

THE WATER CATALOGUE



**SPECIALIST MANUFACTURERS OF ENVIRONMENTAL
ANALYSIS AND MONITORING EQUIPMENT**



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INTRODUCTION

Our mission is to develop, manufacture and supply unique and innovative customer solutions for environmental monitoring and analysis.

Whether deep in the bush of Africa, or in the midst of the urban jungle of global cities, clean water is the most fundamental of human needs. Poverty, war and natural disasters have shown us that even in the 21st Century; contaminated water can affect any one of us.

Governments, charities and NGOs see water quality monitoring as a vital part of both routine tests and disaster relief, including microbiological, physical and chemical parameters.

The Aquasafe® and Hydro products, with our extended equipment range, offer solutions for basic, intermediate and advanced water testing laboratories, with full training and installation where required.

In addition to portable and fixed sites, Wagtech Projects Ltd can offer mobile laboratory solutions to fit your exact requirements.

“Access to safe water is a fundamental human need and therefore a basic human right”

Kofi Annan – Former Secretary General, United Nations



What type
of testing?

COMBINED
Physico-Chemical
+ Microbiological

MICRO-
BIOLOGICAL

Advanced
Long-Term
Monitoring

Intermediate
Low-Budget
Testing

Emergency
Rapid
Response
Testing

Plates and
dipslides

Plates only

WSL50 PRO

WSL25 PLUS

WSL20

AQUAFLEX®

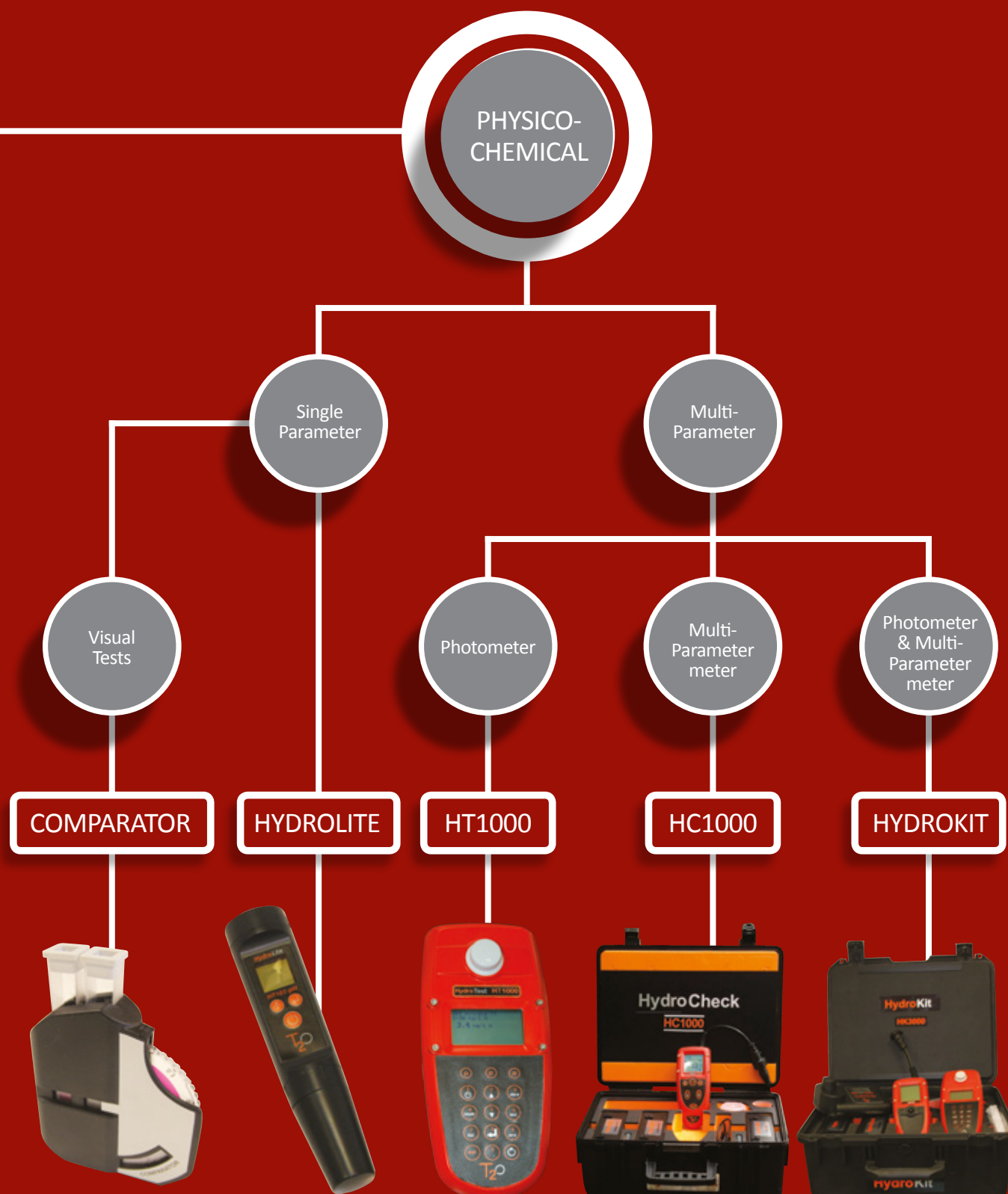
MSL25/50





How to choose your portable testing kit

This simple to use guide will help you find the perfect kit for your exact requirements. Please contact us should you need any help with your specific needs.





Kit overview

COMBINED



COMBINED
Physico-Chemical
+ Microbiological

For the user that needs to test the microbiological, physical and chemical status of a water sample, these easy to use AquaSafe® kits are provided in a single hard wearing case, giving excellent and accurate results with minimal training.

- ⊙ Kits include all necessary accessories and consumables to get started
- ⊙ Digital and non-digital options available to suit all requirements
- ⊙ Designed for complete portability OR use in a field laboratory
- ⊙ Functional during transit for maximum efficiency
- ⊙ See pages 8 to 19

MICROBIOLOGICAL



MICRO-
BIOLOGICAL

Where only microbiological conditions are important, or of interest, the AquaSafe® and AquaFlex® products offer testing of a broad range of micro-organisms. These portable solutions use membrane, Nutridisk or dipslide testing technology to suit all applications and user choices and are completely portable to give greatest flexibility.

- ⊙ Membrane filtration or dipslide options
- ⊙ Test for multiple organisms through selective media
- ⊙ Completely portable
- ⊙ Docking station technology gives maximum flexibility
- ⊙ See pages 20 to 23



PHYSICO-CHEMICAL

PHYSICO-CHEMICAL



When the microbiological status of the water isn't in question, but a flexible physico-chemical solution is needed, these kits provide a wide range of capabilities to suit any testing regimen. Ranging from simple visual tests to complex digital solutions, these carefully considered kits are perfect, and can be designed to fit any requirement.

- ⦿ Wide chemical testing capabilities
- ⦿ Visual and digital solutions
- ⦿ Completely portable
- ⦿ See pages 24 to 45

REAGENTS AND CONSUMABLES

Reagents/ Consumables



While all kits are provided with the necessary consumables to work “out of the box”, additional consumables are available to top up, or expand your kit as required.

We offer a complete technical support and advice service, using our global office network, to help you get the most out of your kit, with the correct consumable choices.

These include:

- ⦿ Calibration solutions
- ⦿ Microbiological media
- ⦿ Buffers
- ⦿ Accessories and Spares
- ⦿ Tablet reagents
- ⦿ See pages 46 to 49



Advanced portable water testing laboratory

AQUASAFE® WSL50 PRO

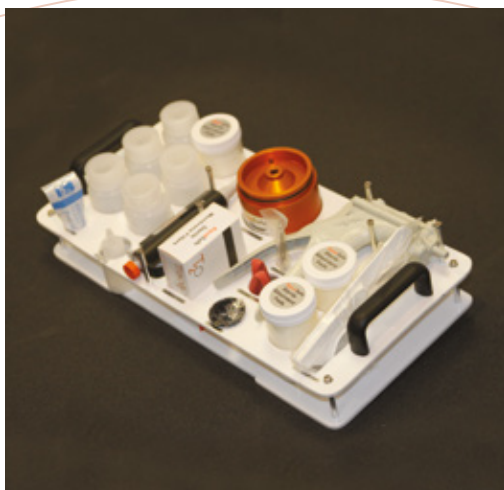
An advanced portable laboratory offering Physico-chemical AND microbiological testing in a single rugged floating case.

The Aquasafe® WSL50 PRO is the pinnacle of portable water testing kits, giving a suite of laboratory quality results in a single, easy to transport, hard wearing, waterproof, buoyant case. The high capacity dual microbiological incubator that docks simply into the case to allow easy use both in the field or in the laboratory.

- ⦿ Fully waterproof (IP68) single case with lockable lid. All items incorporated into a single case for ease of portability
- ⦿ Case floats in the event of falling in water
- ⦿ Lightweight dual incubator with independent control of both chambers through a single soft key panel. Dual chambers allow for the simultaneous identification of both total and faecal (thermotolerant) coliforms and can easily be used for other organisms
- ⦿ The number of petri-dishes used can now be varied without compromising performance through use of the PetriLok® system. This maintains stability of smaller numbers of dishes during transport
- ⦿ A high performance rechargeable battery pack is built in to the case, behind a hinged panel, allowing easy access when required
- ⦿ Inbuilt docking station for the incubator, allowing easy removal of samples when required
- ⦿ A digital and accurate photometer is included along with a multi-parameter meter for digital tests such as pH and conductivity
- ⦿ Rapid yet sensitive total arsenic detection system
- ⦿ Consumables and accessories protected by a specifically engineered rack system mounted in the case
- ⦿ Easily portable using either the carry handle or the retractable handle and wheels



DESCRIPTION	PRODUCT CODE
WSL50 Pro	WT10-100



The most advanced complete portable water testing laboratory from Wagtech Projects Ltd can be optimised for your specific application. Ask our technical team for more information on additional reagents and equipment to make your kit the perfect fit.

The kit ensures that all consumables, reagents and accessories are kept in good condition, using the specially designed storage tray, which holds everything in place for transport and use.

TECHNICAL SPECIFICATIONS

Dimensions mm	⊙ 500 x 305 x 457
Weight Kg	⊙ 20
Approvals	⊙ IP68, CE-Conformity
Test Programs	⊙ 37°C, 44°C, user defined (between 20°C and 50°C) ⊙ Adjustable 24 hour countdown timer
Timer	⊙ Adjustable ⊙ 24 Hour with build in “power loss” pause feature
Number of Incubation Chambers	⊙ 2
Max PetriDish Capacity	⊙ 50 petri-dishes
Temperature Range (incubator)	⊙ 20°C to 50°C
Temperature Resolution	⊙ 0.1°C
Temperature Stability	⊙ +/- 0.1°C
Features of the case and components	⊙ Wheeled and fully waterproof with retractable handle ⊙ In case docking station technology ⊙ Specifically designed and engineered storage tray as standard for consumables and accessories ⊙ PetriLok® technology on every petri-dish stack ⊙ Integrated pH/Conductivity meter and combined Photometer/Turbidity meter ⊙ Case floats in the event of an immersion incident
Storage Temperature	⊙ 0°C to 70°C
User Interface	⊙ 16 x 2 LCD display ⊙ 3 tactile soft keys ⊙ Audible alert
Power Supply	⊙ 12-24 V DC ⊙ Removable sealed lead acid power pack ⊙ Via integral case incubator docking station
Power Consumption	⊙ 37°C cycle at 20°C ambient ⊙ Max Power 16.1 W ⊙ Average Power 6 W ⊙ Heating Rate 0.7°C/min



PORTABLE WATER TESTING KIT – COMBINED

WAGTECH PROJECTS





COMPONENTS, ACCESSORIES AND CONSUMABLES INCLUDED IN YOUR KIT

Microbiological Testing	<ul style="list-style-type: none"> ⊙ Membrane filtration system for precise cfu counts ⊙ 5 m lanyard for sample collection ⊙ Hand powered vacuum pump ⊙ Dual chamber incubator with independently controlled chambers with complete programmability of temperatures between 20°C and 50°C. ⊙ Audible alerts ⊙ LCD display of time, temperature and other variables ⊙ Tactile soft buttons ⊙ Easy user calibration ⊙ 50 reusable petri-dish capacity ⊙ In-case incubator docking station technology
Photometric Testing	<ul style="list-style-type: none"> ⊙ IP68 rated photometer (HydroTest HT1000) for over 40 different chemical tests ⊙ Dilution kit for high concentration samples
Electrochemical Testing	<ul style="list-style-type: none"> ⊙ IP68 rated multiparameter meter (HydroCheck HC1000) with pH/EC and temperature probes supplied as standard ⊙ Calibration solutions supplied as standard ⊙ Dissolved Oxygen (DO) and ISE measurement available
Consumables	<p>Kit comes complete with:</p> <ul style="list-style-type: none"> ⊙ 6 x Sterile membrane lauryl sulphate broth (MLSB) sachets for 300 coliform tests ⊙ 300 high sterile quality pads and membranes ⊙ Field dechlorination kit ⊙ Methanol (subject to shipping regulations) as standard ⊙ Reagents for 300 tests of each of <ul style="list-style-type: none"> ⊙ Ammonia ⊙ Total arsenic ⊙ Free chlorine ⊙ Total chlorine ⊙ Nitrate ⊙ Nitrite ⊙ Other chemical tests available – see page 49 for details

For a full range of consumables - see pages 46 to 49



Intermediate portable water testing kit

AQUASAFE® WSL25 PLUS

A fully equipped water safety kit offering both physico-chemical and microbiological testing capability in a single, easy to carry, rugged case.

The lightweight Aquasafe® WSL25 PLUS is a complete but simple solution, combining digital and visual testing together for fast and accurate results.

- ⦿ A small, single case including all components of the kit, with both handle and shoulder strap, capable of floating in the event of falling in water
- ⦿ A single incubator with complete control of the well insulated chamber through a soft key panel and digital display function
- ⦿ Adjustable temperature setting allows for the incubation of thermotolerant coliforms or many other organisms, with the use of selective media
- ⦿ The number of petri-dishes used can now be varied, without compromising performance, through use of the PetriLok® system, which maintains stability of smaller numbers of dishes during transport
- ⦿ A high performance rechargeable battery pack is built in to the case behind a hinged panel allowing easy access when required. This pack includes an inbuilt docking station for the incubator, allowing easy removal of samples when required
- ⦿ Digital pH and conductivity through 2 separate units ensures continuity of testing in the unlikely event of one unit failing
- ⦿ Visual testing capability of turbidity (using a 2 part Jackson turbidity tube with rugged threaded connector), total arsenic via a visual tube method and chlorine, nitrate, nitrite and ammonia (through use of a wheel based comparator block) is provided as standard
- ⦿ Additional chemical visual tests are available with the addition of a wheel and the appropriate reagents (see page 48 for full details)



DESCRIPTION	PRODUCT CODE
WSL25 Plus	WT10-200



A small, yet extremely rugged, case allows this water safety kit to be carried anywhere with no concerns about user fatigue or space. Once opened, the kit allows simple, accurate and efficient testing of all the key water safety parameters including pH, conductivity, chlorine, ammonia, nitrate and nitrite, total arsenic, temperature, turbidity and faecal (thermotolerant) coliforms.

TECHNICAL SPECIFICATIONS

Dimensions mm	⊙ 430 x 290 x 280
Weight Kg	⊙ 15
Approvals	⊙ IP68, CE-Conformity
Test Programs	⊙ 37°C, 44°C, user defined (between 20°C and 50°C) ⊙ Adjustable 24 hour countdown timer
Timer	⊙ Adjustable ⊙ 24 Hour with built in “power loss” pause feature
Number of Incubation Chambers	⊙ 1
Max PetriDish Capacity	⊙ 25 petri-dishes
Features of the case and components	⊙ Fully waterproof and buoyant with both handle and shoulder strap ⊙ Case floats, even when full ⊙ In-Case docking station technology ⊙ Specifically designed and engineered storage tray as standard for consumables and accessories ⊙ PetriLok® technology on every petri-dish stack ⊙ Integrated digital pocket meters for both pH and conductivity
Temperature Range (incubator)	⊙ 20°C to 50°C
Temperature Resolution	⊙ 0.1°C
Temperature Stability	⊙ +/- 0.1°C
Optimum Operation Temperature	⊙ 40°C
Storage Temperature	⊙ 0°C to 70°C
User Interface	⊙ 16 x 2 LCD display ⊙ 3 tactile soft keys ⊙ Audible alert
Power Supply	⊙ 12-24 V DC ⊙ Removable sealed lead acid power pack via integral case incubator docking station
Power Consumption	⊙ 37°C cycle at 20°C ambient ⊙ Max Power 16.1 W ⊙ Average Power 6 W ⊙ Heating Rate 0.7°C/min



PORTABLE WATER TESTING KIT – COMBINED

WAGTECH PROJECTS 4





For a full range of consumables - see pages 46 to 49



Emergency portable water testing kit

AQUASAFE® WSL20

Our simple emergency response kit is able to test for the basic water testing parameters set out by the World Health Organisation (WHO), namely pH, free chlorine, total chlorine, turbidity, temperature and faecal (thermotolerant) coliforms.

Its small, single floating case format allows easy carriage and fast deployment and can withstand the challenges of fieldwork.

- Single incubator with easy to use soft key digital controls
- Adjustable temperature setting allows for the incubation of faecal (thermotolerant) coliforms
- The number of petri-dishes used can now be varied, up to a maximum of 20, without compromising performance through use of the PetriLok® system. This maintains stability of smaller numbers of dishes during transport
- A high performance rechargeable battery pack is built in to the case behind a hinged panel allowing easy access when required. This pack includes an inbuilt docking station for the incubator, allowing easy removal of samples when required
- Chlorine, pH and turbidity all measured using familiar and reliable visual methods
- 2 Part Jackson turbidity tube with augmented threaded secure locking mechanism allowing one-handed operation

You can expand your Aquasafe® WSL20 to include conductivity testing by adding our digital pocket tester. Dissolved oxygen and digital pH also available (see page 26 for details).



DESCRIPTION	PRODUCT CODE
WSL20	WT10-300



The internal space of this Aquasafe® WSL20 emergency response kit is perfectly engineered to ensure that each component has a set location. This makes deployment and pack up quick, and simple, saving time for important testing activity. All components are kept clean, undamaged and easily accessible using the specially designed in case tray.

TECHNICAL SPECIFICATIONS

Dimensions mm	⊙ 430 x 290 x 280
Weight Kg	⊙ 15
Approvals	⊙ IP68, CE-Conformity
Test Programs	⊙ 37°C, 44°C, user defined (between 20°C and 50°C) ⊙ Adjustable 24 hour countdown timer
Timer	⊙ Adjustable ⊙ 24 Hour with built in “power loss” pause feature
Number of Incubation Chambers	⊙ 1
Max PetriDish Capacity	⊙ 20
Temperature Range (incubator)	⊙ 20°C to 50°C
Temperature Resolution	⊙ 0.1°C
Temperature Stability	⊙ +/- 0.1°C
Features of the case and components	⊙ Fully waterproof and buoyant with both handle and shoulder strap ⊙ Case floats, even when full ⊙ In-Case docking station technology ⊙ Specifically designed and engineered storage tray as standard for consumables and accessories ⊙ PetriLok® technology on every petri-dish stack ⊙ Simple robust visual testing technology for pH, chlorine (free and total) and turbidity ⊙ 2 part Jackson turbidity tube with threaded connection system
Storage Temperature	⊙ 0°C to 70°C
User Interface	⊙ 16 x 2 LCD display ⊙ 3 tactile soft keys ⊙ Audible alert
Power Supply	⊙ 12-24 V DC ⊙ Removable sealed lead acid power pack ⊙ Via integral case incubator docking station
Power Consumption	⊙ 37°C cycle at 20°C ambient ⊙ Max Power 16.1 W ⊙ Average Power 6 W ⊙ Heating Rate 0.7°C/min



PORTABLE WATER TESTING KIT – COMBINED

WAGTECH PROJECTS





COMPONENTS, ACCESSORIES AND CONSUMABLES INCLUDED IN YOUR KIT

Microbiological Testing	<ul style="list-style-type: none">⊙ Membrane filtration system for precise cfu counts⊙ 5 m lanyard for sample collection⊙ Hand powered vacuum pump⊙ Single chamber incubator with electronically controlled chambers⊙ Complete programmability of temperatures between 20°C and 50°C.⊙ Audible alerts⊙ LCD display of time, temperature and other variables⊙ Tactile soft buttons⊙ Easy user calibration⊙ 20 reusable petri-dish capacity⊙ In-case incubator docking station technology
Visual Testing	<ul style="list-style-type: none">⊙ Rugged 2 part turbidity Jackson tube with threaded locking mechanism to ensure stability and allowing one-handed operation⊙ Block tester for both chlorine and pH
Consumables	<p>Kit comes complete with:</p> <ul style="list-style-type: none">⊙ 6 x Sterile membrane lauryl sulphate broth (MLSB) sachets for 300 coliform tests⊙ 300 high quality sterile pads and membranes⊙ Field dechlorination kit⊙ Methanol (subject to shipping regulations) as standard⊙ Reagents for 300 tests of each of<ul style="list-style-type: none">⊙ Free chlorine⊙ Total chlorine⊙ pH (Phenol Red)⊙ Other chemical tests available via comparator wheel technology, see page 48 for details

For a full range of consumables - see pages 46 to 49



Flexible portable microbiology laboratory

AQUAFLEX®

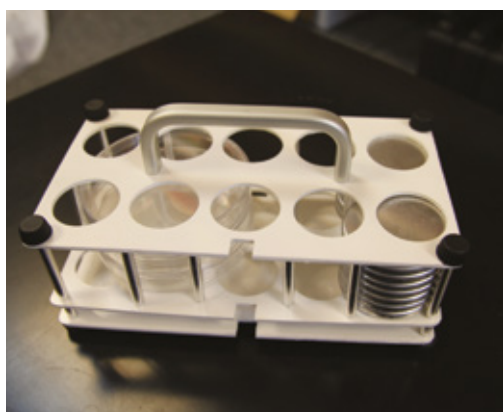
This flexible microbiological testing kit uses both petri dishes and dip slides so a wider range of organisms can be detected. Small enough to use in the field and accurate enough to work in a laboratory environment, this system gives ease of use to any testing program.

