

New Haden Pumps

The Bio-Pac

Simple solution sewage systems



Manufacturers of the innovative Bio-Pac Sewage Treatment Plant

- ° UK Manufactured typical 5 year emptying interval achieves 95% solids digestion
- ° Odourless no smelly primary settlement tank
- ° 25 year tank warranty on all GRP parts of the tank. The compressor has a 2yr warranty
- ° Affordable high quality product
- ° One of the lowest
- ° Affordable high quality product
- ° One of the lowest running costs of any sewage treatment plant
- ° Lowest Visual Impact
- ° Cheap and easy installation no concrete needed unless preferred
- ° Unique Anti-floatation Lugs allow option for normal concrete anchoring if preferred.

What is The Bio-Pac system?

The Bio-Pac sewage treatment range is designed to serve both domestic and commercial properties that have no access to mains drainage. The units are independently tested and certificated to BS EN 12566-3 and clean the final effluent to a standard far better than the normal British Standards of 20 mg/l Biological Oxygen Demand (BOD) 30 mg/l Suspended Solids and 20 mg/l Ammonia on a 95 percentile basis.

The standard range caters for between 1 and 50 persons with bespoke units catering for up to 300 persons..

The unit offers a very discreet solution to on-site sewage treatment as a small lid is flush with the ground and unlike its rivals; the compressor housing is under the lid with no visually intrusive kiosk. Unique sludge return system designed and tested for low usage periods, offering unparalleled effluent quality in holiday home usage, The Bio-Pac itself is a craftsman built, superb quality (using thicker fibreglass than its rivals), very robust and carries a 25yr guarantee on all GRP parts of the tank.

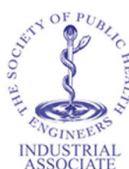
The Bio-Pac is the answer if you are looking for a top quality, discreet unit with low running costs. It offers outstanding value for money.



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Benefits of the Bio-Pac?

- UK Manufactured top quality construction
- Typical 3-5 year emptying interval achieves 95% solids digestion
- Odourless no smelly primary settlement tank
- 25 year tank warranty on all GRP parts of the tank. The compressor has a 2yr warranty
- Affordable high quality product
- One of the lowest running costs of any sewage treatment plant
- Lowest visual impact all contained under one lid
- Lowest cost installation solid construction means concrete not needed unless preferred
- Unique sludge return system further aids digestion of solids and performance during low usage periods
- Available with integrated pumped outlet with intelligent self-diagnostic alarm
- Bio-Pac E Range available with power consumption 50% less
- All standard units ex stock
- Nationwide service agreements with factory trained technicians
- Free telephone support with trained technicians

How does The Bio-Pac work?

The Bio-Pac 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 to sink to the base of the clarifier. They are drawn back up the draft tube by the upward flow of air, for further digestion in the aeration chamber. A small quantity of settled effluent from the top of the outer clarifying chamber is drawn back into the centre aeration chamber by a simple air lift system, for further digestion. The clear effluent rises to the top of the clarifier and passes over a weir into the outlet pipe. The Bio-Pac constantly recycles the sewage via gravity and the airlift system achieves near total solids digestion. Unlike all other extended aeration plants the unit will function during low usage periods making the unit suitable for holiday lets and other infrequent usages. Unlike other sewage treatment plants that are three stage systems, the Bio-Pac does without primary settlement tank and so can achieve extended intervals of up to 3 to 5 years without emptying.

TESTED AND CERTICATED TO BS EN 12566-3

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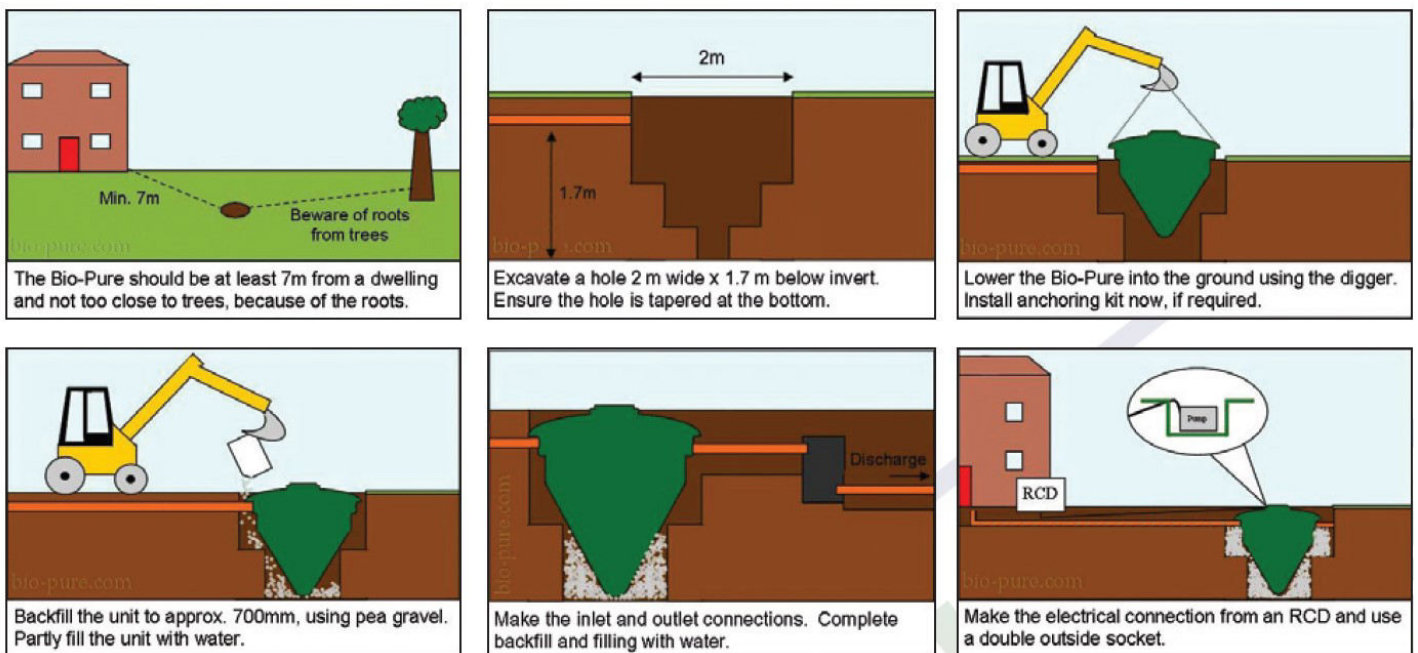
Technical Specifications

