



Water Solutions

Locate – Survey – Detect

Construct – Maintain – Manage

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HMG Water Solutions

HMG Water Solutions is a leading supplier of the world's best branded equipment to the grey, black, and potable water, gas, electric, communication, construction, and civils industries. Focused on **locating**, **surveying**, **detecting**, **constructing**, **maintaining** and **managing** underground infrastructure and utilities, *HMG Water Solutions* are the experts to find the solutions. Innovation is in our DNA, ensuring that we provide products that are innovative, simple to use, and cost effective to deliver operational efficiency and cost benefit with everything they do.

We are proud to work with and represent the following brands



Hire

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

Service and Repairs

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

Training

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

Technical support

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

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

Underground Locators



Underground Locators are used to identify underground plant, pipes, and cable from above ground.

Underground Locators are avoidance tools used for simple surveys before excavation or piling. HMG Water Solutions recommend C-Scope, Radiodetection and Vivax depending on your individual requirements.

The latest underground locators or cable avoidance tools are 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.



Underground Locators

	C-Scope					Radiodetection						Vivax	
	CXL4	CXL4-D	CXL4-DBG	DXL4-D	DXL4-DBG	C.A.T4	C.A.T4+	eC.A.T4	eC.A.T4+	gC.A.T4	gC.A.T4+	vScan	vScanM
Power Mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Radio Mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gen /Transmitter Mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
– 33+131kHz	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
– 131kHz	–	–	–	–	–	✗	✗	✗	✗	✗	✗	✓	✓
– 33kHz	–	–	–	–	–	✗	✗	✗	✗	✗	✗	✓	✓
– 8kHz	–	–	–	–	–	✗	✗	✗	✗	✗	✗	✗	✗
– 512Hz	–	–	–	–	–	✗	✗	✗	✗	✗	✗	✓	✓
– 640Hz	–	–	–	–	–	✗	✗	✗	✗	✗	✗	✓	✓
<i>All Scan/Avoidance Mode</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗
Depth Measurement	–	–	–	✓	✓	✗	✓	✗	✓	✗	✓	✓	✓
Signal Current Measurement	–	–	–	–	–	✗	✗	✗	✗	✗	✗	✓	✓
Overload Protection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strike Alert	✓	✓	✓	✓	✓	○	○	○	○	✓	✓	✓	✓
Peak Hold	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Swing Warning	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓
Daily Self-Test/Cal Safe	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓
Product Cert / eCert	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Data Logging / Data Acquisition	–	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	○	○
Memory (GB`s)	–	2	2	2	2	✗	✗	4	4	4	4	4	4
Data Transfer via USB	–	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓	✓
Bluetooth™ Data Transfer	–	–	✓	–	✓	✗	✗	✗	✗	✓	✓	○	○
Ext Survey GPS via Bluetooth™	–	–	✓	–	✓	✗	✗	✗	✗	✗	✗	○	○
In-Built GPS position logging	–	–	✓	–	✓	✗	✗	✗	✗	✓	✓	○	○
High Res Backlit LCD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Periodic Calibration1	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗
Service Due Indicator	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗
Warranty (Mths)	36					12						12	
Batteries	8 x AA (LR6)					2 x D (LR20)						6 x AA	
IP Rating	65					54						54	
Network Rail Approved	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗
Small ⌀ locate frequency	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗
Metal Detector	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓

Key ✓ - Standard, ○ - Option, ✗ - Not Available

Precision Locators

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



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



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



Depth measurement, data logging and in-built 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.

Product Specification		
Locator Features	MXL4-D	MXL4-DBG
Power Mode	✓	✓
Radio Mode	✓	✓
Generator / Transmitter Mode	✓	✓
-33 + 131kHz	✓	✓
-131kHz	✓	✓
-33kHz	✓	✓
-8Hz	✓	✓
-512Hz	✓	✓
-640Hz	✓	✓
AllScan Mode	✓	✓
Accurate Depth Indication	✓	✓
Signal Current Measurement	✓	✓
Overload Protection	✓	✓
AlarmZone™	✓	✓
Peak Hold	✓	✓
Dynamic Swing Sensor	✓	✓
Automatic Daily Self-Test	✓	✓
Product Validation Certificate	✓	✓
Data Logging	✓	✓
Data Logging Rate – once per second	✓	✓
2GB Memory	✓	✓
Data Transfer via	USB	USB & Bluetooth™
In-Built GPS position logging	-	✓
High-Res Backlit LCD	✓	✓
No periodic calibration*	✓	✓
3 Year Warranty**	✓	✓
IP65	✓	✓
Batteries	8x AA (LR6) Alkaline or NiMH Rechargeable	
Weight	2.65kgs	
Size	720mm x 280mm x 65mm	

Product Specification		
Locator Features	RD8200	RD8200G
Locate Frequencies	21	21
Passive Modes	5	5
Sonde Frequencies	4	4
Built in GPS	✘	✓
Power Filters™ (Power Cable discrimination)	✓	✓
User Activity data logging	✘	✓
Survey measurements	✓	✓
CALSafe™	◆	◆
4kHz	4k+CD	4k+CD
Current Direction™ (find target amongst multiple cables)	✓	✓
Fault Find	✓	✓
Depth in Power	✓	✓
Passive avoidance	✓	✓
iLOC™ (Rx control of transmitter)	✓	✓
Dual Bluetooth connectivity	✓	✓
Lithium-Ion Battery	○	○
3-Year Warranty available	✓	✓

Product Specification	
vLoc3-Pro	
Construction	High impact ABS injection moulded housing
Weight	2.1kg
Dimensions	321mm x 124mm x 676mm
Display	Transmissive 480 x 272 Pixel, 16-bit Colour, High Visibility 4.3" / 10cm LCD
Batteries	
Batteries Alkaline	6 x AA
Batteries Rechargeable	Rechargeable custom Lithium-ion batteries with 100-240V AC mains charger
Battery Life	Lithium-ion – typically 27 hrs intermittent use at 21°C Alkaline – typically 12 hrs intermittent use at 21°C
Operating frequencies	Configurable frequencies 98Hz to 200kHz, Power 50Hz and 60 Hz, Radio10kHz – 22.7kHz bandwidth
Operating Modes	Classic Locate (Bar graph), Transverse Graph Mode, Plan View (Omni Directional) Vector Locate (Lateral Position & Depth), Sonde Locate
Data logging and transfer	50million records – Records include depth, current, frequency, mode, gain setting, signal strength, GPS coordinate, date and time (if Bluetooth active). Download from the receiver using the free Mylocator3 desktop app, save as xlx, txt, shp and kml files.
Environmental	IP65 and NEMA4

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.

Vivax vScan Transmitter



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.

Radiodetection Genny4



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



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



Vivax Loc3 Transmitter TX5, TX10 and TX25



CScope SGA4, SGV4 and MXT4 Transmitters

Signal Generators / Transmitters

Product Comparison Unit Features	Radiodetection Genny4	CScope		Vivax vScan / vScanM
		SGA4	SGV4	
Power	1 Watt	1 Watt	1 Watt	1 Watt
Output Levels	2	2	4	2
Generator Frequencies:				
33 to131kHz(Direct and Wraparound)	✓	✓	✓	✓
-33kHz (Induction Mode)	✓			✓
Pulsed / Continuous Output Signal	✓	✓	✓	✓
Signal Connection Modes				
-Direct Connection	✓	✓	✓	✓
-Wraparound	✓	✓	✓	✓
-Induction	✓	✓	✓	✓
Warranty	1 Year	3 Year	3 Year	2 Year
Environmental Rating	IP54	IP65	IP65	IP54
In-built accessory tray****	✓	✓	✓	*
Batteries	4 x D (LR20) Alkaline or NiMH Rechargeable			
Weight	2.75kgs	3.4kgs		1.5kgs
Size	275x170x200mm	360x180x230mm		460x90x65mm
Automatic Daily Self-Test	-	-	✓	-
Data Logging	-	-	✓	-
Data Transfer via USB	-	-	✓	-
High-Res Backlit LCD	-	-	✓	-

Transmitter	Radiodetection			Vivax Loc-3			Cscope MXT4
	Tx-5B	Tx-10	Tx-10B	5-Watt	10-Watt	25-Watt	
Max. Output Power	5W	10W	10W	5W	10W	25W	1W
Weight	3.9kg	3.9kg	3.9kg	3.9kg	4.4kg	3.2kg	3.4kg
Batteries							
Alkaline	8 x D Cell			8 x D Cell	12 x D Cell *1		4 x D Cell
Rechargeable	Custom Lithium-ion battery pack			Li-ion battery tray with charger			NiMH
Battery Life							
1 Watt Alkaline	n/a	n/a	n/a	25hrs	25hrs	n/a	40hrs
1 Watt	n/a	n/a	n/a	50hrs	50hrs	n/a	unknown
5 Watt Alkaline	4hrs	n/a	n/a	6hrs	6hrs	n/a	n/a
5 Watt	7hrs – 8hrs	n/a	n/a	10hrs	10hrs	n/a	n/a
10 Watt Alkaline	n/a	4hrs	4hrs	n/a	4hrs	4hrs	n/a
10Watt	n/a	7 – 8hrs	7 – 8hrs	n/a	6hrs	6hrs	n/a
25Watt	n/a	n/a	n/a	n/a	n/a	4hrs	n/a
Dimensions	350x220x220mm			332x182x185mm			360x180x230
Environmental	IP65			IP54 and NEMA4			IP65
Signal Connection Modes & Frequencies							
Induction	256Hz to 65kHz			98Hz to 200kHz		n/a	8Hz to 131kHz
Direct Connection	256Hz to 65kHz			98Hz to 200kHz		32Hz to 9.82kHz	8Hz to 131kHz
Clamp	163Hz to 200kHz			8kHz to 131kHz		8Hz to 9.82kHz	8Hz to 131kHz
Power Levels	4			2	3	2	4
Pulsed/Continuous	✓	✓	✓	✓	✓	✓	✓

