 versions to the amazingly powerful acoustic and gas M300 system. All FAST M-series acoustic systems can be used with the PWGII for pipe

AQUA M60

The Aqua M60 from FAST is a simple compact acoustic leak detection system for water pipes.

The Aqua M60 is an above ground leak detection solution with an internal acoustic sensor which allows it to be used on internal pipework. Making it ideal for use inside houses and in confined spaces. The internal sensor will work on both plastic and metal pipes.



- Compact design with internal sensor to pre-locate leaks quickly and reliably
- Powerful external sensor for more demanding tasks
- Easy one hand operation with bluetooth headphones
- Highly sensitive piezo-ceramic sensor
- Low-noise quality amplifier

AQUA M100 /M200

The Aqua M100 from FAST is a compact and the Aqua M200 is a robust large screen geophone for zone location and pin-pointing water leakage detection.

The Aqua M100 is a geophone for zone location and pin-pointing water leakage detection. The Aqua M100 quickly and reliably identifies water leaks. With a range of sensors that can be connected to locate leaks from valve to valve / chamber to chamber to pin-pointing location above ground.

The Aqua M200 from FAST is a robust large screen readout geophone for zone location and pin-pointing water leakage detection.



Aqua M100



Aqua M200



- Quickly and reliably pre-locating and pinpointing leakages
- Various measurement modes : min / mean / gtx / pwg
- Professional sound quality due to 6 pre-set filters
- Low-noise quality amplifier
- Different sensors are connectable
- Internal rechargeable accumulator



AQUA M300

The Aqua M300 systems from FAST are combination kits that can be used for accurately locating leaks using a ground microphone and or hydrogen gas leak detection. Designed for pinpointing leaks on live water pipes quickly and efficiently.

The Aqua M300 is an above ground leak detection solution that provides a simple and fast methodology of pin-pointing water leaks.

Acoustic - The Aqua M300 has a range of very sensitive microphones that can be filtered through the Aqua M300 control unit. The filters can help to remove any unwanted background noise such as road vibrations.

Gas – The Aqua M300 has a range of sensitive gas sensors that can locate Hydrogen.

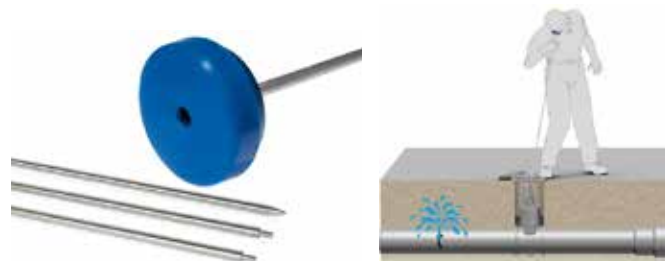
- Simple and reliable guidance to the leakage
- Triple function: acoustic or tracer gas-driven leakage and pipe detection
- Suitable for any user thanks to manual and automatic functions
- 256 free selectable filters
- Leakage profile recordable as file, and reporting possible on the PC
- Colour touch screen, battery-driven



FAST HMII - LISTENING STICK

The HMII is a mechanical listening device for pre-locating a water leak.

The FAST HMII is a robust listening stick manufactured from Steel and Aluminium. A silicone cover on the earpiece means that it is comfortable and easy listening stick to use. The FAST HMII has an aluminium resonance chamber, stainless steel membrane and a silicon rubber cover. These are connected onto magnetizable stainless steel rods with a tip. The detachable version connects using an M5 screw connection.



LEAK DETECTION PRODUCTS

FAST GAS CHECK

A leakage system for potable water pipes using Hydrogen tracer gas.



This simple gas detection unit used to locate Hydrogen tracer gas in Nitrogen. The biggest advantage of gas leak detection is it isn't affected by background noises or the sound of the actual leak.

- Pinpointing a leakage irrespective of leakage-borne noises and of ambient noises
- Short response time and high sensitivity of the hydrogen sensor
- Easy and precise pinpointing of leakages
- Leakage detection method acknowledged by the dvwg / iwa

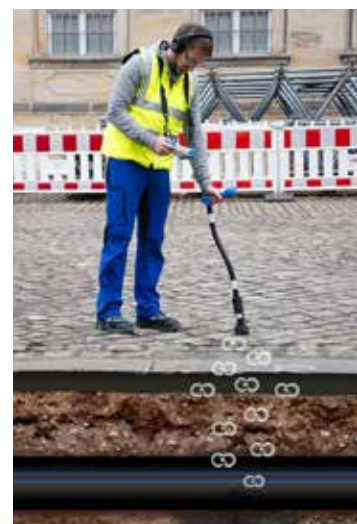
SEBA KMT HL 7000

The SebaKMT HL7000 is a simple compact wireless acoustic and gas leak detection system for water pipes.



The HL7000 is an ergonomically designed combination system that is versatile but simple to use. In its base format it uses a wind proof ground microphone. However, three additional sensors can be attached, A Feeler rod sensor a Piezoelectric microphone or a Tracer Gas sensor.

- Wireless Bluetooth operation
- Intuitive operation with clear touch colour display screen
- Rechargeable lithium-ion batteries
- Integrated GPS receiver
- Environmental / extraneous noise reduction
- Frequency analysis
- Optional – Connection of a tracer gas sensor



SEBA HL 50-BT



The SebaKMT HL50-BT is a simple compact acoustic leak detection system for water pipes.

Thanks to its ergonomic shape the HL 50-BT is a single handed operated instrument. Two operation buttons and a thumb - that's all you need to use the HL 50-BT.

In the standard version, the HL 50-BT offers an integrated sensor and wireless headphones. There are no irritating connection cables. The HL 50-BT therefore offers optimal mobility and is highly suitable for listening to valve spindles and hydrants, but also to fittings in buildings.



- Easy to operate only 2 buttons
- Frequency filter for different field applications
- Rechargeable batteries
- Can be extended with additional sensors

SEBA C3



The Correlux C3 is suitable for both immediate (online) as well as night (offline) measurement.

The Correlux C-3 correlator locates leaks in drinking water pipes. Pressurised water at the leak location creates a noise which travels out in all directions of the pipe.

- Easy to use colour touch screen display
- Online and Offline Correlation
- Long operating time and inductive sensor charging
- Pinpointing with multi-sensors or ground microphone
- Perfect for plastic pipes and trunk mains
- Multi-correlation without pipe parameter input



Correlux C-3

This noise is recorded, amplified and sent wirelessly to the correlator by two sensors (piezo microphone, hydrophone) which are attached to the pipe (e.g. valve, hydrants). The Correlux C-3 compares both signals (correlation) and calculates the exact distance to the leakage on the basis of the delay time of the signals, the sensor distance and the sound velocity in the pipe.

Online measurement is ultimately 'in real time'. There and then. Offline is referred to recorded readings over a period such as at night. Online use the Power Transmitters A/B. These can be added to for Offline by using multi sensors.

LEAK DETECTION PRODUCTS

ESDERS OLLI



The OLLI Tracer Gas from Esders GmbH, is a high-performance gas leak detector designed specifically for professional tracer gas leak detection in drinking water distribution systems.



Engineered for utility contractors, water companies, and leak detection specialists, the OLLI Tracer Gas enables rapid and precise location of even the smallest leaks using forming gas (5% hydrogen in 95% nitrogen). Where acoustic leak detection methods fall short—particularly on plastic mains, large-diameter pipes, or low-pressure systems—the tracer gas method provides a reliable, cost-effective alternative. Forming gas is odorless, non-toxic, non-flammable and non-explosive, making it safe for use in live drinking water networks. Once introduced into the pipework, the hydrogen component rises to the surface and is detected with high sensitivity by the OLLI's integrated sensor and internal pump system.

