

Product Data Sheet

See Aquacell S50, S100 & S200 Data Sheet for more Stationary Models



Wastewater Samplers for the World

AQUACELL STATIONARY S300 SERIES WASTEWATER SAMPLERS

The four S300 Series variants centre on the same robust, high performance Aquacell S300 Cabinet. As with every Sampler in the Aquacell Sampler range each of the Stationary models incorporate the well proven and dependable Aquacell Module. All S300 Series models are compliant with the UK Environment Agency MCERTS Standard for Continuous Water Monitoring Equipment. S300 Cabinet panels have been subjected to extensive salt spray testing (in line with BS 3900 part F12 (also known as ASTM B117 and DIN 52-021)).



This accelerated test is equivalent to an estimated 15 years in a typical outdoor application. Alternative construction materials can be provided where there is an established preference for them.

Separate lockable compartments provide flexibility and security in exposed or vulnerable locations. All of the key electronic equipment is housed in the upper rear compartment thus minimising exposure to corrosive gases and potential flood water. Collected samples are stored in the Lower Compartment. Having separate compartments means the user can interrogate the Sampler Module program and carry out routine maintenance without the need to disturb the collected samples. When necessary, access and retrieval of the collected samples is extremely easy with the optional sliding Pull Out Tray (included with Integral Bottlers).



All S300 models can accommodate the complete range of Sample Collection Vessels (See Sample Collection Vessel options on table opposite for details).



Both the S320 & S320H models incorporate Sample Temperature Control. This ensures that the collected samples are preserved at an optimum temperature (0°C to 5°C) whilst awaiting collection / inspection. This is useful when sampling biologically active wastewater.

Via the Ancillary Signal Connection all S300 models can be connected to, and controlled by, external

equipment such as Flow Meters, pH Meters etc.

The optional Auxiliary Equipment Enclosure provides for the incorporation of additional equipment such as Flow Meters, pH Meters etc. with the S300 cabinet. Power supply and signal connections are provide with this enclosure.

Images above show Aquacell S320H with optional Sampler Inspection Window

See Aquacell Price List for full details of Products and Options

PRODUCT DESCRIPTION	S310	S310H	S320	S320H
GENERAL				
MCERTS compliant	Yes	Yes	Yes	Yes
Sample Temperature Control	No	No	Yes	Yes
Sample Frost Protection	No	Yes	Yes	Yes
Suitable for Outdoor Use	No	Yes	No	Yes
Construction	Stainless Steel 304 (contacting panels) and Galvanised Steel, pre-treated and finished with architectural grade white Polyester powder coating (Options available)			
ENVIRONMENTAL				
IP rating	54	54	54	54
Minimum ambient working temperature (°C)	5	-10	5	-10
Maximum ambient working temperature (°C)	50	50	40	50
POWER OPTIONS				
Mains 110/220/230VAC 50/60Hz	Yes	Yes	Yes	Yes
Float charged backup battery (12VDC 7Ah)	Opt	Opt	Opt	Opt
SAMPLE COLLECTION VESSELS				
10 litre Polypropylene Container	Opt	Opt	Opt	Opt
25 litre Polyethylene Container	Opt	Opt	Opt	Opt
2 x 4.5 Self Emptying Polypropylene Bottler (Removable and Integral)	Opt	Opt	Opt	Opt
2 x 5 litre HDPE Bottler (Removable and Integral)	Opt	Opt	Opt	Opt
4 x 4.5 litre Glass Bottler (Removable and Integral)	Opt	Opt	Opt	Opt
4 x 5 litre HDPE Bottler (Removable and Integral)	Opt	Opt	Opt	Opt
4 x 12 litre HDPE Bottler (Integral only)	Opt	Opt	Opt	Opt
12 x 0.75 litre Glass Bottler (Removable only)	Opt	Opt	Opt	Opt
12 x 1 litre HDPE Bottler (Integral only)	Opt	Opt	Opt	Opt
12 x 1 litre PET Bottler (Removable only)	Opt	Opt	Opt	Opt
24 x 1 litre HDPE Bottler (Removable only)	Opt	Opt	Opt	Opt
DIMENSIONS / WEIGHTS				
Size (mm)	H1450 W730 D770	H1450 W730 D770	H1450 W730 D900	H1450 W730 D900
Weight excl. Container / Options (Kg)	101	103	118	120
POWER CONSUMPTION (VA)				
@ 110VAC (max inrush current (A) in brackets)	98	598	433(24)	598(24)
@ 220VAC (max inrush current (A) in brackets)	94	549	398(9)	549(9)
@ 230VAC (max inrush current (A) in brackets)	98	598	433(9)	598(9)
OPTIONAL EQUIPMENT - ELECTRICAL				
Ancillary Signal Connection (for connection to Flow metres, pH meters, PLCs etc.)	Opt	Opt	Opt	Opt
Beacon	Opt	Opt	Opt	Opt
Bottler Connection	Opt	Opt	Opt	Opt
Data Download Connection	Opt	Opt	Opt	Opt
Interior light	Opt	Opt	Opt	Opt
Sample Temperature Monitoring Connection	Opt	Opt	Opt	Opt
OPTIONAL EQUIPMENT - MECHANICAL				
Auxiliary Equipment Enclosure	Opt	Opt	Opt	Opt
Lift-Up Protection Cover	Opt	Fitted	Opt	Fitted
Pull Out Tray – Standard with all Integral Bottlers	Opt	Opt	Opt	Opt
Sampler Inspection Window – Available for Lift-Up Protection Cover	Opt	Opt	Opt	Opt
Transportation Castors	Opt	Opt	Opt	Opt



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Company Information & Aquacell Module Data Sheet

See separate Product Data Sheets for individual Aquacell Model details



Wastewater Samplers for the World

AQUAMATIC LIMITED

Established in 1991, Aquamatic Limited is a leading manufacturer of MCERTS compliant automatic Wastewater Sampling Equipment, based in Manchester, United Kingdom. The company and its product range benefit from over 80 years experience in the wastewater sampling industry.



