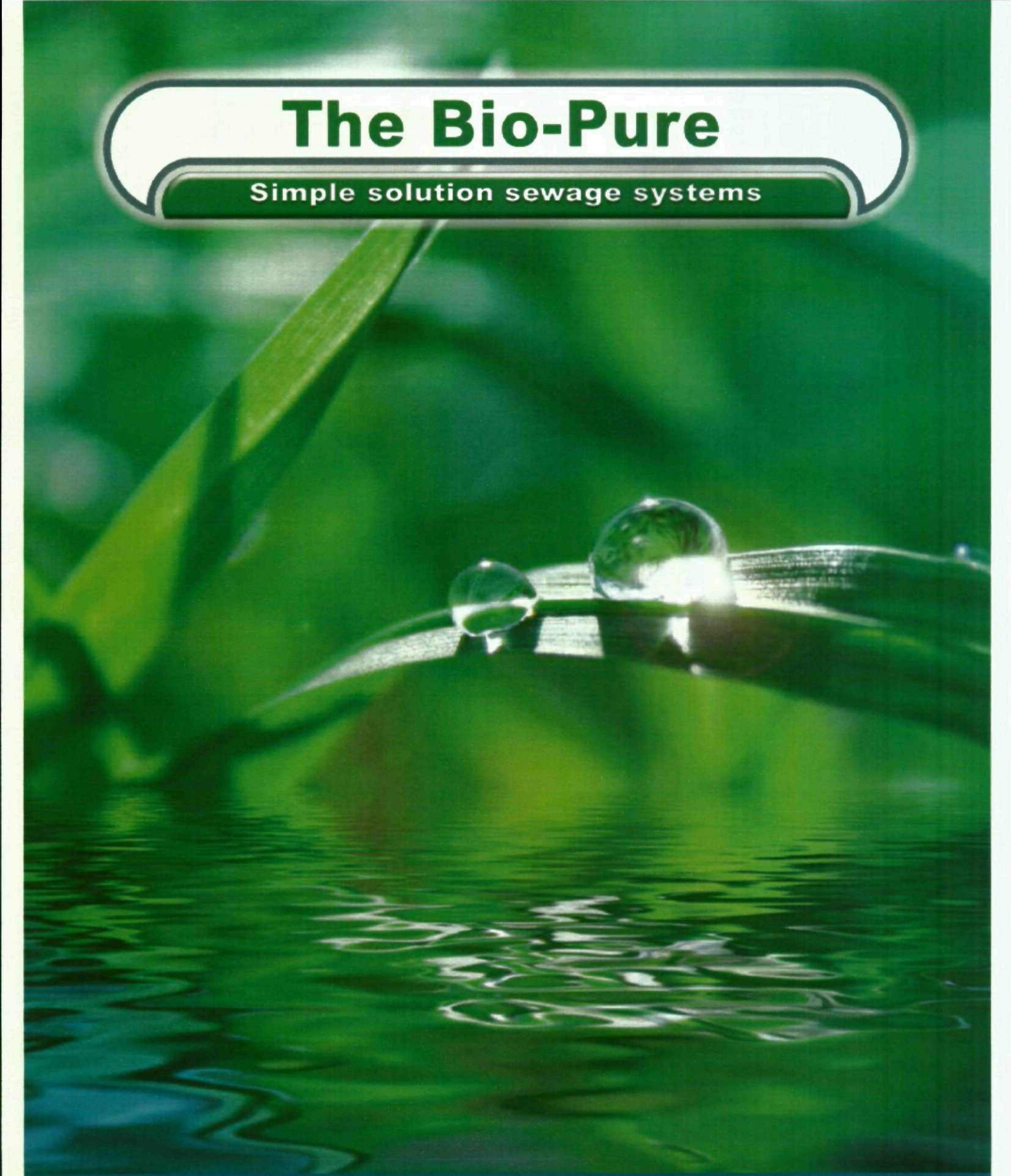




The Bio-Pure

Simple solution sewage systems

The Clear Solution for Wastewater Treatment

SINGLE HOUSES / SMALL COMMUNITIES / BARN CONVERSIONS / RENOVATIONS / SMALL / MEDIUM INDUSTRIAL UNITS / CAMPING SITES.