- High-contrast LCD graphic display with backlighting for perfect visualisation of all measured values
- Display of all measured values
- Simple and easy handling thanks to intuitive menu navigation
- Brand new and highly effective filter technology
- Use of different probes possible thanks to internal pump
- Bluetooth technology for data transfer



ESDERS HUNTER H₂



The HUNTER H₂ from Esders GmbH, is a professional-grade hydrogen tracer gas leak detector engineered for pinpointing even the smallest leaks in water and heating systems.

The HUNTER H₂ delivers exceptional sensitivity, rapid response times, and dual-sensor protection technology. It is the ideal solution when traditional acoustic or correlation methods fail, or cannot be used particularly for micro-leaks, plastic pipework, and challenging ground conditions. By using safe, inert forming gas (5% hydrogen / 95% nitrogen), the HUNTER H₂ enables precise, non-destructive leak location in potable water networks, service connections, and heating infrastructure. displayed within the SebaCloud or the new POSEYEDON cloud platform.

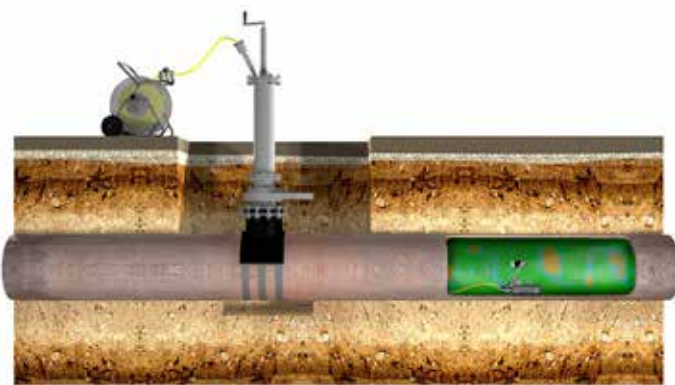


- First sensor: Extremely quick response on smallest hydrogen concentrations. Specialised for hydrogen with a resolution of 0,1 ppm H₂
- Second sensor: to protect the first sensor and used for higher concentrations e.g. pinpointing in pinholes
- Integrated powerful pump for a high flow and underpressure

LEAKVISION

LeakVISION™ is a patented leak detection sensor, mounted on a robot platform or a push rod camera system.

This innovative system is used for the inspection of in-pipe features, such as joint, connections or defects. The system has been developed during a collaborative project between Synovate including [Synthotech](#), Northern Gas Networks as well as working with the EIC and a consortium of innovators including ROSEN, The Technology Partnership and the University of Leeds.



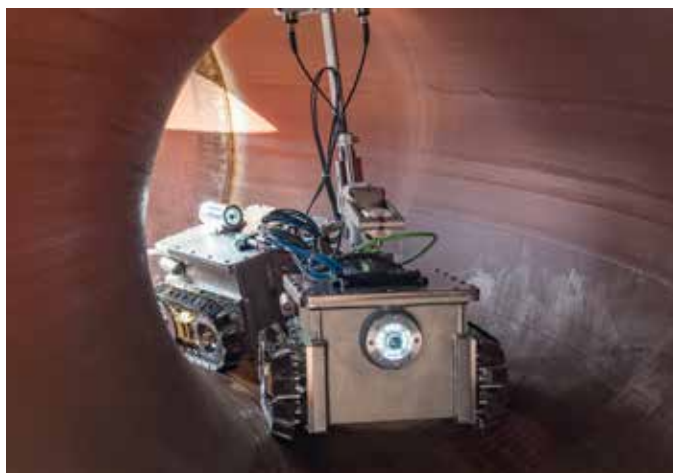
LeakVISION™ can increase productivity by locating underground leakage both reactively and proactively. LeakVISION™ makes use of thermography to analyse and highlight leakage by scanning the pipeline and pinpointing the area. This leads to informed decision making and precise targeted remediation works, reducing the impact to the environment and road users by minimising excavations.



LeakVISION™ challenges the traditional 'above ground bar holing' method. This technique can produce inaccurate results, causing unnecessary excavation/reinstatement works. It can also be physically demanding causing unwanted strains or injury to operatives performing the work.



GRAID



Developed in partnership with:



The Gas Robotic Agile Inspection Device (GRAID™) is a robotic non-destructive inspection system for high pressure 100barg non-piggable gas transmission pipes such as Above Ground Installations (AGI).

GRAID™ has a 100m tether (future development will extend this to 500m) and special patented magnetic tracks that allow it to travel and operate within the 100bar gas line. The articulated 2-part robot can negotiate bends and tee pieces and can climb 45-degree incline within the network.

PIPE CONSTRUCTION PRODUCTS

Electrofusion Construction	45
Squeeze Off Tools	46
Re-round Tools	46
Pressure Test Heads	47
Cable Laying	47-48
DuctRods	48
Hammerhead Moles	49
Serviflex Insertion Technique (SIT)-3	50
SealBACK™ II	51

ELECTROFUSION CONSTRUCTION



Calder Nomad II EF Welder.

- Portable Battery Powered.
- Fitting size 16 to 63mm Ø.
- Either 4.0mm or 4.7mm terminals.
- Robust `Pelican` Plastic CASE.
- Supplied with two batteries and charger unit.
- Capable of welding 28 x 32mm fittings on a fully charged battery.

Calder Griffon™ EF Welder

- Barcode Scanning and manual time entry.
- Automatic coupling recognition Fusamatic / Plasson.
- Fitting size range 16-200mm Ø.
- 4m output lead with standard 4.0mm terminal.
- Data recording of 2,000 welds.
- CalderSafe® Weld Data Analyser.
- Simple symbolic display.
- Terminal adaptors supplied.
- Optional Control Point Blue Box Data Technology.
- Optional CalderSafe® Mobile Weld Analyser.
- Optional Dual sized output terminals.



Calder Pegasus™ EF Welder

- Barcode Scanning and manual time entry.
- Automatic coupling recognition Fusamatic / Plasson.
- Fitting size range 16-630mm Ø.
- 4m output lead with Standard 4.0mm terminal.
- Data recording of 2,000 welds.
- CalderSafe® Weld Data Analyser.
- Simple symbolic display.
- Terminal adaptors supplied.
- Optional Control Point Blue Box Data Technology.
- Optional Double Insulation.
- Optional CalderSafe® Mobile Weld Analyser.
- Optional Dual sized output terminals.

- Harris Pipe Scrapers 1 ½"
- Harris Pipe Scrapers 2 ½"
- Spare Blades 1 ½"
- Spare Blades 2"



PIPE CONSTRUCTION PRODUCTS

SQUEEZE OFF TOOLS



The [Synthotech](#) range of Heavy-Duty Squeeze Tools (HDST) are heavy duty robust tools for flow control. With compact designs featuring robust double loop construction and rotating buffer / limit stops to prevent damage to the pipe.

