AQUARIUS

reverse osmosis for reliability and high-quality water for casting



Water Treatment

Description

To deliver the highest possible quality, every part of the overall production process plays an important role, including the source water used. Untreated municipal and tap water still contains salts that can cause problems in high-precision manufacturing, preventing the achievement of the highest possible quality. Rinsing with untreated municipal or tap water can also lead to staining on your products.

In addition to improving quality, purifying tap water can also result in cost savings. Examples include longer service life for prepared cooling emulsions used in machining processes or reduced soap consumption, since hardness is completely removed.

Reverse osmosis (RO) is the method for completely purifying water and removing all salts. Van der Ende Group manufactures water treatment systems and has developed the Aquarius specifically for the further purification of municipal and tap water.

Operation

The Aquarius is a compact RO unit with an integrated storage tank. It can be connected directly to the municipal water supply. This water is then fed into the system via an inlet valve, where after passing through a safety prefilter it is pressurized by a Lowara multistage pump.
At this operating pressure, the water is purified by the RO membranes, after which all salts are removed. The purified water is stored directly in the integrated storage tank. Optionally, the water from the storage tank can be pressurized using a Lowara booster pump.

Advantages

- compact stand-alone RO system
- includes a polypropylene storage tank
- removes hardness and dissolved salts, such as sodium and chloride
- low-maintenance and easy to maintain

Optional

- EC monitoring of the produced water
- pressure booster pump
- antiscalant dosing

Specifications

IMPLEMENTATION	AQUARIUS 400	AQUARIUS 800
Production (l/h)	400	800
Dimensions (cm)	75 × 75 × 220	
Effective storage tank capacity (liters)	275	
Power consumption (kW)	0,5	

OUTPUT QUALITY	
EC (mS/cm)	< 0,1
Na (mmol/l)	< 0,1
Hardness	< 1 °dH

REQUIRED FACILITIES	
Temperature	10 - 20 °C
Inlet pressure	1 - 2,5 bar

PRESSURE BOOSTER (OPTIONAL)	
Set pressure (bar)	2,2
Maximum capacity (m³/h)	4

For higher capacities and/or groundwater treatment, we offer the Nexus reverse osmosis system. Our technical staff will be happy to advise you on the available options.