

PORTAPURA[®]

Compact sewage treatment plants



Whisspurr[®]
Acoustic Vibration Reduction (AVR) unit
See back page for details



A sewage treatment plant unlike any other sewage treatment plant

Overview

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

Designed for holiday sites, houseboats, temporary accommodation, site offices/toilets and workshops, 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.

Portapura benefits

- Available in three sizes – 2, 3 or 5 person units (gravity or pumped outlet)
- 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

Operating principle

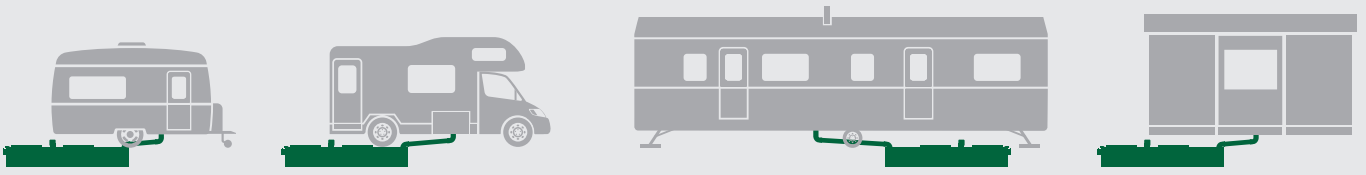
Wastewater enters the primary settlement chamber [A] where large solids are removed by settlement and flotation. An accumulation forms at the base of the tank and is removed by desludging

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 water course via the final settlement chamber [D].



Configuration and components are shown for illustration purposes only



Why choose Portapura?

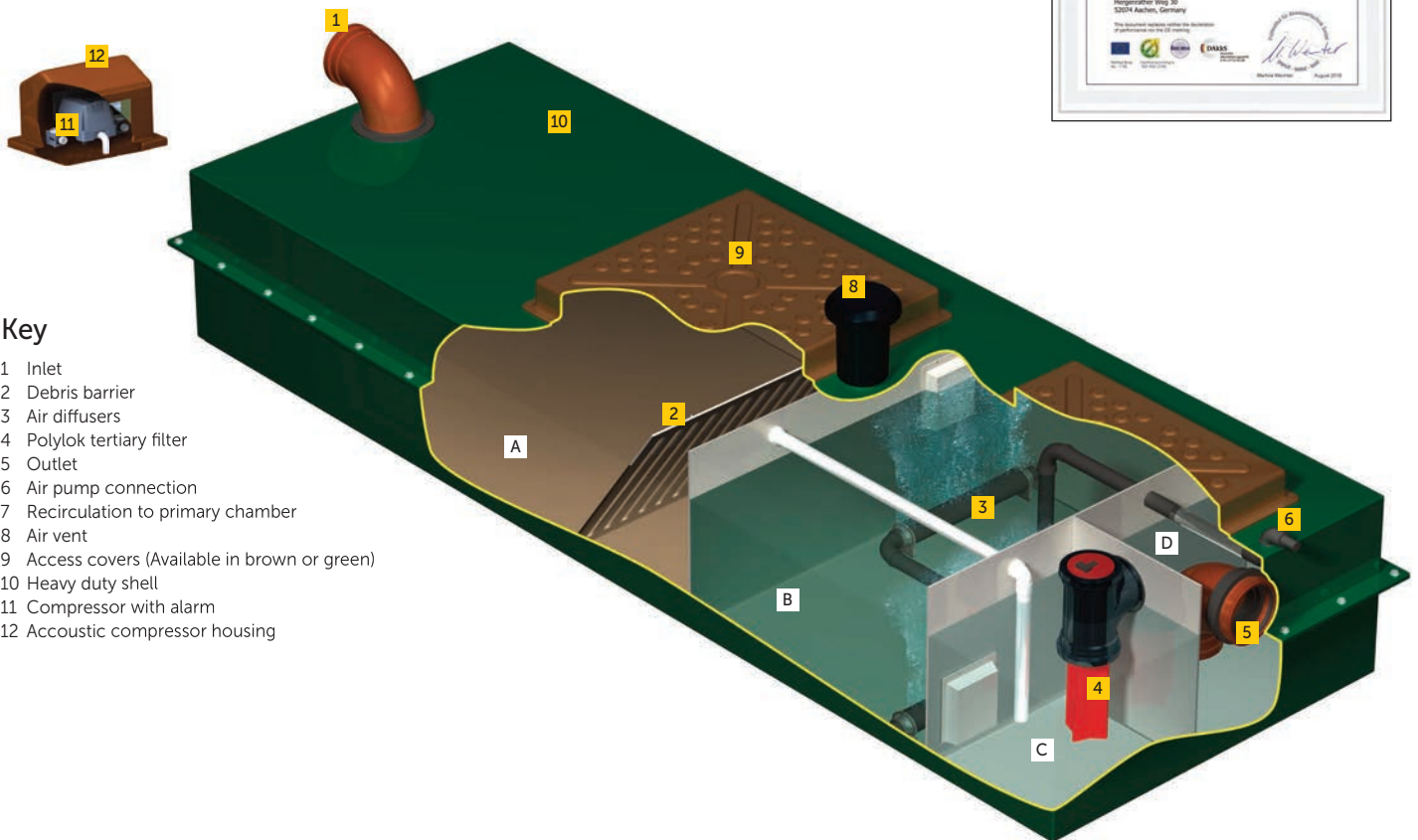
It's more efficient than other sewage treatment options... and also portable.