					
100100	16, 20, 25, 32mm Ø HDST	100101	(20-32),40,50,63mm Ø SDR11 HDST	100108	63,90,110mm Ø SDR11 + 110, 125mm SDR17.6 HDST
		100102	20,25,32,40,50,63mm Ø SDR11 HDS		
		100103	20,25,32,40,50,63mm Ø SDR17 HDST		
		100104	20,25,32,40,50,63mm Ø SDR11/17 HDST		
100111	75mm x 33 Squeeze Off Tape	100105	20, 25, 32, 40, 50, 63mm Ø SDR11/17/26 HDST	100109	63, 75, 90, 110mm, 125mm Ø SDR21 HDST
		100106	20, 25, 32, 40, 50, 63mm Ø SDR11 HDST with bottom bar chain		
		100107	20, 25, 32, 40, 50, 63mm Ø SDR11 HDST with bottom bar chain	100110	63, 75, 90, 110, 125mm Ø SDR17.6 HDST

RE-ROUND TOOLS



The [Synthotech](#) range of Re-round tools are simple to use, lightweight tools for re moving ovality form polyethylene pipes.

							
100121	Re-rounding Clamp 16 – 32mm Ø	100122	Re-rounding Clamp 20mm Ø	100128	Hinged Collar Re-rounding Clamp 63mm Ø	100130	Re-rounding Hinged Clamp 90mm Ø
		100123	Re-rounding Clamp 25mm Ø			100131	Re-rounding Hinged Clamp 110mm Ø
		100124	Re-rounding Clamp 32mm Ø			100132	Re-rounding Hinged Clamp 125mm Ø
		100125	Re-rounding Clamp 40mm Ø	100129	Hinged Collar Re-rounding Clamp 75mm Ø	100133	Re-rounding Hinged Clamp 140mm Ø
		100126	Re-rounding Clamp 50mm Ø			100134	Re-rounding Hinged Clamp 160mm Ø
		100127	Re-rounding Clamp 55mm Ø			100135	Re-rounding Hinged Clamp 180mm Ø

PRESSURE TEST HEADS



Pipe size	SDR11	SDR 17.6
40mm	501434	501453
50mm	501435	501454
55mm	501436	501455
63mm	501437	501456
75mm	501438	501457
90mm	501439	501458
110mm	501440	501459
125mm	501441	501460
140mm	501442	501461
160mm	501443	501462
180mm	501444	501463
200mm	501445	501464
225mm	501446	501465
250mm	501447	501466
280mm	501448	501467
315mm	501449	501468
355mm	501450	501469
400mm	501451	501470
500mm	501452	501471

The **Synthotech** range of heavy-duty Pressure Test Ends are used as a quick, simple and reliable method of providing a pressure testing facility in a plastic pipe without the need for additional fusion or mechanical fittings.

Available from 16mm to 500mm, SDR11 and 17.6.



CABLE LAYING EQUIPMENT



The **Synthotech** range cable laying tools make site work easier and faster.

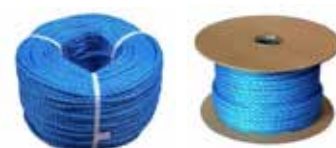


Foam Pigs c/w Rope

Foam Pigs c/w Rope have been specially designed to make the installation off draw ropes and tapes into cable ducts and pipes much simpler and quicker. Once installed, the draw rope, or tape can be used to pull in cable or winch wire. We also offer a Foam Pig c/w Metal Eyes.

Polypropylene Blue Rope

Strong durable blue polypropylene rope for cable installation into ducts and pipes. Sizes available 6, 8, 10 and 12mm. Available in coils from 30m and reels from 50m up to 220m.



Cable Rollers

A range of both lightweight and heavy-duty cable rollers for diameters from 76mm to 125mm. Straight Line Cable Rollers, Straight Line Bridge Rollers and Corner Rollers available.



Steel Bellmouths

Designed to guide a cable into a duct without damage to the cable or duct. They are made in separable hinged halves. We offer two versions with and without an additional roller.



PIPE CONSTRUCTION PRODUCTS



Insertion Trumpets

Cost effective simple product that prevents expensive damage to PE pipes and cables from the “cut” edge of the existing pipe or duct during insertion. They can also be used to provide permanent protection. Available from ¾” up to 18”. Manufactured from Polyethylene, PVC or Fibreglass depending on size.

Towing Socks

A simple device for pulling cables and pipes into ducts and host pipes. Manufactured using high tensile wire that is galvanised. Reusable. From 4mm to 180mm. Single and twin loop heads available.



Rope Blowing Tees

Designed for the installation of draw ropes into cable ducts. Fits into the outlet of an expanding pipe stopper, either ½” or 1” version available. The draw rope is fed through the rope blowing tee and then braced in the end of the pipe or duct. When pressurised, the rope will be drawn in.

Rope Blowing Tee – requires a mechanical pipe stopper to hold it in place.
High Pressure Rope Blowing Tee – Designed for use at pressures up to 10Bar. The system has an in-built pressure relief valve to prevent over pressurisation.

DUCTRODS



These are a tough, compact, semi flexible duct rod system manufactured from composite fibreglass rods with polypropylene sheath, there are brass end fittings with smooth profile bullet tips and an integrated brake. Available in five different diameters, 4.5mm, 6mm, 9mm, 11mm and 14mm. DuctRods are used for both pushing and pulling within pipes and ducts for both pinpoint location when connected to a Sonde as well as used for cabling over long distances.



