

Groundwater Equipment From Van Walt Ltd

When it comes to Groundwater we've made it our business to ensure we offer the best equipment to monitor, sample & test this most precious of resources

Groundwater Monitoring

When it comes to groundwater sampling we've made it our business to know what's what and with regulatory directives such as the European Water Framework Directive (EWFD) impacting protocols and equipment developments we work continuously to ensure that whether you're remediating, sampling or purging; your head of water is 5 or 500 metres; you have a high, low or no flow rate and the volume of suspended sediments is unknown – we have the right groundwater pump, groundwater sampler, hall marked filter or groundwater sampling tubing and monitoring well pipe for you.

We offer pumps, meters and sensors to rent or buy. A range of hallmarked consumables to ensure your results can be trusted and we can deliver groundwater data straight to your desktop with our unique range of telemeterised data collection options.

Van Walt Ltd has been supplying groundwater monitoring equipment for almost 40 years - the preferred choice of groundwater professionals from many industry sectors.



Groundwater Pumps



Peristaltic Pumps

Peristaltic Pumps are used for low flow sampling of groundwater. Perfect for the attachment of an in-line filter, for use with a flow-through cell and multi parameter probes. Available with optional auto shut off to comply with the latest standards and directives when low flow sampling in monitoring wells.

- Reliable, easy to use and maintain
- Splash proof for use in the field (IP64)
- Built in maintenance free battery that runs between 2 and 5 hours depending on conditions
- Pumps product & water even if it contains sediment
- Cheap disposable tubing no chance of cross contamination
- Pumps 100 2300 ml/min
- Ideal for micro-purging & low flow sampling
- Low loss of volatiles
- Ideal tool for all groundwater research



MP1 Pump

The MP1 is the perfect groundwater sampling pump, controlled by a Variable Frequency Drive (VFD) with precise and smooth control of water flow from 0.1 litres per minute to 34 litres per minute – high flow rates for purging, low flow rates for sampling. The MP1 fits wells of 50 mm (2" diameter) and is capable of pumping to a depth of 90 m.

- High pumping capacity for purging, slow
 pumping for sampling
- Pumps to up to 90m head of water in 50 mm (2 inch) diameter or larger wells
- Easy to install
- Step-less control for flow rates from 100ml to 34 litres per minute
- Resistant to corrosive liquids
- Pump is stainless steel and the cord is teflon coated so can be easily decontaminated
- Can be used for sampling & purging deep wells
- Individual elements available or as a complete set.



Bladder Pump & Geocontrol Pro

The Bladder Pump & Geocontrol Pro, a small electric compressor that uses an external rechargeable lead acid battery. Air does not make contact with the liquid. These stainless steel pumps use a replaceable bladder either in Teflon or PE for easy cleaning and prevention of sample cross contamination and with diameters starting at 22mm to fit in a 1-inch well. Bladder Pumps are ideal groundwater sampling pumps.

- Very small, highly efficient package
- Controller with built in high efficiency electrical compressor
- Small, lightweight and very portable
- Easy to use
- Suitable for use in contaminated wells.

Consumable Tubing

Polyethylene Tubing

Groundwater sampling demands the highest standards in tubing quality because the contamination potential is significant. Tubing quality is even more important when using with a dedicated pump as your sample quality will depend on robust, leak tight connections for the duration of the sampling period. Van Walt's specialist tubing is hallmarked and carries a QA plus stamp of purity and cleanliness. It is available in a variety of sizes and roll lengths and is ideal for sampling for trace metal; Hydro-carbons; Volatiles and Macro-parameters analysis. All tubing is hydro-carbon resistant to protect your samples' integrity while making system installation and operation easier and more economical. Our Polyethylene tubing is compatible with our range of silicone tubing.

