

The BioTopp plant is the only system combining highest purification rates with sludge management. It is the optimal technology to meet highest ecological standards. With the process controlled nutrient removal and sludge humification we produce sustainable and hygienic soil fertilizer.

The BioTopp sewage system suits from one up to 30,000 inhabitants.



The BioTopp on-site treatment plant requires less than half of the space of a traditional sewage treatment plant with a primary sedimentation tank. Therefore it is compact and fitable for different tank shapes in plastic or concrete.



The panel is equipped with an integrated blackouts and flooding alarm. It adapts automatically to the sewage load to secure a high purification degree even in cases of low and high fluctuation in the sewage load. In times of little sewage flow it switches to economy level saving energy and money. Upgrading of any septic tanks to a biological treatment plant can be easily achieved with our BioTopp advanced-treatment kit without interfering with its structure.



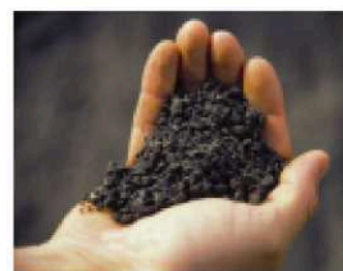
The BioTopp waste water treatment plant is thoroughly mixed and aerated. This means no foul gases will develop therefore no odour problems or tank corrosion.

The two aeration chambers can be controlled separately so that nutrient are optimal removal. This results in an exceptionally high nutrient removal rate which includes nitrogen and phosphorus without any additive chemicals.



The BioTopp plant produces only stabilized sludge and no faecal sludge. This sludge can be transformed into dried sludge soil with our BioTopp sludge drying process. This dried matter is a high quality fertilizer.

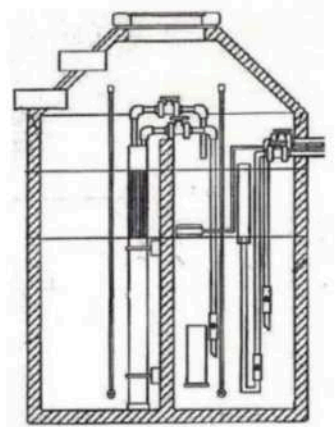
The BioTopp sludge drying makes the disposal of the faecal sludge through a tank vehicle obsolete! A plant for four users produces just 4-5 kg of dried sludge soil in a year. Contrary to that a traditional plant of equal size with primary sedimentation produces about 2000 kg (2 m³) of faecal sludge per year which has to be pumped out and transported to the next municipal sewage plant for further treatment.



The optional BioTopp hygiene unit allows a purity of the water that concurs to the European bathing water regulations. Therefore it can be used as process water and for irrigation.

THE BIOTOPP PROCESS

With the creation of the BioTopp process we succeeded in developing an economic, waste-free biological sewage treatment system. The biological aeration process strengthens the operational reliability of the plant considerably and reduced it to half installation size. The concept of the two separately running aeration chambers results in an exceptionally high nutrient elimination and purification. In the first chamber the deconstruction of carbon and a denitrification process are optimized and biological phosphor elimination is enhanced. Chamber two is for nitrification and further deconstruction of carbon. At this stage the excess sludge can be directly used as fertilizer in agriculture or alternatively can be further treated in our sludge drying unit. This SBR-process has proven its efficiency and reliability since 1997.



THE BIOTOPP DRIED SLUDGE SOIL

The BioTopp sludge drying unit consists of a layer of gravel covered by a layer of sand which can be planted with reed if desired for optical reasons. When the sludge level in the plant gets to high the excess sludge will be pumped to one of the sludge drying beds. The sludge gets drained and the drainage flows back into the plant for further treatment.



The sludge dries naturally in the sun. UV-radiation and other natural processes causing decontamination and humification of the dried matter. The sludge dries out to flat cakes with a thickness of about 3 -5 mm. They can easy mixed with other compost or soil to enhance soil fertility.

GERMAN TECHNOLOGY SUPPORT BY ÖKOSERVICE GMBH