4.5mm DuctRod



6mm DuctRod



9mm DuctRod



9/11mm DuctRod

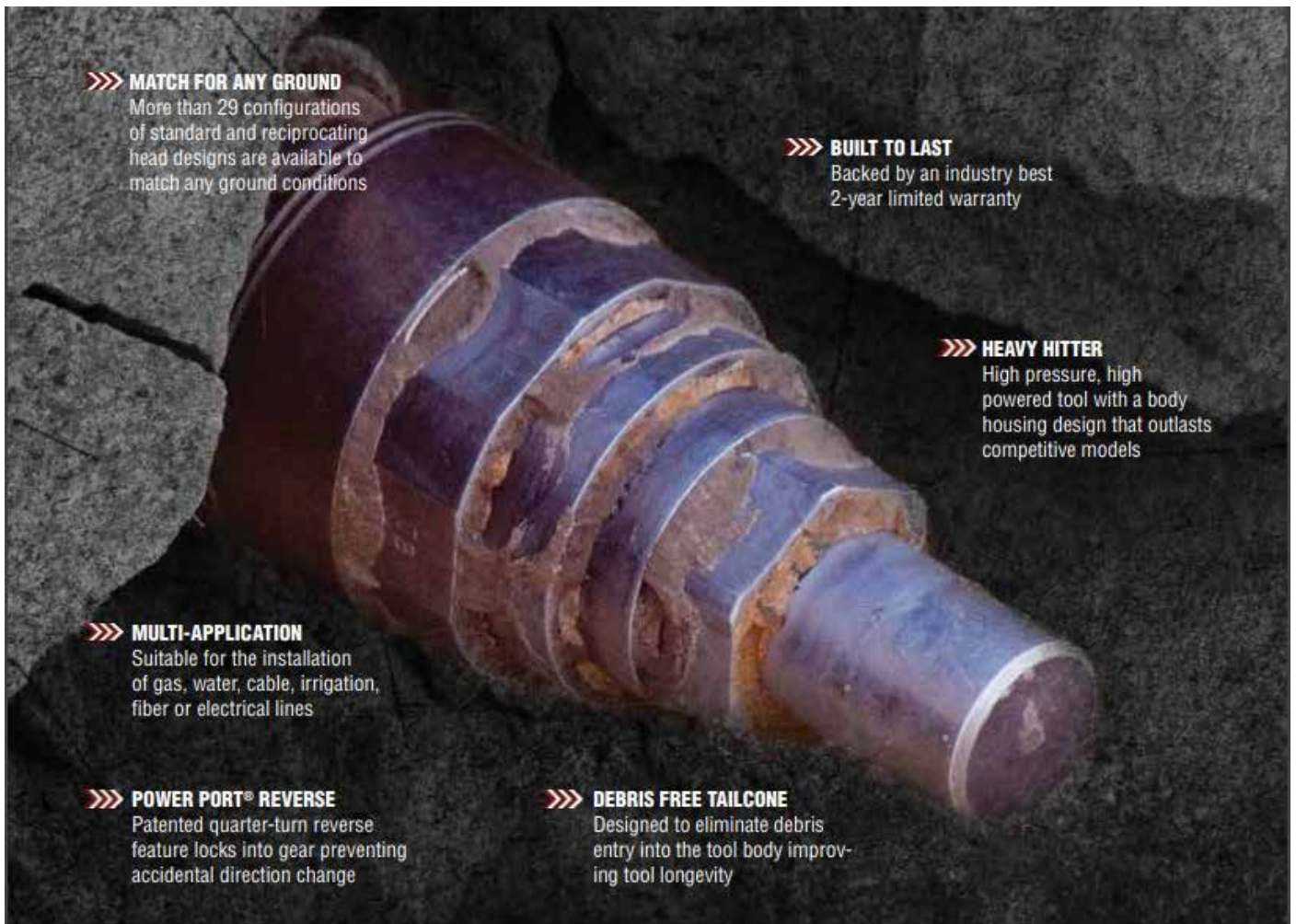


14mm DuctRod



- Fast easy Cable Installation or pinpoint location
- Lightweight for easy transportations
- Strong robust fiberglass rod
- Robust Zinc Plated steel frames
- Cost effective
- Range of adaptors available.

PIPE CONSTRUCTION PRODUCTS



>>> MATCH FOR ANY GROUND
More than 29 configurations of standard and reciprocating head designs are available to match any ground conditions

>>> BUILT TO LAST
Backed by an industry best 2-year limited warranty

>>> HEAVY HITTER
High pressure, high powered tool with a body housing design that outlasts competitive models

>>> MULTI-APPLICATION
Suitable for the installation of gas, water, cable, irrigation, fiber or electrical lines

>>> POWER PORT® REVERSE
Patented quarter-turn reverse feature locks into gear preventing accidental direction change

>>> DEBRIS FREE TAILCONE
Designed to eliminate debris entry into the tool body improving tool longevity

CHOOSE THE ORIGINAL MOLE THAT STARTED A REVOLUTION IN TRENCHLESS INSTALLATION.

SERVICEABLE DURABILITY. The original clamped rear anvil design provides 200% more clamp load and is the most secure and proven assemble available. HammerHead Moles also feature composite wear rings to decrease abrasion, providing a sustained level of performance.

PATENTED POWER PORT® REVERSE. The patented quarter-turn reverse feature pneumatically locks the tool in to forward or reverse, preventing accidental direction change during the bore.

TWO YEAR WARRANTY. HammerHead Mole piercing tools are backed by a two-year limited warranty compared to 90-days with the leading competitor. Plus, our piercings tools are supported by an international distributor network ensuring you have access to the parts and service you need to maintain productivity throughout the life of the tool.

WIDEST RANGE OF TOOLS TO SUIT YOUR GROUND CONDITIONS. HammerHead Mole tool models from 2 1/2" to 5 1/8" (50 mm – 130 mm) available from your authorized HammerHead dealer give you access to more than 29 standard, Active Head® or Catamount designs.



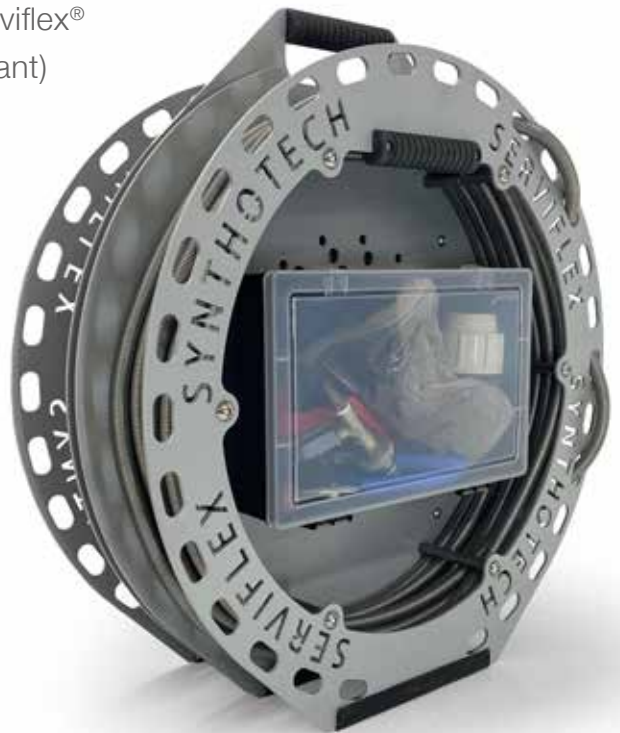
PIPE CONSTRUCTION PRODUCTS

SIT-3™



System for relining service pipes with ServiFlex®

- Quickly and easily reline 1" metallic services with Serviflex®
- Insertion length of up to 12 meters (network dependant)
- Can navigate up to 2 short radius bends
- Significantly reduce excavations
- Reduces customer face-to-face working



- CHEAPER - Saves money by eliminating re-runs.
- QUICKER - Takes half the time.
- SIMPLER - Stream lined process reduces the risk of mistakes.
- SAFER - Less complicated kit and fewer excavations leads to a reduction in risk.
- EASIER - Full training and after-sales support.



- Compatible with the [Synthotech's ServiceCAM™](#) asset inspection
- Developed with new Radius PE garden fitting.
- Can also be used with existing garden fitting and serviflex pipe.



PIPE CONSTRUCTION PRODUCTS

SEAL-BACK II



This project is a significant development of the existing SealBACK™ I system, with the aim of delivering an improved method of replacing short lengths of metallic main in specific locations of engineering difficulty (short lengths of main that connect onto a parent main in a major road junction) in a safe, efficient and practical manner.

The system is for low pressure mains, with minimum insertion distance of at least 20m of replacement pipe with a stretch target of 27m, up to 8" metallic 'child' main leading on to any size parent main.

The primary anticipated benefits of this project will be that SealBACK™ II will allow mains located in areas of engineering difficulty to be replaced via live transfer, leading to a reduction in operational expenditure and risk.

Also reduced environmental impact by minimising associated works including the requirement for landfill of excavated spoil.



PIPE MAINTENANCE PRODUCTS

Security Maintenance	53
Water Pumps	53
Pipe Cleaning and Proving	54
Expanding Stopper / Drain Plugs	55
Under pressure connections for Water	55
M-CEX™	56
CaPEX™	57
I-SEAL™	58
ServiBAG™	59
WExTech™	60
ServiBOOST™	61

PIPE MAINTENANCE PRODUCTS

SECURITY MAINTENANCE



The ARM Sangyo is a powerful cordless bolt cutter used for emergency and planned work by maintenance and security teams.

Synthotech are the exclusive UK distributor for ARM Sangyo.

