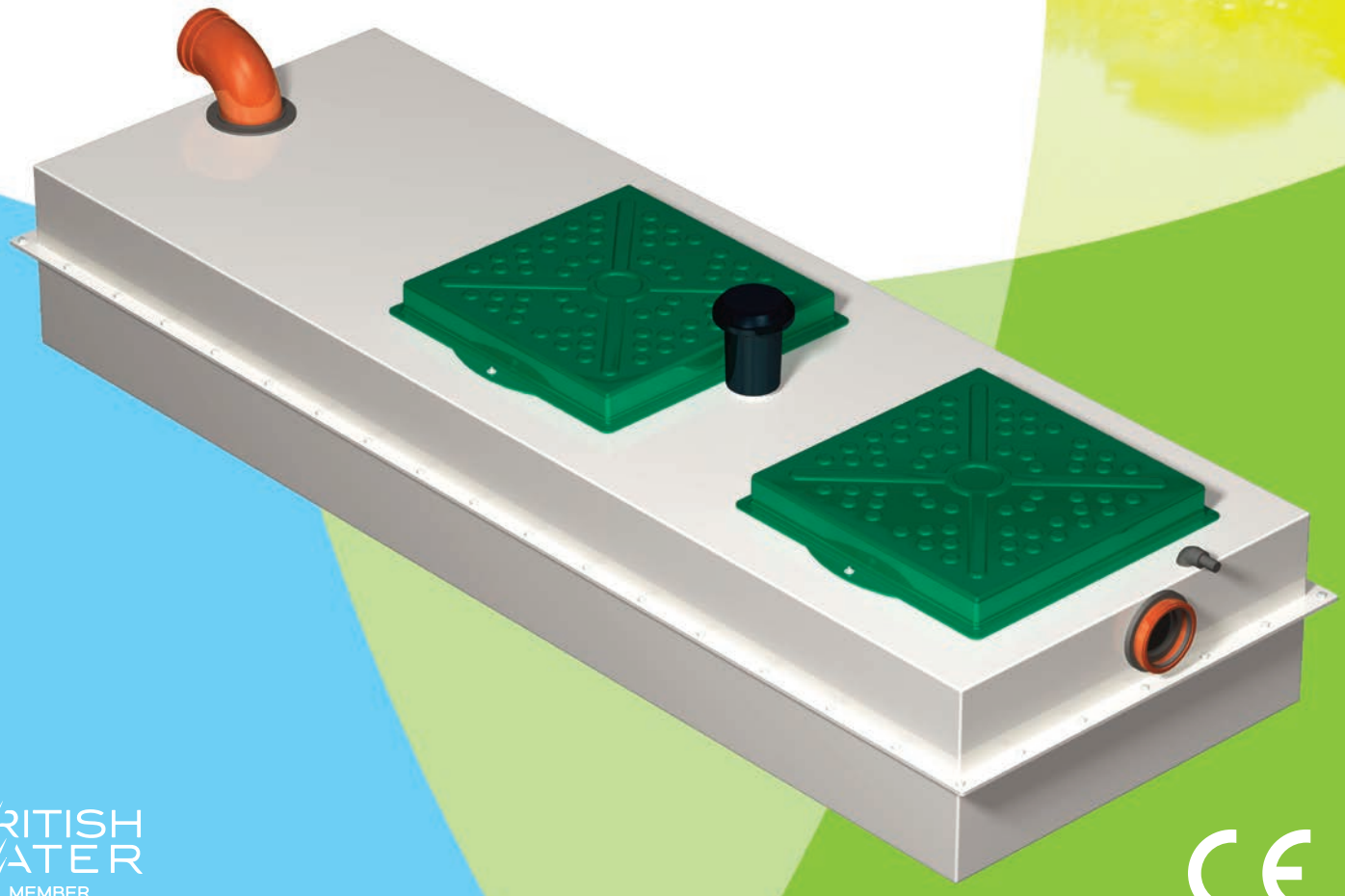
PORTAPURA

INTELLIGENT **WATER** TREATMENT

Portable Compact Efficient

Sewage treatment plants for the leisure sector



BRITISH WATER MEMBER

www.portapura.com

CE

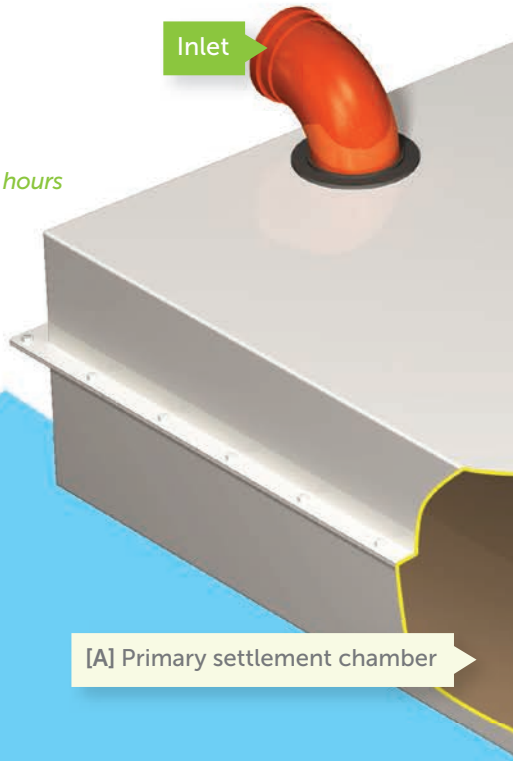
Patent pending

A sewage treatment plant unlike any other sewage treatment plant

The Portapura is the most compact and efficient sewage treatment plant we've ever made.

Designed specifically for holiday homes, caravans, motor homes and small leisure developments, the Portapura is portable, can be installed above or below ground and treats domestic wastewater to a level that is 25 times better than the recommended EN standard.

