

Floating wastewater treatment with membrane bioreactor technology



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Product information

BUSSE Green Technologies Inc.:

Wastewater treatment system

BUSSE-GT for use on

floating objects

***Floating wastewater treatment –
with membrane bioreactor technology BUSSE-GT***

Floating domestic wastewater treatment made in Germany

The BUSSE-GT domestic sewage treatment system uses membrane bioreactor technology, currently the most advanced method of wastewater treatment. It is the first system with this type of technology in the US. It has been certified by NSF International according to standards 40 & 245 for USA and North America in 2008. The German University of Hannover and the Technical University of Berlin also tested the BUSSE-system. The result: The water from the system in regular use is significant better than the limits set by DIBt Berlin and the applicable law. In 2008, the BUSSE-system has successfully surpassed the certification by Institute PIA in Aachen according to the EU-Norm for decentralized wastewater treatment, as well. The BUSSE-system was originally developed in Leipzig/Germany and is produced there according to high German production standards.

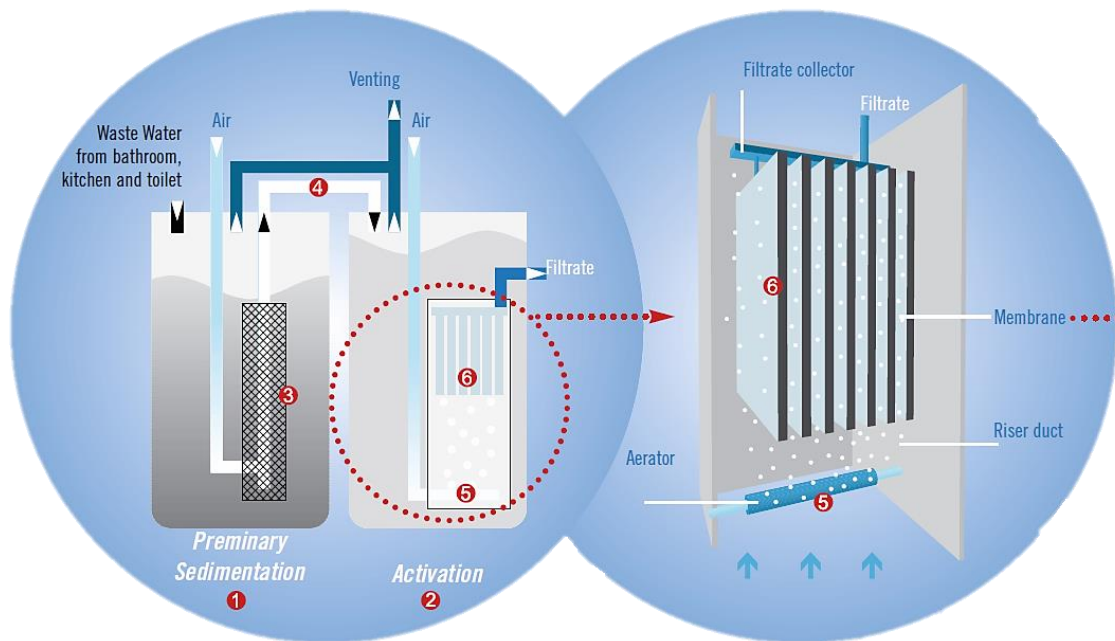
Due to its compact and modular structure the BUSSE-system can also be adapted for installations on house boats, floating homes, theaters, museums and restaurant ships, as well as ferries or larger yachts. For precise adaption to the individual case, different tank sizes and tank systems are chosen or individually manufactured. Available space is being used to an optimum. Due to the in indoor-installation the systems can be maintained at any season. Therefore full efficiency is ensured. The effluent of the system can be re-used for flushing the toilets, cleaning the deck or can be discharged directly to the surrounding waters.



The pre-cleaning stage with space for technical equipment is placed in the starboard floating body. The aeration stage is placed on the port side.

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How it works



The BUSSE-GT small size sewage treatment system consists of two treatment steps, namely pre-treatment (1) and aeration (2). In the pre-treatment-step, which also serves as a wastewater storage, biologically degradable coarse material such as, e.g., feces, toilet paper, are dissolved and the non-degradable materials are separated from the wastewater by an aerated sieve (3). A pump (4) pumps the pre-treated to the aeration section. In this step microorganisms and oxygen (5) degrade the organic matter in the wastewater biologically. In addition to this, the treated wastewater passes through microfiltration membranes (6 – ultra fine filter with < 0.2 µm). Hygienically harmless water (filtrate) leaves the system.

Advantages at a glance

- ✓ Purification of the overall wastewater on board (toilet, shower, pantry)
- ✓ No expensive wastewater disposal at pumping stations
- ✓ Highest purification level for restoring wastewater to a hygienic condition fit for use as re-use water
- ✓ Flexibly installable in lower deck, engine room or engineering room
- ✓ Small foot print
- ✓ Extremely quiet operation
- ✓ No odor nuisance
- ✓ Low operating costs due to intelligent control technology
- ✓ No constant sludge removal needed
- ✓ Safe investment for the future due to clear shortfall to legal requirements