

Weise Water Systems

Aquacell® 800

Grey-water recycling



Aquacell 800[®] Grey-water recycling system - The safe principle

MicroClear[®] filter in a compact filter housing

The treatment technique

The Aquacell[®] 800 system consists of two tanks that can be installed in a cellar, garage or other room very easily. The grey-water runs into the first tank where bacteria and introduced oxygen degrade the organic substances contained in the wastewater.

The actual difference to conventional systems is the European patented MicroClear[®] filter which blocks all germs and suspended matter. This is not only necessary for hygienic safety but also to prevent contamination of the sanitary system.

The exceptional aspect of the MicroClear[®] filter – its minute pores (< 0.05 µm) represent a true barrier that blocks all known germs. Thus not only does water output quality exceed requirements of the EU bathing water guideline but also the DIN 19650 requirements for class 2 irrigation water.

water if, occasionally, there is no clarified grey-water available for reuse.

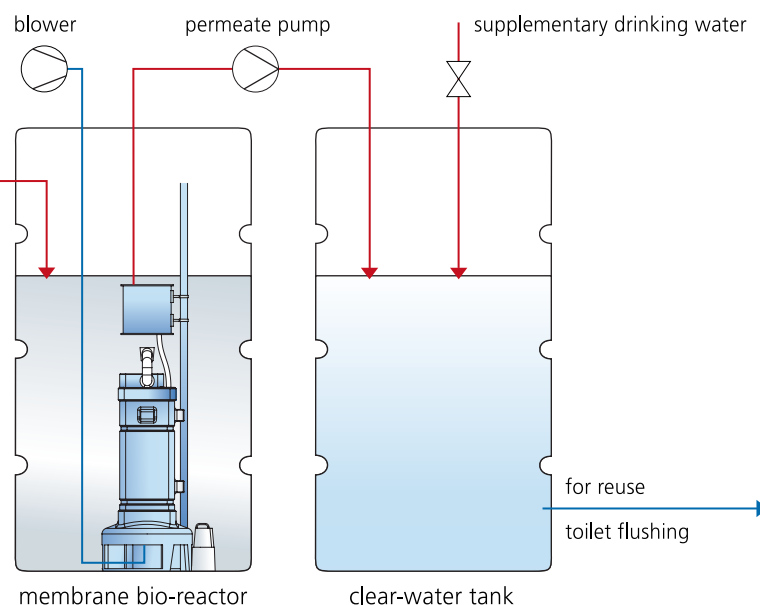
System maintenance is minimal and limited to annual inspection of the components. If the filter should be dirty, it is simply replaced by a filter that has been thoroughly cleaned.

This technique permits a filter to have a service-life of up to 10 years.



The specially-developed filtrate extraction mechanism draws the treated water through the MicroClear[®] filter and into the clear-water storage tank.