- → **Available in three sizes** – *2, 3 or 5 person units*
- → **Suitable for holiday homes, motor homes, caravans**
- → **Compact, lightweight construction** – *No heavy plant required*
- → **Portable** – *Systems can be installed above ground and removed/stored when not in use*
- → **Cost effective installation** – *Below ground installation can be achieved in approximately 2 hours*
- → **Outstanding treatment efficiency** – *14:19:0.7mg/ltr (BOD:Suspended solids:Ammonia)*
- → **Near silent air compressor** – *Ensures minimal running, maintenance and servicing costs*
- → **Electrical consumption: 1.8kWh/d** – *Equivalent to the daily use of a lightbulb*
- → **CE approved to BS EN 12566**
- → **Fire resistance tested in accordance with EN ISO 11925-2:210**
- → **Tested for structural integrity in accordance with EN ISO 179-1/1eA**



PIA
Prüfinstitut für Abwassertechnik GmbH

PERFORMANCE RESULTS

Portapura Limited
Etruria, Brightwell Walk, Irthlingborough, NN9 5PJ, UK

EN 12566-3, Annex B
Small wastewater treatment systems for up to 50 PT

Small wastewater treatment system Portapura
Aerated Biomedia system in one GRP tank

Test report PIA2018-308B10

Nominal organic daily load	0.10 kg BOD_5/d		
Nominal hydraulic daily load	0.30 m³/d		
Material	GRP		
Treatment efficiency (nominal sequences)		Efficiency	Effluent
	COD	94.9 %	54 mg/l
	BOD_5	95.8 %	14 mg/l
	N_{ot}	59.6 %	23 mg/l
	NH_4-N*	98.1 %	0.7 mg/l
	P_{tot}	54.4 %	3.5 mg/l
	SS	94.5 %	19 mg/l
Electrical consumption	1.8 kWh/d		

*determined for temperatures ≥ 12°C in the bioreactor

Performance tested by:
PIA – Prüfinstitut für Abwassertechnik GmbH
(PIA GmbH)
Hergenrather Weg 30
52074 Aachen, Germany

This document replaces neither the declaration of performance nor the CE marking.

Notified Body No. 1739 · Certified according to ISO 9001:2008 · DAkkS Deutsche Akkreditierungsstelle D-PL-17512-01-00

Martina Wermter August 2018

Operating principle

Wastewater enters the primary settlement chamber [A] where large solids are removed by settlement and flotation. An accumulation forms at the base of the tank and is removed by desludging

The clarified water is then transferred to the main aeration chamber [B]. Here it is treated to remove dissolved constituents. Aerobic bacteria, supported by diffused air, ensures full treatment is achieved before the effluent and 'sloughed off' bacteria flows to the filter chamber [C] for further solids removal.

The final effluent is then discharged to a drainage field via the final settlement chamber [D].

Unit specifications

Model	People served	Length	Width	Tank depth	Inlet invert	Outlet invert	Inlet/outlet dia
G2	Up to 2	2750	980	415	445	270	Ø110
G3	Up to 3	2050	1500	600	685	445	Ø110
G5	Up to 5	2640	1500	800	885	645	Ø110

Larger population sewage treatment plants can be supplied.
Please contact us for precise tank sizes and configurations.
All dimensions in mm.

CE

Patent pending

Configuration shown for illustration purposes only

Structural integrity testing

Structural integrity tests, performed in accordance with EN ISO 179-1/1eA: 2010-11, were undertaken to evaluate the strength of Marsh Industries' GRP materials against similar GRP materials used by other manufacturers.

Three separate material samples were submitted for impact testing; Marsh GRP material (virgin unfilled resin), a GRP material containing calcium fillers and a GRP material containing sand filler.

The tests involved 12 samples of each material at a size of 80x10x5mm. The nominal pendulum energy was 15J at an impact velocity of 3.8m/s.

Results proved Marsh GRP material to be 40% stronger than the other materials tested.

Fire resistance testing

Fire resistance testing was performed to assess ignitability of products subjected to direct impingement of flame. Marsh Industries' GRP material passed all practical testing to achieve EN ISO 11925-2:2010 standard.


PERFORMANCE RESULTS

Marsh Industries Ltd.
Irthlingborough Road, Little Addington
Northants NN14 4AS, Great Britain

EN ISO 179-1/1eA: 2010-11
"Plastics – Determination of Charpy impact properties; Part 1: Non-instrumented impact test"

"Marsh Material Specification"

PIA – Prüfinstitut für Abwassertechnik GmbH
(PIA GmbH)
Hergenrather Weg 30
52074 Aachen, Germany

PERFORMANCE RESULTS

Marsh Industries Ltd.
Irthlingborough Road, Little Addington
Northants NN14 4AS, Great Britain

EN ISO 11925-2:2010
"Reaction to fire tests – Ignitability of products subjected to direct impingement of flame - Part 2: Single flame source test"

"MIMMS"

PIA – Prüfinstitut für Abwassertechnik GmbH
(PIA GmbH)
Hergenrather Weg 30
52074 Aachen, Germany

Why choose Portapura?

It's more efficient than other sewage treatment options... And more portable than all of them.

It's a space-saving solution... Its compact design provides quick and easy installation with minimum visual impact on the surrounding landscape as well as simple and safe access for maintenance and cleaning.

It's cost-effective... The cost of installing and running the Portapura is minimal when compared to larger, commercial systems.

It's environmentally sensitive... CE approved to BS EN 12566 with an ammonia result that is 25 times better than the recommended EN standard means the Portapura is well within discharge consent requirements.

It's designed specifically for the leisure sector... Design objectives included performance, running costs, installation, transport and storage, making the Portapura the logical choice for holiday home and holiday park owners.

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