Sondes

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



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

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



Product Specification					
CScope Sondes	CScope General Purpose		Metal Pipe Sonde		Duct Sonde
Frequency	33kHz	8kHz	512Hz	640Hz	33kHz
Depth Range Up to	7m	7m	5m	5m	4.5m
Dimensions	39mm Ø x 121mm				24mm Ø x 200mm
End Fitting	M10 Stud				Whitworth 16 TPI Female
End Fitting	None	None	None	None	None
Battery Type	1xAA (LR6) Alkaline				1 x AAA (LR03) Alkaline
Battery Life Up to	15 Hours	15 Hours	25 Hours	25 Hours	20 Hours
IP Rating	68				
Approvals	EN301 489 EN300 330		EN301489 EN300330 EN 5060086350791		n/a
Colour	Orange	Green	Red	Red	Yellow

Product Specification					
Radiodetection Sondes	Standard Sonde			Sewer Sonde	Super Sonde
Frequency	33kHz	8kHz	512Hz	33kHz	33kHz
Continuous Signal	✓	✓	✓	✓	✓
Pulsed Signal	✗	✗	✗	✓	✓
Depth Range Up to	5m	5m	5m	8m	15m
Dimensions	39Øx105mm			64Øx105mm	64Øx318mm
End Fitting	M10 Stud			M10 Stud	M10 Stud
End Fitting	None			None	None
Battery Type	1xAA (LR6) Alkaline			1 x PP3	1 x PP3
Battery Life Up to	8 Hours			15 Hours	5 Hours
IP Rating	2Bar – 20m of water			0.2Bar–2m of water	0.2Bar–2m of water

Product Specification	S6 Microsonde	S9 Minisonde	S13 Super Small Sonde	S18 Small Sonde	BendiSonde
Frequency	33kHz	33kHz	33kHz	33kHz	512Hz
Continuous Signal	✓	✓	✓	✓	✓
Pulsed Signal	✗	✗	✗	✗	✗
Depth Range Up to	2m	4m	2m	4m	6m
Dimensions	6.4Øx84mm	9Øx138mm	12.7Øx70mm	18Øx82mm	23Øx475mm
End Fitting	M5 Female	M6 Female	M10 Stud	M10 Stud	M10 Female
End Fitting	None		Option M10	Option M10	None
Battery Type	CR425	CR535	2xV393	2xCR1/3n or 1xD1/3N	1x AA
Battery Life Up to	8 Hours				15 Hours
IP Rating	n/a	n/a	2Bar – 20m of water		

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.



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

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



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

The HMG Water Solutions range of 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.



4.5mm DuctRod



6mm DuctRod



9mm DuctRod



9mm / 11mm DuctRod



14mm DuctRod

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.

Underpressure Tracing Systems

HMG Water Solutions are experts in live access methodologies into potable and pressurised water pipes. This has been brought into our range of tracing products.

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



Acoustic Non-metallic Pipe Location

The SebaKMT Pipe Pecker RSP3 is 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.

Pulse rate	3 pulses 2 pulses for a weak battery
Range 1	40/min
Range 2	60/min
Range 3	80/min
Range 4	120/min
Intensity	25 – 50 – 100 %
Power-on	green LED signal
Pulse	red LED signal
Battery check	flashing green signal + pulse rate change
Rechargeable battery	NiCd 12V 2.8Ah
Operating cycle	≥ 16h
Charging cycle	2h
Operating temperature	- 10°C ... + 50°C
Chain length	580mm
Dimensions IG 3	190 x 95 x 65 mm
Weight IG 3	2.6 kg
Dimensions RSP 3	250 x 115 x 160 mm
Weight RSP 3	2.1 kg

Advantages

- 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 for optimal results

Acoustic Non-metallic Pipe Location

The FAST PWG-II is 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.



Features

- 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



The eSAFE+ range of Ground Probing Radar systems is probably the easiest and simplest units in the world to use.



Due to its easy user interface and simple design the eSAFE+ doesn't require extensive background knowledge or training in Ground Probing Radar technologies. The eSAFE+ system is perfect as a pre-excitation avoidance tool to prevent unwanted cable and pipe strikes.

The eSAFE+ system can achieve accurate pipe and cable location down to depths of 1.5 meters dependent upon ground conditions.

The eSAFE+ system has been designed for locating metallic and non-metallic assets with the ground, both metallic and non-conductive pipes and cables.

The eSAFE+ is light and easy to manoeuvre on site, so multiple grids can be surveyed allowing the tool to operate at 90 degrees to the asset, providing the best opportunity and thus likelihood for accurate location.

eSAFE+ has depth measurement as well as a 4 level Chronos masking Off Road Max option.

The eSAFE+ system uses a simple Red / Amber / Green day light visible visual display system to highlight a High likelihood of a feature, Cautionary likelihood of a feature or a Low likelihood of a feature.

The eSAFE+ uses a rechargeable battery system that will last for between 3 and 5 hours depending upon ambient temperature.

eSAFE+ part number 202000



Metal Detectors

Metal detectors are used 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 metal detector 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



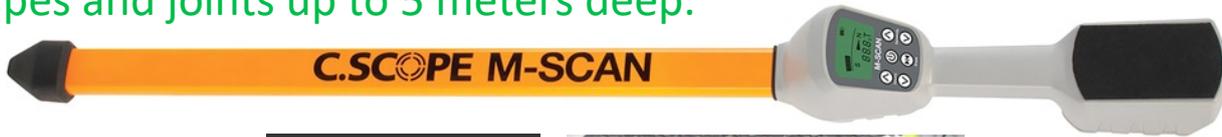
Viking WASP is one of the original cost effective simple to use metal cover locators



Viking WASP II is the pinpointing version of the original WASP

Manufacturer	C.Scope	C.Scope	C.Scope	Radiodetection	Viking	Viking
Model	CS1MX	CS440XD	880	RD312	WASP	WASP II
Non-Motion	✗	✓	✓	n/a	✓	✓
Motion	✓	✗	✗	n/a	✗	✗
All Metal				n/a	✗	✓
Tuning Controls	✓	✓	✓	n/a	✓	✗
Pinpoint	✗	✗	✗	n/a	✗	✓
Built in Loud Speaker	✓	✓	✓	✓	✓	✓
Headphone Socket	✓	✓	✓	✓	✓	✓
Telescopic Shaft	✓	✓	✓	✓	✓	✓
Search Diameter Head	20cm	20cm	20cm	25cm	20cm	24cm
Battery Life	30 hours	30 hours	100 hours	30 hours	20 Hours	15 to 20 Hours
Weight	1.153Kg	1.153Kg	n/a	1Kg	1.1Kg	1.4Kg
Dismantled Length	n/a	n/a	107cm	79cm	74cm	74cm
Fully extended Length	n/a	n/a	140cm	n/a	134cm	134cm
Stopcock	n/a	n/a	25cm	20cm	n/a	n/a
Valve Cover	n/a	n/a	50cm	41cm	n/a	n/a
Manhole Cover	n/a	n/a	90cm	76cm	n/a	n/a

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



Product Specification	RD Schonstedt	MBW	CScope
Type	GA-92XTd	M10d	M-SCAN
Weight	1.1Kg	Approx. 1.1kg	1.3Kg (with Batteries)
Dimensions Open	660mm	660mm	1090mm Sensor Tube length 730mm
Dimensions Closed	390mm	390mm	n/a
Construction	Polycarbonate / ABS / IP54	Polycarbonate / ABS	Case – Heavy duty high impact ABS (IP65), Sensor tube construction – Epoxy sandwich coated aluminium (IP66), Tip protector construction – Heavy duty thermoplastic elastomer
Detection Range	Up to 4.88m	Up to 4.88m	5m (dependent onsite conditions)
Volume	3 Levels; Min, Max and Mute	3 Levels; Min, Max and Mute	8 Volume levels, including mute. Frequency (pitch) varies with signal amplitude. In-built loudspeaker plus 3.5mm jack socket for standard headphones.
Batteries	24 hours intermittent use	1 x Lithium 9 Volt battery	Eight 1.5v cells, type AA, LR6 or equivalent. Alkaline cells recommended. Compatible with NiMH rechargeable batteries 100 hours battery life typical intermittent use. 4 Segment visual bar Battery Indicator

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

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



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

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



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

The C20 come with a 5.6" daylight visible screen with a 5-hour battery as standard.



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

The Outlook C30 is an entry level looksee camera system. 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.



The Outlook C50 is a basic survey system. With either a 24mm, 34mm or 46mm camera on 60 or 120 meter lengths of fibreglass 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.



The Vivax vCam6-HD is a full survey system. With either 34mm or 46mm diameter self-levelling cameras on either 60, 90 or 120meter pushrods. The system has multi-frequency sondes video recording, and a 9.7" screen and a 4-hour battery.



Pipe Survey - Crawlers



X5-HMA Crawler

The Easy-Sight X5-HMA is a robust and reliable small crawler for use in harsh environments.

Designed for use in pipe diameters from 150mm to 300mm (up to 600mm with an extender arm).



X5-HT Crawler

The Easy-Sight X5-HT is a robust and reliable medium sized crawler for use in harsh environments.

Designed for use in pipe diameters from 300mm to 1000mm with an extendable arm.



T

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



Optional Pan Tilt & Zoom Camera



150m or 300m Motorised Umbilical

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.



