BIOROCK

EN 12566-3: 2005



No Electricity
Packaged Sewage Treatment Units
Septic Tank Upgrades

SAVE UP TO £700 PER YEAR - EVERY YEAR

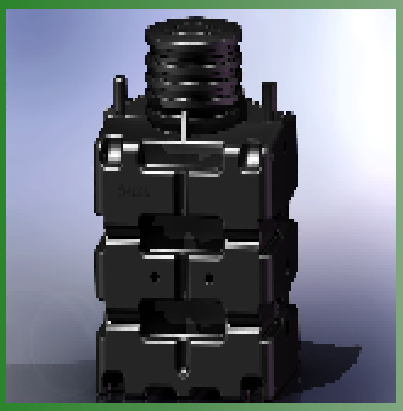
BIOROCK

The BIOROCK is designed to biologically purify pre-settled domestic wastewater, free of oils and grease. It is a modular conception and operates in a unique way that eliminates the need for electricity to power the treatment process.

The BIOROCK is the most **sustainable** Sewage Treatment Unit available as the whole treatment process operates under gravity and should electricity be required for the outlet it can be done via solar power. If however mains electricity is used to pump the treated effluent a year it cost around 75p per person per year.

As a result of its simple operation a 5 person BIOROCK ™ will save you approximately **£400 per year every year** on running costs compared to the UK market leader. **This is a saving of approximately £2000 over 5 years.**

The bigger the system the bigger the saving.



5 Person BIOROCK Filter



5 Person BIOROCK system with the **optional** 3000L “no concrete” settlement tank

Advantages of BIOROCK

- ❑No energy consumption for the purification
- ❑Can operate using NO electricity if required
- ❑Long emptying interval
- ❑No internal moving parts
- ❑Lowest running costs of any system
- ❑Smallest carbon footprint of any system
- ❑Best effluent quality of any standard UK system
- ❑Ability to handle absence periods (holidays)
- ❑Fast start-up period (1 day)
- ❑Ability to handle intermittent loadings (peak and low flows) i.e. holiday homes.
- ❑Compact and underground installation
- ❑Low visual footprint
- ❑Easy to install
- ❑Minimum maintenance
- ❑Odour and noise free
- ❑Official Certificate of EN 12566-3: 2005
- ❑Due to its modular construction populations of up to 250 can be catered for.

The BIOROCK typically produces effluent to a 10:10:10 standard or better.

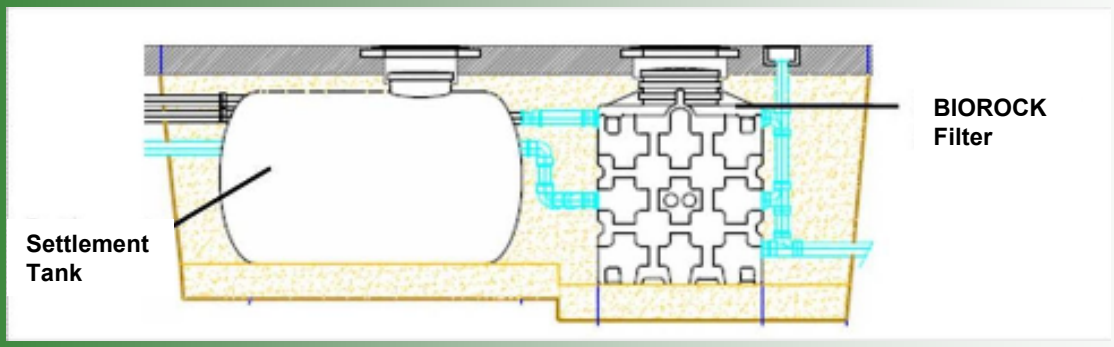
The Royal Commission Standard for effluent quality is 20:30:20.

This makes the BIOROCK effluent more than twice as clean as the required Royal Commission Standard

BIOROCK® – How It Works

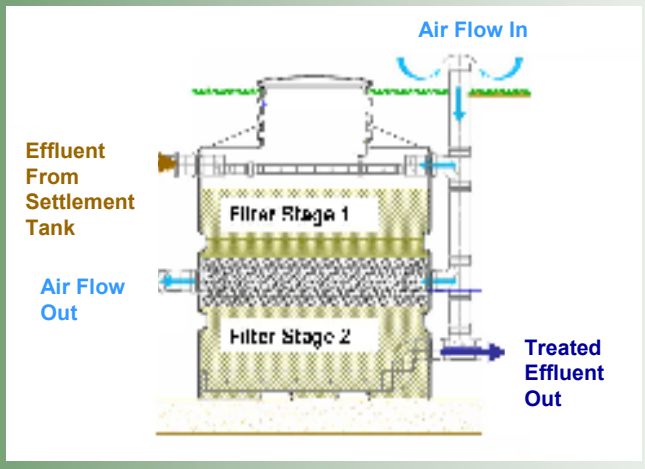
The BIOROCK treats wastewater in the way nature intended. In nature sewage is broken down in the air and the soil **not** in water. This is because oxygen is the key requirement for aerobic digestion and there can only ever be a limited amount of oxygen in water.

The BIOROCK is a dual tank Sewage Treatment Plant – Settlement Tank followed by the BIOROCK Filter.



The raw sewage first enters the settlement tank which separates the solids from the liquid part of the effluent.