The integrated Flexi-Frame can be used to incubate dishes from a membrane filtration test, agar plates or even dip slides, all at the same time.

- Small but spacious incubator chamber for multiple samples
- Simple programmability using soft keys to ensure maximum control of your test
- Flexi-Frame allows simultaneous testing of dishes and slides giving a wider biological reach in a shorter timescale
- Rugged Aquaflex® Transit Power Pack (TPP) available as an option giving portability into any environment, independent from the laboratory
- Fan assisted heating elements ensure an even temperature throughout the chamber
- Complete with vacuum filtration unit, 50 aluminium petri-dishes and sufficient consumables for 300 coliform tests using the membrane filtration method
- A single rugged carry case provided as standard (Excludes TPP)



DESCRIPTION	PRODUCT CODE
Aquaflex®	WT10-400
Transit Power Pack	WT10-410





Detectable organisms via dipslide include (pack of 10 tests):

DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
Total Coliforms	WT10-800	Faecal (Thermotolerant) Coliforms	WT10-802
Total Plate Count	WT10-804	Escherichia coli	WT10-806
Pseudomonas CFC	WT10-808	Listeria	WT10-810
Enterobacteriaceae	WT10-812	Fungus	WT10-814
Lactobacilli	WT10-816	Yeasts and Moulds	WT10-818
Lactic acid bacteria	WT10-820	Staphylococci	WT10-822

Other organisms detectable with the appropriate selective media

TECHNICAL SPECIFICATIONS

Microbiological Testing	<p>A complete microbiological kit including</p> <ul style="list-style-type: none"> Lightweight sterilisable membrane aluminum filtration unit as standard Integrated sample cup Hand operated vacuum pump and rubber tubing 50 aluminum petri-dishes Consumables for 300 tests of coliform testing via membrane filtration <ul style="list-style-type: none"> Single sterile wrapped gridded 0.45 µm membranes Sterile pads Sterile sachets of membrane lauryl sulphate broth (MLSB) Field dechlorination sachets Methanol (subject to shipping regulations)
Incubator	<p>A robust incubator comprising of</p> <ul style="list-style-type: none"> Single chamber incubator with timer control Variable 20°C to 50°C range (ambient +5°C) Fan assisted heating elements 16 Bit backlit LCD display Membrane push button keypad External status LEDs Integrated Aquasafe® Flexi-Frame Dimensions mm 246 x 215 x 162 Weight 1.7 Kg
Transit Power Pack (TPP)	<ul style="list-style-type: none"> 12 V 12 Ah sealed lead acid battery 30W, 144Wh output Non-spillable and in conformance with IATA regulations Visual power indicator with push-to-test button IP67-rated waterproof case
Dimensions mm	487 x 336 x 229 Primary Kit/300 x 249 x 196 Aquasafe® Transit power pack
Weight Kg	11 - Aquaflex® Unit, 3 - Aquaflex® Transit power pack
Approvals	IP68, CE conformity
Features of the case and its components	<ul style="list-style-type: none"> Operating temperature completely programmable between 20°C and 50°C External LEDs indicate the status of operation of the closed unit Fan assisted incubator gives a uniform thermal profile in the chamber Integral Aquasafe® Flexi-Frame system Housed in a rugged waterproof carry case

For a full range of consumables - see pages 46 to 49



Dedicated portable microbiology kits

AQUASAFE® MSL50

This dedicated microbiological kit allows easy and portable incubation of your samples through a dual incubator unit. Two efficient independently controlled chambers allow discrete testing of 2 organisms, for example faecal (thermotolerant) and total coliforms, simultaneously.

- ⦿ IP68 waterproof buoyant carry case
- ⦿ High performance removable and rechargeable power pack integrated into the case
- ⦿ Docking station technology allows switching between in-case and bench top operation quickly and easily
- ⦿ Lightweight dual incubator incorporating PetriLok® technology to ensure complete sample stability
- ⦿ Wheeled case with retractable handle allows for simple portability in any situation with the minimum of user fatigue
- ⦿ Dedicated engineered storage tray ensures all consumables and accessories are organised and kept in good condition within the kit



DESCRIPTION	PRODUCT CODE
MSL50	WT10-500

AQUASAFE® MSL25

A compact yet rugged simple kit dedicated to microbiological testing in the field. The single chamber dockable incubator fits into the small case, along with all the necessary accessories and consumables, using a specially designed storage tray. This keeps them safe from damage or loss.

- ⦿ IP68 waterproof buoyant carry case
- ⦿ High performance removable and rechargeable power pack integrated into the case
- ⦿ Docking station technology allows switching between in-case and bench top operation quickly and easily
- ⦿ Lightweight single incubator incorporating PetriLok® technology to ensure complete sample stability
- ⦿ Compact case with shoulder strap provides a simple and effortless portable solution
- ⦿ Dedicated engineered storage tray ensures all consumables and accessories are organised and kept in good condition within the kit



DESCRIPTION	PRODUCT CODE
MSL25	WT10-600



TECHNICAL SPECIFICATIONS

Test programs	<ul style="list-style-type: none"> 37°C, 44°C, user defined (20°C to 50°C). Adjustable 24 hour countdown timer.
Timer	<ul style="list-style-type: none"> Adjustable 24 hours with built in 'pause on power loss' feature
No of incubation chambers	<ul style="list-style-type: none"> 2 Aquasafe® MSL50 / 1 Aquasafe® MSL25
Max petri dish capacity	<ul style="list-style-type: none"> 50 Aquasafe® MSL50 / 25 Aquasafe® MSL25
Temperature Range (incubator)	<ul style="list-style-type: none"> 20°C to 50°C
Temperature Resolution	<ul style="list-style-type: none"> 0.1°C
Temperature Stability	<ul style="list-style-type: none"> +/- 0.1°C
Dimensions mm	<ul style="list-style-type: none"> 430 x 290 x 280
Weight Kg	<ul style="list-style-type: none"> 20 Aquasafe® MSL50 / 12 Aquasafe® MSL25
Approvals	<ul style="list-style-type: none"> IP68, CE-conformity
Features of the case and its components	<ul style="list-style-type: none"> Fully waterproof and buoyant with both handle and shoulder strap Case floats, even when full In-Case docking station technology Specifically designed and engineered storage tray as standard for consumables and accessories PetriLok® technology on every petri-dish stack

For a full range of consumables - see pages 46 to 49





Visual physico-chemical tests

BASIC POOLTESTER BLOCK

When fast and easy testing of chlorine or pH levels is required, nothing could be easier than a simple pooltester method using the DPD or phenol red tablet system.

- ⦿ High quality rugged block with dual chamber chlorine/pH measurement
- ⦿ Easy integrated colour comparison chart
- ⦿ Chlorine chamber able to measure both residual (free) and total chlorine
- ⦿ Uses standard DPD1 and 3 tablets for chlorine testing and phenol red for pH testing
- ⦿ Provided in a case to avoid damage during transport and use
- ⦿ Provided with 10 tablets each of DPD1, DPD3 and phenol red

Replacement Tablets:

TEST	PRODUCT CODE
Free and total chlorine combined pack (250 tests)	WT11-118
pH (250 tests)	WT11-188



DESCRIPTION	PRODUCT CODE
Pooltester Block	WT11-100

COMPARATOR BLOCK WITH WHEELS

When a wider range of chemical tests may be required, or the flexibility to add tests at a later date is desirable, a comparator block using the wheel comparator method is a great choice.

- ⦿ Fast and simple testing of multiple chemical parameters
- ⦿ Easy to switch between tests simply by inserting a different wheel
- ⦿ Chemical reagents can be purchased separately saving money and storage space, giving maximum flexibility
- ⦿ A wide range of chemical tests available
- ⦿ Provided in a case to avoid damage during transport and use



TEST	PRODUCT CODE REAGENT	PRODUCT CODE WHEELS
Ammonia (250 tests)	WT11-110	WT12-110
Free and total chlorine combined pack (250 tests)	WT11-118	WT12-118
pH (250 tests)	WT11-188	WT12-188
Nitrate (250 tests)	WT11-174	WT12-174
Nitrite (250 tests)	WT11-176	WT12-176

For a full range of reagents - see page 48



JACKSON TURBIDITY TUBE

This simple and familiar visual test for turbidity uses a 2-part tube with our unique threaded locking mechanism ensuring that the two halves will not come apart, even during one-handed use.

This reduces the risk of breakage when taking apart the traditionally fragile tube sections for storage by reducing the likelihood of sheer forces on the joint.

- Very robust 2 section tube
- Calibrated scale integrated into the tube
- Clear identifier at the base of the tube
- Simple one handed operation possible through the threaded locking mechanism
- Measurement between 5 and 2000 NTUs
- No consumables required
- Low cost reliable visual method



DESCRIPTION	PRODUCT CODE
Jackson Turbidity Tube	WT11-300



Pocket single parameter water testing

HYDROLITE

These small, simple to use, single parameter instruments give instant and accurate results for pH, conductivity/ TDS/salinity or dissolved oxygen.

- Lightweight stick meter that literally fits in your pocket
- IP67 rated
- Simple to use controls
- Can be easily calibrated using 1, 2 or 3 points
- Automatic temperature compensation
- Auto-hold function to freeze stable readings for ease of recording



TECHNICAL SPECIFICATIONS

	RANGE	ACCURACY	RESOLUTION
HL101 Meter			
pH	-1.00 to 15.00	0.01	0.01
Temperature	0°C to 60°C	+/- 0.1°C	0.1°C
HL102 Meter			
Conductivity	0-20.00, 200.0, 2000 µs	+/- 1% F.S.	0.01, 0.1, 1 µs
TDS	0-10 ppt (max 20 ppt)	+/-1% F.S.	0.1-1 (default 0.5)
Salinity	0-10 ppt	+/-1% F.S.	0.01 ppt
HL103 Meter			
Dissolved Oxygen	0.0-20.0 mg/L (or ppm)	+/- 0.5 mg/L	0.1 mg/L
% O ₂ Saturation	0.0-200.0%	+/-10% F.S.	0.1%

OTHER SPECIFICATIONS – ALL UNITS

Hold Function	Manual or Automatic
Power Off	Manual or Automatic (8 mins from last key depression)
Reset Function	Yes
Power Requirements	2 x 1.5 V “AAA” Batteries
Battery life	Approximately 200 hours (150 hours for HL103)
Dimensions mm	185 (L) x 40 (dia)
Weight g	c.100
Rating	IP67
Electrodes	Fully replaceable

DESCRIPTION	PRODUCT CODE
HydroLite pH HL101	WT13-101
HydroLite EC HL102	WT13-102
HydroLite DO HL103	WT13-103

For a full range of consumables - see page 47





Portable multi-parameter photometer for chemical testing

HYDROTEST HT1000

A rugged and waterproof photometer with in excess of 120 pre-programmed tests across over 40 chemical parameters, from alkalinity to zinc. The HT1000 is a simple to use unit available as a kit or as a instrument only package.

- ⦿ Ergonomic design
- ⦿ Fully waterproof to IP68 conditions
- ⦿ Precision optics, including long life LEDs and highly accurate photo sensors
- ⦿ NIST traceable calibration capability if required
- ⦿ Data storage for up to 1000 data sets stored directly on the unit
- ⦿ Backlit LCD display
- ⦿ Over 120 easily accessible methods as standard
- ⦿ Measures turbidity and TSS without reagents



DESCRIPTION		PART NUMBER
Complete HT1000 Kit	A robust hard shell carry case including: <ul style="list-style-type: none">⦿ HT1000 photometer⦿ Dilution kit⦿ Brushes⦿ Tubes⦿ Manual⦿ Space within the case for a selection of tablet reagents (see pages 46 to 49 for details)	WT13-200
HT1000 unit	An HT1000 photometer in a soft material case	WT13-300



The HT1000 multi-parameter photometer offers ease of use with simple programme control with easy visualisation using its backlit LCD display, making it the perfect choice for operators of any ability. The pressure resistant protected screen and the robust IP68 enclosure ensure operation in any working environment under any field conditions.

TECHNICAL SPECIFICATIONS

User interface	<ul style="list-style-type: none"> ⊙ Backlit LCD graphical display ⊙ Touch sensitive keypad ⊙ Audible buzzer on error
Portability	<ul style="list-style-type: none"> ⊙ Lightweight handheld unit ⊙ Battery operation 4 x AA/LR6 batteries ⊙ Provided in either a hard shell carry case as a kit or a soft case as a single unit
Protection	<ul style="list-style-type: none"> ⊙ IP68 rated waterproof case ⊙ Pressure resistant screen ⊙ Hard case (in the kit version) ⊙ Chemical resistant housing
Data	<ul style="list-style-type: none"> ⊙ 1000 data sets storage on the unit ⊙ Download via IR (Requires separate Trace2o® PC-Link module, part number WT50-500) ⊙ Language capability in English, French, Spanish and Portuguese ⊙ Other languages available on request
Optical	<ul style="list-style-type: none"> ⊙ Wavelength accuracy +/- 1 nm ⊙ Wavelengths 430, 530, 560, 580, 610 and 660 nm ⊙ Accuracy 2% F.S. @20°C to 25°C ⊙ Resolution 0.005 Abs
Parameters	⊙ Over 40 parameters available (see page 31)
Approvals	⊙ CE conformity, IP68 rated
Dimensions mm	⊙ 470 x 365 x 190 (in case in kit format)
Weight Kg	⊙ 7.5 (in case in kit format)





MULTI-PARAMETER PHOTOMETER

WAGTECH PROJECTS





PARAMETERS AND REAGENTS FOR HYDROTEST HT1000 PHOTOMETER

PARAMETER	RANGE	PRODUCT CODE	
HYDROTEST® REAGENT PACKS		X 250	X 50
Alkalinity-M	0 - 200 mg/L	WT11-102	WT11-101
Alkalinity-M (HR)	0 - 500 mg/L	WT11-104	WT11-103
Alkalinity-P	0 - 300 mg/L	WT11-106	WT11-105
Aluminium	0 - 0.3 mg/L	WT11-108	WT11-107
Ammonia	0 - 1 mg/L	WT11-110	WT11-109
Boron	0 - 2 mg/L	WT11-112	WT11-111
Bromine	0 - 13 mg/L	WT11-114	WT11-113
Chloride	0 - 25 mg/L	WT11-116	WT11-115
Chlorine (free & total)	0 - 6 mg/L	WT11-118	WT11-117
Chlorine (High Ca)	0 - 6 mg/L	WT11-120	WT11-119
Chlorine (HR)	0 - 10 mg/L	WT11-122	WT11-121
Chlorine Dioxide	0 - 11 mg/L	WT11-124	WT11-123
Chromium (VI)	0 - 2 mg/L	WT11-126	WT11-125
Chromium (Total)	0 - 2 mg/L	WT11-128	WT11-127
COD (LR)	0 - 150 mg/L	WT11-130*	N/A
COD (MR)	0 - 1,500 mg/L	WT11-132*	N/A
COD (HR)	0 - 15,000 mg/L	WT11-134*	N/A
Copper	0 - 5 mg/L	WT11-136	WT11-135
Cyanide	0 - 0.5 mg/L	WT11-138	WT11-137
Cyanuric Acid	0 - 160 mg/L	WT11-140	WT11-139
Fluoride	0 - 2 mg/L	WT11-142	WT11-141
Hardness, Calcium	0 - 500 mg/L	WT11-144	WT11-143
Hardness, Calcium (HR)	0 - 900 mg/L	WT11-146	WT11-145
Hardness, Magnesium	0 - 500 mg/L	WT11-148	WT11-147
Hardness, Total	0 - 500 mg/L	WT11-150	WT11-149
Hydrazine	0 - 0.5 mg/L	WT11-152	WT11-151
Hydrogen Peroxide	0 - 3 mg/L	WT11-154	WT11-153
Iodine	0 - 3.6 mg/L	WT11-156	WT11-155
Iron (LR)	0 - 1 mg/L	WT11-158	WT11-157
Iron (LR, differentiated)	0 - 1 mg/L	WT11-160	WT11-159
Iron (MR)	0 - 5 mg/L	WT11-162	WT11-161
Iron (HR)	0 - 10 mg/L	WT11-164	WT11-163
Manganese	0 - 4 mg/L	WT11-166	WT11-165
Molybdate	0 - 50 mg/L	WT11-168	WT11-167
Monochloramine	0 - 4.5 mg/L	WT11-170	WT11-169
Nickel	0 - 10 mg/L	WT11-172	WT11-171
Nitrate	0 - 1 mg/L	WT11-174	WT11-173
Nitrite	0 - 0.5 mg/L	WT11-176	WT11-175
Oxygen, active	0 - 10 mg/L	WT11-178	WT11-177
Ozone	0 - 1 mg/L	WT11-180	WT11-179
Phosphate, ortho (LR)	0 - 4 mg/L	WT11-182	WT11-181
Phosphate, ortho (HR)	0 - 80 mg/L	WT11-184	WT11-183
pH (LR)	0 - 6.8	WT11-186	WT11-185
pH (MR)	0 - 8.4	WT11-188	WT11-187
pH (HR)	0 - 9.6	WT11-190	WT11-189
Potassium	0 - 12 mg/L	WT11-192	WT11-191
Silica	0 - 8 mg/L	WT11-194	WT11-193
Sodium Hypochlorite	0 - 16%	WT11-196	WT11-195
Sulphate	0 - 100 mg/L	WT11-198	WT11-197
Sulphide	0 - 0.5 mg/L	WT11-200	WT11-199
Sulphite	0 - 5 mg/L	WT11-202	WT11-201
Urea	0 - 2.5 mg/L	WT11-204	WT11-203
Zinc	0 - 1 mg/L	WT11-206	WT11-205

* Pack of 25



Small and lightweight portable turbidity meter

HTTURB

The turbidity, or cloudiness, of a sample is often considered to be an excellent first line assessment of water quality. The HTTurb portable turbidity meter is a simple to use method to identify water turbidity accurately and immediately at source.

High turbidity levels can be directly linked to higher risks of gastro-intestinal diseases due to the suspended particles acting as substrate on which to grow, and interfering with chlorine disinfection. In addition, these solids in the water can also protect bacteria from UV water sterilisation.



DESCRIPTION	PRODUCT CODE
HydroTest® portable turbidity meter, including <ul style="list-style-type: none">Set of turbidity standards24 mm sample vialsSample chamber lidVial cleaning clothVial cleaning brushRobust carry case	WT13-400
24 mm sample vials (pack of 5 vials)	WT13-450
Turbidity standard set	WT13-452
Sample chamber lid (spare)	WT13-454
Vial cleaning cloths (pack of 10)	WT13-456
Vial cleaning brush	WT13-458



TECHNICAL SPECIFICATIONS

Display	⊙ Backlit LCD Display
Optics	⊙ LED with temperature compensation (860nm) ⊙ Photosensor amplifier ⊙ Infra Red light
Keypad	⊙ Soft key button system ⊙ Splashproof membrane
Power	⊙ 9 V cell
Auto Off	⊙ Yes
Memory	⊙ Internal Storage for 16 data sets
Range	⊙ 0.01 – 1100 NTU
Resolution	⊙ 0.01 – 9.99 = 0.01 NTU ⊙ 10.0 – 99.9 = 0.1 NTU ⊙ 100 – 1100 = 1 NTU
Accuracy	⊙ +/- 2.5% or +/- 0.01 NTU (0-500 NTU range) ⊙ +/- 5% (500-1100 NTU range)
Dimensions mm	⊙ 180 x 85 x 70
Weight Kg	⊙ 0.3
Approvals	⊙ CE Conformity, EN ISO 7027 (by virtue of the NTU measurement)



Portable multi-parameter electrochemical testing

HYDROCHECK HC1000

A portable rugged electrochemical meter for instant and accurate determination of a range of electrochemical measurements via a multi-head probe. Capable of measurement from 3 separate probes simultaneously using a flexible cable that is extendable up to 15 metres.

Available both in a field ready kit with a hard waterproof case and accessories, or as a single unit in a soft case.