Accessories Filter Adapter for PE Tubing: R73050001 GA5S Sample Tubing for GA5000

Product Code	Dimensions	Roll Length	
12.20.03	4x6 mm	100 m	
12.20.04	6x8 mm	100 m	
12.20.05	6x8 mm	200 m	
12.20.08	8x10 mm	100 m	
12.20.13	10x12 mm	75 m	
12.20.16	12x16 mm	50 m	
12.20.17	12x16 mm	100 m	
12.20.20	16x20 mm	50 m	



Silicone Tubing

Ideal for sampling for trace metal; Hydro-carbons; Volatiles and Macro-parameters analysis. Hallmarked and carries our QA plus stamp of purity and cleanliness.

Accessories

Silicone Tubing Clip (Pack of 10) - AA.67.00.18.0

Product Code	Dimensions	Roll Length
12.20.46	4x8 mm	5 m
12.20.48	6x10 mm	5 m
GTSIL		5 m

Foot Valves

Foot Valves come in a variety of sizes and can make very powerful pumping systems capable of sampling to great depths. These pumps, using no electrical components, are useful if you have to sample in an intrinsically safe way. Stainless steel foot valves are re-usable as they can be cleaned in a dishwasher.

Product Code	Dimensions	Compatible Tubing
12.13.05i	6 mm	6x8 polyethylene tubing
12.13.03i	8 mm	8x10 polyethylene tubing
12.13.06i	10 mm	10x12 polyethylene tubing
12.13.02i	12 mm	12x16 polyethylene tubing
12.13.04i	16 mm	16x20 mm polyethylene tubing

Filters & Bailers

On site in-line filtration is required when sampling or monitoring groundwater for contamination and metals. Van Walt's filters are hallmarked and the larger filters have been tested for over 100 parameters.



Disposable In-Line Medium Blue Filter

These In-Line Filters have 0.45 micron pores. It is more economical to use the larger filters when the water is dirty. The filters have been tested for over 100 parameters. Medium capacity filter area of 350 cm²



Disposable In-Line Large White Filter

These In-Line Filters have 0.45 micron pores. It is more economical to use the larger filters when the water is dirty. The filters have been tested for over 100 parameters. High capacity filter area of 700cm²



Disposable In-Line Filters

In-Line Filters with 0.45 micron pores. Pack of 5. Capacity filter area of 20cm²



Disposable Bailers

HDPE Disposable Bailers are a quick and cheap way of capturing samples from wells from 1-inch and more. They are manufactured from hallmarked HDPE and weighted for ease of use.

Diameter	Volume	Length	Quantity per pack
19 mm	200 ml	95 cm	24
38 mm	975 ml	98 cm	24
Accessories: VOC Tip – GTVOC19 & GTVOC38			

Stainless-Steel Bailers

Manufactured of stainless steel this ecologically sound bailer is completely re-useable as it is easy to de-contaminate. Strong and weighted to sink quickly. In the long term this represents excellent value and is better for the environment.

Diameter	Volume	Length
22 mm	230 ml	93 cm
42 mm	1000 ml	93 cm
Accessories:		

Emptying Device – R81050045 & R81050048 Stainless Steel VOC Sampler – R81050046 & R81050047



Submersible Gigant Pumps

An impeller type pump designed to fit groundwater monitoring wells with a minimum of 40 mm diameter.



- Low cost, centrifugal submersible pump
- Fits a 40mm well
- Pumps to a height of 10m
- No risk of cross contamination
- Made from non-toxic ABS plastic, fitted with a stainless steel impeller.



Passive sampling is an environmentally friendly groundwater sampling solution. For many applications it can be better, cheaper, more accurate and can save time in the field, so it's easy to see why more and more professionals are using this technique as obtaining representative data is the holy grail of site analysis and modelling. Inaccurate data can lead to incorrect conclusions which could be very costly to land owners, users and developers.

- Passive sampling technique can:
- Significantly reduce the amount of labour needed onsite
- Reduces the volume of waste generated during a sampling cycle compared to traditional methods.
- Reduces the number of individual sampling events necessary to differentiate between shortterm and long-term variability
- Be valid for most analytes, under a wide range of conditions
- Greatly reduce monitoring costs, without sacrificing data quality.