The BC16 (501200) has a cutting capacity of 16mm diameter for Rebars or 13mm diameter for hard steels. Used in multiple industries including construction, security, rescue, sea containers, transport and with hoist chains.

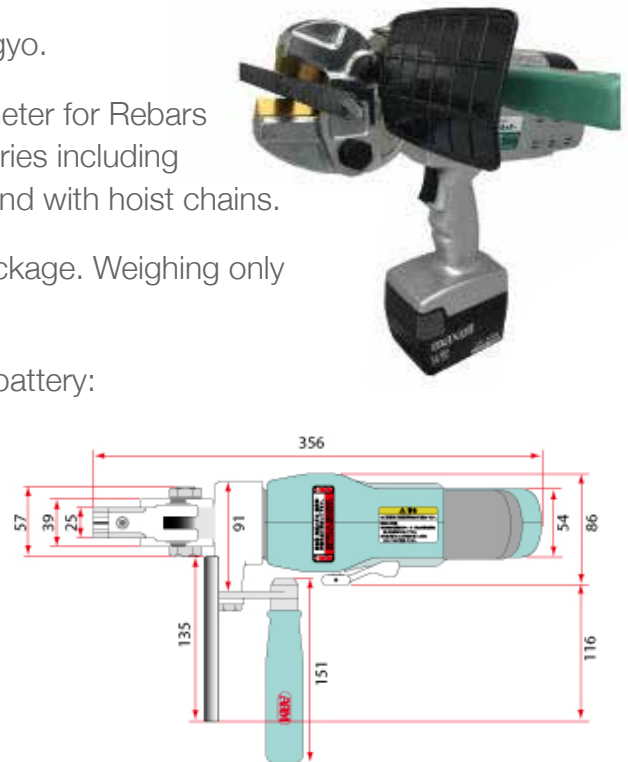
The BC16 outputs 11 ton's of force from such a small package. Weighing only 7.1kgs supplied in a carry case with the battery charger.

Cutting time: 5 Seconds. Cutting times per fully charged battery:

- 16mm diameter rebars = 210 times
- 13mm diameter rebars = 305 times

Each BC16 set (501200) comes with;

- Bolt Cutter (501201) and blades
- Spare blade set (501202)
- Hand protector (501203) and shoulder strap (501204)
- Li-ion battery (501205) and charger (501206)
- Carry case (501207)



WATER PUMPS



A range of helpful drainers and gully clearing tools



Venturi Jet Drainer

This is a rugged, simple, and lightweight air operated pump that requires no priming and can move approx. 15,000 litres of water per hour. Cost effective, designed to have one on every van. Unlike conventional others, the Venturi Jet Drainer will not clog or seize up when faced with small stones, mud etc. and when used with a single compressor, it can pump up to 4.5 meters high.

Hog Light Duty Draining Pump

The Hog Light Duty Draining Pump is a lightweight, 4 ft long hand operated water pump which is virtually unaffected by dirt, mud, or grit. Its easy to use, with a low friction piston rod and oversized handle to enable comfortable pumping.



Drain and Gully Cleaning Scoop & Tongs

Solid metal manufactured tools designed for the effective, safe, and hygienic removal of soiled waste from gullies, boundary traps, pits and shafts.



Litter Picker

The Litter Picker is a lightweight easy to use tool designed for the effective and safe removal of paper sand solid objects from gullies, boundary traps, pits, and shafts.

PIPE MAINTENANCE PRODUCTS

PIPE CLEANING AND PROVING



A range of pipe scrapers, cleaners, pull throughs duct brushes and foam Pigs



Pipe Scrapers

These are designed to remove hard deposits and nodules. This type of cleaner (also known as Christmas Tree Scrapers) are made up of several spring steel scrapers mounted on a high tensile steel central shaft. The scrapers remove deposits as they are winched through the pipe. The central shaft is fitted with a towing eye at each end to allow the scraper to be pulled back if necessary. For all pipe sizes from 2" (50mm) to 48" (1,200mm)

Wire Brush Pigs

Consist of two circular wire brushes mounted onto a high tensile steel central shaft with a towing eye at each end. They are designed to be pulled through a metal pipe to remove loose deposits and dust prior to insertion of PE pipe. They can also be used after the Pipe Scraper to remove the deposits loosened by the scrapers. Available for all common pipe sizes up to 12" (300mm) with larger sizes available upon request. Wire brushed are also available to mount on the front of a towing head to allow the metal pipe to be cleaned as a new PE pipe is installed.



Pull Throughs

Also known as Squeegees and Plungers) are used to remove fine particles and fluids from pipes. They consist of two thick rubber discs mounted on a high tensile steel central shaft with a towing eye at each end. For applications where the pipeline contains tight bends a 'flexible' Pull Through can be supplied. This model has a chain linking the two discs rather than a ridged central shaft. They are suitable for use with all pipe materials and are available in the size range of 2" (50mm) to 48" (1,200mm)

Duct Brushes

Duct Brushes are used to remove dirt and other loose debris from inside electrical or communication ducts. They are supplied either with an eye at both ends for pulling ducts or with an M12 fitting for pushing through ducts using a Cobra (Flexible Fibreglass Rod). Available to suit ducts from 2" (50mm) to 16" (400mm)



Foam Pigs

Foam Pigs are used to remove dust or fluids from all pipe materials. They are generally pushed through a pipe using air or water pressure, although they can be supplied with a facility to allow them to be pulled through a pipe. Available from 10mm through to 1,200mm.

Proving Pigs

Used to 'prove' the internal bore of a pipe or duct prior to installation of a liner or cable. There are two versions, the Steel Dumbbell Style and the Solid Nylon Style. The diameter is normally 10% less than the internal diameter of the pipe.



EXPANDING STOPPER/ DRAIN PLUGS



The expanding pipe stoppers are made of a rubber tyre ring, which is fitted between two plates. A moveable wing nut compresses the tyre, causing it to expand in the pipe which seals off the flow. Pipe stoppers are available from 2" (50mm) to 24" (600mm) manufactured from either aluminium, steel or nylon. They all have a central hollow shaft with a sealing screwed cap, ½" to 2" BSP. Larger sizes are available upon request.



UNDER PRESSURE CONNECTIONS FOR WATER



GOLF Under Pressure Saddle

Threaded coupling branch tees for under pressure branching to be installed on steel, asbestos cement and ductile iron pipes for pressure up to 16 bar in water. These are also used with excellent results on polyethylene and PVC-O pipe networks.

- Universal branching saddles
- Versions: dry and under pressure tapping
- Outlet with a female coupling of 1", 1-1/4, 1-1/2 and 2"
- For cast iron, asbestos cement, PE pipe, etc.
- Shutting off connections using a spatula
- Body in ductile cast iron and epoxy coated
- Outer Cover with a second leak-tight chamber
- With lower strap in weld-free stainless steel
- Leak-tightness with universal gross joint



GIGA Tees Under Pressure Connections

For large diameter service connections and by-pass diversions. These are installed on cast iron and asbestos cement pipes for up to nominal maximum pressure of 16 Bar water pressure. Protection of the pipe: a fundamental advantage of Torre saddles is that they do not damage the pipe if excessive torque is applied. The special thickness of the gasket and the design of the straps absorb any excesses during assembly. Especially important in installations on asbestos cement pipes.