- ⦿ Rugged IP67 rated housing
- ⦿ Industrial grade sensors
- ⦿ Backlit LCD screen
- ⦿ Automatic temperature compensation
- ⦿ USB communication interface
- ⦿ 500 data set memory with real time date/time stamp
- ⦿ Capable of accurate ISE measurement with the addition of a Trace2o® ISE probe



DESCRIPTION		PART NUMBER
Complete HC1000 Kit	A robust hard shell carry case including: <ul style="list-style-type: none">⦿ HC1000 multi-parameter meter⦿ Complete set of calibration buffers<ul style="list-style-type: none">⦿ Replacements available, see page 37⦿ Beaker⦿ Manual⦿ Complete accessories pack	WT14-200
HC1000 unit	<ul style="list-style-type: none">⦿ An HC1000 photometer in a soft material case	WT14-300



TECHNICAL SPECIFICATIONS

	RANGE	ACCURACY	RESOLUTION
pH	-2.00 to 20.00	+/- 0.002	0.1/0.01/0.001
ORP	0 - +/- 1999.9 mV	+/- 0.2 mV	1 or 0.1 mV
Conductivity	0 – 200 mS/cm	+/- 0.5% F.S.	1/0.1/0.01
TDS	0-10 ppt (max 20 ppt)	+/-1% F.S.	1/0.1/0.01 ppt
Salinity	0 – 80 ppt/psu	+/- 1% F.S.	0.1 ppt
Resistivity	0 – 100 MΩ	+/- 1% F.S.	1/0.1/0.01 MΩ
Dissolved Oxygen	0.0-20.0 mg/L (or ppm)	+/- 0.2 mg/L	0.1 mg/L
% O ₂ Saturation	0.0-200.0%	+/-2% F.S.	0.1%

OTHER SPECIFICATIONS – ALL UNITS

User Interface	<ul style="list-style-type: none"> ⊙ Backlit multi-function LCD display ⊙ Touch sensitive keypad ⊙ Audible alerts
Data	<ul style="list-style-type: none"> ⊙ USB connectivity ⊙ 500 data set memory ⊙ Real time date/time stamp
Sensors	<ul style="list-style-type: none"> ⊙ Multi-sensor sonde housing ⊙ Up to 15 metre cable ⊙ Industrial grade sensors
Operation	<ul style="list-style-type: none"> ⊙ Temperature compensation 0°C to 100°C ⊙ Selectable stability ⊙ Auto-hold ⊙ Auto off with variable time setting ⊙ Electrode diagnosis ⊙ Calibration due reminder
Power	<ul style="list-style-type: none"> ⊙ 3 x AAA/LR03 batteries ⊙ USB power supply (non-recharging)
Dimensions mm	⊙ 470 x 365 x 190 (in case in kit format)
Weight Kg	⊙ 7.5 (in case in kit format)
Approvals	⊙ CE conformity, IP67 rated







A range of Ion selective electrodes are available for use with the HT1000 unit to expand the testing capability of this unit. All electrodes are supplied with the correct calibration buffer/ISAB as standard.

HYDROCHECK EQUIPMENT

DESCRIPTION	PRODUCT CODE
HydroCheck HC1000, kit form with accessories (see page 34)	WT14-200
HydroCheck HC1000, in soft case	WT14-300
ELECTROCHEMISTRY PROBES	PRODUCT CODE
Sonde attachment	WT14-401
pH electrode	WT14-402
Conductivity/TDS electrode	WT14-403
Dissolved oxygen electrode	WT14-404
Temperature probe	WT14-405
10 m probe extension cable	WT14-406
ISE PROBES	PRODUCT CODE
Ion Selective Electrode (ISE) for Ammonia	WT14-450
Ion Selective Electrode (ISE) for Ammonium	WT14-452
Ion Selective Electrode (ISE) for Barium	WT14-454
Ion Selective Electrode (ISE) for Bromide	WT14-456
Ion Selective Electrode (ISE) for Cadmium	WT14-458
Ion Selective Electrode (ISE) for Calcium	WT14-460
Ion Selective Electrode (ISE) for Chloride	WT14-462
Ion Selective Electrode (ISE) for Copper/Cupric	WT14-464
Ion Selective Electrode (ISE) for Cyanide	WT14-466
Ion Selective Electrode (ISE) for Fluoride	WT14-468
Ion Selective Electrode (ISE) for Iodide	WT14-470
Ion Selective Electrode (ISE) for Lead	WT14-472
Ion Selective Electrode (ISE) for Nitrate	WT14-474
Ion Selective Electrode (ISE) for Perchlorate	WT14-476
Ion Selective Electrode (ISE) for Potassium	WT14-478
Ion Selective Electrode (ISE) for Silver	WT14-480
Ion Selective Electrode (ISE) for Sodium	WT14-482
Ion Selective Electrode (ISE) for Sulphide	WT14-484
Ion Selective Electrode (ISE) for Thiocyanate	WT14-486
Ion Selective Electrode (ISE) for Water Hardness	WT14-488

HYDROCHECK CALIBRATION BUFFERS

DESCRIPTION	PRODUCT CODE
pH calibration solution 4.01 (60 ml)	WT14-500
pH calibration solution 7.01 (60 ml)	WT14-502
pH calibration solution 10.01 (Sachet)	WT14-504
EC calibration solution 84uS (60 ml)	WT14-506
EC calibration solution 1413uS (60 ml)	WT14-508
EC calibration solution 12880uS (60 ml)	WT14-510
DO zero point calibration solution (60 ml)	WT14-512
DO 100% (Saturation) calibration kit	WT14-514



Portable advanced multi-parameter water quality meter

MULTI-PARAMETER WATER QUALITY MONITORING METER

For when a high number of tests need to be performed simultaneously, this monitor is capable of up to 11 parameters in the field by use of its multi-probe sonde.

This instrument is simple to use, extremely rugged and easy to maintain in the field. In addition, the integrated GPS system allows identification of the exact location of testing and records this for more informative analysis.



- Easy to read backlit LCD screen with clear display even in bright conditions
- Integral GPS receiver
- Built in data logger with up to 1900 data point capacity
- USB connectivity
- Easy to use multilingual menu
- Waterproof casing (IP67)

TECHNICAL SPECIFICATION

CONTROL UNIT	
Display	80 character FSTN LCD with backlight
Data memory	1900 full datasets plus GLP data
GPS Receiver	12 Channels plus integral antenna
GPS Accuracy	+/-10 m in all 3 dimensions
Atmospheric Pressure	150 mb – 1150 mb +/- 1 mb
Languages	English, French, Spanish (German also available on request)
PC Interface	USB (cable provided)
Power	5 x AA/LR6 Batteries
Precision Class	IP67 (30 minutes at 1 m depth)
Dimensions mm	180 x 90 x 39
Weight g	450
PROBES	
Protection Class	IP68 (permanent immersion at 10 m)
Immersion Depth	Minimum 75 mm – Maximum 30 m
Dimensions mm	290 x 48
Weight g, Incl Cable	725

DESCRIPTION	PRODUCT CODE
Monitor control unit with integral GPS, batteries, USB cable, manual and software, with carry case. Probes not included	WT16-300



PROBE PARAMETER SELECTION

Conductivity	Range/Resolution	0-200 mS/cm (200,000 uS/cm)/ 3 Autorange scales
	Accuracy	+/- 1% of reading or 1 uS
Depth	Range/Resolution	0 – 30 m (0-100 Ft)/ 0.01 m (0.01 Ft)
	Accuracy	+/- 0.1 m (+/- 0.4 Ft)
Dissolved Oxygen (Galvanic)	Range/Resolution	0-500% / 0-50.00 mg/L / 0.1% / 0.01 mg/L
	Accuracy	+/- 1% of reading
Dissolved Oxygen (Optical)	Range/Resolution	0-500% / 0-50.00 mg/L / 0.1% / 0.01 mg/L
	Accuracy	+/- 1% of reading (0-200%) or +/-10% 200%+
ORP	Range/Resolution	+/- 2000 mV / 0.1 mV
	Accuracy	+/- 0.5 mV
pH	Range/Resolution	0-14 +/- 625 mV / 0.01 +/-0.1 mV
	Accuracy	0.01 +/-0.5 mV
Resistivity	Range/Resolution	5Ω cm – 1MΩ cm/2 Autorange scales
	Accuracy	+/- 1% of reading or 1Ω cm
Salinity	Range/Resolution	0 – 70 PSU/0 – 70 ppt (g/Kg)/ 0.01 PSU / 0.01 ppt
	Accuracy	+/- 1% or +/- 0.1 unit
Specific Gravity (Seawater)	Range/Resolution	0 - 50 σt/0.1 σt
	Accuracy	+/- 1.0 σt
Total Dissolved Solids	Range/Resolution	0 – 100,000 mg/L (ppm)/ 2 Autorange scales
	Accuracy	+/- 1% of reading or +/- 1 mg/L
Temperature	Range/Resolution	-5°C – 50°C (23°F to 122°F)/ 0.1°C/F
	Accuracy	+/- 0.5°C/F
Turbidity	Range/Resolution	0 – 1000 NTU/2 Autorange scales
	Accuracy	+/- 2% of autorange

	WT16-302	WT16-304	WT16-306	WT16-308	WT16-310	WT16-312	WT16-314	WT16-316
Conductivity	✓	✓	✓	✓	✓	✓		✓
Depth	✓							
DO Galvanic			✓	✓	✓	✓		✓
DO Optical	✓	✓		✓	✓	✓	✓	
ORP	✓	✓	✓	✓	✓	✓	✓	
pH	✓	✓	✓	✓	✓	✓	✓	
Resistivity	✓	✓	✓	✓	✓	✓		✓
Salinity	✓	✓	✓	✓	✓	✓		✓
Spec. Gravity	✓	✓	✓	✓	✓	✓		✓
TDS	✓	✓	✓	✓	✓	✓		✓
Temperature	✓	✓	✓	✓	✓	✓	✓	✓
Turbidity	✓	✓	✓		✓		✓	

Other probes, including ISE, Chlorophyll, Phycocyanin, Phycoerythrin, Rhodamine, Fluorescein, Refined Oil and CDOM/FDOM also available.

For a range of calibration buffers - see page 47



Combined portable physico-chemical testing

HYDROKITS

Multiple kits are an expensive and cumbersome way to test for multiple parameters in the field. The HydroKit range is designed to give a user flexibility to choose the best possible kit for purpose, from simple digital measurement to a wider range of more complex and accurate testing. All HydroKits come complete in a rugged waterproof case to ensure the safety and protection of the instruments inside.

Basic combined physico-chemical kit

HYDROKIT HK1000

The most simple of the HydroKit range offers basic water quality analysis using the pocket meters for both pH and conductivity/TDS, along with a high quality comparator block with colour wheels and reagents for ammonia, chlorine (residual and total), nitrate and nitrite. The kit also includes a 2-part Jackson turbidity tube with threaded locking for one-handed operation.

- ⊙ Simple familiar methods
- ⊙ Everything in one kit, including reagents, as standard
- ⊙ Packaged in a hard shell carry case
- ⊙ Includes the HydroLite pH and conductivity (see page 26)
- ⊙ Incorporates the Trace2o[®] comparator block and discs (see page 24)
- ⊙ Complete with 2-part Jackson tube (see page 25)



TECHNICAL SPECIFICATION

DESCRIPTION	PRODUCT CODE
HK1000	WT13-500

Case	<ul style="list-style-type: none">⊙ A single hard shell waterproof case⊙ Soft grip handle for easy carriage
Digital Testing	<ul style="list-style-type: none">⊙ Pocket pH/temperature meter⊙ Pocket EC/TDS meter
Visual Testing	<ul style="list-style-type: none">⊙ Comparator block with wheels and reagents for<ul style="list-style-type: none">⊙ Ammonia⊙ Chlorine (both residual and total chlorine)⊙ Nitrate⊙ Nitrite⊙ 2-Part Jackson turbidity Tube with threaded locking mechanism
Dimensions mm	⊙ 470 x 365 x 190
Weight Kg	⊙ 4



Intermediate combined physico-chemical kit

HYDROKIT PLUS HK2000

A mid range water quality analysis kit including 2 separate pocket meters for pH and conductivity from the HydroLite range, and a quality multi-parameter photometer (HT1000) for a broad range of chemical tests and turbidity. The waterproof carry case also contains reagent for ammonia, chlorine (residual and total), nitrate and nitrite and also calibration buffers for the pocket meters.

- ⦿ Accurate chemical testing capability
- ⦿ Digital turbidity reading
- ⦿ Includes the HydroLite pH and conductivity (see page 26)
- ⦿ Incorporates the HT1000 multi-parameter photometer (see page 28)
- ⦿ Single, hard shelled carry case for ease of carriage
- ⦿ Includes reagents for standard water quality tests



DESCRIPTION	PRODUCT CODE
HK2000	WT13-600

TECHNICAL SPECIFICATION

Case	<ul style="list-style-type: none">⦿ A single hard shell waterproof case⦿ Soft grip handle for easy carriage
Digital Testing	<ul style="list-style-type: none">⦿ Pocket pH/temperature meter⦿ Pocket EC/TDS meter⦿ Digital multiparameter photometer⦿ Digital turbidity capability
Reagents	<ul style="list-style-type: none">⦿ Tablet reagents for testing of<ul style="list-style-type: none">⦿ Ammonia⦿ Residual chlorine⦿ Total chlorine⦿ Nitrate⦿ Nitrite
Dimensions mm	⦿ 470 x 365 x 190
Weight Kg	⦿ 6

Additional reagents and accessories for further chemical tests available – see pages 47 and 48 for details



Advanced combined physico-chemical kit

HYDROKIT PRO HK3000

This high level physico-chemical kit includes both a multi-parameter photometer and multi-parameter electrochemistry meter to give enhanced accuracy in all areas of water quality testing. The kit also includes a dedicated turbidity meter for high accuracy testing in NTU and a rapid visual system for the testing of total Arsenic. A comprehensive kit for a complete field testing programme.

- ⊙ A full range of chemical tests
- ⊙ Incorporates the HT1000 multi-parameter photometer (see page 28)
- ⊙ Includes the HC1000 multi-parameter electrochemical meter (see page 34)
- ⊙ Integral HTTurb meter (see page 32)
- ⊙ Single, hard shelled carry case for ease of carriage
- ⊙ Includes reagents for standard water quality tests



DESCRIPTION	PRODUCT CODE
HK3000	WT13-700

TECHNICAL SPECIFICATION

Case	<ul style="list-style-type: none">⊙ 2 hard-shell waterproof cases⊙ Soft grip handle for easy carriage
Digital Testing	<ul style="list-style-type: none">⊙ Digital multi-parameter photometer⊙ Digital multi-parameter electrochemical meter⊙ Dedicated digital turbidity meter
Reagents	<ul style="list-style-type: none">⊙ Tablet reagents for testing of<ul style="list-style-type: none">⊙ Ammonia⊙ Residual chlorine⊙ Total chlorine⊙ Nitrate⊙ Nitrite
Visual Testing	<ul style="list-style-type: none">⊙ Rapid total arsenic
Dimensions mm	<ul style="list-style-type: none">⊙ 470 x 365 x 190
Weight Kg	<ul style="list-style-type: none">⊙ 6

Additional reagents and accessories for further chemical tests available – see pages 47 to 49 for details



Comprehensive combined physico-chemical kit

HYDROKIT ULTRA HK5000

A rapid and highly accurate trace heavy metals analyser measuring to ppb levels in the field is added to the HydroKit Pro 3000 to create this complete kit.

- ⊙ Laboratory quality testing in the field
- ⊙ Results in minutes
- ⊙ Incorporates the HT1000 multi-parameter photometer (see page 28)
- ⊙ Includes the HC1000 multi-parameter electrochemical meter (see page 34)
- ⊙ Integral HTTurb meter (see page 32)
- ⊙ Features the Metalyser® HM1000 unit (see page 50)
- ⊙ Two soft handled hard shell carry cases for ease of portability



DESCRIPTION	PRODUCT CODE
HK5000	WT13-800

TECHNICAL SPECIFICATION

Case	<ul style="list-style-type: none">⊙ A single hard shell waterproof case⊙ Soft grip handle for easy carriage
Digital Testing	<ul style="list-style-type: none">⊙ Digital multi-parameter photometer⊙ Digital multi-parameter electrochemical meter⊙ Dedicated digital turbidity meter⊙ Trace heavy metals analyser
Reagents	<ul style="list-style-type: none">⊙ Tablet reagents for testing of<ul style="list-style-type: none">⊙ Ammonia⊙ Residual chlorine⊙ Total chlorine⊙ Nitrate⊙ Nitrite
Heavy Metals	<ul style="list-style-type: none">⊙ Reagents for cadmium, lead, mercury, arsenic III, copper and zinc
Dimensions mm	<ul style="list-style-type: none">⊙ 470 x 365 x 190
Weight Kg	<ul style="list-style-type: none">⊙ 15

Additional reagents for further chemical tests available – see pages 46 to 49 for details



A full range of accessories and consumables for your HydroKit are available, ranging from buffers and tablet reagents to spares and electrodes.

HYDROKIT

KIT CONFIGURATION

DESCRIPTION	PART NUMBER
HydroKit HK1000	WT13-500
HydroKit PLUS HK2000	WT13-600
HydroKit PRO HK3000	WT13-700
HydroKit ULTRA HK5000	WT13-800

ACCESSORIES AND CONSUMABLES

DESCRIPTION	PART NUMBER
Replacement Electrode for HydroLite® pH pocket meter	WT13-111
Replacement Electrode for HydroLite® EC pocket meter	WT13-112
Replacement Electrode for HydroLite® DO pocket meter	WT13-113
Replacement pH Electrode for HydroCheck® HC1000	WT14-310
Replacement EC Electrode for HydroCheck® HC1000	WT14-320
Replacement DO Electrode for HydroCheck® HC1000	WT14-330
HydroCheck® HC1000 10m extension Cable	WT14-406
Calibration solution for pH 4.01 – 60 ml	WT14-500
Calibration solution for pH 7.00 – 60 ml	WT14-502
Calibration solution for pH 10.01 – Sachet	WT14-504
Calibration solution for EC 84uS – 60 ml	WT14-506
Calibration solution for EC 1413uS – 60 ml	WT14-508
Calibration solution for EC 12880uS – 60 ml	WT14-510
Calibration solution for DO – Zero Point – 60 ml	WT14-512
Calibration solution for DO – 100% (saturation) – 60 ml	WT14-514
24mm vials for HT1000 (pack of 5)	WT13-350
16mm vials for HT1000 (pack of 5)	WT13-352
13mm vial adaptor	WT13-354
Vial cleaning cloths (pack of 10)	WT13-456
Vial cleaning brush	WT13-458
Crushing rods for tablet reagents (pack of 5)	WT13-356
Photometer verification standards (set)	WT13-358
24mm vials for HTTurb Turbidimeter (pack of 5)	WT13-450
Set of turbidity standards	WT13-452

For tablet reagents for the HT1000 - see page 48 for details





A complete range of refill media, membranes and spares

MICROBIOLOGICAL CONSUMABLES AND ACCESSORIES

All the Aquasafe® kits come complete with a full range of consumables for immediate out of the box use. Replacement refill reagents are readily available.

Also, to complement the wide range of testing and measurement equipment available, Wagtech Projects offers a full range of consumables, reagents and accessories to ensure efficient and uninterrupted microbiological testing.

- ⊙ Complete range of replacement reagents and consumables
- ⊙ Full spares listing
- ⊙ Other microbiological media available on request for alternative organisms
 - ⊙ Broth
 - ⊙ Dipslides



DESCRIPTION	PART NUMBER
Microbiological consumables pack (300 tests):	WT10-700
⊙ 300 gridded 0.45 µm 47 mm sterile single wrapped membrane filters	
⊙ 300 47 mm sterile absorbent pads (in tubes of 100 pads)	
⊙ 6 sachets of MLSB media (50 tests per sachet)	
Sterile single wrapped 0.45 µm 47 mm membrane filters (300 pack)	WT10-702
Sterile 47 mm absorbent pads (3 x 100 pack)	WT10-704
Pad Dispensers (pack of 2)	WT10-706
MLSB Sachets (pack of 6) for 300 tests	WT10-708
Sterile media bottles (100 ml) pack of 6 bottles	WT10-710
Dechlorination kit	WT10-712
Lubrication grease (30 ml)	WT10-714
Reusable aluminium petri dishes (pack of 50)	WT10-716
PetriLok® system (lid plus dish frame) – 1 set	WT10-718
5 m Lanyard cable with clip	WT10-720
Padlock for securing the kit lid	WT10-722
Collection cup	WT10-724
Set of forceps/tweezers (1 set)	WT10-726
Hand magnifier (x 10 lens)	WT10-728
1000 µl (1 ml) variable pipette	WT10-730
1000 µl pipette tips	WT10-732
Methanol dropper bottle (empty)	WT10-734
Methanol, 30 ml (pack of 10) (May be subject to additional dangerous goods charges, advisable at point of quotation)	WT10-736
Complete membrane filtration unit with gaskets and glass discs	WT10-738
Set of 2 gaskets for the membrane filtration unit	WT10-740
Glass disc for membrane filtration unit	WT10-742
Set of 2 O-rings for membrane filtration unit	WT10-744
Hand pump and tubing for membrane filtration unit	WT10-746

Additional consumables are also available, contact info@wagtechprojects.com for any enquiries.