Model	Bio-Pac 1	Bio-Pac 2	Bio-Pac 3	Bio-Pac 4	Bio-Pac 5	Bio-Pac 6	Bio-Pac 7	Bio-Pac 8	Bio-Pac 9	Bio-Pac 10
No. of persons	1 to 5	1 to 7	5 to 13	10 to 16	14 to 22	20 to 27	25 to 32	30 to 36	35 to 42	40 to 55
Max. average daily flow	750ltr	1050ltr	1800ltr	2400ltr	3300ltr	4050ltr	4800ltr	5400ltr	6000ltr	8250ltr
Max. BOD/day	300g	420g	780g	960g	1320g	1620g	1820g	2160g	2520g	3300g
In-ground depth	2.25m	2.25m	2.44m	2.74m	2.74m	2.98m	2.98m	2x2.74m	2x2.74m	2x2.98m
Outside Diameter	1.85m	1.85m	2.10m	2.10m	2.10m	2.55m	2.55m	2x2.10m	2x2.10m	2x2.53m
Inlet invert	570mm	570mm	700mm	700mm	700mm	820mm	820mm	700mm	700mm	820mm
Outlet invert	670mm	670mm	800mm	800mm	800mm	920mm	920mm	900mm	900mm	1020mm
Weight empty	125kgs	125kgs	200kgs	230kgs	230kgs	350kgs	350kgs	460kgs	460kgs	800kgs
Total capacity	2270ltr	2270ltr	3000ltr	3975ltr	3975ltr	5610ltr	5610ltr	7950ltr	7950ltr	11220ltr
Power consumption	44w	74w	92w	148w	184w	184w	240w	332w	368w	424w
E-Range	27w	42w	65w	84w	130w	130w	210w	230w	280w	280w

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

DIY Installation of the Bio-Pac

The Bio-Pac is simple, quick and easy to install as the Bio-Pac is made from high quality, thick GRP, its construction needs no re-enforcement from concrete. Installation in a high water table can be achieved by either using a simple ground anchoring kit or a small amount of concrete.



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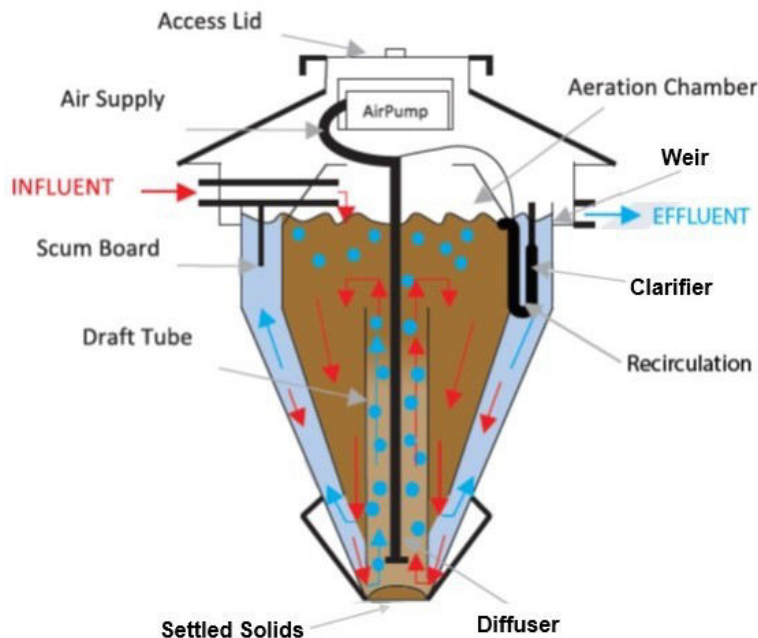
Approved Installation of the Bio-Pac

Full factory approved installations are available either directly or through factory approved installation companies, offering unparalleled service and value for money. Our approved installers can supply and install a Bio-Pac sewage treatment plant to suit your specific requirements, please ask for list of approved installers in your area. Above shows a simple installation but all installations are site specific. For more detail refer to our installation brochure.

Maintenance of Bio-Pac

The Bio-Pac 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-Pac requires one service per year with typical de-sludge intervals of 3-5 years.

Service agreements are available either directly or through approved service providers. Factory trained technicians can undertake service requirements of your Bio-Pac sewage treatment plant to achieve its full potential.



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