Snap Sampler

The Snap Sampler seals groundwater samples down well, in bottles that can then be directly analysed in a laboratory. The sample is never exposed to the open air and collection of the sample does not require pumps, controllers, meters and purge water waste containers. It is quick and easy to collect the samples and so can save money on sample collection costs.

- A non-purge device for passive sampling techniques
- Simplified sampling process
- Works on the principle of grabbing a sample rather than diffusion
- Minimal or no disturbance of the water Collects undisturbed sample
- Less equipment, manpower and time required to collect samples
- No waste disposal of purge water
- Seals sample down well so no outside contamination of sample
- Tests for any analyte
- Collects sample from same depth for consistency of results
- Reduced time to collect each sample Samples up to 2 litres by stacking samplers Improved Health & Safety with no lifting of heavy equipment and less time in potentially hazardous environments
- Repeatable use of equipment
- Green technology
- Easy to use

Level Monitoring

To measure and monitor groundwater we offer a range of solutions from water level loggers; sonar level sensors; dip meters and high accuracy, vented water level sensors. All tested and supported by our technical team with a choice of data collection methods from manual readout to telemetry options for safe, secure, long term groundwater monitoring projects.

Dip Meters

Water Level Dip Meters designed to provide reliable and accurate measurements of groundwater level in boreholes, monitoring wells, tanks and for surface water. Highly accurate polyethylene coated steel tape marked in metric increments with mm resolution.

Options:

Type 10 on Plastic Frame Type 25 on Metal Frame Type 15 Handheld, no Frame Type 20 Mini Handheld, no Frame Depth Indicator



Atex Certified Interface Meters

To detect hydrocarbons Van Walt's ATEX Certified Interface Meter is ideal in wells and boreholes in landfill, remediation and petrochemical industries. With LNAP and DNAPL detection for monitoring groundwater and boreholes.

- ATEX certified zone 0
- Safe detection
- Simple to operate
- Portable and lightweight
- Accurate measurement
- Sealed electronics
- Narrow diameter probe for use in most wells
- Buzzer and light indicator
- Rugged, field-ready construction
- Detect hydrocarbons

Groundwater Sampling made easy & economical

Tel: +34 935 900 007 ventas@vanwalt.com



Oil Interface Meters

Highly accurate meter to detect hydrocarbons in wells and boreholes. Will detect layers as thin as 1.52 mm using a 16 mm probe so fits in a 19 mm diameter well. On contact with the product layer a solid tone and green light alarm is activated on the reel

Options: 30 m 60 mm



Loggers & Sensors



LevelSCOUT water level loggers for groundwater level monitoring incorporate the latest technology so is the leading-edge instrument for measuring and recording groundwater level and temperature.

- Latest technology that incorporates and improves on recognised groundwater data logger equipment
- Replaceable batteries that typically last 4 to 5 years
- More accurate and stable than the leading groundwater logger competitors
- Stores 50,000 records with a non-volatile memory to eliminate data loss in the event of a power failure
- Excellent value for money
- Accurate enough for surface as well as groundwater level monitoring
- Heavier than comparable water level instruments so sinks quickly
- Durable, rugged and robust
- Easy to deploy •
- Easy to use •
- Easy to connect with industry standard protocols (Modbus)
- Available in cabled or wireless versions.

Accessories:

Communication Kit - to recover collected data BaroSCOUT datalogger - compensates your groundwater readings

Aqua4Plus Control Software - easy-to-use, free control software to view the status of your sensor, monitor real time data and create flexible and powerful test sequences. **Dyneema Rope** - strong, non-stretch, light weight, floats in water, chemically inert, water resistant and highly durable.

Order online at https://www.vanwalt.com/rental/

Sonar Sensor

Water Level Sonar Sensor for contactless measurement and logging of groundwater levels. Sonar technology with data transferred direct by email. Easy to use and install in solid wells with various diameters.