Expand the chemical testing capability of your kit

CHEMICAL REAGENTS AND CONSUMABLES

Your Wagtech Projects kit has such a wide testing capability that it would be impossible to include all reagents and tablets in a standard kit.

Over 40 different chemical parameters can be tested without any extra equipment, just by adding your chosen tablet reagents.

Calibration is simple with the range of buffers and standards available from the range.



- Refill your kit and avoid down time
- A full set of buffers and standards
- Over 40 different chemical parameters
- Simple to expand your kit
- Cheaply and easily customise your testing requirements

DESCRIPTION	PART NUMBER
Calibration solution for pH 4.01 – 60 ml	WT14-500
Calibration solution for pH 7.00 – 60 ml	WT14-502
Calibration solution for pH 10.01 – Sachet	WT14-504
Calibration solution for EC 84uS – 60 ml	WT14-506
Calibration solution for EC 1413uS – 60 ml	WT14-508
Calibration solution for EC 12880uS – 60 ml	WT14-510
Calibration solution for DO – Zero Point – 60 ml	WT14-512
Calibration solution for DO – 100% (saturation) – 60 ml	WT14-514
24 mm vials for HT1000 (pack of 5)	WT13-350
16 mm vials for HT1000 (pack of 5)	WT13-352
13 mm vial adaptor	WT13-354
Vial cleaning cloths (pack of 10)	WT13-456
Vial cleaning brush	WT13-458
Crushing rods for tablet reagents (pack of 5)	WT13-356
Photometer verification standards (set)	WT13-358
24 mm vials for HTTurb Turbidimeter (pack of 5)	WT13-450
Set of turbidity standards	WT13-452
Methanol dropper bottle (empty)	WT10-734



PARAMETERS AND REAGENTS FOR PHOTOMETER AND COMPARATOR

PARAMETER	RANGE	PRODUCT CODE		
HYDROTEST® REAGENT PACKS		X 250	X 50	COMPARATOR WHEEL**
Alkalinity-M	0 - 200 mg/L	WT11-102	WT11-101	WT12-102
Alkalinity-M (HR)	0 - 500 mg/L	WT11-104	WT11-103	WT12-104
Alkalinity-P	0 - 300 mg/L	WT11-106	WT11-105	WT12-106
Aluminium	0 - 0.3 mg/L	WT11-108	WT11-107	WT12-108
Ammonia	0 - 1 mg/L	WT11-110	WT11-109	WT12-110
Boron	0 - 2 mg/L	WT11-112	WT11-111	WT12-112
Bromine	0 - 13 mg/L	WT11-114	WT11-113	WT12-114
Chloride	0 - 25 mg/L	WT11-116	WT11-115	WT12-116
Chlorine (free & total)	0 - 6 mg/L	WT11-118	WT11-117	WT12-118
Chlorine (High Ca)	0 - 6 mg/L	WT11-120	WT11-119	WT12-120
Chlorine (HR)	0 - 10 mg/L	WT11-122	WT11-121	WT12-122
Chlorine Dioxide	0 - 11 mg/L	WT11-124	WT11-123	WT12-124
Chromium (VI)	0 - 2 mg/L	WT11-126	WT11-125	WT12-126
Chromium (Total)	0 - 2 mg/L	WT11-128	WT11-127	WT12-128
COD (LR)	0 - 150 mg/L	WT11-130*	N/A	N/A
COD (MR)	0 - 1,500 mg/L	WT11-132*	N/A	N/A
COD (HR)	0 - 15,000 mg/L	WT11-134*	N/A	N/A
Copper	0 - 5 mg/L	WT11-136	WT11-135	WT12-136
Cyanide	0 - 0.5 mg/L	WT11-138	WT11-137	WT12-138
Cyanuric Acid	0 - 160 mg/L	WT11-140	WT11-139	WT12-140
Fluoride	0 - 2 mg/L	WT11-142	WT11-141	WT12-142
Hardness, Calcium	0 - 500 mg/L	WT11-144	WT11-143	WT12-144
Hardness, Calcium (HR)	0 - 900 mg/L	WT11-146	WT11-145	WT12-146
Hardness, Magnesium	0 - 500 mg/L	WT11-148	WT11-147	WT12-148
Hardness, Total	0 - 500 mg/L	WT11-150	WT11-149	WT12-150
Hydrazine	0 - 0.5 mg/L	WT11-152	WT11-151	WT12-152
Hydrogen Peroxide	0 - 3 mg/L	WT11-154	WT11-153	WT12-154
Iodine	0 - 3.6 mg/L	WT11-156	WT11-155	WT12-156
Iron (LR)	0 - 1 mg/L	WT11-158	WT11-157	WT12-158
Iron (LR, differentiated)	0 - 1 mg/L	WT11-160	WT11-159	WT12-160
Iron (MR)	0 - 5 mg/L	WT11-162	WT11-161	WT12-162
Iron (HR)	0 - 10 mg/L	WT11-164	WT11-163	WT12-164
Manganese	0 - 4 mg/L	WT11-166	WT11-165	WT12-166
Molybdate	0 - 50 mg/L	WT11-168	WT11-167	WT12-168
Monochloramine	0 - 4.5 mg/L	WT11-170	WT11-169	WT12-170
Nickel	0 - 10 mg/L	WT11-172	WT11-171	WT12-172
Nitrate	0 - 1 mg/L	WT11-174	WT11-173	WT12-174
Nitrite	0 - 0.5 mg/L	WT11-176	WT11-175	WT12-176
Oxygen, active	0 - 10 mg/L	WT11-178	WT11-177	WT12-178
Ozone	0 - 1 mg/L	WT11-180	WT11-179	WT12-180
Phosphate, ortho (LR)	0 - 4 mg/L	WT11-182	WT11-181	WT12-182
Phosphate, ortho (HR)	0 - 80 mg/L	WT11-184	WT11-183	WT12-184
pH (LR)	0 - 6.8	WT11-186	WT11-185	WT12-186
pH (MR)	0 - 8.4	WT11-188	WT11-187	WT12-188
pH (HR)	0 - 9.6	WT11-190	WT11-189	WT12-190
Potassium	0 - 12 mg/L	WT11-192	WT11-191	WT12-192
Silica	0 - 8 mg/L	WT11-194	WT11-193	WT12-194
Sodium Hypochlorite	0 - 16%	WT11-196	WT11-195	WT12-196
Sulfate	0 - 100 mg/L	WT11-198	WT11-197	WT12-198
Sulfide	0 - 0.5 mg/L	WT11-200	WT11-199	WT12-200
Sulfite	0 - 5 mg/L	WT11-202	WT11-201	WT12-202
Urea	0 - 2.5 mg/L	WT11-204	WT11-203	WT12-204
Zinc	0 - 1 mg/L	WT11-206	WT11-205	WT12-206

* Pack of 25

**Some wheels not yet available, please contact info@wagtechprojects for details



HEAVY METALS ANALYSIS PARAMETERS AND REAGENTS

DESCRIPTION	PRODUCT CODE	PRODUCT CODE
METALYSER® COMBINED CONSUMABLES PACKS	50 TESTS	200 TESTS
Combined Consumables Pack for Cd, Pb, Cu, Zn	WT15-620	WT15-621
Combined Consumables Pack for Hg	WT15-622	WT15-623
Combined Consumables Pack for As	WT15-624	WT15-625
Combined Consumables Pack for Mn	WT15-626	WT15-627
Combined Consumables Pack for Cr (VI)	WT15-628	WT15-629
Combined Consumables Pack for Ni	WT15-630	WT15-631
Combined Consumables Pack for Bi	WT15-632	WT15-633
Combined Consumables Pack for Co	WT15-634	WT15-635
Combined Consumables Pack for Au	WT15-636	WT15-637
Combined Consumables Pack for Se	WT15-638	WT15-639
Combined Consumables Pack for Sn	WT15-640	WT15-641
Combined Consumables Pack for Tl	WT15-642	WT15-643
Combined Consumables Pack for Sb	WT15-644	WT15-645
METALOMETER COMBINED CONSUMABLES PACKS	50 TESTS	200 TESTS
Combined Consumables Pack for Al (Phot)	WT15-646	WT15-647
Combined Consumables Pack for B (Phot)	WT15-648	WT15-649
Combined Consumables Pack for Fe (Phot)	WT15-650	WT15-651
Combined Consumables Pack for Cu (Phot)	WT15-652	WT15-653
Combined Consumables Pack for Mn (Phot)	WT15-654	WT15-655
Combined Consumables Pack for Cr (VI) (Phot)	WT15-656	WT15-657
Combined Consumables Pack for Ni (Phot)	WT15-658	WT15-659
METALYSER® STARTER PACKS - 50 TESTS	PRODUCT CODE	
Starter Pack for Cd, Pb, Cu, Zn	WT15-660	
Starter Pack for Hg	WT15-661	
Starter Pack for As	WT15-662	
Starter Pack for Mn	WT15-663	
Starter Pack for Cr (VI)	WT15-664	
Starter Pack for Ni	WT15-665	
Starter Pack for Bi	WT15-666	
Starter Pack for Co	WT15-667	
Starter Pack for Au	WT15-668	
Starter Pack for Se	WT15-669	
Starter Pack for Sn	WT15-670	
Starter Pack for Tl	WT15-671	
Starter Pack for Sb	WT15-672	
METALYSER® MISC. CONSUMABLES	PRODUCT CODE	
Deionised water, 500 ml	WT15-673	
Pipette tips, 100-1000 uL (pack of 1000)	WT15-674	
Pipette tips, 10-100 uL (pack of 1000)	WT15-675	
Reference electrode fill solution, 8 ml	WT15-676	
Stirrer oil, 8 ml	WT15-677	
Polishing dish with glass platen	WT15-678	
Polishing cloths (pack of 5)	WT15-679	
Polishing slurry, 30 ml	WT15-680	
Polishing kit (dish, cloths and slurry)	WT15-681	
Concentrated Hydrochloric Acid for Total As, 150 ml	WT15-682	
Soil Extraction Consumables Kit (50 extractions)	WT15-683	
Carbon-containing electrode for Cr (VI)	WT15-684	



Accurate trace heavy metals analysis in the field

METALYSER® HM1000

Measuring heavy metals content of water, down to ppb levels, is easy with this lightweight portable system. Ten different heavy metal analyses are possible in minutes with all components housed in a single easy to carry hard shell case.

- ⊙ Fast accurate results without a PC
- ⊙ Test at site to avoid any sample degradation
- ⊙ Built in analysis software
- ⊙ High capacity logger (up to 1000 data points)
- ⊙ Transfer to PC via USB
- ⊙ Full backlit graphical LCD display



DESCRIPTION	PRODUCT CODE
HM1000	WT15-600

TECHNICAL SPECIFICATION

Portability	<ul style="list-style-type: none"> ⊙ Lightweight carry case ⊙ One handed operation
Detection Principle	<ul style="list-style-type: none"> ⊙ Stripping voltammetry
Detectable Parameters (All under WHO Guidelines)	<ul style="list-style-type: none"> ⊙ Arsenic III (5 ppb) ⊙ Arsenic (Total) (10 ppb) ⊙ Cadmium (3 ppb) ⊙ Chromium (50 ppb) ⊙ Copper (5 ppb) ⊙ Lead (5 ppb) ⊙ Manganese (5 ppb) ⊙ Mercury (5 ppb) ⊙ Nickel (10 ppb) ⊙ Zinc (5 ppb)
Unit	<ul style="list-style-type: none"> ⊙ Full graphics backlit LCD display ⊙ Rugged housing ⊙ One-handed cursor control ⊙ Built in analysis software ⊙ Operating temperature -20°C to 70°C
Dimensions mm	<ul style="list-style-type: none"> ⊙ 487 x 386 x 229 (in-case)
Weight Kg	<ul style="list-style-type: none"> ⊙ 9
Approvals	<ul style="list-style-type: none"> ⊙ IP67, CE marked

For a complete range of Metalyser® reagents, consumables and spares - see page 49



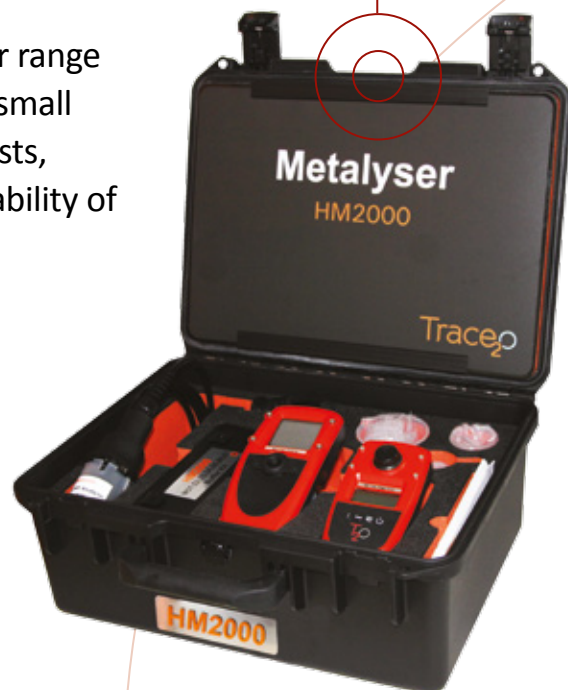


A broad trace metals field testing capability

METALYSER® HM2000

When your metals testing requires a greater range of parameters, the HM2000 adds a second small Metalometer unit allowing for additional tests, without compromising the single case portability of the kit. These combined technologies offer flexibility for heavy metal screening.

- ⊙ Up to 16 possible tests to ppm and ppb levels
- ⊙ Built in data analysis software
- ⊙ Fast accurate results without a PC
- ⊙ High capacity logger (up to 1000 data points)
- ⊙ Transfer to PC via USB
- ⊙ Full backlit graphical LCD display
- ⊙ 2 easy to carry lightweight cases



TECHNICAL SPECIFICATION

DESCRIPTION	PRODUCT CODE
HM2000	WT15-602

Portability	<ul style="list-style-type: none"> ⊙ 2 lightweight carry cases ⊙ One handed operation 	
Detection Principle	⊙ Stripping voltammetry and photometry	
Detectable Parameters (All under WHO Guidelines)	<ul style="list-style-type: none"> ⊙ Aluminium (10 ppb) ⊙ Arsenic III (5 ppb) ⊙ Arsenic (Total) (10 ppb) ⊙ Boron (100 ppb) ⊙ Cadmium (3 ppb) ⊙ Chromium (20 ppb) ⊙ Copper (5 ppb) 	<ul style="list-style-type: none"> ⊙ Iron (20 ppb) ⊙ Lead (5 ppb) ⊙ Manganese (5 ppb) ⊙ Mercury (5 ppb) ⊙ Nickel (100 ppb) ⊙ Zinc (5 ppb)
Unit	<ul style="list-style-type: none"> ⊙ Full graphics backlit LCD display ⊙ Rugged housing ⊙ One-handed cursor control (Metalyser) ⊙ Soft key pad (Metalometer) ⊙ Built in analysis software ⊙ Operating temperature -20°C to 70°C 	
Dimensions mm	⊙ 487 x 386 x 229 (in-case)	
Weight Kg	⊙ 9	
Approvals	⊙ IP67, CE marked	

For a complete range of Metalyser® reagents, consumables and spares - see page 49



The ultimate in field trace heavy metals testing

METALYSER® HM3000

The complete heavy metals testing water laboratory . . . in a case.

This heavy metals analysis laboratory comes complete with a tablet PC for in depth data manipulation in the field. This increased flexibility allows a wider testing capability to include 17 parameters with a sensitivity as low as ppb in many instances.

- ⊙ Tablet PC with dedicated software and auto-storage
- ⊙ New applications can be downloaded via GSM
- ⊙ Uses stripping voltammetry as its analysis method
- ⊙ Detection levels as low as ppb in many instances
- ⊙ Capable of accurate analysis of 17 parameters in the field (more with added Metalometer)



DESCRIPTION	PRODUCT CODE
HM3000	WT15-604

TECHNICAL SPECIFICATION

Portability	<ul style="list-style-type: none">⊙ Lightweight carry case⊙ One handed operation	
Detection Principle	<ul style="list-style-type: none">⊙ Stripping voltammetry	
Detectable Parameters (All under WHO Guidelines)	<ul style="list-style-type: none">⊙ Antimony (10 ppb)⊙ Arsenic III (1 ppb)⊙ Arsenic (Total) (10 ppb)⊙ Bismuth (10 ppb)⊙ Cadmium (1 ppb)⊙ Chromium (50 ppb)⊙ Cobalt (20 ppb)⊙ Copper (1 ppb)⊙ Gold (10 ppb)	<ul style="list-style-type: none">⊙ Lead (1 ppb)⊙ Manganese (1 ppb)⊙ Mercury (1 ppb)⊙ Nickel (10 ppb)⊙ Selenium (5 ppb)⊙ Thallium (1 ppb)⊙ Tin (10 ppb)⊙ Zinc (5 ppb)
Unit	<ul style="list-style-type: none">⊙ Tablet PC with 10.1" LED touch screen⊙ Rugged housing⊙ Built in analysis software⊙ Operating temperature -20°C to 70°C	
Dimensions mm	<ul style="list-style-type: none">⊙ 2 x cases of 487 x 386 x 229 (in-case)	
Weight Kg	<ul style="list-style-type: none">⊙ 18	
Approvals	<ul style="list-style-type: none">⊙ IP67, CE marked	

For a complete range of Metalyser® reagents, consumables and spares - see page 49



The complete trace heavy metals laboratory solution

METALYSER® HM5000

The complete professional laboratory system for heavy metals analysis, giving complete control to the laboratory, either for standard analysis or method development. This bench mounted system has a small footprint, offers the speed of the portable systems and is suitable for all research.

- ⊙ Fully programmable to allow for method development
- ⊙ Full PC control via USB or wireless connectivity
- ⊙ Metaware Benchtop graphical control software
- ⊙ Full range of scan methods
- ⊙ 17 standard methods with the capability for further tests
- ⊙ Small footprint
- ⊙ Suitable for all levels of analysis and research



DESCRIPTION	PRODUCT CODE
HM5000	WT15-606

TECHNICAL SPECIFICATION

Detection Principle	⊙ Stripping voltammetry	
Detectable Parameters (All under WHO Guidelines)	<ul style="list-style-type: none"> ⊙ Antimony (10ppb) ⊙ Arsenic III (1 ppb) ⊙ Arsenic (Total) (10 ppb) ⊙ Bismuth (10 ppb) ⊙ Cadmium (1 ppb) ⊙ Chromium (50 ppb) ⊙ Cobalt (20 ppb) ⊙ Copper (1 ppb) ⊙ Gold (10 ppb) 	<ul style="list-style-type: none"> ⊙ Lead (1 ppb) ⊙ Manganese (1 ppb) ⊙ Mercury (1 ppb) ⊙ Nickel (10 ppb) ⊙ Selenium (5 ppb) ⊙ Thallium (1 ppb) ⊙ Tin (10 ppb) ⊙ Zinc (5 ppb)
Unit	<ul style="list-style-type: none"> ⊙ PC controlled bench mounted system ⊙ Analysis software (Metaware Benchtop) ⊙ Operating temperature -20°C to 70°C 	
Dimensions mm	⊙ 370 x 200 x 210	
Weight Kg	⊙ 3.5	
Approvals	⊙ CE marked	

For a complete range of Metalyser® reagents, consumables and spares - see page 49

UV digestion made easy and portable

UV DIGESTER

When water samples have a high organic content, the value of the heavy metal content can be masked and harder to read. The UV digester breaks down this organic matter, releasing the heavy metals for analysis. Available in both a laboratory and a portable version for total flexibility.

- ⊙ Dual wavelength UV light
- ⊙ Quickly breaks down organic matter in a water sample
- ⊙ Integrated peristaltic pumping system
- ⊙ Built in timer with audible prompts
- ⊙ Sample volumes from 50 ml to 250 ml
- ⊙ Waterproof enclosure (IP67) on portable system



DESCRIPTION	PRODUCT CODE
UV digester	WT15-608
Portable power pack	WT15-609

TECHNICAL SPECIFICATION

Sample sizes	⊙ 50 ml – 250 ml
Safety	<ul style="list-style-type: none"> ⊙ UV inspection window ⊙ Safety interlock switch on lamp housing
Operation	<ul style="list-style-type: none"> ⊙ Integrated recirculating peristaltic pumping system ⊙ Built in timer ⊙ Audible alerts ⊙ Programmable digestion cycle ⊙ 185 nm/254 nm dual wavelength UV light
Case	<ul style="list-style-type: none"> ⊙ UV system completely in-built ⊙ Waterproof enclosure ⊙ Accompanying power pack (Portable version) ⊙ Push button battery status indicator on power pack
Dimensions mm	<ul style="list-style-type: none"> ⊙ Unit – 300 x 249 x 196 ⊙ Power pack – 300 x 249 x 196
Weight Kg	<ul style="list-style-type: none"> ⊙ Unit – 4 ⊙ Power pack – 7.5
Approvals	⊙ IP67, CE marked



Chemical oxygen demand determination

HTCOD

The HydroTest COD system (HTCOD) is a simple and flexible solution to measurement of this important environmental test targeting wastewater. The HTCOD includes a digestion block (requires mains electricity) to react your COD vessels, a photometer to read your samples and a complete set of reagents and accessories.