From the outset Aquamatic has focused on the design and manufacture of uncomplicated, reliable and robust wastewater sampling equipment. Today Aquamatic offers the highly acclaimed Aquacell Wastewater Sampler range. Consisting of 10 models, 3 of which are Portable and 7 Stationary, the Aquacell range represents a true leading edge family of products suitable for all the modern day rigours of wastewater sampling applications. Refer to the separate Aquacell Product Data Sheets for specific details of each of the Aquacell Sampler Models.

Available both direct from Aquamatic in England and around the world via a network of excellent local distributors, Aquamatic equipment is accessible globally to any company with a requirement for high quality, dependable wastewater sampling equipment. Aquamatic Wastewater Sampling Equipment is used by a wide range of International companies and Organisations, including many well known names such as ABB, BNFL, Cadburys Schweppes, Heinz, Rolls Royce and Veolia. Additionally Aquamatic Wastewater Samplers are currently being used at many of the major Water Companies, both UK and Worldwide.

THE AQUACELL SAMPLING MODULE

Central to every Aquamatic Wastewater Sampler is the Aquacell Sampling Module. Whether your application requires Portable or Stationary Wastewater Sampling equipment, the same programming interface, sampling technique, functionality and performance are all guaranteed by the tried and tested Aquacell Sampling Module.



FEATURES OF THE AQUACELL SAMPLING MODULE:

- All models compliant with MCERTS standard for Continuous Water Monitoring Equipment
- Air Pump Vacuum sampling principle
- Robust materials utilised throughout design
- Simple to program
- Simple to clean & maintain day to day
- Sample shot volume adjustment extremely easy
- Excellent sample repeatability and high accuracy of sample shot volume
- Virtually unlimited sample volume due to programmable 'multiple shots / sample' facility
- 350+ Sample shots from fully charged 'Integral battery'
- Ø12mm Intake ports increasing to Ø16mm (min) sample discharge tube, thus minimising blockage potential
- Via the Ancillary Signal Connection all models can be connected to, and controlled by, external equipment such as Flow Meters, Level Sensors, pH Meters, PLCs, etc.
- Compliant with the requirements of the International Standard for Wastewater Samplers ISO 5667-10

Aquacell Sampling Module Specification

General

Media source suitability	Wastewater from non-pressurised sampling point
Sample extraction method	Air pump vacuum system
Environmental suitability	Not suitable for use in potentially explosive atmospheres
Sampling method	Time – Sampling frequency: 1 min to 99hrs 59 min Flow – 4-20mA or pulsed volt free contact Event – Volt free contact from external device e.g. pH meter, pump etc.
Maximum lift height	> 7 metres
Transport velocity	0.5 metres / sec (average) over 7 metres lift
Sample shot volume	50 - 500 ml. (larger total sample volume possible through programmable multiple shots / sample)
Sample shots / charge	350+ from fully charged Aquamatic Battery (at 1.8m lift)
Sample shot cycle time	30 seconds (approximately) with 4 metres lift
Maximum sample media temperature	60°C
Ambient operating temp.	See Individual Product Data Sheets for details

Materials of construction

Aquacell Module	Sealed Polyurethane mouldings / Stainless Steel Components
Sample Chamber	Acrylic or Glass (option)
Sample Chamber Top	Standard: Polypropylene / Stainless Steel / Silicon rubber Optional: PTFE / Stainless Steel / Silicon rubber
Intake Hose with Filter	Standard: Braided PVC / Stainless Steel Filter Optional: Braided PTFE / Stainless Steel Filter
Sample Collection Vessels	See individual Product Data Sheets for details

Mechanical

User Interface	17 button Keypad incorporating tactile keys 16 x 2 line backlit LCD
Intake Hose:	
<i>Portable models</i>	2 metre long with 5 x Ø12mm intake ports (2 metre extension hoses available as required)
<i>Stationary models</i>	10m (5m with S50) with 5 x Ø12mm intake ports
Sample tract diameter	Ø12mm increasing to Ø16mm (Ø19mm with Bottler) between Intake Filter and sample discharge
Sample Collection Vessels	See individual Product Data Sheets for details
Environmental Protection	Electrical / electronic components housed in humidity controlled enclosures. See individual Product Data Sheets for specific IP ratings
Humidity Control	Replaceable Desiccant Bag with 3 stage Humidity Indicator visible on Keypad

Standards Compliance

All Aquacell models compliant with UK Environment Agencies MCERTS for Continuous Water Monitoring Equipment
Water quality - Sampling - Part 10: Guidance on sampling of waste waters ISO 5667 – 10
CE Marked and complies with: EMC Directive 89/336/EEC Low Voltage Directive 2006/95/EC (formerly 73/23/EEC)
UK Environment Agency E32 specification for Automatic Sampling equipment (Aquacell P2-COOLBOX only)

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