

GeoTrap grey water filter

Manual for assembly and use



Package content

- filter well with a lid (two in the Geotrap unit)
- filtering mass: 2 bags of GeoTrap -nutrient trap material
- joints and gaskets for in- and outlets (75 mm tube)
- a ladle for changing the filter material
- gauze for the grease separating well (in the unit delivery)
- instructions for assembly and use with pictures

Assembly site

The assembly site should be flat, fairly hard ground. The filter bodies can be dug into ground or placed totally on ground. When the well is embedded, it is important to leave the lid above ground to enable free access for service.

If the filter is in use during winter, below zero temperatures, it should be insulated with insulating boards and/or equipped with a self-adjusting frost protecting cable. If there is no use during low temperatures, no insulation is needed. Freezing will not break the filter body, even if there would be water and mass inside.

The ground for the filter should be filled with gravel bed of 10-20 cm to allow rain fall through the filter bed and to get the filter assembled horizontally.

Assembly

The in- and outlets are ready in place. There are gaskets in both holes and an inner cylinder in the outlet tube. The filter can be installed to an existing waste water line, if the tubes are in good shape and working. If the tube size of the drain differs from the GeoTrap joints of 75 mm – suitable reducers can be acquired from a hardware store.

If the existing drain has ventilation, there is no need to add ventilation before Geotrap. In case there is no ventilation, it should be installed to the drain line coming into the filter. Usually, with a T-joint and a ventilation tube hat, the necessary ventilation can be arranged (see attached drawings).

The purified waste water can be let to the ground from the filter. However, one should avoid letting the waste water directly to water, eg. to a ditch. A good place is towards plants like large trees or bushes, which can utilize the purified water. Alternatively, a small pit with rocks can be built for the outlet.

If waste water both from the kitchen and the bathroom/sauna are led to GeoTrap, a grease separating well (a part of GeoTrap grey water filter unit) should be installed before the actual GeoTrap Filter. The first well gathers all solid material and grease from the waste water thus growing the purifying capacity of the system. The solid material and the grease should be removed from the well regularly.

With the grease separating well, a gauze is delivered. It can be used in the first part of the GeoTrap Grey Water Filtering unit to help keeping the well clean. When cleaning the filter unit, the gauze can be taken

out together with the grease and solids and all that waste can be put to a composter. However, the gauze is not obligatory – the well works normally also without it. The purpose of the gauze is to ease the cleaning.

Installation example



Use and maintenance

When the filter/s are installed, the filtering materials can be put into the Geotrap Filter. Mass A to the bottom of the filter and mass B into the inner cylinder in front of the outlet.



When the wastewater flows inside the filter, the masses will eventually get mixed, but that has no effect on the performance of the filter.

In seasonal use, the masses should be changed once a year. In continuous use, twice a year change is needed.

Use the ladle to take out the used filtering masses (or most of them). There is no need to get the well totally empty. The used filtering masses can be put to a compost or to fertilize plants directly. The used mass has absorbed nutrients and plants can absorb them into use by roots.

Then, pour new GeoTrap masses into the well to continue the use. Please note, that it is good to let the mass get wet for at least 2-3 hours before using the filter. The mass will

absorb water and fall down to the bottom of the filter.

Measurements

- diameter 72 cm (inner diameter 70 cm)
- collar at the bottom 2 cm
- height 50 cm (higher wells available by special order)
- Weight without the masses 24 kg
- Weight without with filtering mass 38 kg
- Designed and manufactured in Finland

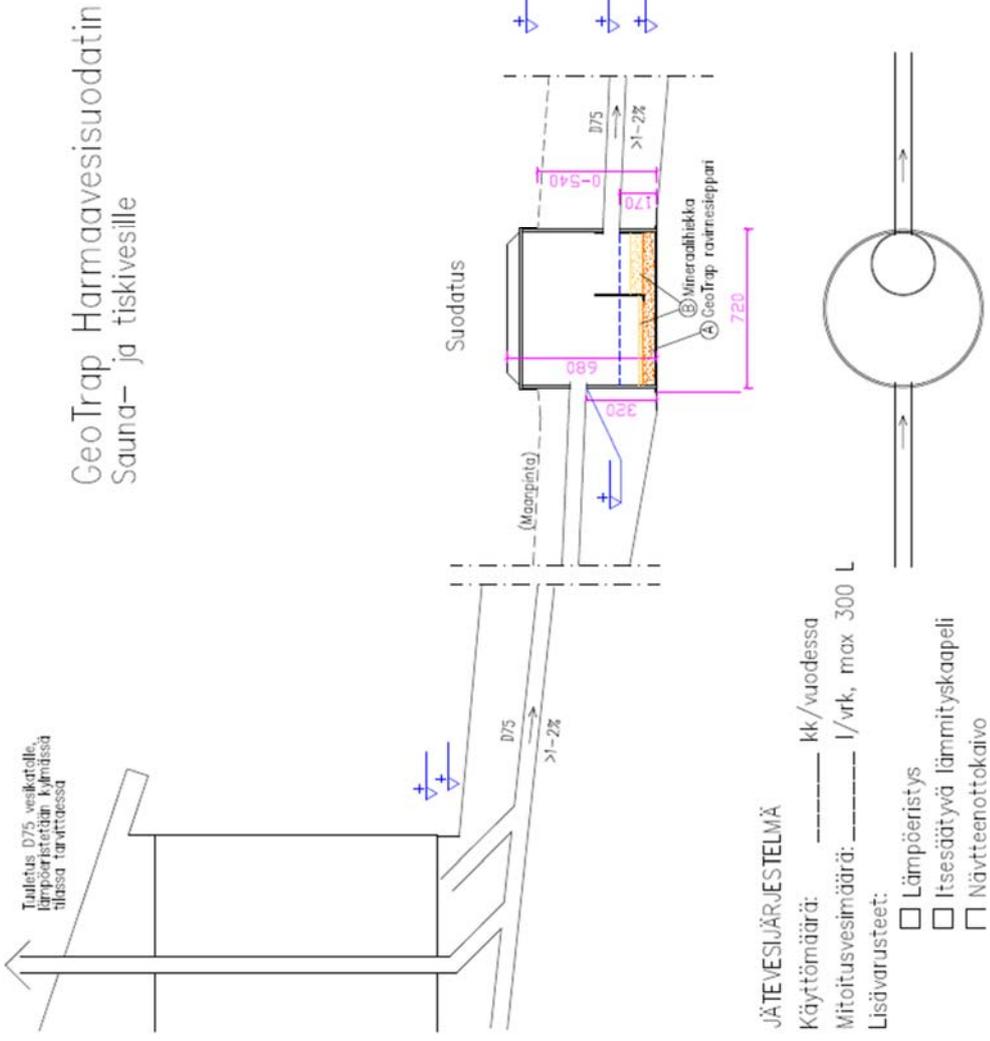
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GeoTrap grey water filter installation



GeoTrap grey water filter unit with grease water well installation

GeoTrap Harmaavesisuodatin Sauna-, suihku- ja tiskivesille