- Photometer, reactor, consumables and accessories all included
- Capable of measuring from 0 to 15,000 mg/L
- Reactor also suitable for digestion of other products in the HydroTest range
- Mercury free dichromate method



TECHNICAL SPECIFICATION

Photometer	<ul style="list-style-type: none"> 3 Preinstalled COD programmes Portable and suitable for one-handed operation Chemically resistant housing LED Light source CE Conformity, IP68 Data download via IR link or USB
Thermoreactor	<ul style="list-style-type: none"> Microprocessor controlled 24 x 16.2 mm hole aluminium block Splashproof membrane keypad Safety screen +/- 1°C temperature accuracy 220-240 V Overheat protection CE Conformity
Reagents	<ul style="list-style-type: none"> 3 ranges <ul style="list-style-type: none"> LR: 0 – 150 mg/L MR: 0 – 1500 mg/L HR: 0 – 15000 mg/L Packs of 25 tests Premeasured reagent Mercury free dichromate method

DESCRIPTION	PART NUMBER
HTCOD kit	WT13-900
COMPONENTS	
HTCOD Photometer - no case	WT13-910
HTCOD Thermoreactor - no case	WT13-920
REAGENTS	
COD LR	WT11-130
COD MR	WT11-132
COD HR	WT11-134

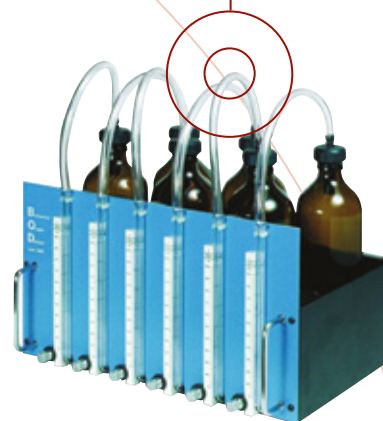


Easy to use biological oxygen demand equipment

BOD

Biological Oxygen Demand (BOD) is the amount of oxygen used by micro-organisms when they degrade organic material in a water sample and is an indication of contamination.

- ⊙ Simple manometric method
- ⊙ Visual or Electronic systems
- ⊙ Simple handling



Standard BOD System

This conventional system comprises of 6 bottles and 6 mercury capillary tubes with a constant scale up to 1000 mg/L. Maintenance free system with programmable stirrer and direct BOD reading.

System supplied complete with 6 of:

- ⊙ 500 ml amber glass bottles
- ⊙ PVC caps
- ⊙ Capillary caps
- ⊙ KOH containers
- ⊙ Scales
- ⊙ 2 ml mercury bottles
- ⊙ 35 mm magnetic stirrer bars

DESCRIPTION	PART NUMBER
Standard 6 bottle BOD system	WT15-700
Standard 6 bottle spares kit	WT15-702





ELECTRONIC BOD SYSTEM

An innovative “Bottle Cap” design makes this electronic BOD measurement system extremely simple. Simply place 2 sodium hydroxide (NaOH) tablets into the special bung. Vapour in the air reacts with the tablets to create an increase in pressure, which is then measured by the electronic cap and converted automatically to a mg/L reading.

- ⊙ Completely mercury free
- ⊙ Microprocessor controlled
- ⊙ Inductive stirring mechanism
- ⊙ 2 sizes of system to suit throughput (6 and 10)



BOD Sensor System 6	Complete package for 6 tests with stirring station, BOD sensors, amber glass bottles, alkali holders and stirring bars
BOD Sensor System 6 Wireless	As the Sensor System 6 but with an additional wireless system for instant PC data transfer
BOD Sensor System 10	Complete package for 10 tests with stirring station, BOD sensors, amber glass bottles, alkali holders and stirring bars

DESCRIPTION	PART NUMBER
BOD Sensor System 6	WT15-706
BOD Sensor System 10	WT15-708
BOD Sensor System 6 (Wireless)	WT15-710
BOD Control Tablets (pack of 8)	WT15-712

SPECIFICATION	STANDARD SENSOR SYSTEM	WIRELESS SENSOR SYSTEM
Measurement Method	Electronic Pressure Probe	
Electronic Protection	IP54	
Display	3 Digital LED Display	
Power Supply	2 x Lithium batteries	
Safety Class	3IEC 1010	
Bottle Capacity	500 ml	
Power	220-240 V, 50-60 Hz	
Weight Kg	2.3	
Dimensions mm	350 x 300 x 150	270 x 190 x 300
Data	5 BOD Values at 24 hour intervals	
Reading Value	mg/L - directly on display	
Data Transfer	Manually	Automatic (wireless)



BOD INCUBATORS

A standard BOD test requires a 5 day incubation at a constant 20 degrees. To achieve this constant and precise temperature, specially designed incubators are available to accommodate your BOD systems exactly.

The incubators are air circulated to ensure no hot or cold spots, which could affect your results.

	Dedicated 120 L	Controllable 120 L	Controllable 215 L	Controllable 120 L	Controllable 215 L
Temperature setting	20°C	3°C to 50°C	3°C to 50°C	3°C to 50°C	3°C to 50°C
Temperature homogeneity		+/- 0.5°C	+/- 0.5°C	+/- 0.5°C	+/- 0.5°C
Temp stability		+/- 0.5°C	+/- 0.5°C	+/- 0.5°C	+/- 0.5°C
Internal power sockets	Yes	Yes	Yes	Yes	Yes
No. of BOD Sensor 6 units that can fit	3	3	5	2	4
Internal transparent door	No	No	No	Yes	Yes
Power	220-240 V /50-60 Hz	220-240 V /50-60 Hz	220-240 V /50-60 Hz	220-240 V /50-60 Hz	220-240 V /50-60 Hz

These BOD incubators have been purpose built for the processing of manometric BOD systems, allowing both the System6 and System10 units to be incubated easily. Controllable units can also be used for any other application requiring stable and accurate temperature control throughout the chamber.

DESCRIPTION	PART NUMBER
Dedicated 120 L	WT15-718
Controllable 120 L	WT15-720
Controllable 215 L	WT15-722
Controllable 120 L, transparent door	WT15-724
Controllable 215 L, transparent door	WT15-726





Flocculation both in the field and in the lab

PORTABLE FLOCCULATORS

Able to run on mains power, car socket or 12 V battery, the portable flocculator was developed for optimum use in the field. Perfect for the optimisation of coagulation and polyelectrolyte via a basic jar test.

- Accepts up to 6 samples
- Multiple power supply capability
- Non-slip base
- Completely portable



TECHNICAL SPECIFICATION

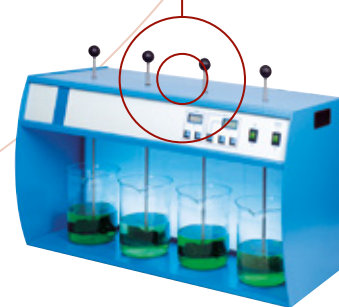
Number of Stirring Rods	4
Speed Selector	Multi-selector (settable speed for each rod)
Speed Settings	5 speeds: 20, 40, 50, 100, 200 rpm
Power Supply	100 – 240 V / 50 – 60 Hz or 12 V Battery
Weight Kg	4.8
Dimension mm	250 x 320 x 250

DESCRIPTION	PART NUMBER
Portable Flocculator	WT15-800
Carrying Case	WT15-802
Glass Beaker 100 ml	WT15-804
Plastic Beaker 100 ml	WT15-806

BENCHTOP FLOCCULATORS

Specially designed for repeatable conditions between samples and from run to run. A digital display clearly indicates the speed of the rotational stainless steel paddles, which can be varied from 10 to 300 rpm. The digital timer can be set to count down from 99 minutes or 1 to 99 hours.

- Accepts six samples
- Built in illumination for easy viewing of samples
- Two pre-set programs



SPECIFICATION	4 PLACE SYSTEM	6 PLACE SYSTEM
Dimensions mm	645 x 347 x 260	935 x 347 x 260
Weight Kg	13	17
Power W	11	19

DESCRIPTION	PART NUMBER
4 position Flocculator set speed digital display	WT15-808
6 position Flocculator set speed digital display	WT15-810
Glass Beaker 100 ml	WT15-804
Plastic Beaker 100 ml	WT15-806



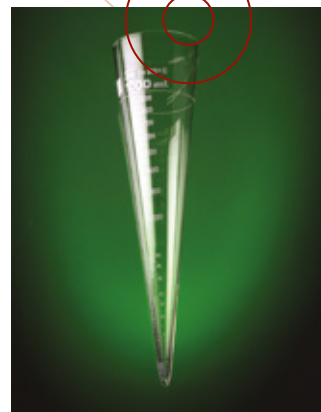
Simple visual sediment analysis

SEDIMENTATION

Sedimentation analysis is a simple method to identify the amount of suspended solids that will settle out of a specific volume of liquid sample.

PLASTIC IMHOFF SEDIMENTATION CONE

- ⊙ Transparent cone, made from tough styrene acrylonitrile
- ⊙ With moulded graduations
- ⊙ Lower part is graduated to 2 ml x 0.1, 10 ml x 0.5, 40 ml x 1, 100 ml x 50



DESCRIPTION	PART NUMBER
Imhoff sedimentation cone, plastic, 100 ml	WT15-830

GLASS IMHOFF SEDIMENTATION CONE

- ⊙ For determining the amount of sedimentation in sewage or industrial waste
- ⊙ Graduated up to 40 ml and with capacity mark at 100 ml
- ⊙ Manufactured from borosilicate glass

DESCRIPTION	PART NUMBER
Imhoff sedimentation cone, glass, 100 ml	WT15-832

IMHOFF CONE STANDS

- ⊙ Acrylic stands for mounting Imhoff cones
- ⊙ All stands have a locating recess in the base

DESCRIPTION	PART NUMBER
Cylindrical stand for 1 cone	WT15-834
Rectangular stand for 2 cones	WT15-836
Rectangular stand for 3 cones	WT15-838





Hydrocarbons in water

PORTABLE HYDROCARBON ANALYSER

This hydrocarbon analyser is designed to measure ppm levels of petroleum hydrocarbons in water and meet field monitoring requirements giving fast and accurate quantitative data.

Typical applications include site assessment, storm/waste water monitoring, leak detection, well plume monitoring, spill control and remediation.

Supplied complete with sets of 2 calibration solutions, charger, interface cable and an air/water/light tight case.

- Detects petroleum hydrocarbons directly in water
- Provides in-situ real time information
- Pays for itself with lower analysis costs
- Reduces sample collection
- Logs data for 100 samples
- Easy to calibrate
- Serial output
- Menu driven software



TECHNICAL SPECIFICATION

	VAPOUR	WATER
Range	0 – 20,000 ppm as TPH	0 – 2,000 ppm as TPH
Lower limit	<10 ppm as Xylene	<0.1 ppm as Xylene
Hydrocarbons detected	C6 and higher MW	C6 and higher MW
Accuracy	+/- 15% of reading	+/- 10% of reading
Response time (initial)	<5 seconds	<5 seconds
Response time (to 95%)	<1 minute	<5 minutes
Trend correlation	95%	98%
Display	Backlit LCD	
Memory	Data from 100 samples	
Battery life	8 hours normal operation	
Charge	12 hour charge period, AC or vehicle	
Dimensions mm	250x300x180	
Weight Kg	4.5	
Cable length mtr	30	

DESCRIPTION	PART NUMBER
Portable hydrocarbon analyser	WT15-940
Soil headspace jar	WT15-842
Pre-mixed calibration standards (20 ml) 25ppm solution	WT15-852
Pre-mixed calibration standards (20 ml) 50ppm solution	WT15-854



ACID MINING TEST KIT

This chemical test kit has been formulated for the acid mining industry to measure water which can be both acidic and alkaline, depending on metal type. The discharge water can also contain metals such as iron. The run-off water will eventually find its way to lakes and rivers, it is important to test it to make sure it doesn't pollute the environment and water reservoirs.

- ⦿ Tests for alkalinity, acidity, pH and iron
- ⦿ Less time consuming
- ⦿ Faster and more accurate results



DESCRIPTION	PART NUMBER
Acid Mining Test Kit (approx. 100 tests)	WT15-844

ECLOX – WATER PURITY TESTING KIT

Used by the armed forces throughout the world, this kit is now available for water and sanitation engineers to give a rapid indication of the toxicity present at the water source. The Eclox includes a luminometer providing identification of the toxicity of a water sample.

- ⦿ Rapid test (4 minutes)
- ⦿ Pollution incident tracking
- ⦿ Emergency pollution response kit
- ⦿ Detects chemicals from urine, faeces, phenols, amines, heavy metals, cyanide and many other toxic substances



TECHNICAL SPECIFICATION

Data Logging	⦿ Up to 60 tests recorded in full detail
Battery Life	⦿ Greater than 250 tests
Batteries	⦿ 4 x AA
Temperature	⦿ -20°C to 55°C
Weight Kg	⦿ 6.5 fully loaded
Dimensions mm	⦿ 489 x 400 x 200

DESCRIPTION	PART NUMBER
Eclox Toxicity Kit Supplied with luminometer, micropipettes, tips sampling bottles, set of 7 chemiluminescence reagents and pesticide strips	WT15-860
Set of 7 chemiluminescence reagents	WT15-862
Pack of 25 pesticide strips	WT15-864



Oil in water

HAND HELD OIL IN WATER MONITOR

Light and easy to use, this low cost instrument measures crude oil and condensates where it comes in contact with water.

This zero solvent method eliminates health and safety hazards of transporting, handling and disposing of solvents. The method removes errors associated with precision liquid measurements during the analysis process.

- Measurement range from below 1 ppm to over 1,000 ppm without dilution
- Measures dispersed (free) oil independent of water soluble organics (WSO)
- Unaffected by suspended solids
- Performance independent of process temperature
- Precision sample volume not required
- No acid or solvents required
- Complete analysis in less than 10 minutes
- Measures WSO's at pH < 2
- Measurements per battery change: > 1,000
- Meets IP67, dust-proof, waterproof, non-metallic case



DESCRIPTION	PART NUMBER
Hand held oil in water monitor	WT15-868

OIL/WATER INTERFACE METER

The Oil/Water interface probe is used to determine the thickness of hydrocarbon, in Light non-aqueous phase (LNAP) and dense non-aqueous phase (DNAP) in groundwater, and to also detect the presence of water in storage tanks.

As the probe is lowered into the liquid, a single audible buzz is heard and a green light shows. Once the probe reaches the water at the oil/water interface, a two-tone buzzer is heard and both green and red lamps show.

- Slim-line 20 mm probe
- Robust construction
- High accuracy
- Compact design



DESCRIPTION	PART NUMBER
Oil/Water interface meter 30 m	WT15-886
Oil/Water interface meter 50 m	WT15-888
Oil/Water interface meter 100 m	WT15-890
Oil/Water interface meter 200 m	WT15-892



OIL CONTENT METER

The oil content monitor is an automated portable unit for monitoring oil content in fresh water and saltwater. The one-touch monitoring process is fully automated, from sample extraction to analysis and sample expulsion.

The unit utilises an extraction solvent to ensure superior oil particle stability and infrared absorptiometry for sample analysis. Using 0 mg/L – 200 mg/L dynamic ranging, the unit is capable of analysing both high and low concentrations.

A separate dedicated solvent reclaimer can be purchased and will filter out extraction solvent. This uses no electricity and greatly reduces test costs.



TECHNICAL SPECIFICATION

Measurement Principle	⊙ Solvent extraction, NDIR analysis (infrared spectroscopy)
Measurement Range	⊙ 0 mg/L ~ 200 mg/L dynamic ranging
Resolution	⊙ 0 to 99.9 mg/L; 0.1 mg/L ⊙ 100 to 200 mg/L; 1 mg/L
Repeatability	⊙ 0 to 9.9 mg/L; +/- 0.2 mg/L +/- 1 digit ⊙ 10.0 to 99.9 mg/L; +/- 2 mg/L +/- 1 digit ⊙ 100 to 200 mg/L; +/- 4 mg/L +/- 1 digit
Measurement	⊙ Manually controlled
Calibration	⊙ One touch calibration after the calibration standard is introduced to the instrument
Extraction Solvent	⊙ S-316 solvent
Sample / Solvent Volume	⊙ 20 ml, ratio of sample to solvent is 2:1
Extraction Method	⊙ Built-in extractor for oily water samples
Display	⊙ Measured value; 3 digits LCD with backlight message; ⊙ Character display LCD with backlight (16 x 2 characters)
Functions	⊙ 300 data point memory, self-diagnostics, stable type display, interactive operation, calendar clock
Output	⊙ USB flash drive
Ambient Temperature	⊙ 0°C to 40°C
Power	⊙ 100 to 120 V AC +/- 10%, 50/60 Hz 80 VA ⊙ 200 TO 240 V AC +/- 10%, 50/60 Hz 120 VA
Dimensions mm	⊙ 200 x 315 x 342
Weight Kg	⊙ 7

DESCRIPTION	PART NUMBER
Oil content monitor	WT15-870
Extraction solvent	WT15-872
Solvent reclaimer	WT15-874



Total Kjeldahl Nitrogen (TKN) determination

KJELDAHL DIGESTION

Named after the Danish chemist who developed the method, Kjeldahl digestion is used to determine the levels of nitrates and protein in many substrates, including wastewater.

These instruments offer multiple work programmes for the simultaneous digestion of 6 or 20 samples in tubes of varying dimensions, dependant on the unit used.

- ⦿ Highly accurate and precise +/- 0.5°C
- ⦿ Heat ramp speed of 400 degrees in 30 minutes
- ⦿ RS232 Interface
- ⦿ Microprocessor controlled heat calibration
- ⦿ 6 different languages
- ⦿ 2 different units to suit your application



PART NUMBER	WT15-750	WT15-752
No. of samples	6	20
Temperature range	Ambient to 450°C	
Construction	Epoxy painted stainless steel	
Programmes	20, with 4 ramps per programme	
Durations	1 – 999 minutes	
Power	230 V 50-60 Hz	
Wattage	1100 W	2300 W
Weight Kg	10	24
Dimensions mm	293 x 152 x 339	393 x 152 x 446
OPERATING ACCESSORIES		
Suction Cap	WT15-758	WT15-764
Support System	WT15-760	WT15-766
Glassware handle with heat shields	WT15-762	WT15-768
Test Tubes 42x300 mm	WT15-754	





RECIRCULATING WATER PUMP

Designed to work with the TKN digester, this pump has 2 different timed modes ensuring optimum aspiration of fumes. It is perfect for use in areas where there is a lack of mains water pressure, or areas where high water consumption is not encouraged.

- ⦿ Recirculates water using far less than conventional aspiration pumps
- ⦿ Avoids gas pollution in the atmosphere by TKN digestion systems
- ⦿ High flow rate (35 L/min)
- ⦿ Independent from mains water supply



DESCRIPTION	PART NUMBER
Recirculating water pump	WT15-768

SCRUBBER

Used in conjunction with the recirculating water pump, neutralises corrosive and toxic fumes developing from reactions or other processes. It consists of both condensation and neutralisation stages. A third optional stage is also available for processes producing high fume levels.

- ⦿ Highly efficient neutralisation
- ⦿ Safe and practical
- ⦿ Simple condensate disposal
- ⦿ Easy replacement of neutralising solution



TECHNICAL SPECIFICATION

Construction	⦿ Epoxy painted stainless steel
Weight Kg	⦿ 3.5
Dimensions mm	⦿ 300 x 500 x 190

DESCRIPTION	PART NUMBER
Scrubber unit	WT15-770
Activated carbon filter	WT15-772
Refill for carbon pack (pack of 10)	WT15-774



Benchtop water quality meters

PH/°C/mV BENCH METER

Economical, user-friendly and accurate, the pH 700 is your ideal choice for routine applications in laboratories, production plants and schools.

- Large, easy-to-read display
- Ready indicator lets you know when readings are stable
- 5-point calibration with auto-buffer recognition
- Non-volatile memory holds up to 100 data points
- Integral electrode holder



TECHNICAL SPECIFICATION

PARAMETER	PH	ORP	TEMPERATURE
Range	-2.00 to 16.00 pH	+/- 2000 mV	0.0°C to 100.0°C
Rel. mV Range	-	+/- 2000 mV	-
Resolution	0.01 pH	0.1 mV (+/- 199.9 mV) / 1 mV (beyond)	0.1°C
Accuracy	+/- 0.01 pH	+/-0.2 mV (+/- 199.9 mV) +/- 2 mV (beyond)	+/-0.3°C
Calibration	Up to 5	-	Offset in 0.1 increments; offset range: +/-5.0°C

DESCRIPTION	PART NUMBER
pH/°C/mV bench meter	WT16-114
Replacement electrode for pH	WT16-108
Replacement temperature probe	WT16-124

ION/PH/°C BENCH METER

An intuitive, self-diagnostic and flexible instrument with advance set-up options for user-customisation.

View pH, Ion or Redox reading together with temperature, electrode status, calibration points, date and time all at once.