- Outlets in 65mm, 80mm and 100mm
- 100mm to 355mm Pipe OD's
- 16 Bar Rated
- Low stack Height
- Reusable Slide Plate Valve
- One Bolt removed for Slide Plate access
- Place Tee as required and avoid other utilities
- WRAS approved components
- Also available to suit Ferrous and PVC mains



PIPE MAINTENANCE PRODUCTS

M-CEX™



The Meter Control Exchange system is a simple way of replacing valves on live gas pipes

- Adaptors allow use on a range of pipe sizes and Emergency Control Valve types including 90° semi-concealed meter valves.
- Can be used on both Metallic and PE up to 75mbarg with kit options up to 4bar.
- For use on all ECVs from ½" to 2", 19mm to 32mm Copper and 16mm to 32mm PE.
- There are a variety of stoppers both rigid, flexible, hard (black) and softer (blue) making access in confined space easier.
- One person operation.



- Significantly reduces the duration that the customer is off gas.
- Designed for use in restricted areas making it easy and quick to use.
- Avoid the need for planned maintenance operations to isolate pipework systems, particularly in multi-occupancy or high rise buildings.

- Contains adaptors for BSP and BS 746 threads.
- StarGLAND™ technology ensures controlled gas operation.
- Designed to pass through varying valve types and geometries.
- Able to pass around long or short radius bends.



PIPE MAINTENANCE PRODUCTS

CAPEX™



Exchange of Caps and Plugs to Emergency Control Valves (and vice versa) under live gas conditions.

- Can be used to replace a wide range of cap and plug types including hexagonal, webbed and cylindrical.
- Choice of adaptors allow for use on a range of pipe sizes and Emergency Control Valve (ECV) types including 90° semi-concealed meter valves.
- For use on ½", ¾" & 1" metallic pipes.
- There are two methods : CaPEX™ Tool can be used for live gas exchanges of up to 75mbarg. CaPEX™ Bag system can be used for pressures up to 50mbarg.
- Single person operation specifically designed for restricted locations.



- Safe, effective method of removing various types of caps and plugs.
- Prevents multiple occupancy buildings being cut off gas, and the associated costs of purge and relights.
- No need to isolate riser systems.
- Prevents riser re-testing.
- Fully tested and approved system.

- Attachments available for use on copper risers and lateral systems.
- Can be used on pipe systems with bends.
- Fully integrated with M-CEX™ kit for controlled ECV fitment.
- Can also be used to determine if a gas pipe is 'live' or 'dead'.
- Full training packages and operational support available from our Technical Support Team.



PIPE MAINTENANCE PRODUCTS

I-SEAL™



Repair of leaking threaded joints on riser systems without interruption to gas supply.

- For use on ¾" to 6" diameter metallic pipework
- Works on standard threaded joints
- Injection of anaerobic sealant into the leaking threaded joint through a delivery system comprising of an I-SEAL™ clip and non-return valve
- One person operation



- An effective repair tool following inspections of mid and high level risers
- Prevents multiple occupancy buildings being cut off gas, and potential associated costs of replacement of entire riser systems
- Savings of £1,000's per job, varying on number of floors of building
- Improved customer satisfaction

- Approved for use on pressures up to 75mbarg
- Carried out under 'live' gas conditions so no disruption to customers
- Kit comes complete with the full range of clip sizes
- Hand drill and high-pressure hand pump included for precision work



SERVIBAG™



Exchange of Caps and Plugs to Emergency Control Valves (and vice versa) under live gas conditions.

The ServiBAG™ Range has been developed following the work that [Synthotech](#) and Northern Gas Networks completed during Project Zero. These pioneering new systems mean that a gas supply is not interrupted whilst alterations to pipework are carried out. Through the new encapsulation device, a gas engineer is able to carry out a range of procedures including adding a bypass, service transfer or replacing an ECV. Equipment is supplied in kit format which can be built by Gas Workshop operatives. Most of the parts can be reused; the parts that are consumable are inexpensive, reducing operational costs.

ServiBAG™ M-CEX™

This system allows an Emergency Control Valve to be replaced without the need to cut off supply to a house. This is the original product developed during Project Zero.

- Successful field trials have taken place.
- Currently reviewing and optimising the production processes.
- Initial Gas Meter box is complete and is being implemented with Northern Gas Networks.



ServiBAG™ BYPASS

A process for adding a bypass tee to an external meter location without interruption to the customer's supply. This is achieved with a ServiBAG™ that is fitted around the meter pipework. The kit comes with fittings compatible with a range of PE and metallic service pipes/connections as well as a range of external meter installation layouts.

- Successful demo at [Synthotech](#) and focus group with Northern Gas Networks.
- Currently rolling out field trials.
- Semi Concealed development to follow.



ServiBAG™ TRANSFER

Allows a service transfer to take place without ECV access. The connections are made within the encapsulation device meaning that the gas supply to customers is never interrupted and there is no need for a purge and relight operation.

- Concept, design and prototype parts completed for a Garden Excavation.
- Optional compression fittings for PE and Metallic pipework.
- Successful live gas testing undertaken.
- Currently arranging for Northern Gas Networks field trials to commence.



PIPE MAINTENANCE PRODUCTS

WExTECH™



Water Extraction Technology is a range of systems designed to locate water in live gas pipes, remove water and recycle the gas back into the network. There is a WExTech™ system for every type/size of pipe

WExTech™ Services

Designed for removing both pools of water and water droplets from PE and metallic services. For use in live gas 17.5mm-32mm and for 3/4"-2" metallic pipe. ServiceCAM™ locates the water, then uses either the rechargeable battery powered pump or a hand pump to remove the water. The gas is then pumped back into the network.



WExTech™ M-V1

For use in 90-250mm PE and 4"-10" metallic live gas mains and can survey 50m in each direction. Compatible with the SynthoCAM™ 3/ SynthoCAM™ 4 cameras, the water is located, then the integrated pump can remove it whilst recycling the gas back into the main. This system is designed to fit between the racking on a standard van and can be split into two parts which can be then carried in a two man lift.

Suction point



WExTech™ M-LTE

This lightweight version of the WExTech™ M-V1 does not have an integrated pump system, but can be attached to a bowser unit or similar to pump out the water, significantly reducing investment.

WExTech M-Tier 2

The Tier Two System is based on the Tier One System (M-V1), however designed for 12"/300mm to 18"/450mm.

SynthoTRAX™ WExTech™ M-Tier 3

For Tier Three pipe, a robotic SynthoTRAX™ unit is connected to the WExTech™ unit to remove water from up to 400m away from the excavation



PIPE MAINTENANCE PRODUCTS

SERVIBOOST™

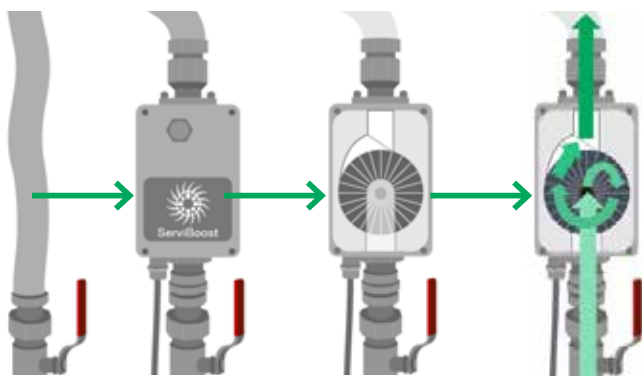


Low power booster for short term poor pressure problems.

