



AQpure

Modular and prefabricated water treatment system

General

The Grundfos AQpure water treatment system produces potable water by filtering bacteria, viruses and particles from raw source water, providing a reliable and affordable water supply even in remote areas. The water treatment is based on ultrafiltration (UF) technology.

Standardised treatment modules can be combined according to the specific raw water quality on site to deliver a complete water treatment unit.

Easy to install

The AQpure system is flexible and easy to install. It is delivered prefabricated and prewired as plug-and-play water treatment system. AQpure can easily be combined with other required treatment processes such as sedimentation, sand filtration, aeration.

Optimised adaptability

- AQpure can be adapted to the local raw water quality.
- Optional modules can be added to match the specific water treatment requirements.

Minimal down time and optimised reliability

- The complete preventive maintenance schedule is delivered by Grundfos.
- Regular maintenance can easily be carried out by local operators.
- Professional service is required only 1 to 4 times a year, depending on the feed water quality.
- Grundfos Remote Management offers control and service planning.
- AQpure consists of high-quality components.
- Patented self-adaptive control software reacts to seasonal changes and maximises service intervals.

Minimal operation costs

- Solar powering fully and partly possible
- Low consumption of energy
- Low consumption of chemicals
- Long lifetime of the membrane and other wear parts
- No need for a full-time operator

Applications

AQpure can operate as a stand-alone drinking water system or combined with Grundfos AQtap water dispensers in water kiosk applications. The AQpure water treatment system can also be applied in water factories and bottling stations or at selected industrial sites, commercial buildings and estates.

Technical data

Water production	0.5 to 2 m ³ /h
Membrane type	Hollow fibre, dead-end, outside-in
Membrane material	PVDF
Membrane pore size	0.03 µm
Control strategy	Parametric to be very flexible
Inlet pressure	Max. 1 bar at 1 m ³ /h
Power supply	200-240 V, 1-phase, 50/60 Hz
Dimensions	Max. length 147.5 cm, max. width 152 cm, max. height 230 cm
Control interface	PLC based 7" touchscreen
Weight	Empty: 400-615 kg

Product configuration depending on water category

	UF process only	Blue water Ground water, rain water or public water				Green water Pond water		Brown water Rivers in wet season		Orange water River and lakes in tropical areas	
	DOC: Turbidity: TSS:	< 5 mg/l < 3 NTU < 5 mg/l				5-10 mg/l 3-10 NTU 5-10 mg/l		< 5 mg/l 10-100 NTU > 10 mg/l		10-20 mg/l 10-100 NTU 5-50 mg/l	
Combination	C1 ¹⁾	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
Self-cleaning prefilter	-	-	-	-	-	✓	✓	✓	✓	✓	✓
Standard UF	✓ ²⁾	✓ ²⁾	✓ ²⁾	✓ ²⁾	✓ ²⁾	✓	✓	✓	✓	✓	✓
Air scouring	-	-	-	✓	✓	-	✓	✓	✓	✓	✓
Chlorination	-	✓	-	✓	-	✓	✓	✓	-	✓	✓
Internal CIP	-	-	-	-	-	✓	✓	-	-	✓	✓
Level sensing	□	□	□	✓	✓	□	✓	□	✓	□	✓
Activated carbon filter	-	-	-	✓	✓	-	✓	-	✓	-	✓
UV disinfection	□	-	✓	-	✓	□	□	-	✓	□	✓
Distribution	□	□	□	✓	✓	□	✓	□	✓	□	✓
Solar package	□	□	□	□	□	□	□	□	□	□	□
Remote management	□	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

¹⁾ Must be combined with auxiliary equipment ²⁾ Includes 300 µm strainer ✓ Built-in module □ Optional module - Not selectable

Internal CIP
Stable production
Long service intervals

Air scouring
Long service intervals
Reduced chemical consumption for CIP

UV disinfection
Inactivation of bacteria and viruses
With intensity sensor for more safety

Solar package
Power supply by solar energy
Reduction of operational cost

Distribution
Direct water tapping or pumping to an external tank

Activated carbon filter
Removal of chlorine, dissolved organics, pesticides, taste and odour

Level sensing
External tank level control

Standard UF
Self-regulation
High energy efficiency
Flexible installation

Self-cleaning prefilter
Long life of membrane
Long service intervals

Chlorination
Long cleaning intervals (CIP)
Residual chlorine in purified water