Control Tablet / Laptop

Optional iTouch One Control and Reporting



The Easy-Sight X5-HS is a robust and reliable medium sized crawler for use in pipe diameters 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-megapixel 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 300meters



X5-HS Crawler

The Easy-Sight X5-HW series is our long-distance crawlers for pipes from 500mm to 4000mm diameter from 1km to 2km`s.

Designed for use in pipe diameters from 500mm to 1500mm. The X5-HW1 has a 1000-meter (1km) umbilical, which from a single access point can provide up to 2km`s of survey from both directions.



1000m Motorised Umbilical



X5-HW1 Crawler

The X5-HW2 has a 2000-meter (2km) cable and has a vision capability of a 4m diameter pipe.



2000m Motorised Umbilical



X5-HW2 Crawler



Control Tablet

Pipe Survey – Directional Float System

The Easy-Sight X5-HR4 is an innovative directional steerable float system for storm drains and culverts.

H5-HR4 Float System



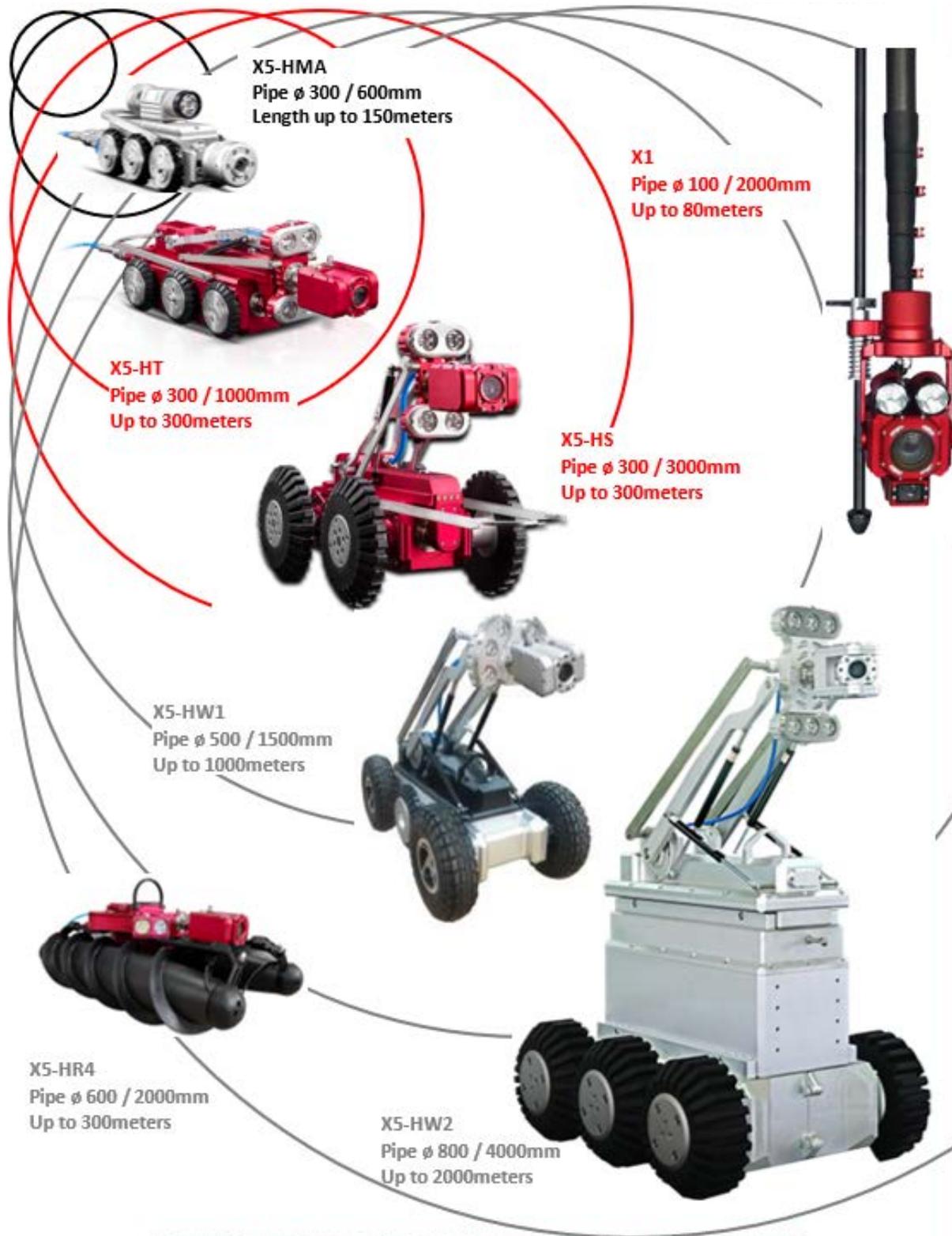
Suitable for pipe diameters above 600mm with a cable length of over 320meters the HR4 is a versatile system. The Archimedes screw can drive the float system forward as well as steer it away from obstacles. The system has a maximum speed of 0.5meter per second downstream and 0.2meter per second upstream.

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



Control Tablet





Pole Camera

The Easy-Sight Pole Camera is 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 onscreen distance, laser measurement and is capable of onscreen 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 25meters if required.

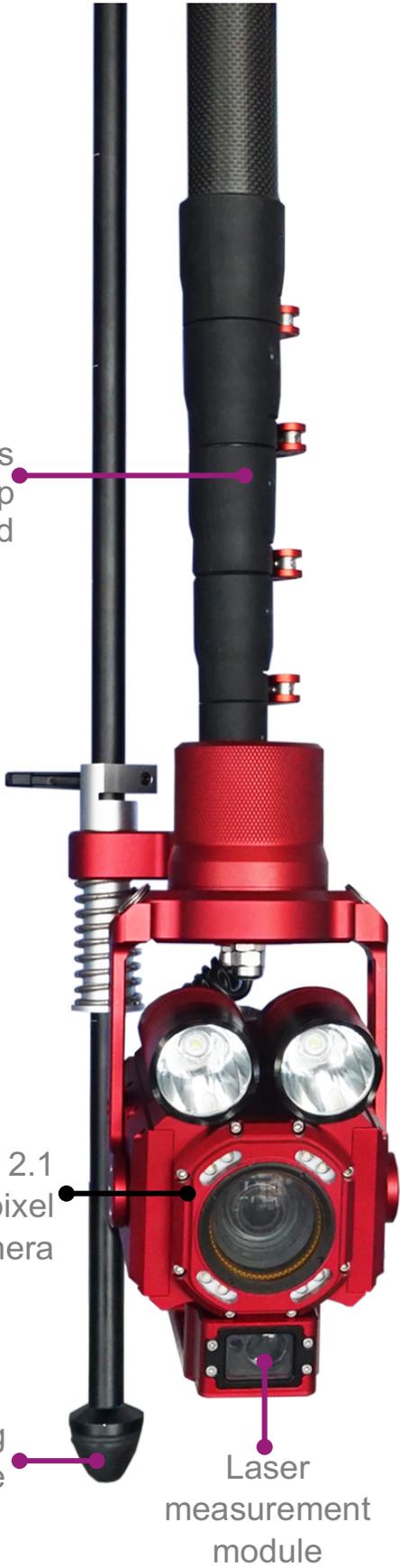
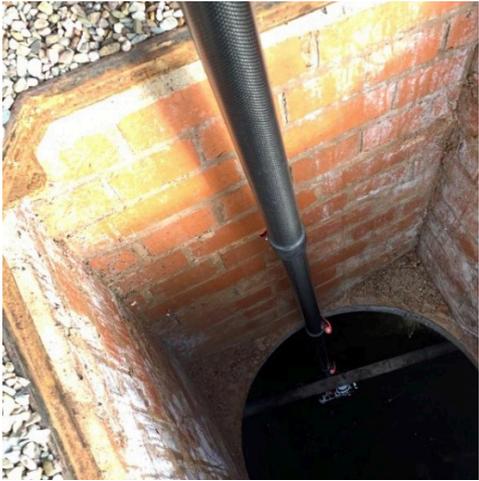
Pole Camera

Technical Data X1 Pole Camera	
Pipe Range	100mm to 2000mm
Voltage	DC 25.2v
Current	1.2A
View Angle	60° view from horizon 35° up and 25° down
Camera Resolution	2.1 Megapixels / 1920 x 1020P
Zoom	30 times Optical
Laser Measurement Range	0.2 meter to 80 meters
Leaser Measurement	+ / 1mm
Package Dimensions	1362 x 406 x 172mm
Lighting	6 x 10w LED`s
IP Rating	68
Camera Weight	2Kg



Extendable poles
4.8m standard up
to 25m if required

Touch screen
control
system



Live Access Potable Water Service CCTV

The ServiceCam H2O Lte and Pro have been developed from the world's leading supplier of Live Access Gas Systems to provide service in-pipe vision and leak detection.

The ServiceCam H₂O system has been developed from the world's leading supplier of Live Access Gas and Water CCTV Systems. After 6 years of supplying under pressure ServiceCams into the live gas distribution market operating at pressures up to 6 barg, Synthotech is now able to offer its ServiceCamH₂O.



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 6mm diameter 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 14mm diameter camera on the end of 20meters of 6mm diameter flexible nylon rod. The CCTV head has an in-built sonde for point location as well as 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.