The ServiBOOST™ unit is designed to increase the gas pressure to domestic properties whilst the Gas Networks programme in the necessary remedial work to permanently resolve a low pressure problem.

The automated device provides a pressure uplift to 21.5mbar at a flow rate up to 3scmh (6scmh possible). When the pressure uplift device is not operating the maximum allowable pressure drop across the device is 1mbar.

3/4" ECV Install ServiBOOST Inside ServiBOOST Boosts pressure



Installation Pressure	Max. 75mbar
ECV Size	3/4"
Operating Pressure	17-21.5mbar
Low Pressure cut-off	10mbar
Ingress Protection	IP54
Voltage	12V 12.6V (max open-circuit voltage)
Current	0.5A (accelerating) 0.34A (running – typical) 0.01A (standby)

ServiBOOST™

ServiBOOST Weight	1.9kg	
ServiBOOST Dims	230 x 85 x 69mm	
Operating temp	-10 to 40°C	
Storage temp	-20 to 60°C	

Battery

Battery Weight	1.9kg	
Battery Dims	230 x 140 x 95mm	
Operating temp	-10 to 40°C	
Storage temp	-20 to 60°C	
Battery life	Approx 1 week	

NETWORK MANAGEMENT PRODUCTS

Water Management	63-64
LNR06V4 - Wireless level sensor	65
IJINUS BLUE	65
Drulo III Pressure Logger	66
VONROLL ORTOMAT-MTC	66
ServiBOOST™ Data	67
iTouch®	67

WATER MANAGEMENT

Synthotech are the sole UK distributor for iJinus, the innovative global leaders in Intelligent Networks for both the Natural Water and Wastewater Networks.

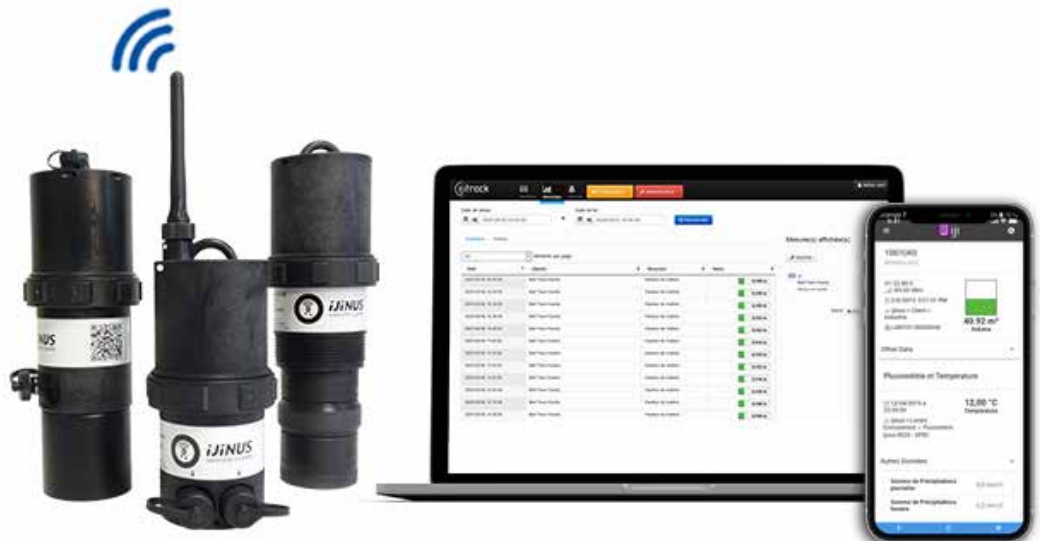


The basis of the wastewater network management is a series of modular data loggers that can be connected to various sensors to supply network information on a retrospective or live basis. The sensors and data loggers are a mixture of fixed location hard-wired equipment, relocatable wireless equipment, or temporary area measurement.



iJinus Intelligent Network System can be used along the whole wastewater network to identify various network operational information;

- Rainfall measurement
- Level measurement / Water height
- Pressure readings
- Overflow detectors
- Flow velocity measurement (both low and high velocity available)
- Valve / Pump Operation / Non-return valve operation
- Hydrogen Sulphide Gas
- Water quality sensors
 - pH / Redox / Temperature
 - Induction Conductivity / Salinity / Temperature
 - Dissolved Oxygen / Temperature
 - Conductivity / Salinity / Temperature
 - Redox potential / Temperature
 - Turbidity NTU-SS / Temperature



The information from the sensors can be remotely collected by radio connection, collected at a central hub, or sent via wireless mobile telecommunications transmitted via 3G or 4G for remote monitoring. The system is supported by a series of network software platforms to make it simple and easy to use.

- Avelour is the simple wireless configuration software
- IJITRACK is a simple software platform to view and analyse the sensor data
- WIJI software is a simple app that can be used to access real-time notifications and alerts.

NETWORK MANAGEMENT PRODUCTS



Rainfall Measurement

Simple way to remotely monitor rainfall in fixed or temporary locations. Tipping bucket rain gauge RG20 - Every time the bucket is filled, the instrument outputs an electrical signal that can be sent to an automated data acquisition system. The rain gauge is connected to a LOG V3 range datalogger by a M12 connector. The logger has a 500,000 measurement capacity, and varying communication options, and functionalities.

Temperature reading

The CNRT is a wireless pressure sensor that can measure both the level of the wastewater and its temperature.



Overflow detectors for Flood monitoring

The system has overflow sensors that can detect when there is waste discharge from a network. They use the patented CapAir® Technology which means it keeps working when the network becomes clogged. Both wireless (LSC) and wired (DSC) versions available.

Flow velocity measurement (both low and high velocity available)

The acoustic imaging sensor (LNU06) can also be used to measure the wastewater flow. The Doppler (VB-V) velocity sensor is perfect for measuring very low velocities, while the VLI sensor uses the digital doppler to measure standard velocities with a pressure sensor for height measurement.



Valve / Pump Operation / Non-return valve operation

The clamp on ammeters can be used to identify on/off contact for remote valves and autonomous pumps. There is also a two-axis inclinometer for a wide range of application, in particular for monitoring valve operation.

Hydrogen Sulphide Gas

A sensor that measures the Presence of H₂S gas in a range of 0 to 2000 ppm with a resolution of 1pPm



Water quality sensors

This sensor is a physico-chemical data logger that can be used to monitor several water qualities. pH / Redox / Temperature Conductivity / Salinity / Temperature Induction Conductivity / Salinity / Temperature Redox potential / Temperature Dissolved Oxygen / Temperature Turbidity NTU-SS / Temperature



LNR06V4 - WIRELESS LEVEL SENSOR - IJINUS



The Ijinus LNR06V4 and Ijinus LNR06V4-LE are stand-alone, battery-powered radar level loggers designed for accurate and reliable water level monitoring in outdoor and remote water utility environments.

Each unit integrates a non-contact radar level sensor, data logger, long-life battery, and communication modem into a single compact enclosure, enabling long-term autonomous operation.

FEATURES:

- Stand-alone radar level logger with integrated data logging and communications
- Non-contact 60 GHz radar level measurement
- Measuring range from 0.15 m to 10 m
- High resolution with millimetre-level measurement accuracy
- Large internal memory capacity (up to 500,000 measurements)
- Battery-powered for fully autonomous operation
- Long-life 3.6 V lithium battery (34 Ah)
- Wireless radio configuration using Wiji protocol
- Communication options: local radio, 2G, LTE-M, NB-IoT, or LoRaWAN
- Interchangeable communication cards for flexible deployment
- Built-in conversion tables for height, flow rate, and volume
- IP68 ingress protection for outdoor and underground installations



IJINUS BLUE



The Ijinus BLUE and Ijinus BLUE-LP are compact, battery-powered data loggers designed for water network monitoring and diagnosis.

