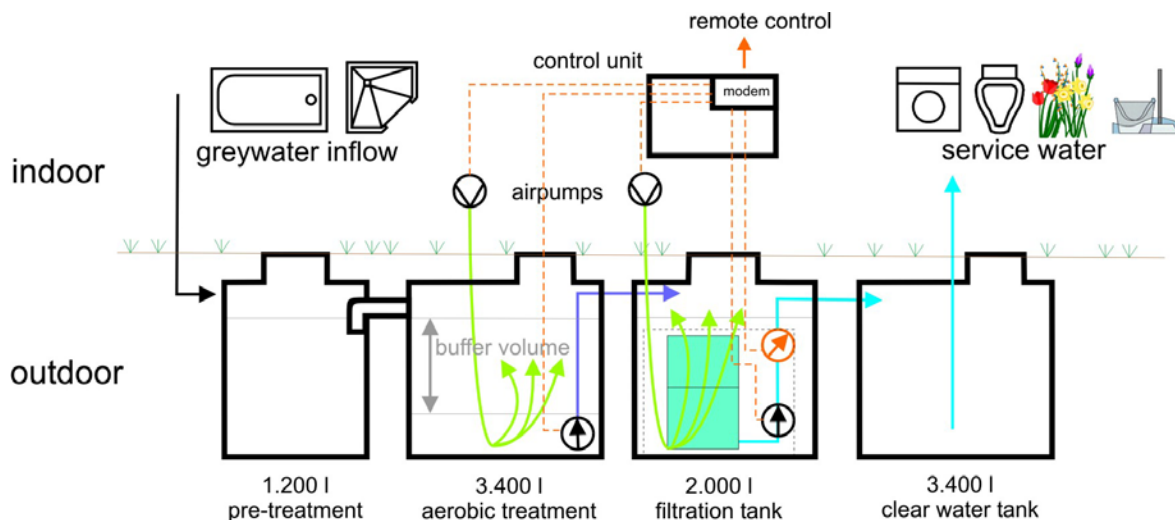


## Type 4.2-4.000-O

### Short description:

The grey water from shower, bath and hand washing basins is collected and passing a pre-treatment tank. After the aerobic treatment the grey water is pumped to the filtration tank. Solid soils, bio mass and bacteria are separated by the ultrafiltration membrane bio reactor process (MBR). The filtrate is stored in the clear water tank before re-use.

The type 4.2-4.000 is designed for a daily consumption of 4.000 Litres– equal to the daily service water demand of 80 habitants



**Water quality:** Due to the small pore size of the membrane solid soils, bacteria, and viruses are hold back by the filter. The quality of the treated grey water meets the limit values of the EU guideline for bathing water.

**Warranty:** In the guarantee period of 15 Years for the underground tanks and shafts, spare parts are free of charge – other benefits are not included.

**Installation:** The instruction for installation and official regulations for excavation, public work and protection of labour are to consider. In case of a high ground water level, the lift of the underground tanks are to prevent.

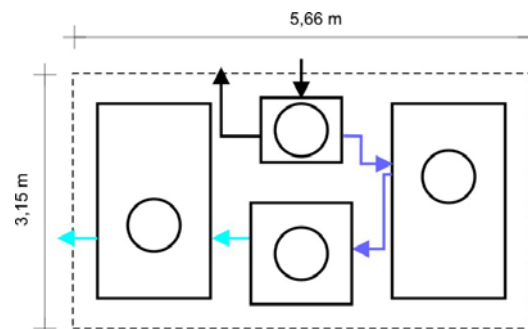
### Dimension of the excavation pit:

length: approx. 5,66 m\*

width: approx. 3,15 m\*

depth: 2,83 m (incl. 15 cm gravel bedding)

\* slope of the excavation pit is unaccounted



<b>Underground tanks</b>	Volume: 1.200 litres, 2000 litres and 3.400 litres; material: polyethylene, man hole > 60 cm, flexible pit with security cover of cast iron, level inlet/outlet: 1,70 m above tank bottom, measurements:				
		1.200 l	2.000 l		3.400 l
	length	1,0 m	1,25 m		2,40 m
	width	0,78 m	1,22 m		1,42 m
	high	2,50 m	2,68 m		2,61 m
	weight	50 kg	120 kg		140 kg
<b>Membrane filter</b>	Two double submersible filters (ultrafiltration) porosity: 0,03-0,1 µm, plate gap: 5,5 mm, 96 active membrane plates, membrane area: 14,0 m², average flow rate: 20-40 l/m²h, self acting cleaning, energy efficient, integrated aeration system.				
<b>Filtrate extraction</b>	Filtrate box of PVC, watertight clued, filtrate pump, maintenance free, 230 V / 270 W, max. delivery high: 8,0 m, aluminium housing, floater to control the filtrate pump and the filtrate flow.				
<b>Aerator (aerobic treatment)</b>	Operating pressure: 180 mbar, air flow rate: 120 l/min (150 mbar), 230 V / 130 W, weight: 9,4 kg, measurements (LxBxH): 30,8 cm x 21,0 cm x 23,2 cm.				
<b>Compressor (filtration)</b>	Side channel compressor, fine filter with connecting port, 230 V / 50 Hz, current drain: 3,8 A, power: 0,55 kW, volume flow: 12,0 m³/h (175 mbar), measurements (LxBxH): 36,5 cm x 28,2 cm x 21,2 cm weight: 17,0 kg.				
<b>Control unit</b>	<ul style="list-style-type: none"> <li>Industrial control box, IP65, measurements (LxBxH): 45 cm x 30 cm x 15 cm</li> <li>PLC (programmable logic controller) Mitsubishi AL2-14MR-A, working voltage: 100-240 V AC, max. power demand: 5,5 W</li> <li>analog-modem 56k, data transfer: 300bps-56kbps, power demand: 10...30 V DC</li> </ul>				

Booster pump and on top system for potable water supply are not included; prices on request