- 14mm diameter camera
- 20m to 50m push rod capability
- 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

- **Faster** - Speeds up pipe problem investigations and reduce time for customers to be off water
- **Cheaper** - Reduces maintenance costs
- **Safer** - Can be used with several safe 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



Live Access Potable Water Mains CCTV

The SynthoCam H2Omic has been developed from the world's leading supplier of Live Access Gas Systems to provide leak detection inside a pipe

HMG Water Solutions is the sole UK distributor of the SynthoCam H2O range of under pressure potable systems vision systems. The system has been designed for live access into potable water pipes through full bore hydrants or under pressure drillings from a vertical insertion system.



The SynthoCam H₂O Mic system is made with existing **WRAS approved** materials and parts, allowing us to confirm that all wetted parts are WRAS approved.

The system uses an integrated hydrophone that relays the sound of a leak back to blue-tooth speakers and or headphones.

- **Faster** - Speeds up pipe problem investigations and reduces 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** - Pushes up to 100m providing a survey up to 200 metres from a single excavation.
- **Easier** - This system comes with full training and support.



- Interchangeable High resolution 30mm camera for diameters from 4" / 90mm to 10" / 250mm.
- 12mm Ø basalt filled Ultralife push rod reduces breakages.
- Choice of display with up to 5 hour battery life and a selection of data storage systems options.
- Interchangeable Camera Head Spring.
- WRAS approved and Chlorination tank included.
- Quick release screen display stand.
- 10bar operational use.
- Optional GPS tracker available.



Measuring Wheels

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



RotoSure Econo 1000



RotoSure RD1000 Deluxe



RotoSure Classique Professional

	Econo 1000		RD100		Classique		
	401080	401081	401082	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 					★★		

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
Yellow	401056	401063

Site Survey Pipe Lasers

Spectra Pipe Laser DG613 – p/n 401010

The Spectra Precision DG613 Pipe Laser is built for efficiency, accuracy and reliability when laying pipes. Compact and Powerful, the DG613 combines great performance with productivity. This product comes with complete laser, rechargeable batteries, charger, remote control, 6" universal target



Spectra Pipe Laser DG813 – p/n 401011

In addition to the DG613, the DG813 comes with a smart spot finder which further increases productivity.

Leica Piper 100 – p/n 401012

The most versatile pipe lasers in the market, the Leica Piper 100 brings exceptional performance, accuracy and simplicity to sewer construction and pipe applications. The compact Piper fits inside a 100mm (4") pipe, assuring easy and efficient setup even in the smallest inverts. This product comes with complete laser, rechargeable batteries, charger, remote control, 6" universal target



Site Survey Levels

Topcon AT-B Range Auto Level



The Topcon AT-B Series is designed to solve all construction, surveying and levelling applications. Topcon's AT-B series automatic levels quickly level and stabilize the line of sight using a finely tuned magnetic damping system. Even when working near heavy equipment or busy highways this range of precision instruments ensure reliable levelling even where fine vibrations are a problem.

- Automatically levels the line of sight
- Multi-directional IPX6 protection against powerful water jets and are fully resistant to driving rain and splashing water.
- Readout window below eyepiece for quick reading on horizontal angles
- Magnetic dampening system
- Available in x24, x28 and x 32

Topcon DL500 Range Digital Level

The DL-500 range of digital levels from Topcon strips away the main source of human-error in levelling by integrating RAB (Random-Bidirectional) staff encoding and "Wave-and-Read" technologies.

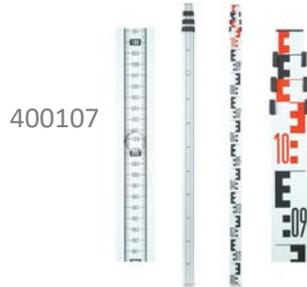


- Single-button operation
- Sub-millimetre height accuracy
- Advanced RAB code technology
- Pre-installed measurement programs
- Inverse staff reading
- Available in x28 and x 32

Part Number	Description
401001	Topcon AT-B Range Auto Level - AT-B4-24X
401002	Topcon AT-B Range Auto Level - AT-B3-28X
401003	Topcon AT-B Range Auto Level - AT-B4-32X
401004	Topcon DL500 Range Digital Level DL 503 28X
401005	Topcon DL500 Range Digital Level DL 502 32X
401006	Tripod
401007	5M Staff
401008	7.6m Staff
401009	5m Invar Staff



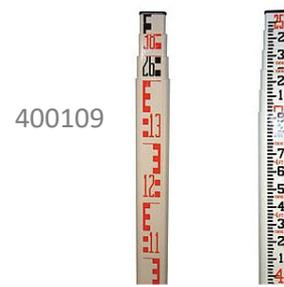
400106



400107



400108



400109

Topcon RLH5A with receiver options

The RL-H5A laser is a durable, long range, high accuracy solution for rotating lasers.

- Long-range operation (800 m)
- Smart long-range receiver
- Simple, intuitive manual slope capability

This product comes with complete laser, rechargeable batteries, charger, remote control, digital receiver, and clamp



The Spectra Precision® LL300N Laser Level

This comes with HR320 Receiver and Clamp and features a rugged design with “hard hat” rotor protection that provides superior drop and weather protection.

Built to withstand severe drops of up to 3 ft (1 m) directly onto concrete, or up to 5 ft (1.5 m) when pushed over on a tripod means less downtime and cost due to damage caused by accidental drop. This product comes with complete laser, rechargeable batteries, charger, receiver, and clamp

The Spectra Precision® LL300S Laser Level

The LL300S is one of the industry’s leading lasers for onsite due to easy operation. This comes with the HL450 Digital Receiver and clamp. Designed to last, the LL300S is rugged and hardwearing with a tough casing to protect from bad weather and falls. General elevation control

This product comes with complete laser, rechargeable batteries, charger, digital receiver, and clamp.



Part Number	Description
401013	Topcon RLH5A Rotating Laser LS-80L receiver and clamp
401014	Topcon RLH5A Rotating Laser LS-100D receiver and clamp
401015	Spectra Precision LL300N Laser Level HR320 Receiver and clamp
401016	Spectra Precision LL300N Laser Level HL450 Receiver and clamp
401017	Spectra Precision LL3002 Laser Level HL450 Receiver and clamp

In-Pipe Acoustic Leak Detection

The PipeMic[®] systems from FAST are the original range of In-Pipe Leak Detection Tools for pressurised live water pipes.

The PipeMic[®] range of systems allow water leaks to be detected from inside a pipe. The PiepMic[®] range supply accuracy as a matter of course, by simply locating the leak from inside the 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.

	WRAS*1	Length M					Pipe Size Plastic mm					Pipe Size Metallic mm				Frame Size mm				
		50	80	100	150	300	20	25-40	50	63-150	150-225	>225	1"	2"-3"	4"-6"	>6"	400	485	750	1000
PipeMic [®] Flex	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗
PipeMic [®] M	✗	✓	○	○	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	○	✗	✗
PipeMic [®] MW	✓	✓	○	○	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	○	✗	✗
PipeMic [®] XL	✗	✗	✗	✗	✓	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✓	✗
PipeMic [®] XXL	✗	✗	✗	✗	✗	✓	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	✓

Key: ✓ Standard ○ Optional ✗ Not Available

*1- Manufactured using WRAS / BS6920 materials for all wetted parts. Not WRAS certified.

PipeMic [®] System	
Part Number	Description
300100	PipeMic [®] Flex 50m – 4.5mm ultra flexible rod – WRAS material
300101	PipeMic [®] M 50m – 4.5mm semi-rigid rod
300102	PipeMic [®] M 50m – 4.5mm semi-rigid rod – WRAS material
300103	PipeMic [®] M 80m – 4.5mm semi-rigid rod
300104	PipeMic [®] M 80m – 4.5mm semi-rigid rod – WRAS material
300105	PipeMic [®] M 100m – 4.5mm semi-rigid rod
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,

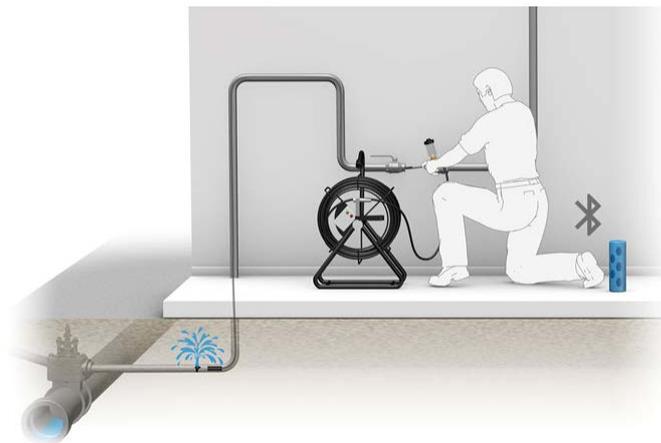
- Inbuilt, Acoustic Sensor, Sonde and a mechanical length counter. External Bluetooth Speaker, External Chlorination Tank, Banana Connection Leads (2 x 50cm 4mm connections)

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

The PipeMic[®] Flex 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 is a fast accurate methodology of tracing service pipes from 20mm diameter.



The PipeMic[®] Flex uses a unique ultra-flexible 4.5mm diameter rod 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.



Features

- 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
- Multiple access opportunities

The PipeMic[®] Flex 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[®] Flex from December 2021 is now WRAS material compliant for the UK market.