- Up to 6-point push button calibration with auto-buffer recognition
- Quick, easy electrode diagnosis with pH slope and offset display
- Non-volatile memory holds up to 500 data points – time and date stamped
- Bi-directional RS232 for easy data transfer to computer
- Auto-logging function for continuous monitoring



DESCRIPTION	PART NUMBER
Ion/pH/°C bench meter	WT16-120
Replacement Ion electrode	WT16-122
Replacement Temp probe	WT16-124



PH/ORP/ION/CONDUCTIVITY/TDS/SALINITY/RESISTIVITY/°C BENCH METER

All-in-one solution for multi-parameter research work in the lab. Reliable, accurate and intuitive with user-friendly functions. The meter comes with a multi-data screen that includes temperature, electrode status, calibration points, ORP, ION, conductivity, TDS, salinity, or resistivity.

- Choose auto-calibration with pre-set values for quick easy calibration, or manual multi-point calibration for greater accuracy
- Easy standardisation with auto-standardisation feature – detect the exact cell constant value of your electrodes with the press of a button
- Up to 6-point calibration with auto-buffer recognition
- Includes high performance 4-cell Conductivity probe
- Quick, easy electrode diagnosis with the effective cell constants display
- Non-volatile memory holds up to 500 data points – time and date stamped for GLP compliance
- Auto-logging function for continuous monitoring
- Limit alarm alerts when reading falls out of range
- Automatic temperature control



PARAMETER	PH	ORP	ION	CONDUCTIVITY	TDS	SALINITY	RESISTIVITY
Range	-2.000 to 20.000 pH	+/-2000.0 mV	0.001 to 19999 ppm (+/-2000 mV)	S to 500.0 mS	0.050 ppm to 500 ppt (@TDS factor 1.00)	0.0 to 80.0 ppt	2.000 Ohm to 20.0 MOhm
Rel. mV Range		+/-2000.0 mV					
Resolution	0.1 / 0.01 / 0.001 pH	0.1 mV	2 or 3 digits	S ; 0.001 / 0.01 / 0.1 mS	0.01 / 0.1 ppm; 0.001 / 0.01 ppt	0.01 / 0.1 ppm; 0.001 / 0.01 / 0.1 ppt	0.01 / 0.1 Ohm; 0.001 / 0.1 KOhm; 0.01 MOhm
Accuracy	+/-0.002 pH + 1LSD	+/-0.2	0.5% full scale (monovalent); 1% full scale (divalent)	+/- 5% full scale	+/-1% full scale	+/-1% full scale	+/-1% full scale
Calibration points	Up to 6 pre-set or 5 custom		2 to 8	Up to 5	Up to 5		

DESCRIPTION	PART NUMBER
pH/ORP/ION/Conductivity/TDS/Salinity/Resistivity Bench meter	WT16-224
Replacement ION/pH electrode	WT16-122
4 cell conductivity/ATC electrode, graphite sensor, epoxy body	WT16-226



BENCHTOP TURBIDITY METER

A highly accurate turbidity meter especially designed for water quality measurements. Meets and exceeds the requirements of USEPA and Standard Methods. The instrument is based on a state-of-the-art optical system, which guarantees accurate results, long term stability and minimises stray light and colour inferences. It also compensates for variations in intensity of LED, limiting the need for frequent calibration.



- ⦿ Multi-Range through 0-4000 NTU
- ⦿ 2, 3, 4 or 5 point calibration with supplied standards
- ⦿ Good laboratory practice (GLP) function for traceability of calibration conditions
- ⦿ User friendly graphical LCD display
- ⦿ Log up to 200 records

Range	0.00 to 9.99; 10.0 to 99.9; 100 to 4000 NTU
Resolution	0.01; 0.1; 1 NTU
Range Selection	Automatica
Accuracy	+/-2% of reading plus 0.02 NTU +/-5% of reading above 1000 NTU
Repeatability	+/-1% of reading or 0.02 NTU whichever is greater
Stray Light	< 0.02 NTU
Light Detection	Silicon Photocell
Method	Nephelometric method (90)
Measuring Mode	Normal, Average, Continuous
Turbidity Standards	<0.1, 15, 100, 750 and 2000 NTU
Calibration	2, 3, 4 or 5 point calibration
Light Source	Tungsten filament lamp
Lamp life	Greater than 100,000 readings
Display	40 x 70 mm graphic LCD (64 x 128 pixels) with backlight
Logging Memory	200 records
Serial Interface	USB
Power Supply	230 V / 50 Hz or 115 V / 60 Hz 20 W
Auto Shut-off	After 15 minutes of non-use

DESCRIPTION	PART NUMBER
Bench Turbidity Meter supplied with 5 sample cuvettes and caps, calibration cuvettes, silicone oil, cuvette wipes, power adapter and instruction manual	WT16-164
Calibration set for turbidimeter	WT16-166
Solution for cleaning cuvettes	WT16-168
Silicon oil (15 ml)	WT16-170
Tissue for wiping cuvettes	WT16-172
Glass cuvettes	WT16-174
Caps for cuvettes	WT16-176
Windows® compatible Software	WT16-178



BENCH TURBIDITY METER

WAGTECH PROJECTS





Water velocity measurement

CURRENT FLOW MONITORING

Flow is the total volume of a fluid that flows past a fixed point in a river or stream over time. It is comparable to the speed at which a volume of fluid travels. Flow can affect water chemistry and also physical changes both upstream and downstream.

FLOW MASTER

The flow master is a highly accurate low cost water velocity instrument for measuring flows in open flow channels and partially filled pipes.

The instrument has been extensively used by water professionals for over 30 years. The Flow Master consists of the protected Turbo Prop positive displacement sensor, coupled with the expandable probe handle, to the digital display. The instrument is ideal for storm water run-off studies, sewer flow measurements, measuring flows in rivers and streams, and monitoring velocity in ditches and canals.

- ⊙ Accurate and low cost
- ⊙ Lightweight and rugged
- ⊙ Debris shedding turbo prop
- ⊙ Rain proof digital readout
- ⊙ Padded carry case
- ⊙ Displays true average velocity instantaneously



TECHNICAL SPECIFICATION

Range, m/sec	⊙ 0.1-0.61
Accuracy, m/sec	⊙ 0.03
Operating Temperature, °C	⊙ -20°C to 70°C
Sensor Type	⊙ Turbo-prop propeller with magnetic pick up
Data logger	⊙ 30 sets, min, max, avg
Weight Kg	⊙ 4
Power	⊙ Internal batteries – approx. 5 year life

DESCRIPTION	PART NUMBER
Flow Master 1.0-2.0 m Pole length	WT26-102
Flow Master 1.5-4.5 m Pole length	WT26-104



ELECTROMAGNETIC FLOW METERS

This small electromagnetic flow meter has been designed specifically for use in open channels where fouling by weed or sewage can be a problem.

A high precision instrument which can be relied upon to give accurate readings ($\pm 0.5\%$ of reading plus zero stability) over a wide flow range (± 5 m/sec) in only 5cm of water. The control display unit provides a choice of averaging modes, standard deviation of the data and a logging facility of recording up to 999 averaged readings.

Two sensor types are available to suit different application requirements. One for measuring speeds in water depths of 15 cm or more and one for 5 cm or more. Both offer excellent durability, reliable accurate data and are suitable for use in clean water and dirty or difficult environments. Both instruments are calibrated to NAMAS traceable standards for speeds up to 1 m/s.

Supplied with:

- 3 m cable
- Control display unit (with logging facility),
- Wading rod set c/w 3 x 0.5 graduated rods
- Base
- Direction knob
- Operation manual
- Complete large carrying case



TECHNICAL SPECIFICATION

	CYLINDRICAL TYPE	FLAT TYPE
Range	-5 m/s to 5 m/s	-5 m/s to 5m/s
Accuracy	$\pm 0.5\%$ of reading plus 5 mm/s	$\pm 0.5\%$ of reading plus 5 mm/s
Zero Drift	± 0.004 m/s below 0.15 m/s	< 5 mm/s
Sensing Volume	Sphere of approx 12 cm diameter around sensor	Cylinder of approx 20 mm \varnothing x 10 mm high
Minimum Depth	15 cm	5 cm
DISPLAY UNIT		
Dimensions mm/Weight Kg	250 x 160 x 100/2	
Environmental	Sealed to IP67	
Power	8 x alkaline C cells, lasting for up 37 hours	
WADING SET		
Dimensions mm/Weight Kg	620 x 420 x 340/9	

DESCRIPTION	PART NUMBER
Electromagnetic Flowmeter wading set, single axis sensor (Water 15 cm>)	WT26-114
Electromagnetic Flowmeter wading set, single axis sensor (Water 5 cm>)	WT26-116



Depth and level measurement

LEVEL

Water level monitoring forms the basis of a hydrological soil examination, giving crucial hints as to the porosity of soil and the direction of the groundwater.

STAFF GAUGE

A simple fixed method of level measurement, the staff gauge clearly shows a numerical readout of at the surface of the water.

- Easy to read
- Long lifespan
- No moving parts
- No training required



DESCRIPTION	PART NUMBER
Staff Gauge (uninstalled)	WT26-117

PORTABLE ECHO SOUNDER

The portable echo sounder is a low cost single beam water depth instrument, which is used by surveyors engaged in river, lake and inshore hydrographic surveying.

The unit is sold as a complete package and includes transducer, serial leads internal battery charger and a heavy duty carrying case.

- Measures water depths down to 75 m
- Lightweight and easy to use in a small boat
- Internal memory stores data for processing
- Graphic LCD display shows depth data continuously
- Can be connected to separate GPS equipment if required



TECHNICAL SPECIFICATION

Transducer Frequency	200 KHz
Beam Spread	8-10 degrees
Depth Range	0.30 m to 75 m (software limited)
Accuracy	+/-0.025 m (RMS)
Battery Life	8-12 hours between charges
Standby Battery Life	10,000 hours
Temperature Range	0°C to 45°C
Overall Dimensions mm/Weight Kg	100 x 220 x 45/0.75

DESCRIPTION	PART NUMBER
Echo sounder with transom mount active transducer, software, serial leads, charger and rugged carry case	WT26-118



WATER LEVEL MONITOR

The water level monitor consists of a data logger with a submersible pressure transducer for remote monitoring and recording of water level, flow and pressure data.

Constructed with an acrylic coat to protect the electronics from condensation. This water testing instrument is easy to use and install and can be used in various applications such as groundwater monitoring, irrigation canals, wetlands, infiltration/inflow studies and many more.

- ⊙ Water level logger records over 81,000 readings
- ⊙ Measures water depth down to 150 m
- ⊙ Accurate water level measurements ranging from 1 m to 76 m
- ⊙ Automatic barometric pressure and temperature compensation



TECHNICAL SPECIFICATION

DATA LOGGER	
Memory	⊙ Non-volatile flash memory
Battery Life	⊙ Up to 1 year
Resolution	⊙ 12 bit
Humidity	⊙ 0-95% non-condensing
Storage Capacity	⊙ 81,759 time and date stamped data points
Enclosure mm	⊙ 48 x 292, weather resistant cylindrical enclosure
Communication	⊙ USB

DESCRIPTION	PART NUMBER
Water Level Monitor: Supplied with data logger, housed in a Weatherproof cylindrical enclosure, pressure sensor, PC software, 7.5 m of cable and 9 Vdc battery	WT26-120
Extra cable lengths per metre, up to 150 metres	WT26-122

PRESSURE TRANSDUCER	
Accuracy	⊙ +/-0.1% of full scale at constant temperature, +/-0.2%
Material	⊙ Stainless steel housing and micro screen
CABLE	
Length	⊙ Standard 7.5 (other lengths available up to 150 m)





WATER LEVEL LOGGER KITS

These water level data loggers offer high accuracy at an affordable price, with no cumbersome vent tubes or desiccants to maintain. They are ideal for recording water levels and temperatures in shallow wells, streams, lakes and freshwater wetlands.

- Available in 3 depth ranges
- No-vent-tube design for easy and reliable deployment
- Durable ceramic pressure sensor for reliable performance
- Memory: 21,700 combined pressure and temperature measurements
- Sample rate: 1 second to 18 hours, fixed or multiple-rate up to 8 user-defined sampling intervals
- 40 x 25 x 5 cm in case, weighing 3 Kilos
- Suitable for deployment in water or air; case materials resistant to fuels, solvents and lubricants
- Includes calibration certificate of accuracy in accordance with NIST-traceable standards at three pressure points distributed throughout the range



Range	0-4 m	0-9 m	0-30 m
Factory Calibrated Range (0°C to 40°C)	69 to 145 kPa	69 to 207 kPa	69 to 400 kPa
Water level Accuracy (Typical Error)	+/-0.3 cm	+/-0.5 cm	+/-1.5 cm

TECHNICAL SPECIFICATION

Resolution	0.14 cm	0.21 cm	0.41 cm
Burst Pressure	310 kPa 18 m depth	310 kPa 18 m depth	500 kPa 40.8 m depth

WATERPROOF SHUTTLE

Can be used either as a data shuffle or an optic USB Base Station and supports all Optic USB loggers.

- Outdoor or underwater data readout
- Convenient direct USB connection to host computer
- Waterproof to 20 m
- Checks and indicates its own battery status



TECHNICAL SPECIFICATION

4 MB non-volatile memory	Up to 63 loggers
Operating temperature range	0°C to 50°C
Battery Life	1-year (typical) – user-replaceable
Software	Pro software
Dimensions mm/Weight g	152 x 48/150



BASE STATION

Provides fast optical infrared (IR) communications for easy launch and read out of all pendant loggers.

- Connects via USB cable host computer while couple attaches the logger to the base station
- 180 cm cable length
- Logger offload speed – 30 seconds when full



LEVEL LOGGER KIT

Part Number	WT26-124	WT26-126	WT26-128
Logger Range	1 x logger 0-4 m	2 x loggers 0-4 m	1 x logger 0-9 m
Comms	Base station	Shuttle	Base station
Carry case	Not included	Included	Not included

Part Number	WT26-130	WT26-132	WT26-134
Logger Range	1 x 0-4 m + 1 x 0-9 m	1 x logger 0-30 m	1 x 0-4 m + 1 x 0-30 m
Comms	Shuttle	Base station	Shuttle
Carry case	Included	Not included	Included



DIPMETER

Robust, light and convenient in use. All fitted with strong tape marked in metres and centimetres wound onto a plastic coated metal frame. All have a shrouded stainless steel probe (15 mm diameter and 175 mm length).

- Audible signal on contact with water surface
- Variable sensitivity
- From 20-200 m length



DESCRIPTION	PART NUMBER
20 m tape	WT26-136
50 m tape	WT26-138
100 m tape	WT26-140
150 m tape	WT26-142
200 m tape	WT26-144



RADAR LEVEL SENSOR

The RLS is a radar level sensor for non-contact water level measurement at surface water locations. The sensor uses impulse radar technology to determine the water level. This energy-efficient, non-contact measurement method means the unit operates with no effect from temperature gradients, water pollution or sediment load and ensures exact measurements.

- ⊙ Extremely low energy consumption
- ⊙ Large power supply range
- ⊙ No requirement for mains power
- ⊙ Flat antenna construction
- ⊙ Standardised interfaces
- ⊙ Extremely flexible
- ⊙ Easily connected to loggers or remote transmission systems
- ⊙ Impulse radar technology
- ⊙ No effect from temperature gradients, pollution or sediment load

With a measurement range of up to a maximum of 35 m the RLS also allows the measurement of large ranges. It is directly above the water surface to be measured, e.g. on bridges or auxiliary constructions. It's solid, relatively light and water-proof housing is easy to install. There is no requirement for complex construction, such as stilling wells or float shafts, as the RLS determines the water level measurements in a measurement cycle that compensates for wave or other rapid water level movements



TECHNICAL SPECIFICATION

Measuring range	⊙ 0.4-35 m
Accuracy (SDI-12)	⊙ 0.4-2.0 m: ±10 mm
	⊙ 2.0-30 m: ±3 mm
	⊙ 30-35 m: ±10 mm
Average temperature coefficient	⊙ 0.01 % full scale/10 K
Measuring time	⊙ 20 seconds
Beam angle of antenna	⊙ 12°
Transmit frequency	⊙ CE Version: 24 GHz
	⊙ FCC Version: 25 GHz
Power supply	⊙ 5.4-28 V DC, typically 12/24 V DC
Dimensions mm	⊙ 222 x 152 x 190
Weight Kg	⊙ Approx. 2.1 (including Mounting)



ADVANTAGES

- ⊙ Light, compact housing
- ⊙ Easy to rotate swivel mount – easy alignment of the front plate (antenna side)
- ⊙ Sensor is away from the water, making the installation safer to achieve
- ⊙ Influence of waves are compensated mathematically – no requirement for the use of structures
- ⊙ Non-contact measurement – ideal for flood measurement
- ⊙ Compact and solid design – long sensor life with minimal maintenance
- ⊙ Flat antenna means that insect and spider infestation is not a problem
- ⊙ RS-485 interface – allows a connection cable length of up to 1,000 m, allowing data logger and power source to be situated further away
- ⊙ Perfect for channels that suffer from high levels of flotsam and sediment load
- ⊙ Ideal for areas subject to flooding (in addition to existing sensors)

Operational environment	<ul style="list-style-type: none"> ⊙ Operating temperature: -40°C to 60°C ⊙ Storage temperature: -40°C to 85°C ⊙ Relative humidity: 0-100%
Materials	<ul style="list-style-type: none"> ⊙ Housing: ASA (UV-stabilized ABS) ⊙ Radom (front plate): TFM PTFE ⊙ Mounting: 1,4301 (V2A)
Rating	<ul style="list-style-type: none"> ⊙ With horizontal mounting IP67 (submersion depth max. 1 m; submersion duration max. 48 h)
Power Consumption (at 12 V)	<ul style="list-style-type: none"> ⊙ CE version active: <15 mA ⊙ CE version sleep: <0.05 mA ⊙ FCC version active: <15 mA ⊙ FCC version sleep: <0.05 mA
Rotation range of swivel mount	<ul style="list-style-type: none"> ⊙ Lateral axis: ±90° ⊙ Longitudinal axis: ±15°
Cable gland sealing range	<ul style="list-style-type: none"> ⊙ With inlet (min. Ø - max. Ø): 4.0-7.0 mm ⊙ Without inlet (min. Ø - max. Ø): 7.0-11.0 mm

EMV LIMITS AND RADIO APPROVALS

- ⊙ Version CE: EMV for low power radio devices ETSI EN 301 489-3
- ⊙ Low-voltage device safety EN 60950-1
- ⊙ Radio approval for low power radio devices; Europe ETSI EN 300 440
- ⊙ Radio approval for low power radio devices; Canada RSS 210 Issue 7
- ⊙ FCC Version: Radio approval for low power radio devices; USA FCC 47 CFR Part 15

DESCRIPTION	PART NUMBER
Radar Level Sensor	WT26-200



Easy sampling methods

SAMPLING

When samples are required either from hard to reach places or at a certain depth of the water table, specialist sampling equipment can be necessary to ensure accurate and representative results.

SAMPLE CUP

This simple anodized aluminium cup allows the user to gain samples quickly either from easy to reach sources, or where there is a drop by use of the 5 m steel cable, attached via a carabiner clip. Perfect for samples of up to approximately 150 ml.

- ⦿ Simple and low cost
- ⦿ Anodised aluminium construction
- ⦿ Easy to use
- ⦿ Easy to clean
- ⦿ Cables can be attached in series to increase reach

DESCRIPTION	PART NUMBER
Sample cup with 5 m steel cable and carabiner	WT10-720
Additional 5 m cable and Carabiner	WT10-724

VAN DORN WATER SAMPLER

Designed for both vertical and horizontal deployment and can be used in both marine and fresh water environments. Zero internal metal parts means sampling for heavy metals analysis is possible. Visual inspection is also possible due to the clear acrylic body.

- ⦿ Clear body
- ⦿ No metal parts
- ⦿ Horizontal or vertical deployment
- ⦿ 1 L or 2 L models
- ⦿ 5 Kilos

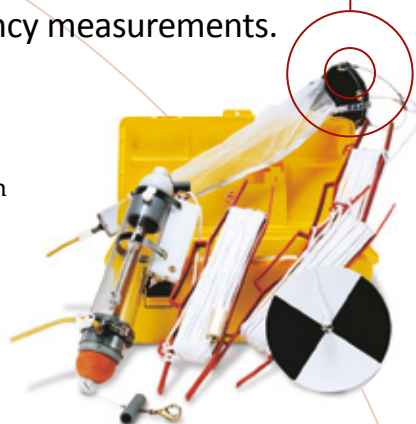


DESCRIPTION	PART NUMBER
Vertical style 1000 ml	WT26-148
Vertical style 2000 ml	WT26-150
Horizontal style 1000 ml	WT26-152
Horizontal style 2000 ml	WT26-154

WATER SAMPLER FIELD KIT

This kit offers a variety of sampling possibilities including depth sampling, zooplankton sampling and also Secchi disc transparency measurements.

- ⊙ Clear polycarbonate vertical sampler (1 L)
- ⊙ 200 g messenger
- ⊙ 20 cm limnological Secchi discs
- ⊙ Armoured spirit filled thermometer (-5°C to 40°C)
- ⊙ Plankton net (20 cm x 60 cm, 153 µm)
- ⊙ 3 calibrated lines with 0.5 m graduations
- ⊙ Line reels
- ⊙ Carry case and instructions



DESCRIPTION	PART NUMBER
Water sampling field kit	WT26-156

WATER SAMPLING AND MEASUREMENT KIT

Created for the collection of water, plankton and sediment samples. This kit also measures for turbidity, temperature and colour. Very lightweight and easy to transport and requires minimal training.