- No Barometric compensation, single instrument installation
- No drift over time
- Accuracy of +/- 5mm
- Depth to approximately 20m
- Easy to use and install in solid wells with various diameters
- Simple manual check measurements can be performed
- Data can be stored and read in Excel files
- Entry level wireless telemetry option
- Excellent value for money
- Sonar technology
- Flexible measurement and upload frequency
- Easy setting, adjustment and reading with a laptop or tablet (no special training required)
- Can report data to a programmed datum
- 3 year battery life with once a week data bpolau
- Low cost replacement battery
- Easy to use software
- usb connection
- Prevents contamination problems, because there is no contact with the groundwater
- In case of data memory overflow the instrument continues measuring and the oldest measurement results will be replaced by the new results





Swiss made, high accuracy, latest generation sensors for accurate groundwater level monitoring. Compatible with Van Walt telemetry and usually supplied with 30 m of Kevlar Cable. Extreme precision and accuracy from Europe's leading manufacturer of pressure transducers.

Options:

Small Diameter Level Sensor - PR-36 XS Narrow Diameter Sensor for groundwater monitoring. in narrow wells. Accurate and completely compatible with Van Walt's range of telemetry options.

Level & Temperature Sensor - PR-36 XiW series sensor is offered with 30 m of Kevlar Cable and a Modbus Interface for compatibility with Van Walt's range of telemetry options.

CTD Sensor - PR-36 XiW CTD multi-parameter sensor. The Keller CTD is corrosion proof so delivers extreme accuracy in saline environments for level, temperature and conductivity measurements. The sensor is compatible with Van Walt's telemetry and through the sensor's Modbus interface you can connect a network of sensors.

Surface Level Sensor - PR-46 X Surface Level Sensor for accurate measurement of surface water. High precision and reliability from Europe's leading manufacturer of pressure transducers.





INW Smart Sensors

Smart Sensors from the Seametrics stable that can send instant updates. Sensors that talk to other devices, have their own memory and can compensate for interferences. Reliable, accurate information. Save valuable time maintaining and managing your data so you can focus more on interpreting the results. Compatible with Van Walt's telemetry options. Vented and unvented variations with Kevlar or Mylar cables in PU, HDE or ETFE so no stretch, high strength and chemical resistant. Sensors engineered for the most rigorous of site conditions to record data, control system operations, communicate with networked devices and measure at flexible intervals.

Options:

PT12 - Pressure & Temperature sensor for Water Level monitoring. Designed to resist the elements so the PT12 delivers accurate water level (pressure) and temperature readings in rugged environments.

PT2X - A versatile, highly accurate sensor to record water level (pressure) and temperature. An integrated datalogger that collects up to 520,000 records; easy to use software; can be connected to other sensors. Thermally compensated for volatile conditions. Therefore ideal for wells, tanks, tidal studies and any application where 'mm' accuracy is important.



Groundwater Quality Sensors & Sondes

From rugged, reliable, accurate handheld, multi-parameter water quality meters to water quality sondes; high accuracy, single parameter water quality sensors to water quality equipment for long-term groundwater applications that can be connected to telemetry for a powerful monitoring system, which is able to generate event specific alarms and control relays to switch devices on and off.

Handheld Multi-parameter Meters

Water quality meters to measure groundwater parameters such as DO (optical Dissolved Oxygen), pH, ORP, conductivity, temperature and turbidity. Designed for demanding field work the YSI series of handheld meters are some of the latest, smartest, most innovative instruments available. Designed and tested to meet the demands of true fieldwork, backed with the assurance of the YSI pedigree.

Options:

YSI PRO DSS - measure parameters like DO (optical Dissolved Oxygen), pH, ORP, conductivity, specific conductance, salinity, TDS, resistivity, chloride, nitrate, depth, temperature and turbidity, making it the best handheld available. This instrument is rugged and reliable with intelligent, user-replaceable digital sensors that can be connected to any port and that are automatically recognised by the instrument and retain the calibration data. With optional GPS and depth the YSI ProDSS is completely customisable.