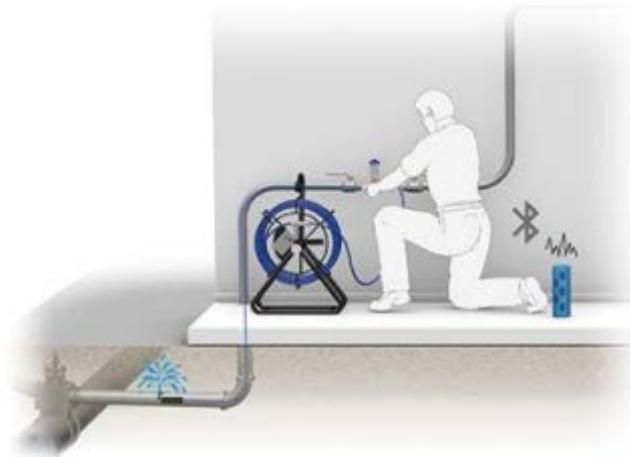
PipeMic M

The PipeMic[®] M from FAST is the original In-Pipe Leak Detection tool for pressurised live water pipes.

The PipeMic[®] M 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[®] Flex is a fast accurate methodology of tracing service pipes for 25mm diameter.



The PipeMic[®] 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.



Features

- 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
- Multiple access opportunities

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 can be supplied in standard format for pressurised water systems and in a WRAS material compliant version for the UK market.

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.

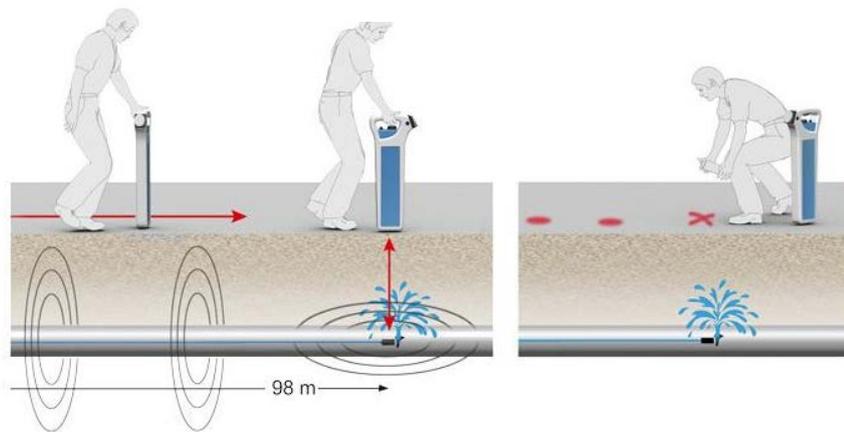
Features

- 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



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.

PipeMic Access Systems

Accessing Live Water Pipes has never been easier with the HMG 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

PipeMic[®] M

PipeMic[®] XL

PipeMic[®] XXL



Endon using a Philmac Fitting



90° Short Radius Bend Boundary Box



90° Slow Radius Bend (Hockey Stick) Boundary Box

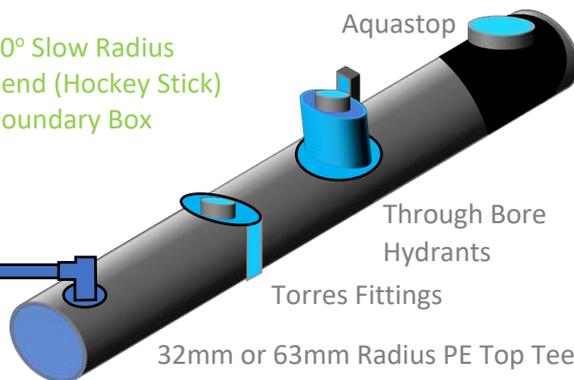
Static Insertion Head



Pressure Balanced Insertion Head



Wask Aquastop



Through Bore Hydrants

Torres Fittings

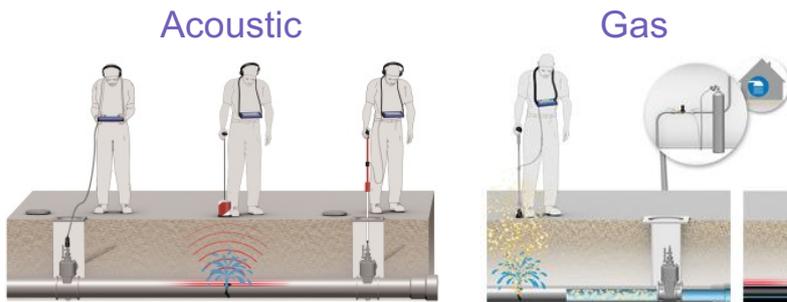
32mm or 63mm Radius PE Top Tees

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

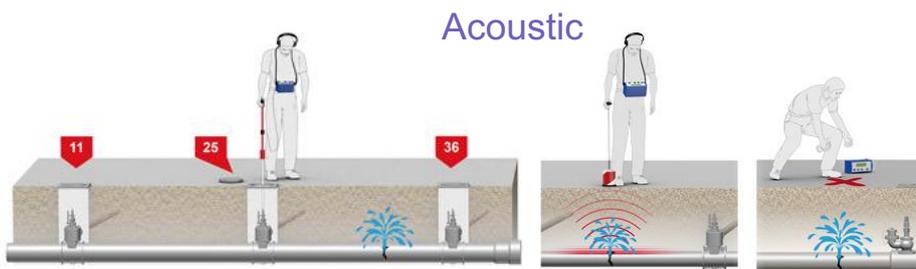
The range of acoustic, gas and combination kits makes the FAST M series of water leak detection equipment the most comprehensive in the world. From the compact M60 systems with internal acoustic sensors for use inside and out, to compact but powerful external acoustic M100 system, or large LCD display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



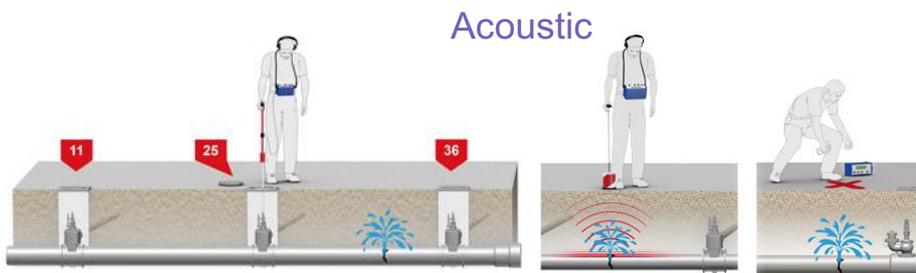
Aqua M300



Aqua M200



Aqua M100



Aqua M60



All FAST M-series acoustic systems can be used with the PWGII for pipe location.

Aqua M60

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

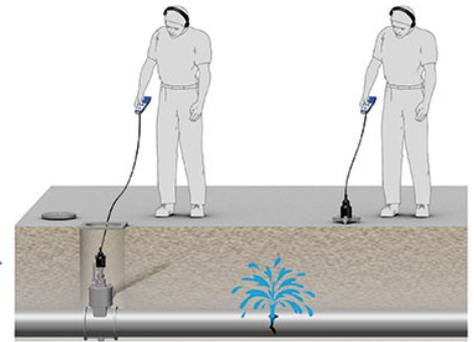
The Aqua M60 has an internal acoustic sensor which allows it to be used on internal pipework which is ideal for use inside houses and in confined spaces. The internal sensor will work on both plastic and metal pipes.

The Aqua M60 can also be connected to an external accelerometer. This can be used for connection into deep excavations / manholes, or for connection onto valves.

The accelerometer can also be combined with a tripod to use it as ground microphone to allow accurate pin-pointing of the leak. Extension rods can also be connected to allow a fixed rod connection onto pipes, valves and assets.



The Aqua M60 uses Bluetooth headphones (speakers optional) to provide a tangle free operation. Combined with an easy single hand operation, the Aqua M60 is a simple to use tool. The compact robust design has a highly sensitive piezo-ceramic sensor and a low noise quality amplifier to ensure that leaks can be detected.



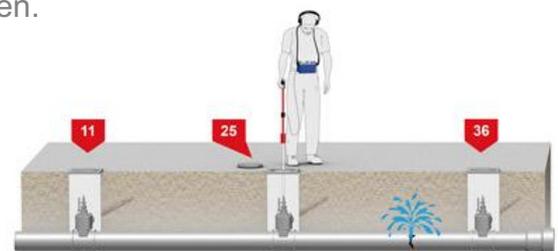
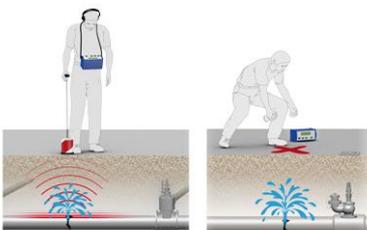
Aqua M100 / M200

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.

These units are above ground leak detection solutions that provides a detailed professional methodology of zone location and pin-pointing water leaks. They operate quickly and reliably to identify and locate water leaks. With numerous extensions that can be connected to locate leaks from valve to valve / chamber to chamber to pin-pointing location above ground.

They can also be connected to an external accelerometer. The accelerometer can also be combined with a tripod. Other accessories include a test rod with extensions for point contact a universal accelerometer with switch and a windproof ground microphone.

They use various measurement modes: Min / Mean / GTX / PWG. It uses professional sound quality due to 6 pre-set filters and has allow-noise quality amplifier. The system has an internal rechargeable battery and comes with a charger, headphones, and a transport case. The Aqua M100 is a compact unit. The Aqua M200 has a large easy to read LCD display screen.



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.

The Aqua M300 has three main methods of gaining the acoustic signal from the pipe.

Test rod and extension can be used to connect onto the asset, pipe, valve or hydrant.

A universal accelerometer connected to the asset, pipe, valve or hydrant will increase the noise what attached to the network.

A ground microphone can then be used to isolate the leak noise between valves or hydrants. Taking regular readings, the largest readings can be identified, and the leak pinpointed.



The Aqua M300 can also be used to detect Hydrogen Leak Detection gas that has been injected into the pipe for survey. Using either the H2 Bell probe or the H2 Hand probe, regular readings can be taken, the largest readings can be identified, and the leak pinpointed.