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.

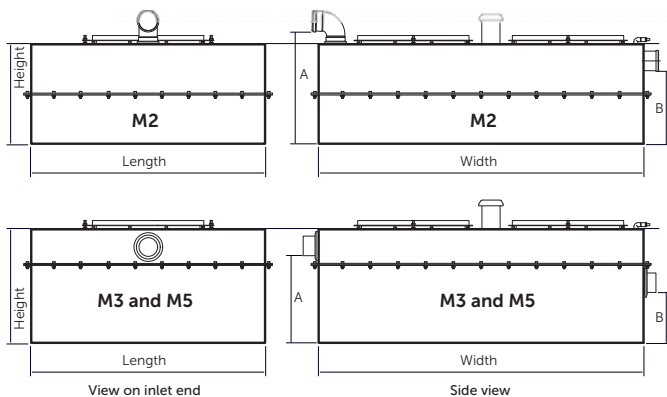
It's environmentally sensitive... CE approved to BS EN 12566 with an ammonia result that is 25 times better than the recommended EN standard means the Portapura is well within discharge consent requirements.

It's designed specifically for temporary sites... Design objectives included performance, running costs, installation, transport and storage, making the Portapura the logical choice for sites where temporary buildings are required. It can also be easily moved on flood risk sites.



Key

- 1 Inlet
- 2 Debris barrier
- 3 Air diffusers
- 4 Polylok tertiary filter
- 5 Outlet
- 6 Air pump connection
- 7 Recirculation to primary chamber
- 8 Air vent
- 9 Access covers (Available in brown or green)
- 10 Heavy duty shell
- 11 Compressor with alarm
- 12 Accoustic compressor housing



Specifications

Model	People served	Length +/-50mm	Width +/-50mm	Height +/-50mm	Inlet Invert (A)	Outlet Invert (B)	In/out Ø
M2	Up to 2	2750	980	415	445	270	Ø110
M3	Up to 3	2050	1500	600	450	245	Ø110
M5	Up to 5	2640	1500	800	650	345	Ø110

Notes:

- > For precise tank sizes and configurations, please contact Marsh Industries
- > Larger population plants can be supplied
- > All dimensions in mm

Whisspurr® Acoustic Vibration Reduction (AVR) unit

The Whisspurr AVR unit is designed to reduce noise and vibration from diaphragm compressors used in the water and wastewater treatment sectors.

Fitted inline between the compressor and air diffuser, the Whisspurr significantly reduces noise and vibration generated from the pulsation of the diaphragm compressor whilst enabling a consistent, unrestricted flow to the air diffuser.

The unit is suitable for all types of compressor; Bibus Secoh, Charles Austen, Nitto, etc.



Product safety

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.



Commissioning and servicing

Marsh Industries offers a nationwide service to cover all aspects of commissioning and servicing on the Marsh WellWater pump station range.

Commissioning and servicing packages can be tailored to customer requirements from basic commissioning contracts to commissioning and full service contracts, including on-going support and advice.

Advice and guidance

For advice and guidance on choosing the right products for your site please contact Marsh Industries on +44 (0)1933 654582 or email sales@marshindustries.co.uk



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