This pre-filter digests most of the solids anaerobically and only requires emptying every 3 to 4 years. The Primary Effluent then enters the BIOROCK biofilter which uses layers of natural fibre material in contact with air to treat the effluent in exactly the same way as Nature treats effluent in the soil or on the margins of a pond.



Bacteria grow in the fibre and digest the organic material as it trickles through. Instead of using electricity-guzzling compressors to provide the air, the BIOROCK biofilter utilises the wind and natural 'chimney-draft' to pull the air through the plant with no electricity required.

The natural fibre works with nature, not against it and is self-cleaning.

The pre-filter tank is included in the sewage treatment package.

BIOROCK® – Options

- **Gravity**- For sites on a slope no electricity is required at all as the outlet can be run straight to a soakaway or watercourse via gravity.
- **Standard Pump**- For most sites not on a slope a pump will be required to raise the treated effluent to within 500mm below ground level. From here the treated effluent will run under gravity to your soakaway or watercourse. This pump is the only electrical component and costs about 35p per person per year to run.
- **Solar Powered Pump**- Where it is difficult or costly to run electricity to the BIOROCK a solar powered pump can be provided.
- **Septic Tank Upgrade**- If you already have an existing rectangular or cylindrical septic tank it can be upgraded to a full Sewage Treatment Plant by simply adding the BIOROCK Filter on to the outlet.
- **Settlement Tanks-** The Settlement Tanks come in two classes. The Class 1 is thicker and only requires a concrete base with a granular surround. The Class 2 requires a full concrete surround. The Class 2 is supplied as standard.

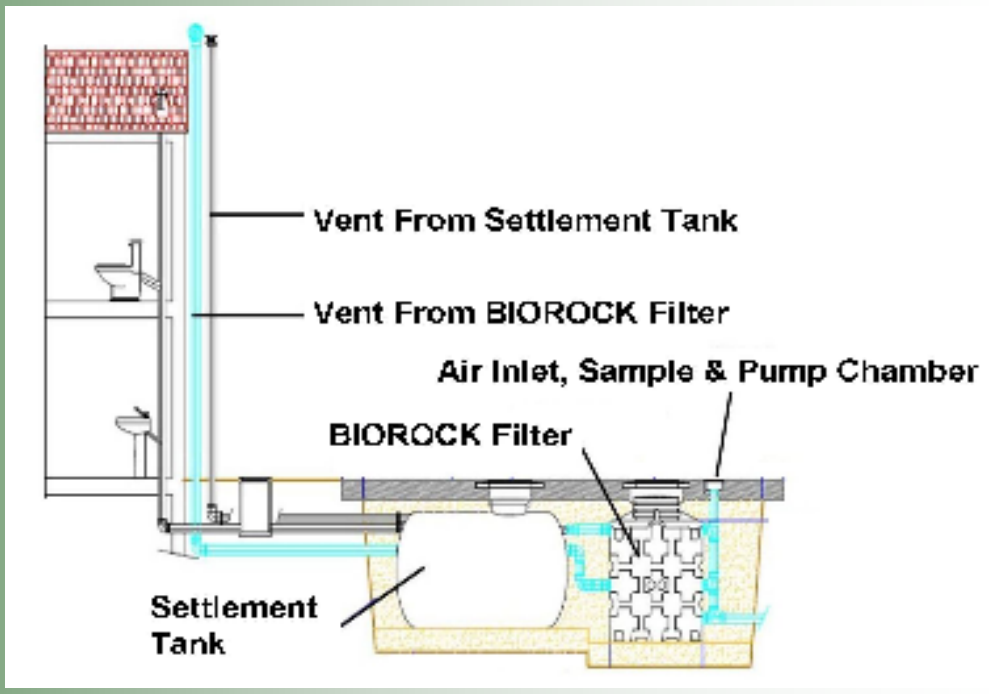
The BIOROCK is certified to EN 12566-3: 2005

BIOROCK® – Installation

The big attractions of the BIOROCK is that it is quick, easy and cheap to install.

The BIOROCK operates in a unique way and although it is easy to install it must be installed or overseen by trained personnel who understand the system.

Please contact us below to find installers in your area.



BIOROCK® – Maintenance

Like all sewage treatment units, the system requires regular servicing. This is a Condition of your E.A. Consent to Discharge. The BIOROCK comes with a 15yr. tank guarantee which is also only valid if the unit is serviced as per the manufacturers' instructions by qualified Engineers.

Typical de-sludge intervals are 3 to 4 years. Service agreements are available through Waste Tech Environmental Ltd.

Keep our streams and rivers safe for our children. **Never** allow unqualified persons to tamper with your unit.

BIOROCK® – Technical Specification

	BIOROCK 5	BIOROCK 10	BIOROCK 15
Population	5	10	15
Settlement Tank	2676mm x 1200mm x 1600mm (Length x Width x Height)	2787mm x 1500mm x 1800mm (Length x Width x Height)	4202mm x 1500mm x 1600mm (Length x Width x Height)
Settlement Tank Inlet Invert **Settlement Tank Outlet Invert**	500mm 550mm	500mm 550mm	500mm 550mm
BIOROCK Biofilter	1150mm x 1150mm x 2040mm (Length x Width x Height)	1400mm x 1150mm x 2040mm (Length x Width x Height)	2150mm x 1150mm x 2040mm (Length x Width x Height)
Biorock Inlet Invert **Biorock Outlet Invert**	600mm 1740mm	600mm 1740mm	600mm 1740mm

BIOROCK® – Contact

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