Seba HL-50-BT

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

The system has an ergonomic grip shape that makes it a single hand operation. With only two operation buttons, the HL50-BT can be used simply by a thumb.

The HL50-BT has an integrated sensor and Bluetooth wireless headphones. This allows point location on internal leaks, as well as connection to additional sensors for use externally. The HL50-BT offers optimum mobility.



Features

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

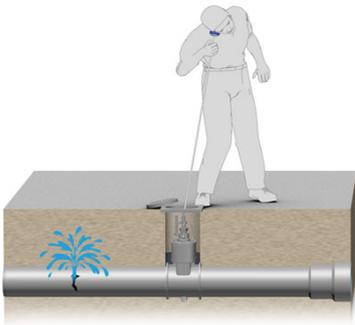
The HL50-BT comes with an extension set for use with a probe or magnet. But it can be extended for external use with three optional external microphones, a Universal microphone and tripod, a Piezo microphone, or a ground microphone.



The HL50-BT has a large LCD display screen that shows measured sound level simultaneously in numerical for and as a bar graph. In addition, the frequency filter is displayed. When a measurement has been completed, the previous measured sound level is indicated on the bar graph.

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.



Product Specification	Part Number
HMII Listening Stick 6mm Ø x 1.5m – One piece	300251
HMII Listening Stick 6mm Ø x 2.0m – Once piece	300252
HMII Listening Stick 8mm Ø x 1.5m – One piece	300253
HMII Listening Stick 8mm Ø x 2.0m – One piece	300254
HMII Listening Stick 8mm Ø x 1.4m – Three piece	300255

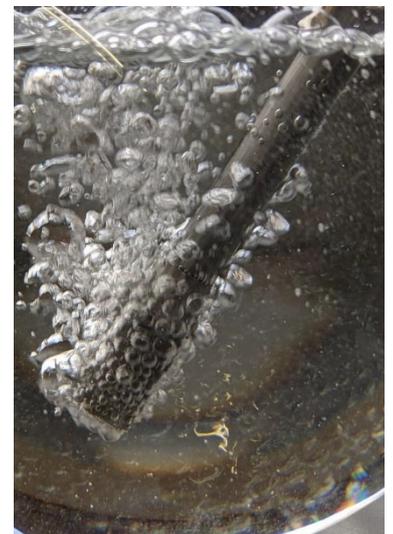
GasCheck

The FAST GasCheck is a dedicated Gas Leakage System for potable water pipes using Hydrogen tracer gas.

The GasCheck is a 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.



Hydrogen is a very seeking light weight gas which will rise vertically out of a pipe at the point of a leak. Ground conditions will affect the time of response but is ultimately very accurate, particularly with very small leaks. The GasCheck sensors are very sensitive, giving a rapid response time.



Hydrogen tracer gas (Nitrogen with less than 5.5% Hydrogen gas) can be injected into water pipes with or without the water inside. Injection of the gas into pipes can be from the end of a pipe, valve, top tee, or hydrant.

By using the 'Bubble Creator' to inject the gas into the pipe system significantly reduces the amount of gas required.



Seba HL7000

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

The HL7000 is a state-of-the-art combination system that is versatile but simple to use. The ergonomically designed system not only looks the business but does the business. 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. Versatility in one simple package



Features

- 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



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

If the measuring point is easily accessible and is not in a danger area, then online measurement comes into effect. Power transmitters are deployed in this case (transmitter and microphone). These transmit the live signal directly to the correlator and you receive the result immediately. However, if the measuring point is in an area which is difficult to access or if there is lots of interference, then you have the option to conduct an offline measurement using the power transmitters or up to 8 multi-sensors. The multi-sensors are programmed accordingly with the correlator and then deployed. Following the measurement, the power transmitters and multi-sensors are collected and the data can be read and evaluated by the correlator.

Features



- Easy to use with a 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

How does it work?

When there is a water leak from a pressurised pipe, the water leaving the pipe makes a noise. This noise is recorded, amplified and sent wirelessly to the correlator by two sensors (piezo microphones, hydrophone) which have been attached to the pipe via valves or hydrants. The Seba C3 compares both signals (correlation) and calculates the exact distance to the leakage on the basis of the time delay of the signals, the sensor spacing and the sound velocity of the pipe.



Correlux C-3

Correlux C-300

Correlux C-30

Online or Offline?

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.

The SebaLog N3 automatic leak location – correlating a network



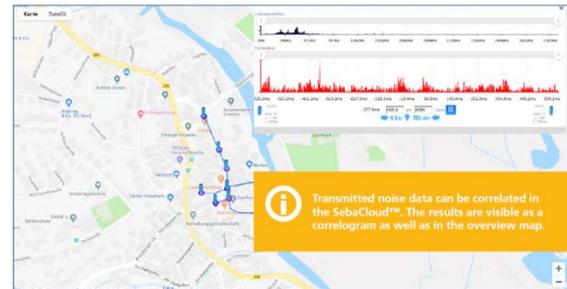
Time is the decisive factor when it comes to detecting and locating leaks. Modern monitoring systems, such as the SebaLog N-3 sound Logger network, are therefore designed to identify existing leaks and to detect new leaks in the shortest possible time. They ensure sustainable low losses in the network.

Always up to date

The SebaLog N-3 network provides you with the latest measured data on a day-to-day basis. Automatic data transmission saves you the time-consuming task of patrolling each Logger. It also offers a wide range of analyses, such as the ESA value or the history function, so that you can track the condition of the network over a long period. This means critical sections of the network are easy to identify and there won't be any nasty surprises.

The next step – network correlation

When the Loggers detect a leak, you can query the automatically recorded noise data from the affected measuring points. Depending on the configuration of the network, noise data are available for transmission either on the same day or the day after. You can listen to the recorded noises in order to tell whether the alarm message from the logger was caused by genuine leak noise or from disturbing ambient noise. But that's not all, you can correlate the noise data from several Loggers to pinpoint where the noise is coming from. Automatic daily synchronisation of the entire Logger network ensures that the correlations are highly accurate.



Efficient data transmission

The operating costs for data transmission for automated systems must not be ignored. That's why the SebaLog N-3 network offers you the option of transferring measured data from up to 50 noise loggers in a single data transmission. This means SebaKMT leads the field when it comes to the efficient transfer of measured data from loggers.



Sebalog D-3, The most universal Data Logger

Thanks to its compact and robust design and the totally waterproof housing, the Sebalog D-3 data logger is very hard-wearing. It reliably informs you of the flow rate status from the pressure and flow measurements in your supply network on up to 4 channels. It sends the latest data automatically on a day-to-day basis via 2G or 3G to your control centre or can be received, edited and displayed within the SebaCloud or the new POSEYEDON cloud platform



Always up to date with the online measurement and alarm function. Great emphasis was placed on user-friendliness with the Sebalog D-3. It supports online measurements on all channels which enables you as the user to access any saved measurement data and up-to-date readings at any time from the convenience of your smartphone.

Feel secure!

The Sebalog D-3 alarm feature can inform you immediately if there is a significant change in the pressure level or flow rate, because the current measuring data of the Sebalog D-3 are directly available online after an alarm. You have a reliable overview of your data - no matter where you are - to know exactly where the source of the noise is located.



Sebalog D-3	
Protection class	IP68
Temperature range	-20° C bis +60° C
State control	LED
Weight	900 g
Dimensions	185 mm x 115 mm
Power supply	
Internal lithium battery	Up to 5 years (standard configuration)
External battery	Optional
External Power supply via VK 76	12 V 1.5 A
Input (max. 4)	
Digital	4, frequency/pulse
Analogue	2, 0 ... 5 V / 0 ... 20 mA
Relays input	2
Relays output	2
Collection of data	
Internal pressure sensors	0 -16 bar (standard), 25 bar, 35 bar
Recording interval	1 sec - 24 h
Memory	Up to 1.7 Mio. measurements
External memory	SebaCloud
Alarm messages	SMS, e-mail
Communication	
SebaCloud 7 FTP server	SebaDataView-3 / SCADA / GIS
Communication	GSM / GPRS / 3G / UMTS



Multi-Gas and Dual Gas Monitors

Bestseller

4 GASES



MSA Safety

Altair 4XR Gas Detector

The Altair 4XR monitors and alerts to combustible (LEL) gases as well as O₂, CO, AND H₂S gases. Bump test with half the gas and half the time of the industry average.

The portable gas detector that clips to your clothes or belt is ideal for a working in numerous industries due to the XCell Sensors that sense gas twice as fast as the industry average, ensuring workers are alerted to risks faster and able to stay safer on the job.

Size:	110mm x 76 mm x 35 mm
Warranty:	4 years
Durability:	MIL-STD-810G drop protection Certified IP68 rating
Temperature:	-40 °C to +60 °C
Humidity:	5 % – 95 % intermittent
Typical battery life:	Rechargeable Li-polymer battery 24 Hour run time < 4 hour charge time
Data Logging:	> 50 hours (adjustable) > 500 event logs

2 GASES



MSA Safety

Altair 2X

The MSA Altair 2X is a single gas detector available for either sulphur dioxide (SO₂), carbon monoxide (CO) or hydrogen sulphide (H₂S) detection.

The Altair 2x features a stand-alone bump test, so there's no need for bottled gas to test meaning it can be bump tested anytime, anywhere.