- ⊙ Dissolved oxygen water sampling bottle
- ⊙ Bottom sampling dredge
- ⊙ Limnological Secchi disc
- ⊙ Sounding lead and calibrated line
- ⊙ Plankton net
- ⊙ Colour scale
- ⊙ Armoured spirit filled thermometer (-5°C to 50°C)
- ⊙ Foam lined 350 x 180 mm carry case



DESCRIPTION	PART NUMBER
Combined water sampler and measurement kit	WT26-158

TUBE WATER SAMPLERS

Simple sampling tubes designed to be lowered into vertical tube systems by a rope.

DESCRIPTION	PART NUMBER
Sampler, SS, 250 ml with 20 m fibre tape	WT26-160
Sampler, SS, 1000 ml	WT26-162
Rope and hook eye for use with 1000 ml sampler	WT26-164

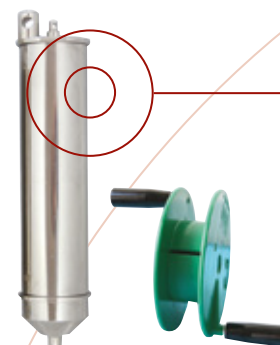


BACON SAMPLER

Used to collect liquid from any depth within a storage tank, ponds, lagoons and wells.

A suspension cable is used to lower the stainless steel sampler to the required depth where a second plunger cable deploys the unit. Releasing the plunger cable reseals the unit ready for extraction.

- ⊙ Stainless steel housing
- ⊙ Capable of sampling the top, bottom or mid water column
- ⊙ Simple plunger assembly
- ⊙ Dimensions mm 63 x 280
- ⊙ 500 ml sample volume



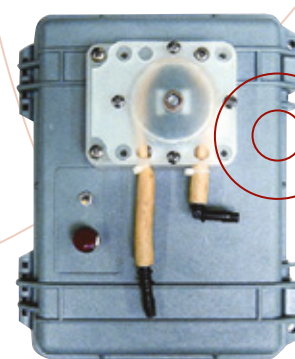
DESCRIPTION	PART NUMBER
Bacon sampler, SS, 500 ml	WT26-166
Heavy duty hand reel (polypropylene)	WT26-168
PTFE coated SS cable – 25 m	WT26-169

WATER SAMPLING PUMP

Designed to move samples from shallow wells or surface water sources such as lakes, ponds and holding pools.

The sampler is lightweight, rugged, easy to use, weather resistant and requires almost no maintenance. A backflush function is available after sampling to ensure no contamination in the sample hose. Water samples only ever come into contact with the neoprene and polythene tubing to ensure sample integrity. No lengthy decontamination process, simply change the tubing. Includes a 3 m cord that can be attached to a 12 V power source, such as a car battery.

- ⊙ Stainless steel housing
- ⊙ Capable of sampling the top, bottom or mid water column
- ⊙ Simple plunger assembly
- ⊙ Dimensions mm 63 x 280
- ⊙ 500 ml sample volume



TECHNICAL SPECIFICATION

Flow rate	⊙ 1000 ml/hr at 1.2 m head
Maximum lift	⊙ 6.7 m
Pump tube	⊙ 6 mm neoprene
Sample hose	⊙ Nylon reinforced PE
Enclosure	⊙ Expanded PVC
Dimensions mm	⊙ 230 x 190 x 115
Weight Kg	⊙ 2.7

DESCRIPTION	PART NUMBER
Peristaltic pump system, including tubing and 3 m power cord	WT26-170
PE tubing (per M)	WT26-172

AUTOMATIC WATER SAMPLER

Designed specifically to meet the requirements of industrial discharges into sewers, rivers and streams. The sampler takes a time weighted composite sample into a 10L bottle, meeting wastewater sampling guidelines.

The instrument can be very easily deployed near rivers and streams or can be suspended in a manhole for sewer sampling.

- ⊙ No programming and simple to operate
- ⊙ Timed and external flow pulsed composite samples
- ⊙ Adjustable and repeatable sample volume
- ⊙ AC power or via Rechargeable battery
- ⊙ Lightweight
- ⊙ Peristaltic pump for zero contamination



TECHNICAL SPECIFICATION

Sample size composite	⊙ 25 ml to 600 ml (adjustable)
Materials	⊙ Expanded UV protected by PVC
Enclosure bottle	⊙ 10L PE
Flow Rate	⊙ 1000 ml/min at 1.2 m head
Type	⊙ Peristaltic
Max Lift	⊙ 6.7 m
Logic Timer/Controller	⊙ CMOS solid state
Sample hose	⊙ 4.5 m nylon reinforced 6mm ID PE flexible tubing sections with intake strainer ⊙ Extendable using standard 6 mm tubing and fittings
Dimensions mm	⊙ 230 x 430 x 560
Weight Kg	⊙ 10

DESCRIPTION	PART NUMBER
Automatic water sampler supplied complete with rugged rainproof lockable carry case	WT26-174
10 litre PE sample bottle for composite sample, peristaltic sampling pump	
Control panel enclosed logic timer/controller. 4.5 m sample pick up hose with removable debris strainer, rechargeable battery and charger	



Geophysical testing equipment

Geophysical techniques are widely used in remote regions of the world where groundwater records may be non-existent to locate and map underground water resources.

EARTH RESISTIVITY KIT

This earth resistivity meter (ERM) offers reliable performance in a convenient, robust, fully portable design.

Designed for subsoil groundwater prospecting at shallow, medium and great depths, it can also be used for geological stratigraphy, salt water studies, fresh water layer contamination, landslide monitoring, mineral exploration and archaeological research.



- Creates an energetic wave based upon supplied parameters
- Data transfer via RS232
- Over 50 hours battery life
- Automatic calibration on every switch on
- Lightweight and sturdy

Kit comprises the following items:

- ERM Unit
- Cable reel with 300 m cable (1 mm section) x 2
- Cable reel with 100 m cable (1 mm section) x 2
- Rechargeable accumulator (200V, 500 mA) x 2
- Copper electrode
- Inox steel electrode
- 1.25 Kg Mallet x 2

TECHNICAL SPECIFICATION

Energisation curve	May be customised to suit the following parameters: <ul style="list-style-type: none"> Positive and negative wave length: <ul style="list-style-type: none"> 0.1-9.9 seconds (impl. At 25 seconds) Time between positive and negative wave: <ul style="list-style-type: none"> 0.1-9.9 seconds Intercycle time: 1-99 seconds Number of cycles: 1-99
Resolution	610 nV, 126, 8 nA
No. of readouts/wave	3 Voltage and 3 Current
Voltage range	+/- 20 mV to +/- 1280 mV (automatic)
Memory	Up to 1500 readings
Energiser	600 V (1200 V peak-peak) 0.5 max
Noise suppression	Superior to 98 db at 50-60 Hz
Power supply	2 x Internal rechargeable batteries 6 V-4 A/h
Dimensions mm	380 x 270 x 150 (in shock proof case)
Weight Kg	7

DESCRIPTION	PART NUMBER
Earth resistivity kit	WT26-146





Hydrometeorology

Hydrometeorology is a branch of meteorology and hydrology that studies the transfer of water and energy between the land surface and the lower atmosphere. Organisations such as UNESCO and UNDP have several programmes and activities in place that deal with the study of natural hazards of hydrometeorological origin and the mitigation of their effects.

HYDROLAB

The Hydrolab HL4 is a next generation multiparameter water quality instrument. Its reliability, ease-of-use, and metadata produce trustable water quality data.

A self-monitoring system that reports the status of the instrument, shows the user where potential problems are, and gives assistance on how to solve issues. Streamline calibration tasks with user-scheduled calibration intervals that indicate when calibration is due, guided and semi-automated calibration routines that lead the user through the calibration process, and a check calibration procedure that can be used to avoid a complete calibration. Produce valid, scientifically defensible conclusions with sensor status that is saved with every line of data and calibration reports that store information about previous calibrations.

- Self-monitoring system reports the status of the instrument, flags the data, and shows the user where the problem is with assistance on how to solve the issue
- User-scheduled calibration and maintenance intervals indicate when they are due
- Guided and semi-automated calibration routines lead the user through the calibration process
- Calibration results are stored with date and time, calibration type, user identification, and user notes
- Check Calibration process allows the user to verify calibration and store the results
- Calibration reports contain information about previous calibrations and calibration checks
- Sensor status is saved with every line of data and is contained in the log file
- Dedicated communications modules allow easy integration with data loggers and telemetry systems
- Compatible with the Surveyor HL – a fully IP67 handheld designed for field use with a full-colour screen that is visible in direct sunlight



The Hydrolab HL4 connects to rugged deployment cables and the Surveyor HL for attended monitoring applications that require equipment designed for field use. The Surveyor HL is a lightweight, compact, fully IP67 handheld with a full-colour screen that is visible in bright sunlight. For unattended continuous monitoring applications, the Hydrolab HL4 has on-board data logging and dedicated communications modules that are used for easy integration with external data loggers and telemetry systems.



APPLICATIONS

Water quality measurement in:

- ⊙ Freshwater rivers and streams
- ⊙ Lakes and reservoirs
- ⊙ Groundwater wells
- ⊙ Salt or brackish water bays, estuaries, and near-coastal areas

Attended monitoring

Real-time unattended monitoring



DESCRIPTION	PART NUMBER
Hydrolab HL4	WT26-300
Surveyor HL	WT26-302

TECHNICAL SPECIFICATION – HL4 SONDE

Diameter	⊙ 4.44 cm without rubber bumpers
Length	⊙ 51.43 cm to 77.8 cm depending on configuration
Weight Kg	⊙ 2.2 with internal battery pack and storage/calibration cup
Depth Rating	⊙ +/- 20 mV to +/- 1280 mV (automatic)
Communications	<ul style="list-style-type: none"> ⊙ Hydrolab communications modules: USB, SDI-12, RS232, RS485, or TTY. ⊙ A USB Communications Module is included with a sonde. Others are sold separately.
User Interface	⊙ Hydrolab Operating Software on Microsoft Windows OS (Windows XP with Service Pack 3 or later)
Power Requirements	<ul style="list-style-type: none"> ⊙ External: 6-24 VDC (12 VDC nominal) applied to the communications module. 12 VDC: 250 mW average, 19 W peak ⊙ Internal (optional): internal alkaline D-cell battery, non-rechargeable.
Logging	<ul style="list-style-type: none"> ⊙ 4 GB of internal memory; 1 second interval minimum. ⊙ Sufficient memory to keep 5 years of continuous measurements with a 15 minute logging interval
Sensors	⊙ Temperature sensor plus 4 additional universal sensor ports and optional depth
Operating Temperature	<ul style="list-style-type: none"> ⊙ 5°C to 50°C, non-freezing ⊙ Operating outside this temperature range may result in mechanical damage or faulty electronic performance

TECHNICAL SPECIFICATION – SURVEYOR HL

Graphical Display	<ul style="list-style-type: none"> ⊙ Colour, LCD 3.5" QVGA ⊙ Transflective (readable in direct sunlight)
Power Supply	<ul style="list-style-type: none"> ⊙ Lithium-ion rechargeable ⊙ Battery life: up to 10 hours continuously on (20°C)
Rating	⊙ Handheld meter: IP67
Buoyancy	⊙ Positively buoyant in water
Dimensions mm	⊙ 218 x 94 x 53
Weight Kg	⊙ 0.68
Operating Temperature	⊙ -5°C to 50°C



Hydrometeorological logging

netDL LOGGER

The netDL 500 and 1000 data loggers were developed for use at hydrology and meteorology stations. As well as their standard task of collecting data, the flexible data loggers can use all current methods of remote data transfer and are equipped to communicate via the Internet.

Based on their modular design, the loggers are individually configured according to customer specifications and are therefore perfectly tailored to their particular application. A powerful GSM/GPRS/3G modem is pre-installed for transmitting data to the headquarters (optional). Ethernet, RS-232 and USB ports and an integrated web server create additional communication possibilities. Those who need a high level of data availability can use different communication routes concurrently. Also short polling cycles may be set, since the loggers may be used in a multitasking environment and are capable to communicate with all connected sensors in parallel. A high storage capacity and efficient power management go without saying in this connection. At the same time, these all-rounders are easy to operate and can even be controlled remotely using standard browsers.

LOCAL COMMUNICATION

For local data logger communication, your PC or tablet may be connected through the RS232 or USB interfaces. The USB host interface is useful to retrieve data and save flash memory on site. The backlit display shows current data at a glance.

REMOTE DATA TRANSFER

The flexible loggers are all-rounders when transferring data remotely. Transfer through mobile phones, dedicated lines, satellite or over Ethernet (netDL1000 only). They are well prepared for IP communication.



- ⊙ Optional built-in modem for mobile web communication
- ⊙ Both modem and data logger are perfectly matched to each other; no external modem is required but may be used as an alternative
- ⊙ Cellular networks: GSM/GPRS, 3G, and 4G*
- ⊙ Ethernet interface (netDL 1000) – direct and high-speed connectivity to the web through LAN, DSL, and all IP ports**
- ⊙ Standardised interfaces and support for a number of transfer protocols (HTTP, HTTPS, SMTP, FTP) and data formats (e.g. XML)
- ⊙ Easy integration into existing and future systems
- ⊙ Parallel processing of data of all channels – minimises transfer times and allows short polling cycles
- ⊙ Time sync is through SNTP which provides precisely timed long-term series of measurements to be carried out
- ⊙ Internal TCP/IP stack for hardware independent smooth operation
- ⊙ Encrypted secure data transfer through HTTPS

* Requires external modem.

**for all IP ports a router is required, Ethernet not available for netDL500



DESCRIPTION	PART NUMBER
netDL500	WT26-310
netDL1000	WT26-312

SENSOR INTERFACES AND OUTPUTS	netDL 1000	netDL 500
SDI-12 via RS-485	⊙	⊙
Modbus RTU (master)	⊙	⊙
Pulse/status input	4	2
Analogue input1) 2)	Max 12	Max 6
Analogue output1)	Max 6	Max 4
Status output (2) /Switch output (2) switches external devices ON/OFF, e.g. external modems	⊙	⊙
RS-232 serial input1)	1	1
Ethernet (for coupling data loggers or connecting IP cameras)	⊙	

TECHNICAL SPECIFICATION

Communications interfaces	<ul style="list-style-type: none"> ⊙ Ethernet RJ-45 10 Base-T (netDL 1000: 1) ⊙ USB Host and USB Device ⊙ RS-232 (netDL 1000: 2; netDL 500: 1)
Sensor interfaces (standard version)	SDI-12 V1.3 <ul style="list-style-type: none"> ⊙ RS-485 (SDI-12/Modbus RTU) ⊙ Pulse/status input (netDL 1000: 4; netDL 500: 2) ⊙ Status output (2) ⊙ Switch output (2)
Input/output modules	<ul style="list-style-type: none"> ⊙ Analogue inputs and outputs (configurable) ⊙ Analogue inputs, isolated (configurable) ⊙ Serial input module for OTT Sensors ⊙ Barometric input board
Measuring channels	⊙ Standard: 40; optionally 120
IP communication	<ul style="list-style-type: none"> ⊙ Integrated TCP/IP stack (HTTP, HTTPS, FTP, SMTP, Socket...) ⊙ GSM/GPRS/3G, Ethernet/DSL, PPP over landline ⊙ Integrated web server ⊙ Encrypted data transmission HTTPS SSL 3.0 / TLS 1.0 / 1.1/1.2
Integrated modem (optional)	⊙ GSM/GPRS 900/1800, 850/1900 MHz GSM/GPRS; 3G (UMTS/HSPA+) 900/1800, 850/1900 MHz; 800/850, 900, AWS 1700, 1900, 2100 MHz
Time synchronisation	⊙ SNTP (Simple Network Time Protocol)
Power consumption at 12 V DC	<ul style="list-style-type: none"> ⊙ Sleep mode: < 250 μA; Sleep mode, impulse active: < 10 mA ⊙ Active mode: approx. 25 mA – max. 400 mA (depending on configuration)
Power supply	⊙ 9-28 V DC (typical 12 V DC)
RAM / NOR / NAND Flash	⊙ 4 MB / 8 MB / 256 MB
Data memory	<ul style="list-style-type: none"> ⊙ Up to 1,100,000 values ⊙ OTT Parsivel spectral data
Dimensions mm	<ul style="list-style-type: none"> ⊙ netDL 1000: 232 x 124 x 86 ⊙ netDL 500: 148 x 124 x 86



Stand alone stations

HYDROSYSTEMS

Hydrosystems allow hydrological measuring stations to be set up using only a few manual operations. The high quality and completely fitted system cabinets include components for power supply and all that is needed for saving and transmitting measured data. Several system options are available.

With the netDL500 at the core of each unit, the Hydrosystems are designed to be used with remote measuring stations supplied by solar or mains energy. Multiple SDI-12 sensors may be connected through numerous channels and the data measured through GSM/GPRS telemetry. Some versions also offer Ethernet or satellite communications. The lockable cabinets are dust and splash proof for optimal protection and include ventilation and drainage.



HIGH-QUALITY BASIC CONFIGURATION

The basic configuration of the rugged control cabinet includes everything needed for data measurement and transfer. All include the following components:

- ⊙ Lockable stainless steel control cabinet with breathing gland
- ⊙ netDL500 IP datalogger with built in GSM/GPRS modem and flat antenna, Version F includes netDL1000
- ⊙ Compatible rechargeable battery and solar panel also available
- ⊙ Connector for SDI-12 sensors such as RLS, PLS, SE200 and CBS included
- ⊙ Overvoltage protection
- ⊙ Wiring diagram

All components within the control cabinet are fully installed; the datalogger is already pre-configured. The control cabinet may be installed to the mast as well as to the wall, e.g. within the gauge station.

POWER SPECIFICATION

Power Supply (solar energy)	<ul style="list-style-type: none">⊙ Solar controller OTT PR1205⊙ Optional: Solar panel 12 V/30 W, 460 mm x 530 mm (W x H) with 1" outrigger⊙ Optional: Battery 12 V/26 Ah
Power Supply (mains power)	<ul style="list-style-type: none">⊙ Power Control Unit OTT PCU12⊙ Optional: Battery 12 V/7 Ah
Enhanced overvoltage protection Mains power supply (solar optional)	<ul style="list-style-type: none">⊙ SPD acc. to EN 61643-11: Type 3⊙ SPD acc. to IEC 61643-1/-11: Class III
Enhanced overvoltage protection Sensors (optional)	<ul style="list-style-type: none">⊙ EN 61643-21⊙ IEC 61643-21



SYSTEM VERSIONS

HydroSystems are available in seven different versions. Standardisation of the compact systems allows for cost-efficient production resulting in significant savings, compared with individual solutions.

Identical basic configurations and upgrade modules allows for easy creation of the perfect solution for any application.

Mains powered versions have extended power supply overvoltage protection, this protection can be extended to solar supplies as required.

All Variants come with basic configuration as standard

Hydrosystem A – Part number WT26-402

- ⊙ Optional extended overvoltage protection

Hydrosystem B – Part number WT26-404

- ⊙ OTT HDR G3
- ⊙ GPS controlled satellite transmitter, including antenna
- ⊙ Optional extended overvoltage protection

Hydrosystem C – Part number WT26-406

- ⊙ OTT CBS bubble sensor
- ⊙ Extended overvoltage protection (optional)

Hydrosystem D – Part number WT26-408

- ⊙ OTT CBS bubble sensor
- ⊙ OTT HDR G3, GPS controlled satellite transmitter, including antenna
- ⊙ Optional extended overvoltage protection

Hydrosystem E – Part number WT26-410

- ⊙ Connectivity for four analogue sensors
- ⊙ Solar power supply

Hydrosystem F – Part number WT26-412

- ⊙ netDL1000
- ⊙ Ethernet interface
- ⊙ Mains power supply
- ⊙ Extended power supply overvoltage protection
- ⊙ Optional extended overvoltage protection for sensors

Hydrosystem G – Part number WT26-414

- ⊙ Basic configuration
- ⊙ Mains power supply
- ⊙ Extended power supply overvoltage protection
- ⊙ Optional extended overvoltage protection for sensors

FEATURES AND BENEFITS

- ⊙ All components preinstalled, prewired and preconfigured
- ⊙ Efficient power management and diverse communication options
- ⊙ Optional CBS indirect water level sensor for areas prone to lightening
- ⊙ Optional HDR G3 transmitter for data transfer in poor GSM/GPRS infrastructures
- ⊙ Rugged lockable stainless steel cabinet



Complete laboratory capability in a vehicle

In areas where central fixed laboratory sites are either not available or not practical, it could be beneficial to deploy a mobile laboratory facility. Either mounted directly on the back of a large 4 x 4, or within a trailer that can be towed by an appropriate vehicle, these laboratories are an ideal tool for effective analysis of any type in remote locations, avoiding risking sample spoilage during lengthy transit periods back to distant central labs.

MOBILE LABORATORIES RANGE

The most efficient mobile laboratories are mounted directly into the rear of a suitable vehicle and can provide well equipped facilities for a broad range of testing and are often the laboratory of choice when civil works make construction of a fixed site laboratory too expensive.

Most suitable when extreme maneuverability is key, or when a rapid deployment response is required.

