

AQUALOOP

Residential On - Site Water Treatment

- ▶ The ONLY greywater process that is NSF 350 (C) certified
- ▶ Ultra-filtration for 99.9999% bacteria reduction
- ▶ Applications - NSF 350 greywater, potable rainwater, blackwater





AQUALOOP recycles water regardless of whether the input water comes from greywater, rainwater, surface water, groundwater, or wastewater plants. AQUALOOP produces germ-free, high quality water. It is the only system certified to NSF 350 (C) standards for greywater applications.

INNOVATION

Flexible Design and Installation

The AQUALOOP system consists of modular components that can be easily assembled as required.

- ▶ **Pre-filter**
- ▶ **Growth Media (Moving Bed)**
- ▶ **Membrane Station, Controller**
- ▶ **Membrane Cartridges**
- ▶ **Blower**

Amount of Water to be Recycled

An AQUALOOP membrane station can be equipped with up to six filtering cartridges, depending on the amount of water to be recycled. Multiple membrane stations can be used in parallel to scale to larger volumes.

Capacities range from 80 to >20,000 gallons per day.

Inflow Water Quality

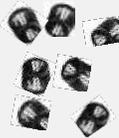
Design is flexible to match incoming water quality with end use water quality requirements.

- The AQUALOOP pre-filter filters hair, lint, and other debris from the incoming source water stream.
- With greater organic load (BOD), biological growth media are supplied in an aerated fluidized bed process.
- Less contaminated water can be cleaned directly by the ultra-filtration membranes. For example rainwater can be treated this way for drinking water.

Aqualoop Components



Pre-filter



Growth Bodies



Membrane Cartridge



Membrane Station



Blower

Pre-filter and Growth Bodies

The AQUALOOP bioreactor provides a consistent treatment of organically contaminated water such as household grey water. This is achieved in the moving bed MBR process by biological degradation and ultra-filtration.

End Water Uses

AQUALOOP with NSF 350 (C) for greywater is suitable for spray irrigation, toilet flushing, cooling tower make up, laundry, and more. Using on-site water makes a home owner immune to water restrictions!

AQUALOOP used with captured rainwater is suitable for full potable use.





TECHNOLOGY



Membranes

Patented AQUALOOP membrane cartridges are the core of the water treatment process. The membrane's special hollow fibres are designed to effectively exclude 99.9999% bacteria and 99.7%. AQUALOOP improves water quality with no chemical additives such as hazardous chlorine. The AQUALOOP membrane cartridge's special design gives a long service life of over 10 years with only minimal maintenance.

Membrane Station with System Control

This membrane station includes a platform for the mounting of membranes. A permeate pump, back-flushing pump, back-flushing tank and blower connection are all integrated.

Each membrane station contains a fully automatic system controller for operating and monitoring the pump and blower. The blower aerates the bioreactor and keeps membranes clean through air scour.

Tank

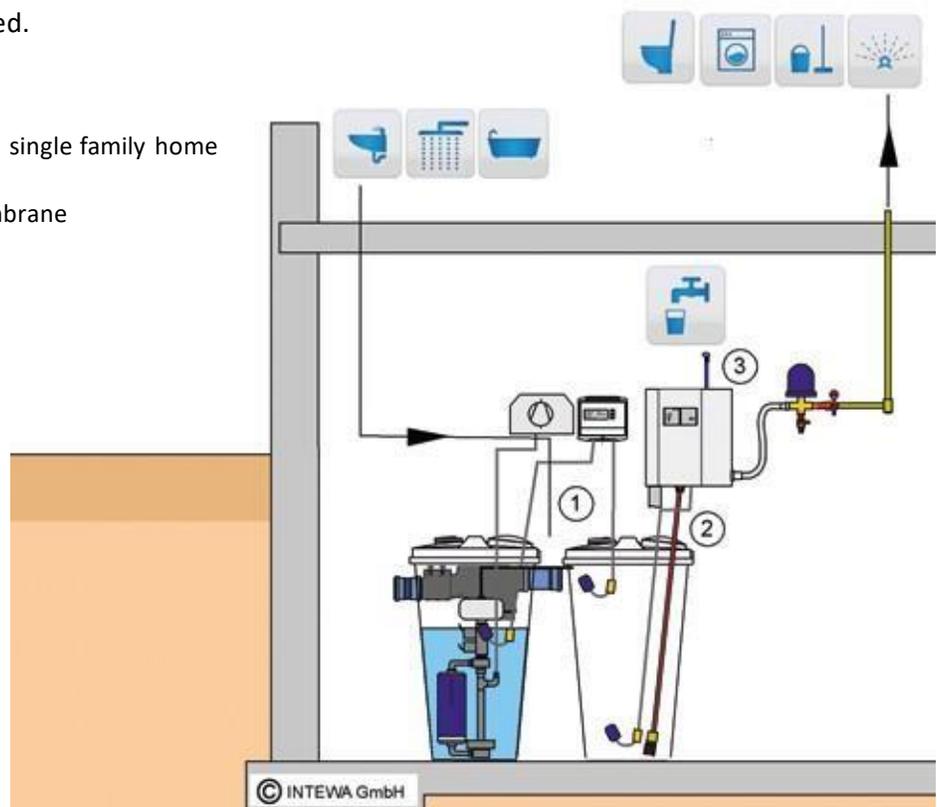
The AQUALOOP prefilter and AQUALOOP membrane station can be installed in any type of tank, regardless of whether it is indoors or outdoors, above or below ground.

Pumping

Treated water is pumped to uses such as toilet flushing, washing machine, irrigation, or drinking via the RAINMASTER pump and controlsystem.

Example: Greywater recycling for a single family home

1. AQUALOOP bioreactor with membrane
2. AQUALOOP clear water tank
3. RAINMASTER pump



Certified to
NSF/ANSI 350

REFERENCES

AQUALOOP worldwide applications