1 to 40 persons

What is

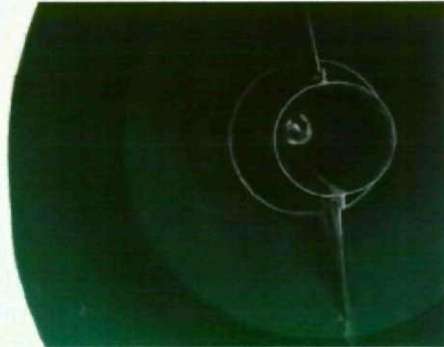
The Bio-Pure

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system?

The Bio-Pure sewage treatment range is designed to serve both domestic and commercial properties that have no access to mains drainage. The units are designed in accordance with BS 6297: 1983 in order to clean the final effluent to a standard of 20mg/l Biological Oxygen Demand (BOD) and 30mg/l Suspended Solids on a 95 percentile basis.

The range caters for between 1 and 40 persons



The unit offers a very discreet solution to on-site sewage treatment as the small lid is flush with the ground and unlike its rivals; the compressor housing is under the lid, with no visually intrusive kiosk. The Bio-Pure itself is craftsman built, superb quality, using thicker fibreglass than its rivals and stainless steel struts instead of aluminium, very robust and carries a 25yr guarantee on all GRP parts of the tank.

The Bio-Pure is the answer if you are looking for a top quality, discreet unit with low running costs. It offers outstanding value for money.

Benefits of

The Bio-Pure

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- **Typical 5 year emptying interval** achieves 95% solids digestion
- **Unique Anti-floatation Lugs** Allow the option for minimal concrete anchoring if preferred
- **ODOURLESS** No smelly primary settlement tank
- **25 year tank warranty** on all GRP parts of the tank. The compressor has a 2yr warranty
- **Low Visual Impact** compressor is housed under the lid which is flush with the ground
- **Cheap and Easy Installation** usually under 2 hours No concrete needed unless preferred

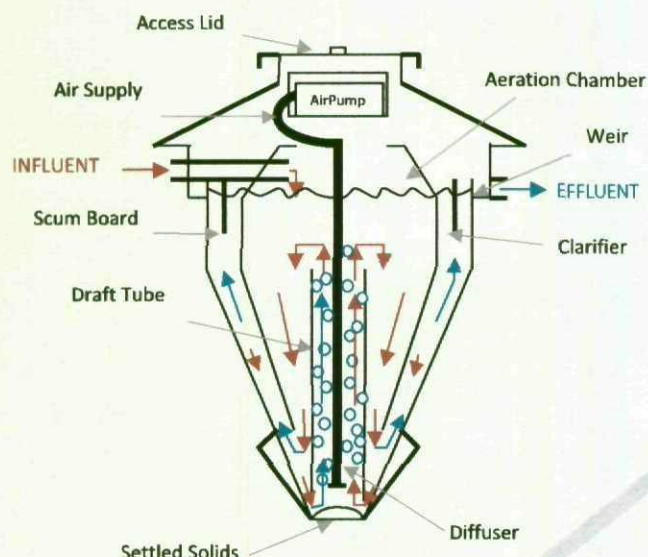
How does

The Bio-Pure

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work?

The Bio-Pure unit is a two-chamber unit and consists of a conical tank that contains an inner tank aeration chamber, which is open at the base. The space between the inner and outer tank is the clarifier chamber. A draft tube, positioned 100mm from the base of the clarifier, extends up into the aeration chamber.