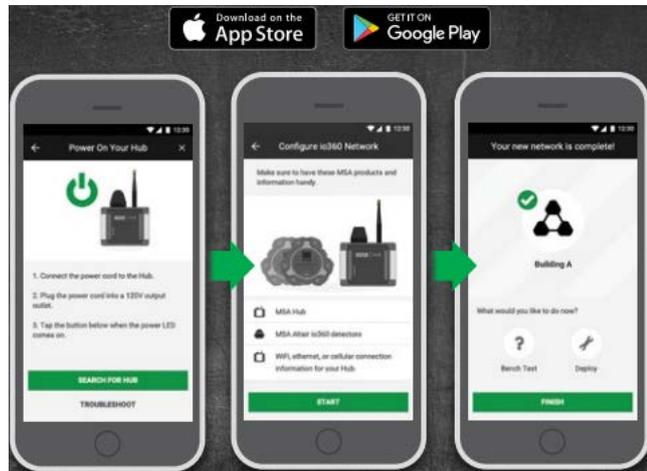
Great for a range of industry applications including fire service, general industry, oil and gas and utilities as can be easily carried.

- Easy to use even when wearing gloves making this ideal for on site to enhance worker safety.
- Full traceability available thanks to monitoring records that can be downloaded when used with Galaxy GX2 and Link Pro software.
- 10 second backlit screen
- 150+ hours of periodic data

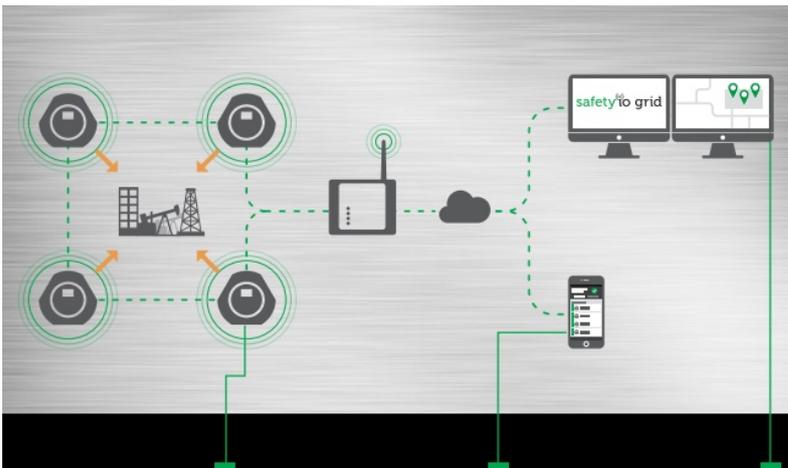
Gas Detection Equipment

Altair io360 Gas Detector

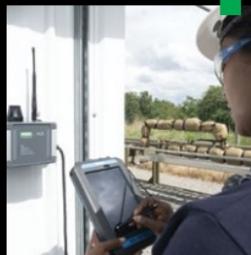
The simple usability of a Smart Home Product. The Rugged, reliable performance you expect from MSA. A simple to use area monitoring network system that comes pre-configured and ready to go out of the box requiring less time for training and setup.



The system uses guided setup, installation tips, and real-time feedback replace complex instructions, scrolling through screens and overwhelming menu instructions. All you need are a few quick swipes on the Safety IO Grid mobile app to know you got it right first time.



Gas detection and local alarms for high-risk areas. Just turn on your ALT AIR io360 Gas Detectors and deploy where needed.



The MSA HUB allows up to 16 ALT AIR io360 Gas Detectors to form a network you manage locally via the Safety io Grid mobile app.



Connecting your gas detection network to Safety io Grid gives you the power to remotely manage and monitor your fleet of detectors, capture data, and take action to create safer sites.

Specifications

ALTAIR io360 Gas Detector Specification

WARRANTY	4 years Oxygen Sensor: 2 years Low-energy Combustible: 1 year	
DURABILITY	Drop Test: 3 m Ingress Protection: IP68	
TEMPERATURE	Normal Operating: -20° to 55° C Extending Operating: -40° to 55° C Storage: 0 to 35 °C	
HUMIDITY	Intermittent: 5%–95% Non-condensing: 15%–90%	
POWER	Batteries: 3 replaceable lithium thionyl chloride batteries Runtime: nominally 50-60 days 4-gas, 80-85 days without combustible sensor	
PHYSICAL	Weight: 0.7 kg Dimensions: 132 x 142 x 69 mm	
ALARMS	Audible: 90 dB @ 0.3 m Visual: RGB LED	
DATA LOGGING	Periodic, Event, Instrument, Calibration logs stored on detector (at least 2 months) and sent to Safety io Grid.	
RANGE	Up to 300 m line of site HUB to detector 2 mesh hops to extend range.	
RADIO	868 MHz (region dependent), Bluetooth, RFID	
SENSORS	Gas	Range Resolution
	LEL	0-100% 1%
	O ₂	0-30% 0.1%
	CO	0-1999 ppm 1 ppm
	H ₂ S	0-200 ppm 1 ppm

MSA HUB Specifications

WARRANTY	4 years	
DURABILITY	Ingress protection IP67	
TEMPERATURE RANGE	-20° to +60° C for hazardous locations	
HUMIDITY	10 to 90% relative humidity, non-condensing	
POWER	Nominal: 24 V DC line power Range: 6 V to 32 V	
PHYSICAL	Weight: 1.4 kg Dimensions: 190mm x 195mm x 99mm	
RADIO	868 MHz, Bluetooth, 2.4 GHz Wi-Fi (a,b,g,n)	
ETHERNET	10/100 mbit	

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 2 fully charged batteries

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"



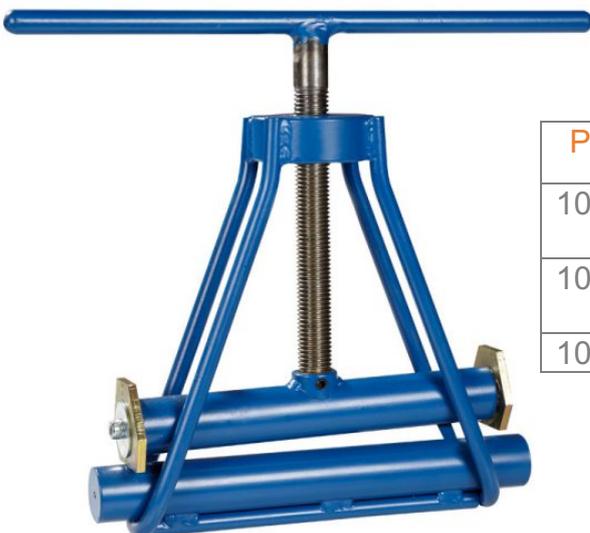
The HMG Water Solutions range of Heavy-Duty Squeeze Tools (HDST) are heavy duty robust tools for flow control. With compact designs featuring robust double loop construction and rotating buffer / limit stops to prevent damage to the pipe.



P/No.	Description
100100	16, 20, 25, 32mm Ø HDST
100111	75mm x 33 Squeeze Off Tape



P/No.	Description
100101	(20-32), 40, 50, 63mm Ø SDR11 HDST
100102	20, 25, 32, 40, 50, 63mm Ø SDR11 HDST
100103	20, 25, 32, 40, 50, 63mm Ø SDR17 HDST
100104	20, 25, 32, 40, 50, 63mm Ø SDR11/17 HDST
100105	20, 25, 32, 40, 50, 63mm Ø SDR11/17/26 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



P/No.	Description
100108	63, 90, 110mm Ø SDR11 + 110, 125mm SDR17.6 HDST
100109	63, 75, 90, 110mm, 125mm Ø SDR21 HDST
100110	63, 75, 90, 110, 125mm Ø SDR17.6 HDST

Re-round Tools

The HMG Water Solutions range of Re-round tools are simple to use, lightweight tools for removing ovality from polyethylene pipes.



Nutcracker Re-rounding Clamp 16-32mm



Nutcracker Re-rounding Clamp from 20 to 55mm

P/No.	Description
100121	Re-rounding Clamp 16 – 32mm Ø
100122	Re-rounding Clamp 20mm Ø
100123	Re-rounding Clamp 25mm Ø
100124	Re-rounding Clamp 32mm Ø
100125	Re-rounding Clamp 40mm Ø
100126	Re-rounding Clamp 50mm Ø
100127	Re-rounding Clamp 55mm Ø



Hinged Re-rounding Clamp 63 or 75mm



Hinged Re-rounding Clamp from 90 to 180mm

P/No.	Description
100128	Hinged Collar Re-rounding Clamp 63mm Ø
100129	Hinged Collar Re-rounding Clamp 75mm Ø
100130	Re-rounding Hinged Clamp 90mm Ø
100131	Re-rounding Hinged Clamp 110mm Ø
100132	Re-rounding Hinged Clamp 125mm Ø
100133	Re-rounding Hinged Clamp 140mm Ø
100134	Re-rounding Hinged Clamp 160mm Ø
100135	Re-rounding Hinged Clamp 180mm Ø

The HMG Water Solutions 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.

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



Cable Laying Equipment

The HMG Water Solutions 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 of 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 Laying Equipment



Cable Rollers

A range of both lightweight and heavy-duty cable rollers for diameters from 76mm to 125mm.

Steel Bellmouths

Steel Bellmouths are 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.



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 3/4" 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 1/2" 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.



The HMG Water Solutions range of 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.



4.5mm DuctRod



6mm DuctRod



9mm DuctRod



9mm / 11mm DuctRod



14mm DuctRod

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.

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.