Mobile vehicle laboratories are bespoke designed for each application and offer complete flexibility of design.

- ⊙ Single or double cab options
- ⊙ Water, electricity, gas services
- ⊙ Waste disposal
- ⊙ Generators
- ⊙ Novel solar water heating systems
- ⊙ Laboratory space that can either be entered on foot, or accessed while outside the vehicle
- ⊙ Storage solutions
- ⊙ Refrigeration
- ⊙ Overhead lighting
- ⊙ Complete laboratory equipment and consumable provision available from Wagtech Projects Ltd

Please contact info@wagtechprojects.com for more information on these bespoke units.



Fridge



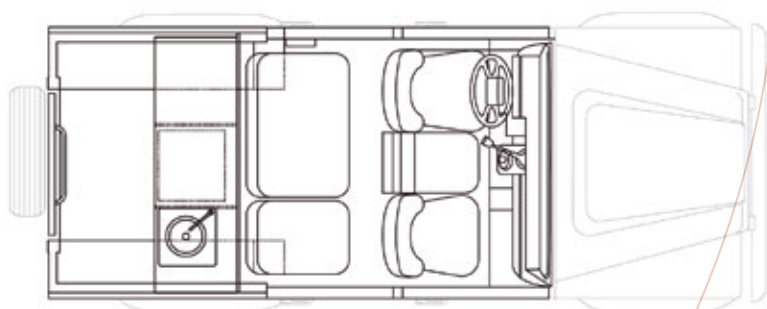
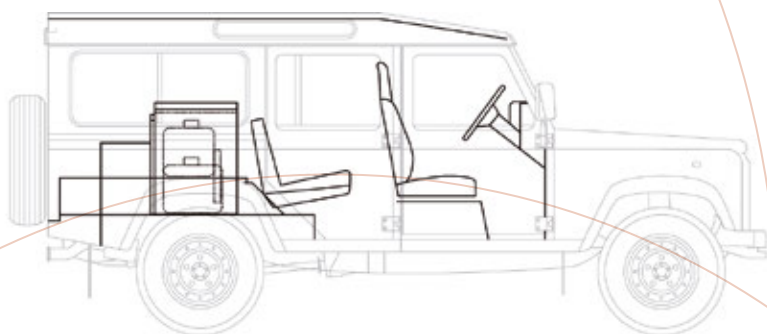
Work space



Sink



Roof rack storage





TRAILER LABORATORIES

Trailer laboratories offer a larger laboratory space more akin to a traditional laboratory and can be deployed either on a temporary or semi-permanent basis. They can also be used as permanent installations as a low cost alternative to expensive civil works projects.

The Trailer Labs offer all the facilities that a fixed laboratory can offer, including high-end analytical equipment such as HPLC and GC. Wagtech Projects Ltd can provide all laboratory equipment, consumables and reagents to give a complete solution.

Suitable for environments where terrain is not as extreme as with a vehicle mounted lab, these units can be easily towed by a truck or tractor to site and then left for short or long periods.

Facilities within the trailer laboratory can include any of the following, and other facilities are also available on consultation:

- ⦿ Complete laboratory fit out, including benching and services
- ⦿ Underfloor 100 L water tank
- ⦿ 12 V water pump
- ⦿ Write up area
- ⦿ Toilets
- ⦿ Showers
- ⦿ Stainless steel sinks
- ⦿ Sleeping area
- ⦿ Separated laboratory areas for mixed discipline labs
- ⦿ Power generation
- ⦿ Heating and lighting
- ⦿ Air conditioning

Whilst each trailer laboratory has a bespoke design to meet the exact needs of each deployment, standard features would include a fully galvanized RHS and angle welded steel construction, PAR type side winding jacks, 12 V lighting, approximate gross weight of 3500 Kg and hydraulically damped coupling and jockey wheel.

Please contact info@wagtechprojects.com for more information on these bespoke units.





Water Treatment

Knowing your water is contaminated is the first step. Once a problem is detected, a solution must be implemented.

As an authorised partner to the LifeStraw® family, Wagtech Projects Ltd offers a range of purification solutions on a personal, household or community level.

LIFESTRAW® PERSONAL

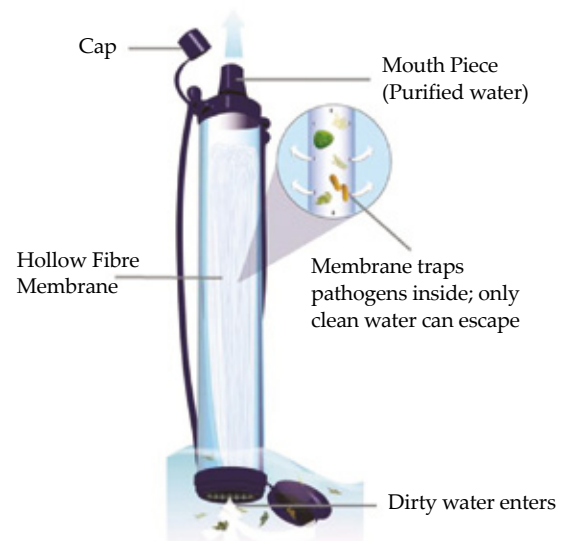
LifeStraw® is an award-winning point-of-use portable water filter that transforms microbiologically contaminated water into safe, clean drinking water. It is ideal for a variety of users outside of the home, from hikers and campers to people displaced by natural disasters.



- Lightweight (56 g)
- Uses hollow fibre microfiltration technology
- Purifies a minimum of 1000 litres of water
- Removes virtually all bacteria (99.9999%) and protozoan parasites (99.9%) that can contaminate water, including giardia
- Reduces turbidity by filtering particulate matter larger than 0.2 microns
- Made of durable plastic and chemical-free
- Doesn't require electrical power, batteries or replacement parts

LifeStraw® uses advanced hollow fibre technology. This is a highly efficient method of filtration. Hollow fibre membrane requires no chemicals like chlorine or iodine.

- Water enters and is forced through narrow fibres under high pressure
- Hollow fibers trap bacteria, protozoa, and other contaminants which are flushed out by backwashing
- Clean water exits through tiny pores in the walls of the hollow fibres
- Filtered water is safe to drink





EASY TO USE

Anyone who can use a drinking straw can use a LifeStraw®. Simply draw the unfiltered water through the LifeStraw®, blow air back through the straw to flush and clear it after drinking.

DESCRIPTION	PART NUMBER
LifeStraw®, single unit	WT30-100
LifeStraw®, pack of 10 units	WT30-102
LifeStraw®, pack of 50 units	WT30-104

LIFESTRAW® FAMILY

LifeStraw® Family 2.0 is the next generation of high-volume point-of-use water filter. It converts microbiologically contaminated water into clean, safe drinking water, filtering up to 30,000 litres of EPA-quality water, enough to supply a family of five with clean drinking water for three to five years.

LifeStraw® 2.0 is a durable tabletop unit. It includes a large dirty water storage tank and built in safe storage container with tap.

- ⦿ Enhanced a lifetime filtration capacity of 30,000 litres
- ⦿ Filter removes virtually all bacteria (99.9999%), protozoan parasites (99.99%) and viruses (99.999%) that can contaminate water
- ⦿ Reduces turbidity (muddiness) by filtering particulate matter larger than 0.02 microns
- ⦿ Made of durable plastic
- ⦿ No electrical power, batteries or replacement parts
- ⦿ Uses hollow fibre technology which meets the standard for the “highly protective” category of safe water interventions by the World Health Organization
- ⦿ Built-in safe storage container with tap
- ⦿ Easy backwash cleaning system

LifeStraw® Family 2.0 uses advanced hollow fibre technology. Water is forced through narrow fibres under high pressure. Clean water exits through tiny pores in the walls of the hollow fibres, and deposits into the safe storage container. Viruses, bacteria, protozoa, and other contaminants are trapped inside the hollow fibres and are flushed out by backwashing. This is a highly efficient method of filtration.



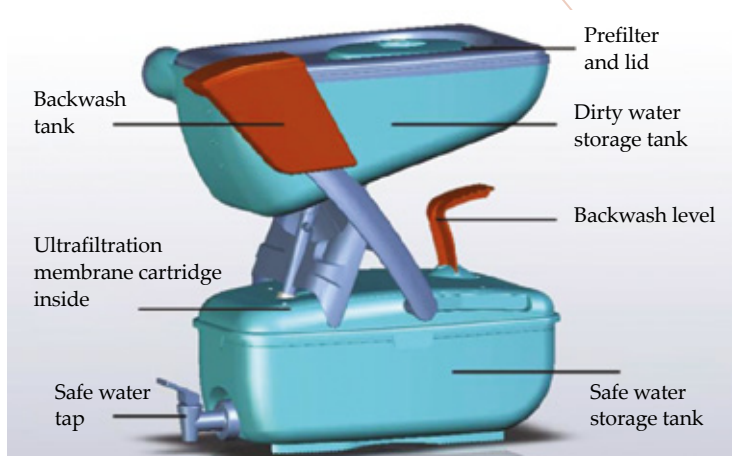


- ⦿ The 80 micron textile prefilter removes coarser particles and is easy to clean
- ⦿ Dirty water storage tank has a 5 litre capacity
- ⦿ Backwashing of the membranes is done by pressing down on the cleaning lever. Dirty water flows to the small red tank. The dirty water should then be discarded

- ⦿ Ultra filtration takes place in the membrane cartridge – a pore size of 20 nanometre retains bacteria, viruses, parasites and fine dirt particles

- ⦿ Filtered water collects in the safe storage tank, which has a capacity of 5 litres. The storage tank can be opened for cleaning

- ⦿ The durable, field-tested tap provides an easy outlet for purified water



DESCRIPTION	PART NUMBER
LifeStraw® Family 2.0, single unit	WT30-200
LifeStraw® Family 2.0, pack of 10 units	WT30-202
LifeStraw® Family 2.0, pack of 50 units	WT30-204

GLOBAL IMPACT

- ⦿ 780 million people in the world lack access to an improved source for drinking water
- ⦿ 61 percent of people in sub-Saharan Africa still don't have access to safe drinking water
- ⦿ Lack of access to safe drinking water contributes to the staggering burden of diarrheal disease worldwide
- ⦿ Nearly one in five child deaths – about 1.5 million each year – is due to diarrhea
- ⦿ LifeStraw® addresses cryptosporidium, which was recently found to be a leading cause of diarrheal illness in children under five and is attributed to higher mortality in children under two
- ⦿ Point-of-use (POU) treatments such as LifeStraw® Family 2.0 can accelerate the health gains associated with the provision of safe drinking water to at-risk populations, which is important for children under five and people living with HIV
- ⦿ Improvement of drinking-water quality, such as point-of-use disinfection, could lead to a 45% reduction of diarrhoea episodes
- ⦿ Among all point-of-use water treatment methods, water filters have been shown to be the most effective for reducing diarrheal diseases



LIFESTRAW® COMMUNITY

LifeStraw® Community is a high-volume point-of-use water purifier with built-in safe storage that provides safe drinking water for community, educational and institutional settings. It prevents waterborne disease such as diarrhoea, typhoid, cholera, worms, and cryptosporidiosis.



- Hollow fibre filtration technology converts contaminated water into safe drinking water
- Removes a minimum of 99.9999% of bacteria, 99.999% of viruses and 99.99% of protozoan parasites
- Reduces turbidity (muddiness) by filtering particulate matter larger than 0.02 microns
- Meets the standard for the “highly protective” category of household water treatment options by the World Health Organization and complies with US EPA guidelines for microbiological water purifiers
- Can purify between 70,000 -100,000* litres of water, enough to serve community settings for several years
- Chemical-free and made of durable plastic
- Doesn't require electrical power or batteries

HOW IT WORKS

- 25 litres of untreated water is poured into the top of the unit, also called the dirty water container
- The pre-filter removes coarse particles larger than 80 microns
- The ultrafiltration hollow-fibre membrane cartridge, located inside the main dark blue body of the filter, then stops all turbidity particles and pathogens larger than 20 nanometres (including all bacteria, viruses and protozoan cysts). Particles and microbes larger than 20 nanometres stay on the dirty side of the membrane and clean/purified water passes through the membrane
- Purified water can be collected from any of the four taps
- The backwashing handle allows semi-automatic backwashing; when it is pulled down and released, pathogens and dust particles on the dirty side of the membrane are lifted by backpressure and then flushed out into the red backwash container



DESCRIPTION	PART NUMBER
LifeStraw® Community, single unit	WT30-300
LifeStraw® Community, pack of 5 units	WT30-302
LifeStraw® Community, pack of 20 units	WT30-304



TRAINING AND AFTER-SALES SUPPORT

At Wagtech Projects we place great importance on the technical advice and training support we give to both our existing and prospective customers.

Whatever your requirements are in the field of heavy metals analysis, water quality testing, or general environmental monitoring, we can provide expert advice from our team of in-house specialists.

These resources are augmented by our extensive contacts with universities and research institutes globally.

Technical sales advice is always available from the point of initial enquiry, to advise on the best equipment for the required application, from compact field testing kits to laboratory-installed instrumentation. We can provide comprehensive guidance on the selection of appropriate accessories and consumables for your application.

Extensive training on our full range of instruments is always available, from online training sessions delivered remotely by our team, to one-to-one training offered either at our local offices worldwide, or on site at your location to include your full team.

After-sales support, including a comprehensive technical support and instrument service/repair provision, is provided by our team of acknowledged expert scientists and engineers working globally.

In addition to technical support from Wagtech Projects experts, we have an extensive network around the world of local Wagtech Projects subsidiaries and representatives who have also received training in our full range of products and can offer truly local support for all of your technical requirements.







TERMS AND CONDITIONS

Terms and Conditions of Business Definition and construction "The Seller" shall mean Wagtech Projects Limited, any associated company or subsidiary thereof or any duly appointed agent. These conditions shall be deemed to be incorporated in any contract between the Purchaser and the Seller and shall be construed in accordance with the provisions of English Law prevailing at, on or after the day any order has been accepted by the Seller. Any disputes which may arise in relation to a contract shall be referred to a single arbitrator (who shall act as an expert and not as an arbitrator) in accordance with the Arbitration Act 1950 or any statutory modification on re-enactment thereof for the time being in force: the decisions of such arbitrator shall be final and binding upon the parties to the contract in dispute and his fees shall be borne by the party who appointed him. 1 Acceptance: All orders received shall be understood to be placed in accordance with these Terms and Conditions of Business. In accepting proprietary goods delivered by the Seller the Purchaser shall be deemed to accept the Manufacturers Terms and Conditions of Business as if the Purchaser had been dealing directly with the Manufacturer in addition to the conditions contained herein so far as applicable. Any other terms of business are excluded and no variation of these terms and conditions shall bind the seller unless made in writing and signed by a Director of the company with whom the order is placed. 2 Goods on Approval: Where the Seller has agreed with the Purchaser to supply goods to the Purchaser for the Purchaser's approval prior to acceptance then if the Purchaser decides he does not require the goods he must return them at his own expense to the Seller in good order and condition within 30 days of receipt failing which the Purchaser shall be deemed to have accepted the goods within the Terms and Conditions hereof and shall be bound to pay for the same accordingly. 3 Prices: All quoted prices are es-warehouse unless expressly specified to the contrary and are subject to alteration without notice. The Seller reserves the right to invoice goods at prices prevailing at the date of dispatch plus value added tax (if appropriate) at the appropriate rate. 4 Quotations: All quotations are subject to confirmation. The right is reserved to correct any errors or omission and to re-quote at prices prevailing at the date of dispatch in accordance with Section 3 hereof. A quotation expressed to be for a fixed price remains open for acceptance by the Purchaser within the period stated in the quotation or, if no period is stated, within 30 days of the date of the quotation irrespective of when the quotation is received by the Purchaser. 5 Delivery: Whilst every effort is made to adhere to delivery dates, no liability whatsoever can be accepted for lateness of non-delivery howsoever arising. Deliveries offered ex-stock are subject to goods being unsold at the date of receipt of the Purchasers order. The seller reserves the right to charge for delivery unless otherwise agreed and stated in writing in respect of individual transactions. Liability for any loss or damage in transit howsoever caused is not under any circumstances admitted to the Seller. 6 Delay: Whilst every effort will be made to adhere to delivery dates, delay or failure to maintain a delivery date shall not entitle the Purchaser to rescind or cancel any order or withhold any payment that may be due. 7 Minimum Order Value: The minimum order value for payment in advance or account is £250.00 and for payment by letter of credit £1000.00. 8 Cancellation: The Seller shall be under no obligation to accept amendment, cancellation or rescission of any order or any part thereof, but may nevertheless agree in writing to such amendment, cancellation or rescission upon whatever terms and conditions it chooses to impose. 9 Returned Goods: Items correctly supplied against an order but subsequently returned as no longer required or cancelled too late to halt delivery, at the discretion of the Seller may be returned, at the Purchasers expense, for credit providing the goods are in an unused condition and in the original packing. A restocking charge will be levied for this service. Before returning any goods to our warehouse, approval for such action must be first obtained from an identified member of our sales/customer service staff who will take down details in event of our agreeing to the return, you will then be given a unique goods return number. These goods return number must accompany any goods returned and be included in any paperwork sent to us. If you omit to include this number the returned goods will not be accepted by the seller and will be returned to you at your expense. All returned goods must include all accessories e.g. AC/DC adaptors. Once approval for the return has been given, the goods

must be received by the seller within 3 weeks. 10 Warranty: Goods are only guaranteed to the extent of the guarantee (if any) given to the Seller by the actual manufacturers, all other conditions, statements and warranties, express or implied, statutory or otherwise on the part of the Seller are hereby excluded. 11 Title: (a) The title in goods sold to the Purchaser by the Seller shall not pass to the Purchaser until all sums due to the Seller from the Purchaser (whether in respect of those goods or otherwise) have been paid to the Seller. If the Purchaser defaults in paying any such sum the Seller shall be entitled to take such action against the Purchaser as it may be entitled in law or in equity without further reference to the Purchaser. (b) The Purchaser shall have the right before title in the goods has passed, to resell the goods or any part thereof but shall pay to the Seller the proceeds of sale or such part thereof as may be necessary to pay all sums due to the Seller from the Purchaser and until such payment shall hold the proceeds of sale on trust for the Seller. (c) Notwithstanding sub clause (a) of this clause, the goods shall be at the Purchaser's risk from the time they are delivered to the Purchaser. 12 Dangerous chemicals and poisons: Chemicals should be handled and used only by trained personnel or under appropriate supervision. No responsibility or liability whatsoever is accepted for any loss arising out of the storage, use or handling of chemicals howsoever caused. The sale of poisons is regulated by the Pharmacy and Poisons Act 1933, the Poisons List and the Poison Rules and amending legislation from time to time laid or made by any competent authority. 13 Orders: No order can be accepted unless all necessary arrangements have been made to the satisfaction of the Seller regarding import and export licenses and for the provision of payment. 14 Terms of payment: (a) Prices are strictly net and unless other terms have been arranged and agreed in writing by the Seller no deductions can be allowed. The right is reserved (i) to request a remittance with an order, (ii) where new accounts are involved, either to request two trade and Banker's references or to issue Pro-Forma invoices and (iii) to charge interest on any balance from time to time outstanding and due to the seller at 5% per annum over and above the Base Rate from time to time charged by Fortis Bank S.A. / NV. For purchasers enjoying a trading account with the Seller, payment must be received by the Seller within 30 days of the invoice date. If payment has not been received by this time the Seller reserves, in addition to the rights above, the right to suspend further supplies of goods until the overdue amount is cleared. (b) Orders from Purchasers outside the United Kingdom must be covered by an Irrevocable Letter of Credit to cover the purchase price, shipping and other additional costs or charges confirmed by a London Clearing Bank (or a London Merchant Bank subject to the prior written approval of such bank by the Seller) unless other arrangements have been made and agreed in writing. Letters of Credit should allow for part payments and shipments and in the case of orders including chemicals should permit deck or special stowage. 15 Delivery and delay: All orders for overseas shipment are accepted in accordance with the conditions herein before contained, it being understood and agreed that delivery time is the Seller's estimate of the time by which it can have the necessary goods packed and ready for dispatch. The Seller cannot accept any responsibility for delays in dispatch caused through non-availability of shipping space and/or other causes beyond its control. 16 Damage and/or Loss in transit and Insurance: (a) the Seller accepts no responsibility for goods Shipped uninsured and shall not be obliged to claim in respect of damage or loss where, at the Purchaser's request, Insurance arrangements have been made other than the Seller's own open cover with its insurers for the time being. (b) Unless the Seller is specifically instructed otherwise, goods will be insured only against loss or damage in transit for the C.I.F value plus 10%. (c) All claims under the Seller's insurance must be notified in writing to the Seller within 45 days from point of discharge. 17 Import Licenses: Where applicable, the Purchaser's order must specify the number, date of expiry and value of the Import License. It shall be the Purchaser's responsibility to obtain all necessary Import Licenses. 18 Bank Charges, Special Documentation, Fees and Duties: All consular and bank charges, import and customs duties and any taxes arising from or by virtue of the contract and its settlement are the liability of the Purchaser unless specifically agreed in writing by the Seller.



SINCE 1990

WAGTECH

PROJECTS

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ANALYSIS AND MONITORING EQUIPMENT**

Water

Environment

Agriculture

Laboratory



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