Air from the compressor housed under the lid is piped to a diffuser in the draft tube. Raw sewage enters the aeration chamber and air surging up from the draft tube aerates the sewage, causing an aerobic bacterial colony to establish and digest the organic matter. As more raw sewage enters the chamber, an equal amount of effluent displaces through the open bottom into the clarifier. The quiet conditions in the clarifier allow all the suspended solids sink to the base of the clarifier and they are drawn back up the draft tube by the upward flow of air for further digestion in the aeration chamber. The clear effluent rises to the top of the clarifier and passes over a weir into the outlet pipe. The Bio-Pure constantly recycles the sewage via gravity and achieves nearly total solids digestion. Most sewage treatment units consist of three chambers, the first one being a Primary Settlement Tank where the solids form a septic sludge. They require regular emptying by tanker. Because the Bio-Pure digests the solids as well as the organic matter in the liquid, the unit has a much longer emptying interval than any three stage unit. The interval is 3 to 5 years.

Technical Specifications

Model	Bio-Pure 1	Bio-Pure 2	Bio-Pure 3	Bio-Pure 4	Bio-Pure 5	Bio-Pure 6	Bio-Pure 7	Bio-Pure 8	Bio-Pure 9
No. of persons	1 to 4	1 to 6	5 to 12	10 to 15	14 to 20	20 to 26	25 to 31	30 to 35	35 to 40
Max. average daily flow	800 ltr	1200 ltr	2400 ltr	3000 ltr	4000 ltr	5200 ltr	6200 ltr	7000 ltr	8000 ltr
Max. BOD/day	240 g	360 g	720 g	900 g	1,200 g	1,560 g	1,860 g	2,10 g	2,40 g
In ground depth	2.25 m	2.25 m	2.74 m	2.74 m	2.74 m	1 x 2.25 m 1 x 2.74 m	2 x 2.74 m	2 x 2.74 m	2 x 2.74 m
Outside Diameter	1.85 m	1.85 m	2.10 m	2.10 m	2.10 m	1 x 1.85 m 1 x 2.10 m	2 x 2.10 m	2 x 2.10 m	2 x 2.10 m
Inlet invert	570 mm	570 mm	700 mm	700 mm	700 mm	700 mm	700 mm	700 mm	700 mm
Outlet invert	670 mm	670 mm	800 mm	800 mm	800 mm	900 mm	900 mm	900 mm	900 mm
Weight empty	125 kgs	125 kgs	230 kgs	230 kgs	230 kgs	355 kgs	460 kgs	460 kgs	460 kgs
Total capacity	2270 ltr	2270 ltr	3975 ltr	3975 ltr	3975 ltr	6245 ltr	7950 ltr	7950 ltr	7950 ltr
Power consumption	60 w	80 w	140 w	160 w	220 w	300 w	360 w	380 w	440 w

The unit can be adapted to allow for ANY inlet or outlet invert level.

Installation of

The Bio-Pure

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The Bio-Pure is simple, quick and cheap to install as it has the option of NO concrete for the installation if desired. It requires only gravel as backfill as it is a robust, quality tank. Most other sewage treatment units require a concrete base and a min. 300mm concrete backfill because the fibreglass is thin and the tank is, in effect, only a 'liner'; the strength coming from concrete!



The unit itself is installed in two halves and the top is eye-bolted to the bottom before the tank is levelled, backfilled with the gravel and filled with water. The compressor sits in a chamber under the lid, which is designed to keep it safe and dry.

If you have a high water table, there are two installation options.

1. The Bio-Pure can be held down via 4 simple metal ground anchors which take 10 mins. to install. Backfill with gravel.
2. A small amount of concrete can be used, just to cover the anti-floatation Lugs, then backfill with gravel. Full installation manual available.

Maintenance of

The Bio-Pure

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The Bio-Pure is designed for ease of operation. It is supplied with the market's leading linear air pump and is designed to function automatically. The Bio-Pure requires less than one hour servicing per year with typical de-sludge intervals of 3 to 5 years.

Delivery of

The Bio-Pure

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All units are delivered on a grouping stage and delivery is normally within 10 working days after payment but some areas may take longer.



We Build It

simple solution sewage systems

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Bio-Pure sewage treatment



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The Bio-Pure

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What is

and how does it work?

What is the Bio-Pure system?