Water in the clear-water tank will be supplemented automatically by drinking



Aquacell® 800 Grey-water recycling system - Private grey-water management

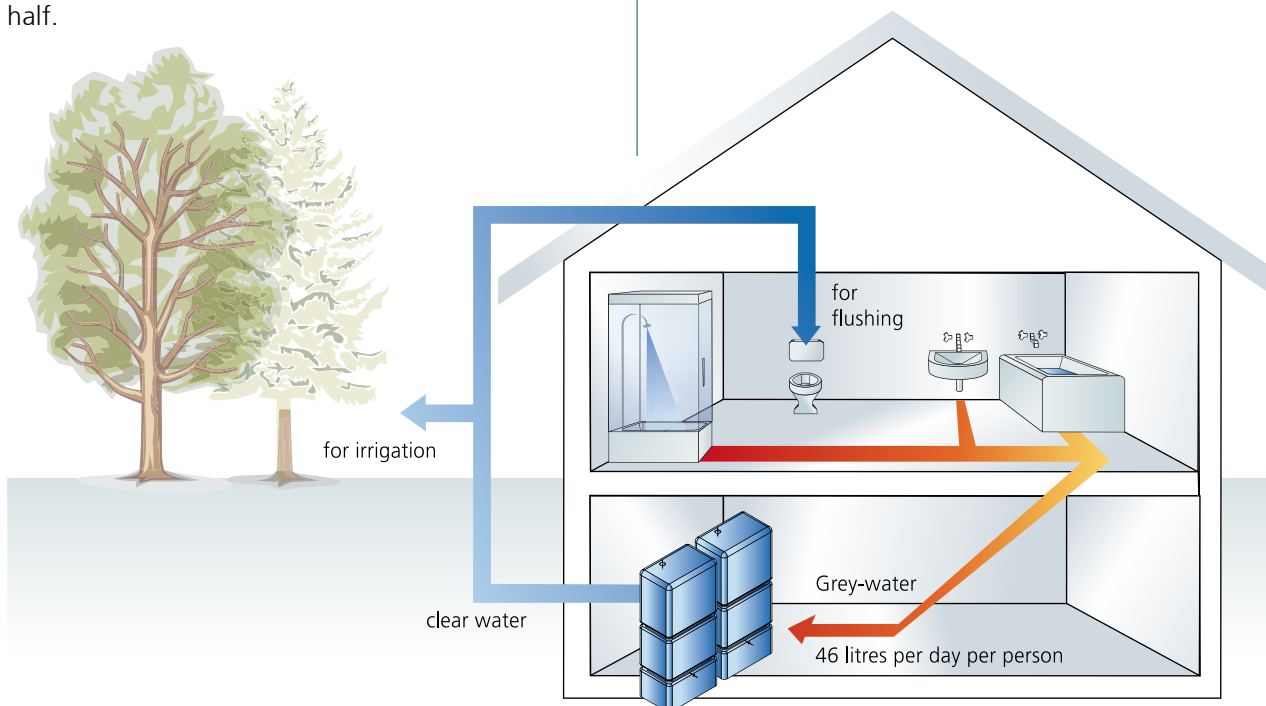
Save precious water!

The Aquacell® 800 grey-water system can reduce drinking water consumption simply and safely. Drain water from the shower, bathtub and wash basin (grey-water) is returned to a hygienically pure state by passing it through the Aquacell® 800 system. Water treated in this manner can be used again for toilet flushing, irrigation or for cleaning purposes.

At a consumption rate of 46 litres per day and person, the water used for personal hygiene in a 4 or 5 person household can reach 83,000 litres per year. This amount of fresh water can be saved each year. This not only reduces drinking water consumption but also reduces the water bill by almost half.

The advantage of grey-water over rainwater: it is always available. In view of continuously rising water prices, the purchase price of a system can be amortised over only a few years of usage. The system's economy is bolstered by its low energy consumption.

The clarification principle is based on the currently most modern water treatment process, the membrane activation process. A gentle biological treatment of the water is combined with proven MicroClear® filtration technology. This filtration technology was developed by Weise Water Systems and has proven itself over years of use in large clarification plants.



Aquacell® 800 technology – the convincing technique

Aquacell® 800 grey-water system advantages

- Aquacell® 800 delivers clear, odourless water at all times.
- The water is hygienically safe, MicroClear® technology removes up to 99.9999% of bacteria and viruses.
- Output values exceed requirements of the EU bathing water guideline and DIN 19650, class 2.
- Low maintenance due to the MicroClear® self-cleaning effect.
- Compact system with minimal space requirements.
- Reduces drinking water consumption up to 50%.
- Built-in storage of process parameter on a USB storage device.
- Minimal energy requirement.

Technical data

- Overall system capacity: 800 l/day
- Volume: 500 l per tank
- Dimensions L x W x H:
↳ 80 x 60 x 180 cm per tank
- Electric load: 200 watts
- Weight: 120 kg



Proven quality

The quality of water recycled by this system has been investigated in experiments conducted with the University of Applied Sciences of Gießen-Friedberg over a period of months. Virus retention was assessed by the Australian Ecovise Environmental Institute with bacteriophages on a running system.

Parameter	Unit	Output
BSB5	mg/l	< 5
COD	mg/l	< 30
TSS	mg/l	< 1
Turbidity	NTU	< 1
E-Coli	x/100ml	n. d.
Coliforms	x/100ml	< 1
Virus retention	%	99.9999

n. d. = not detected

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