YSI PRO Plus - offers extreme flexibility. To measure and monitor a variety of groundwater quality parameters including specific conductance, salinity, resistivity and total dissolved solids (TDS). Also a very powerful lab instrument for BODs, pH and ORP. Rated to IP-67 standards with military spec connectors.





Single Parameter Sensors

Research grade Seametrics Smart Water Quality Sensors to measure Turbidity, Temperature, Dissolved Oxygen, pH and Redox. Compatible with Van Walt 's range of telemetry options for accuracy, stability, robustness, measuring ranges up to 200 m and multipoint calibration for pressure and temperature.

Options:

CT2X Pressure & Temperature Sensor

- research grade sensor that measures conductivity, total dissolved solids and temperature with built-in datalogging that collects up to 349,000 records.

TempHion Sensor - A submersible, high accuracy water quality sensor with integrated datalogger to measure pH, ORP and temperature.

Turbo Sensor - Measures a wide range of NTUs so makes it a versatile, high accuracy water quality logger. Capable of deployment at many different sites. So with a built in datalogger and software, the Turbo measures up to 3,000 NTUs.

DO₂ Sensor - Next generation in trouble-free oxygen sensing design. It utilises fluorescence of a stable, immobilised ruthenium-based film matrix. So this DO2 sensor provides precision optical transmission and detection to measure oxygen concentration in a fluid

Multi-parameter Sondes

Multi-parameter water quality sondes for longer-term deployment to measure groundwater parameters such as DO (optical Dissolved Oxygen), pH, ORP, conductivity, temperature and turbidity. Cost-effective multiprobe sensors provide wireless data collection when used with Van Walt's telemetry options. Interchangeable sensors, replace multiple instruments so saves time in the field and reduces overall monitoring costs.

Options:

YSI EXO Sonde - a high accuracy water quality monitoring platform. Measures & logs: pH, EC, Temperature, Redox, DO & Turbidity simultaneously. When connected to telemetry, it will also report water level. So is the ideal instrument for many applications. With a host of features including: Wet mateable connectors, titanium electrodes and calibration data stored in the electrodes so spares can be pre-calibrated and exchanged on site without the necessity of returning the entire unit back to base for recalibration.

Aqua TROLL 500 Multiparameter Sonde -

Can be configured to monitor multiple parameters; wet-mateable, interchangeable sensors. Antifouling wiper cleans all sensors for higher quality data in long-term deployments Compatible with Van Walt's telemetry options. LCD display gives a snapshot of instruments health and wireless connectivity. Corrosionresistant housing and abrasion-resistant RDO sensor. Accurate, reliable, high-quality data at competitive price point.





Van Walt Groundwater Monitoring Equipment

Groundwater is our business. Our carefully selected equipment to monitor, measure and collect groundwater data is best in class, constantly upgraded and the range extended.

You can buy, rent or access most of this equipment via our Logger for Life service: rental equipment for the duration of your project - from 6 months to 5 years, for a monthly fee. Equipment that has been checked, verified & calibrated for accuracy. A cost-effective solution to acquire equipment with no capital outlay and access to uninterrupted data secured with agreed SLAs.



Welcome to my.vanwalt.com

Are you taking advantage of the substantial savings you could make by ordering your consumables, like tubing and buffer solutions, and booking rentals, online?

Substantial discounts apply to orders received via <u>https://my.vanwalt.com/</u>.

Registration is quick and easy but if you need help please call us on 01428 661 660.

Other Equipment Brochures

Data Collection Soil Research Soil Moisture



Contact Details



TEL:+44(0)1428661660 sales@vanwalt.com

TEL: + 34 93 590 00 07 ventas@vanwalt.com



TEL: +64(0)34435326 salesnz@vanwalt.com

www.vanwalt.com