DuctRods

Product Specification DuctRod	4.5mm	6mm	9mm	9mm L	11mm	14mm
Core	3mm	4mm	7mm	7mm	8mm	11mm
30m	202030	206030	✘	✘	✘	✘
50m	202050	206050	209050	✘	✘	✘
60m	○	206060	209060	✘	✘	✘
80m	202080	206080	209080	✘	✘	✘
100m	✘	206100	209100	219100	211100	✘
120m	✘	206120	209120	219120	○	✘
150m	✘	206150	209150	219150	211150	214150
180m	✘	✘	209180	○	○	○
200m	✘	✘	209200	219200	211200	214200
250m	✘	✘	✘	219250	211250	214250
300m	✘	✘	✘	✘	211300	214300
350m	✘	✘	✘	✘	211350	214350
400m	✘	✘	✘	✘	✘	214400
450m	✘	✘	✘	✘	✘	214450
500m	✘	✘	✘	✘	✘	214500
Height* in mm	560	700	920	1200		1210
Depth* in mm	180	250	400	530		560
Width* in mm	410	580	820	1000		1280

○ - Optional, ✘ - Not Available, * dimensions approximate. They may change without notice.

Product Specification DuctRod Accessories	4.5mm	6mm	9mm	9mm L	11mm	14mm
Bullet End /Guide Tip	202010		202011			
End Fitting	202023	202024	202026		202027	✘
Repair Splice	202012	202013	202014		202015	✘
Sonde Adaptor	202016		202017			
Repair Kit	202018	202019	202020		202021	202022
Ball Guide M12	✘	✘	202033			
End Fitting M10 F	✘	✘	202028		✘	✘
Spring End Guide Tip	✘	202031	202032			
Wheeled End Guide Tip	✘	✘	202034			



Hammerhead Moles

»»» 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.

Telecom Maintenance

The TX916 Loop-a-Line is used for efficient telephone installation and maintenance repair.

HMG Water Solutions are the exclusive UK distributor for Teletech PTY. TX916, the new improved Loop-a-Line for efficient telephone installation and repair. The TX916 is ideal for new service installations and repairs. Cable faults will be found faster, and service restored more quickly with the TX916 in the technician's tool kit.

Using the Probe, identify the pair and control the line termination at the oscillator for:

- Open Circuit
- Short Circuit
- Connect Service
- 600 Ω quiet line
- Pair short circuit detection

For quiet line, the termination is 900 Ω in regions where this is the standard network termination.



5 Ways To Better Service Provision

1. Press TONE to identify the cable pair
2. Press OPEN to disconnect the line for Foreign Battery and Insulation Resistance testing
3. Press SHORT to loop the line for loop resistance, Resistance balance and Resistive fault location tests
4. Press CONNECT to restore the service
5. Press 600 Ω Ohm for a quiet line

Benefits Of TX916 Loop A Line

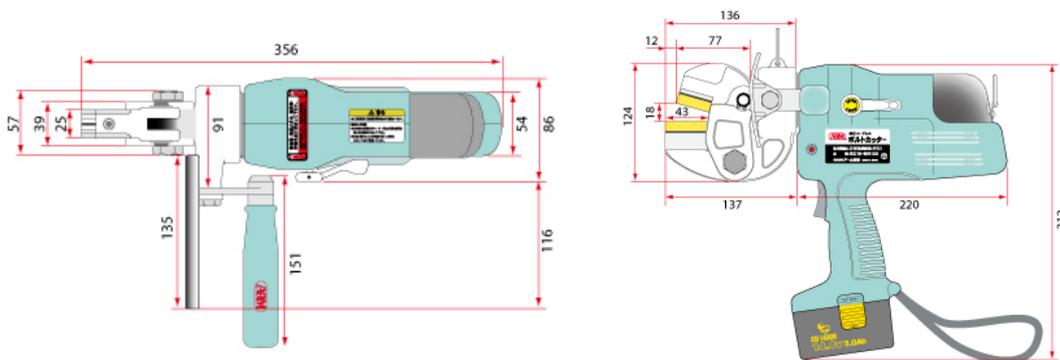
One technician can work unassisted by using the probe to remotely control an oscillator
Eliminates multiple journeys along the cable path
Six mode selectable switching
Battery level indicator

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

HMG Water Solutions 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)

Spares



Spare blades



Hand protector



Battery charger



Spare Battery Li-ion



Carry case

Water Pumps and Cleaning

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. The tool is cost effective, designed to enable one on every van.

Unlike conventional pumping machines, the Venturi Jet Drainer will not clog or seize up when faced with small stones, mud, or sludge 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.

- > Lightweight plastic construction
- > Delivery pipe included
- > Simple one-person operation
- > Easy to maintain and clean



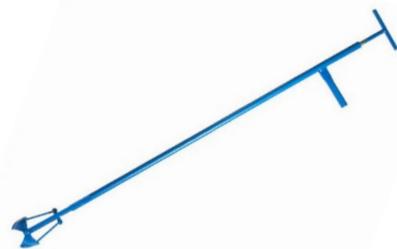
Drain and Gully Cleaning Scoop & Tongs

The Drain and Gully Cleaning Scoop and Tongs are solid metal manufactured tools designed for the effective, safe, and hygienic removal of soiled waste from gullies, boundary traps, pits and shafts.



Drain and Gully Cleaning Grab

The Drain and Gully Cleaning Grab is a solid metal manufactured tool featuring a spherical grabbing bowl, 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.



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



Pipe Scrapers

Pipe Scrapers 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. These 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. Available for all pipe sizes from 2" (50mm) through to 48" (1,200mm)

Wire Brush Pigs

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 brushes 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

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 Stoppers / Drain Plugs

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.



Imperial	Nylon	Steel	Aluminium
1 ½"	501400		
2"	501401	501410	
2 ½"	501402	501411	
3"	501403	501412	
3 ½"	501404	501413	
4"	501405	501414	
4 ½"	501406	501415	
5"	501407	501416	
5 ½"	501408	501417	
6"	501409	501418	
7"		501419	
8"		501420	
9"		501421	
10"		501422	
11"		501423	
12"			501428
13"		501424	
14"			501429
15"			501430
16"			501431
17"		501425	
18"			501432
19"			
20"			501433
22"		501426	
24"		501427	

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

Manhole Keys

The ManUp Manhole Key is the ultimate for breaking sealed covers without breaking your back.



Basic Starter Kit

ManUp Key Bar
32mm Flat Tip



Basic Drainage Kit

ManUp Key Bar
32mm Flat Tip
22mm Flat Tip
12J Hook Tip



Basic Electricity Kit

ManUp Key Bar
22mm Flat Tip
10J Hook Tip
20mm Oval Tip



Basic Telecom Kit

ManUp Key Bar
32mm Flat Tip
22mm Flat Tip
10J Hook Tip



Fresh Water Set

ManUp Key Bar
32mm Flat Tip
22mm Flat Tip
10J Hook Tip
Cleaning Tip



Gas Network Set

ManUp Key Bar
32mm Flat Tip
22mm Flat Tip
12J Hook Tip
Cleaning Tip
Fire Hydrant Valve Key



ManUp Key

Traditional techniques of releasing stubborn manhole and utility covers have been shown to have health and safety implications.

The ManUp Key provides a one-man solution to allow stuck manholes to be released without chiselling or hammering. It's **patented slide hammer** exerts a momentary upward force capable of releasing stuck, jammed, and rusted chamber covers quickly and efficiently.

ManUp Key

Reduce Risk of Injury

Reduce the risk of Back Injuries when it comes lifting manhole lids.

Saves Weight

Weighs significantly less (Up to 50%) against a full range of manhole and utility covers.

Saves Time

Saves an estimated 145 hours a year on dealing with stubborn manholes

Costs Less

The use of ManUp Key replaces many traditional tools and prevents broken manhole covers. Estimated cost of broken manhole including labour, fuel and parts of about £1,850.

The QP-K50 and QP-K65 Lighting towers are high power mobile outdoor LED floodlighting solutions specifically designed for Construction, Industrial and Utility applications.

They are easy to store, transport and set up able to replace larger and more complicated trailer light systems.

The systems provide instant flicker free high-powered LED lighting with either 110v or 230v mains or generator power input with a maximum 245,000 lumens (200w to 240w option LED Lights) per 6-light head using only 1440W of electricity.

Individual light heads can be positioned to give 180 to 360 lighting.

The robust and ruggedised structure incorporates a unique parallel mast design. The centre of gravity is very low with the weight perfectly balanced over the wheels for easy and safe handling even on difficult terrain.

The systems include an inbuilt mast safety system and operator RCBO electrical isolation switch.

The systems can be easily and quickly deployed by a single person operation. They are highly mobile and easy to manoeuvre over any terrain.



Water Management



Flood Warning and Management

Rainfall Overflow

GPRS 3G, test alert of high or flooding water



**Battery powered
Ultrasonic Level Sensors**

**Autonomous data logger
(replaceable Lithium
battery powered)**

**Radio programming/retrieving
Data transmission via GSM / GPRS,
including reports & alarms**

**Relative pressure sensor
Range from 1 to 200 mH2O
Compact design : 64 mm diameter, 182 mm height**

► Data logger & physico-chemical probes for natural water monitoring





The 3 in 1 solution: Level - Volume - Flow

- Quick and easy to install
- Timestamp volumes
- Battery life up to 5 years on regular battery, and even more years with external battery pack
- Acoustic imaging technology
- Insensitive to dirt - IP68
- IP68 (tested 30 days at 10m of water)
- Multiprotocol communication
- Hosting data and web services available

► Discharges monitoring from small wastewater treatment plants



Autonomous solution to control discharges in lagoon structure and reed filter



- Battery powered sensor and logger
- Record level, volume, flow, rain
- Autonomous display for reading in situ current values
- Day volumes are saved
- Battery life > 7 years
- Acoustic imaging technology is also suitable for light open flumes
- Automatic sampler pacing
- Dirt proof
- Data hosting available

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