

# Upgrade of tanks

into an odourless sewage treatment plants













### In what situations upgrade of tanks is possible?

#### 1. Drainage treatment plant

A drainage treatment plant that has been operating for several or a dozen years no longer works properly: the infiltration system installed in the ground loses its patency, which prevents further use of the treatment plant. In such a situation, it is possible to use modern BIO EASY FLOW technology. Thanks to its use, it is possible to upgrade an existing sewage treatment plant tank into an odourless sewage treatment plant.

The treated sewage is characterized by high clarity, complete absence of odors and content of nitrogen and phosphorus. Therefore, they are used to water plants in the garden using the mobile GREEN SHOWER system. You will save on water and fertilizers. By installing RET-ROFIT, you will not destroy your garden because the installation takes place inside the existing tank.

### 2. Sewage septic tank

If the building is connected to a septic tank, the user is exposed to both frequent sewage disposal and the discomfort associated with the tank overflowing at the least expected moments, e.g. just before the weekend. The rapidly rising costs of sewage disposal constitute a significant financial burden. In such a situation, one of the solutions is to upgrade the existing domestic sewage tank to a fully biological, odorless BIO EASY FLOW sewage treatment plant. Treated sewage can be discharged to an infiltration plots or to beds with greenery.

#### Series

Index	Model	
A/0226	Retrofit <b>O 1-6</b>	dedicated to settling tanks with a capacity of max. 3500 l
A/0246	Retrofit <b>O 1-8</b>	dedicated to settling tanks with a capacity of max. 4500 l
A/0247	Retrofit <b>O 2-10</b>	dedicated to settling tanks with a capacity of max. 6000 l
A/0248	Retrofit <b>S 1-8</b>	dedicated for septic tanks with a capacity of 3500 l - 10000 l
A/0227	Retrofit <b>S 2-10</b>	dedicated for septic tanks with a capacity of 6000 l - 12000 l
A/0249	Retrofit <b>2S 2-10</b>	for two- and three-chamber septic tanks with a capacity of 10000 - 12000 l

# Benefits of the BIO EASY FLOW technology:

- Total odourlessness of the purification process
- Very fast payback on tank upgrades
- Rare disposal of excess sludge once every few years
- Possibility to use treated wastewater for watering plants
- innovative quick-connect pump with two alternative drains

# Principles of operation of the BIO EASY FLOW treatment plant:

The treatment plant operates as a sequential batch reactor, in which treatment takes place using high-efficiency activated sludge technology, and its operation is controlled through a microprocessor controller located in the technical box.

# Operation phases of the treatment plant:

- alternate aeration,
- sedimentation,
- pumping out of treated wastewater.

BIO EASY FLOW sets have a current certificate of conformity with PN-EN 12566-3.



Possibility to connect 2 independent irrigation systems



Clarified water after sedimentation, used for irrigation.

## Installation options for different tank placement depths

**Option 1**High extension riser, drainage pipes in the tank riser.







**Option 2**Low tank riser, drainage pipes in the tank wall.







**Option 3**Without tank riser, drainage pipes in the tank wall.







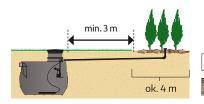
# A system for the management of treated wastewater through GREEN SHOWER irrigation (HABA patent)



### Decorative plant plots

It is the GREEN SHOWER irrigation system that discharges the treated sewage to selected points of the plot. There may be one or more plots.

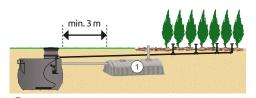
The space requirement is approx.  $3 \div 4 \text{ m}^2/1\text{PE}$ . Water-loving plants work well in the plot.





#### Linear and perimeter irrigation

Thanks to the use of the patented GREEN SHOWER linear sprinklers, this system allows the use of treated sewage to irrigate plants located in different parts of the garden. For example, you can design rectilinear, circular or other irrigation.





1 Additional infiltration tunnel in case of frequent power outages



GREEN SHOWER field sprinkler with quick connector



Plot distributor



GREEN SHOWER linear sprinkler for hose connection



GREEN SHOWER **mobile**, surface sprinkler



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