The Bio-Pure is a fibreglass conical shaped tank that is used for domestic sewerage treatment. The Bio-Pure works on the successful and simple extended aeration method, which means that the solids are treated as well as the liquids. The extended method that we use means that the sewerage is aerated for a minimum of 24 hours. Many other sewage systems only treat the sewage for a few hours. Treating the solids means that the Bio-Pure only needs emptying every 3-5 years typically, making it a simple and easy solution for sewage treatment.

The unit is available in 9 sizes to cater from 1 to 40 persons, and can be used for single houses, renovations, barn conversions, small communities, industrial units and camping sites. The Bio-Pure can therefore serve both domestic and commercial properties that have no access to mains drainage.

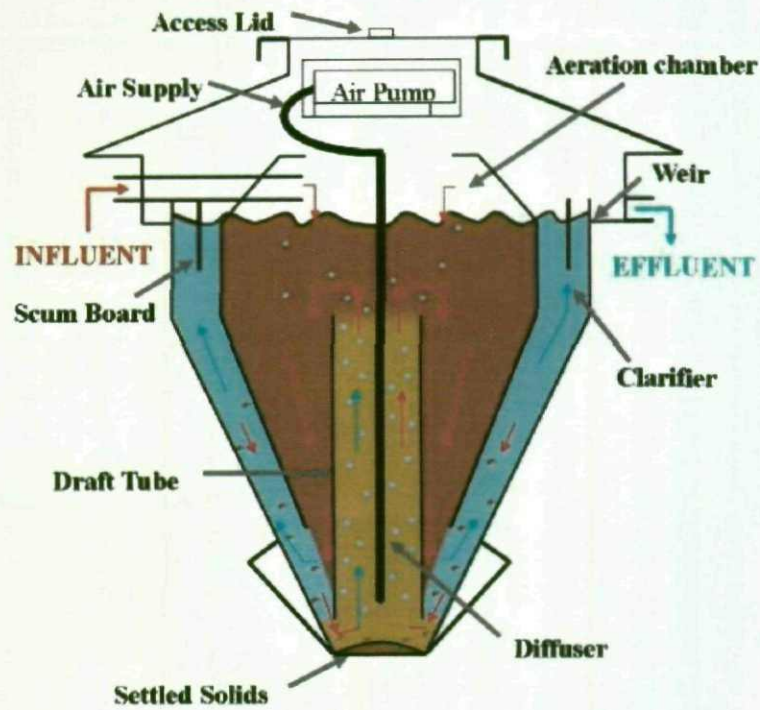
How does the Bio-Pure work?



The Bio-Pure is a two chamber unit and consists of a conical tank, with an inner circular aeration chamber inside, which is open at the base. The space between the inner and outer tank is the clarifier chamber. The draft tube is positioned 100 mm from the base of the clarifier, extends up into the aeration chamber. Air from the compressor housed under the lid is piped to a diffuser in the draft tube. Raw sewage enters the aeration chamber through the inlet pipe, flowing into the centre of the chamber. Air surging up from the draft tube aerates the sewage, causing an aerobic bacterial colony to establish and digest the organic matter.

As more raw sewage enters the chamber through the inlet pipe, an equal amount of effluent displaces through the open bottom into the clarifier (outer tank). The quiet conditions in the clarifier allow all the suspended solids to sink to the base of the clarifier and they are drawn back up the draft tube by the upward flow of air for further digestion in the aeration chamber. The clear effluent rises to the top of the clarifier and passes over a weir into the outlet pipe and is disposed of through a water course or soak away. The Bio-Pure constantly recycles the sewage via gravity and achieves nearly total solids digestion. Most sewage treatment units consist of three chambers, the first one being a Primary Settlement Tank where the solids form a septic sludge. They require regular emptying by tanker. Because the Bio-Pure digests the solids as well as the organic matter in the liquid, the unit has a much longer emptying interval than any three stage unit. The interval is 3 to 5 years.

The Bio-pure is 96% efficient thus allowing long intervals before de-sludge is required. The waste water is cleaned to a standard of 20 mg/l biological oxygen demand and 30 mg/l suspended solids, meeting the usual discharge level requirement.



We are open 8am- 8.30pm 7 days a week

We are a member of



BRITISH WATER
expertise worldwide



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