How Small Commercial Systems Work

The Busse MF Small Size Sewage Treatment System is designed on the basis of DIN 4261 part 2 and is comprised of two treatment steps, pre-treatment (1) and aeration (2). At the pretreatment step, which also serves as waste water storeage, biologically degradable coarse material such as, e.g., faeces, toilet paper, are dissolved and the non-dissolving components separated from the waste water by an aerated sieve (3). A pump (4) pumps the water, from which the coarse material has been separated, to the aeration section. In this step the organic matter in the waste water is degraded biologically by microorganisms and oxygen (5). In addition to this, the waste water is treated physically by microfiltration membranes (6) (ultrafine filter with 0.4 µm pore size). These membrane filters eliminate suspended material, as well as bacteria and germs, ensuring that only totally clear, odourless, hygienically harmless water (filtrate) leaves the system.

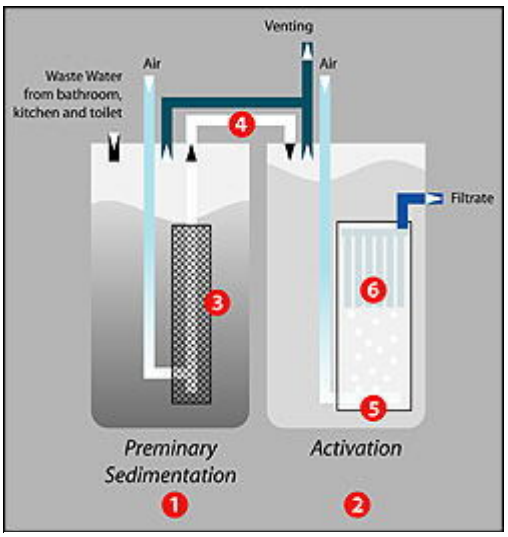

Diagram of the functional principle of microfiltration technology

The BusseGT has passed the certification process of NSF International Standard 40 and 245 for USA and North America in 2008. The test results show that the system elates over 95 % of the COD and over 95 % of BOD5. It has been proven during the certification process that the BusseGT system using microfiltration membranes can hold back all bacteria and viruses and therefore also meets the requirements of the Washington State Legislature Hygienic Standard. The filtrate is fit for re-use without further treatment.

MBR sewage treatment systems designed for 250 to 2000 Gal/D

Small scale BusseGT systems for complete installation in houses for 250 / 500 / 750 Gal/d

Due to its small footprint and odourless operation the BusseGT small scale sewage treatment systems can be installed in the basement of a house. The waste water from the household enters the system by gravity flow. No expensive earthmoving is necessary.

installation 250 / 500 / 750
size ratio

Small scale BusseGT systems in combination with existing septic tanks for 250 / 500 / 750 Gal/d

If the waste water cannot enter the system by gravity flow an outside in ground waste water buffer tank is needed or an existing septic tank can be used. The tank is then equipped with a pumping unit with an aerated coarse matter separator and serves as the first stage of the system. The pre-cleaned water is then pumped into the MBR stage of the BusseGT.

installation 250 ST / 500 ST / 750 ST
size ratio

Small scale sewage treatment systems BusseGT for 1000 Gal/d

Compartments in different sizes and made of different materials are available to build the BusseGT system types for 16 und 24 inhabitant equivalents. Depending on the size and floor plan of the building tanks in sizes of 1000, 1500, 2000 or 3000 liters can be selected for use in the system.

installation 1000 ST
size ratio

Small scale sewage treatment systems BusseGT for 1500 Gal/d

Due to its modular structure the BusseGT allows for individual solutions that can be adapted to almost any room. Even longer distances between the existing in ground septic tank and the room where the MBR stage is installed pose no problems.

installation 1500 ST
size ratio

Small scale sewage treatment systems BusseGT for 2000 Gal/d

The odourless and extremely quiet operation of the BusseGT systems allow for an installation inside of buildings that are designed for living and working. The installation inside closed rooms makes the maintenance service and operational inspection of the systems very easy.

installation 2000 ST
size ratio