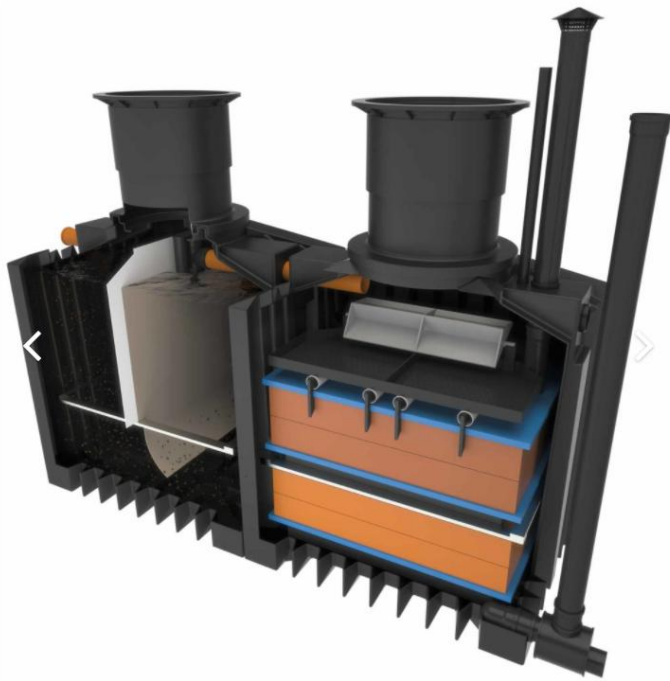


Appendix F – SEWAGE

Clear Fox – Non Electric Domestic Sewage Treatment Plant



Sustainable and environmentally friendly non electric sewage treatment for up to 32 persons

- Zero energy treatment process
- No replacement parts ever required
- Minimal maintenance
- Simple to install
- Suitable for off grid / passive house projects
- Certified to EN12566-3
- Installed in over 50 countries
- Fully biological treatment without the need for chemicals
- Suitable for cleaning grey and black water
- Below and above ground options available

If you are building a new house or need a septic tank upgrade, then the ClearFox® non electric domestic wastewater treatment plant, or the low energy sewage treatment systems we have represent the most robust, reliable and cost efficient solution on the market. Our experts are available to speak to and give advice on how to upgrade your septic tank or how to install a domestic wastewater treatment plant.

ADVANTAGES

The ClearFox® Nature is the best wastewater treatment system to choose if you want a reliable, sustainable and eco friendly solution for your home.

There are many advantages of the CFN compared to any competitor products. These include the following unique selling points;

- No electricity used to treat wastewater
- No replacement parts – saving money every year
- Low maintenance when compared to conventional sewage treatment plants
- High strength tank reinforced with stainless steel
- Manufactured from corrosion resistant HDPE
- Suitable for above or below ground installation
- Can deal with high and low wastewater flow volumes without issue
- A flat base for simple installation
- Manhole extensions for deep installations
- Simple trouble free operation
- Certified to EN12566-3
- Manufactured in Germany under strict quality guidelines
- Exported to over 50 countries
- Excellent after sales service

Whether you are a homeowner looking for the best solution for your home, a construction company looking for a reliable system to install on your project, or an agent/distributor looking for a market leading solution – the ClearFox nature is the system for you.

THE PROCESS TECHNOLOGY

Cleaning is completed in three stages. The raw wastewater is led into the pre-chamber where the wastewater will be settled and buffered. Primary sludge will sink to the tank bottom and will reduce its volume by digestion in the absence of air. On the outlet of the pre-chamber, the water is hydraulically controlled to buffer peak flows. The wastewater is then distributed evenly over the entire day and forwarded to the bioreactor downstream.

Product features:

- Equalisation of hydraulic peaks
- Plug and Play
- Biofilm suitable for underload and overload
- Biofilter material never needs to be replaced

The Bioreactor of the non electric domestic sewage plant

The bioreactor consists of a system with aeration elements and media which are arranged above each other in a special order. On the surface of the bioreactor, there is a distribution device which evenly spreads the wastewater over the surface of the media. A flow control device controls the flow from the buffer tank into the biological reactor. This balances peak flows which can cause issues for other sewage systems.

On the fixed media in the biological reactor, bacteria grows and cleans the wastewater naturally. Due to the cascaded plug flow, the water will be entirely cleaned in only one pass through the reactor. At the same time, the secondary sludge is reduced in volume and biologically degraded.

Due to this process technology a further secondary sludge holding tank (such as in conventional biofilm plants) is not required. The special feature of the clearfox nature is that the media never needs to be replaced. This is a unique feature of the clearfox nature system and ensure low cost and reliable operation.

High-performance aeration system

A high-performance aeration system with internal air distribution elements supplies oxygen to the bacteria. Due to the high air circulation, a completely biological degradation is guaranteed. The wastewater filter elements add a mechanical/physical cleaning effect to this biological process.

Many old fashioned systems have air pumps running 24 hours a day mixing air with the wastewater as part of the treatment process. Clearfox low energy sewage treatment plants have the lowest running costs on the market. This had been independently verified by extended independent tests. If you compare our EN12566-3 certification with any competitor system you will see this. Our systems are EN12566-3 approved for use in Europe. They also meet international requirements.