Suitable for permanent or temporary installations, both models provide reliable data for key network parameters such as flow, pressure, and digital inputs, supporting informed operational and asset management decisions.

FEATURES:

- Large internal memory capacity (up to 500,000 measurements)
- Quick and easy installation with open collector output
- Four digital inputs (pulse or counter up to 100 Hz)
- Two analogue 4–20 mA inputs
- Modbus RS485 interface
- IP68 sealing (submersible up to 2 m for 100 days)
- Built-in pressure sensor in the BLUE-LP
- Operating temperature range suitable for field deployment
- Suitable for potable water applications (NSF/ANSI 61/372 certified)
- Interchangeable communication cards, Communication options: 2G, LTE-M, NB-IoT or LoRaWAN. Secure data transmission using FTPS, HTTPS, COAP or MQTTS. Wireless on-site configuration



DRULO III - PRESSURE AND TEMPERATURE DATA LOGGER - IJINUS



DRULO III measures the pressure and temperature of the water network.

With its built in data logger, it stores up to 1.8 million measured values. This monitoring function, which is made easier by the devices rapid installation and simplified data reading and analysis, contributes to network diagnostics, helps optimise operating costs and gives the operator the ability to respond quickly to if an anomaly is detected.

- LCD screen for on-site pressure and temperature display
- Configure, collect and read data using an android tablet or smart phone via Bluetooth (application can be downloaded free of charge from the play store)
- Pressure value displayed in real time
- Files can be exported by email in Excel and/or PDF format, then viewed and formatted on the PC in the form of tables or graphs
- Inductive charging using the dedicated base (no connector)
- Measuring interval can be adjusted from 1s to 24H
- High precision measurement for pressure tests (mBar)
- Long life lithium battery (1 charge = 2.5 million points recorded)
- Portable device and fast to fit

Can be installed - Valves, Hydrants and fire hydrants, Consumer meters and Stop Valves



VONROLL ORTOMAT-MTC



Permanent leak monitoring for buried drinking water pipes

The ORTOMAT-MTC is a leak monitoring system for pressurised water pipelines, designed to detect leaks early and accurately. It uses highly sensitive vibration sensors and correlation technology to locate leaks precisely between measurement points. The system operates continuously, with automated data transfer to a central server, where results can be accessed via the INFRAPORT platform.

Installation is quick and non-invasive, with no need for additional wireless infrastructure. Its robust design ensures reliability in harsh conditions, while remote updates and easy data analysis reduce maintenance. Overall, it helps utilities minimise water loss, reduce costs, and improve operational efficiency.

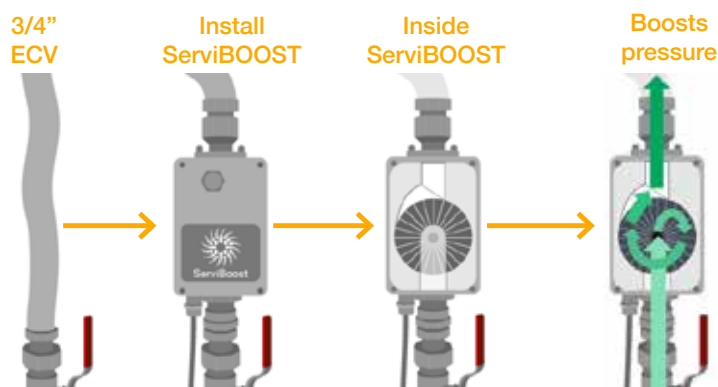
- Early leak detection with high-resolution correlation
- Precise leak localisation between measurement points
- Fully automated data transfer and real-time alerts
- No need for additional wireless infrastructure
- Quick, non-invasive installation
- Easy-to-use online data analysis and reporting
- Remote updates and minimal maintenance requirements
- Scalable system with flexible deployment options



SERVIBOOST™ DATA

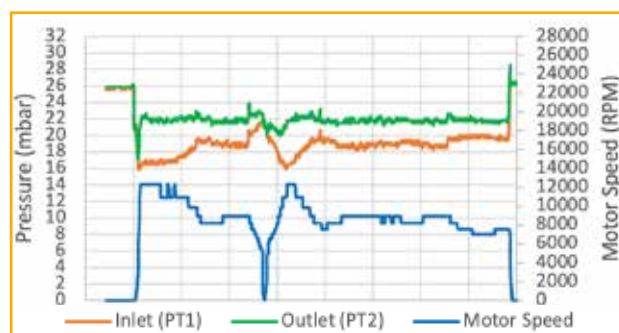


The ServiBOOST™ unit is designed to increase the gas pressure to domestic properties whilst the Gas Networks programme in the necessary remedial work to permanently resolve a low pressure problem.



Installation Pressure	Max. 75mbar
ECV Size	3/4"
Operating Pressure	17-21.5mbar
Low Pressure cut-off	10mbar
Ingress Protection	IP54
Voltage	12V 12.6V (max open-circuit voltage)
Current	0.5A (accelerating) 0.34A (running – typical) 0.01A (standby)

The automated device provides a pressure uplift to 21.5mbar at a flow rate up to 3scmh (6scmh possible). ServiBOOST™ Data gives a run-down of the input and output pressure on a gas service every second throughout the day. The system can be accessed via the internal SD Card or by drive by, downloading the full data of gas usage, supply, and pressure variation against the time of day.



ITOUCH REPORTING SYSTEMS



iTouch Systems in Partnership with [Synthotech](#) have taken their award winning CCTV inspection software that is WRc Approved for the drainage industry and developed it for use with its SynthoCAM™ H2O and SynthoCAM™ CH4 systems. Allowing for in-depth reporting on live gas and Water surveys.

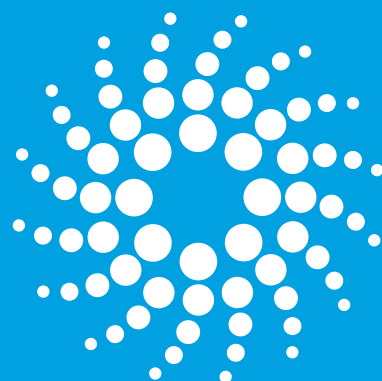


One person operation Whether mounted on a Push Rod, located in the back of a vehicle or on top of a Crawler, the flexible design of the iTouch allows for single person operation.	WRc and Synthotech coded reports The system guides you through producing a full WRc or Synthotech coded inspection report, pointing out missing or inaccurate data as you go.	Feature rich drawing The built in feature rich drawing package allows you to produce desktop quality drawing, or mark up existing site plans, directly from site.	Onsite reporting Inspect, record, report, all in one go. The system allows the entire inspection report to be completed from the side of the manhole or excavation.
All day battery The built in battery makes setting up, packing down & moving from manhole or excavation to the next one nice and easy.	Rugged and waterproof With a true daylight readable screen, ensures that the weather never gets in the way.	15" Touch screen Its simple to use intuitive touchscreen, means that you can concentrate on the job at hand & enter all the data collected quickly and efficiently.	Ultra-fast connection With the strongest ever connection to the iTouch Live network, the system remains connected in more areas & delivers your work up to 4x as fast.

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