

mienis water

REVERSE OSMOSIS

**YOUR WATER QUALITY
IS OUR PRIORITY**

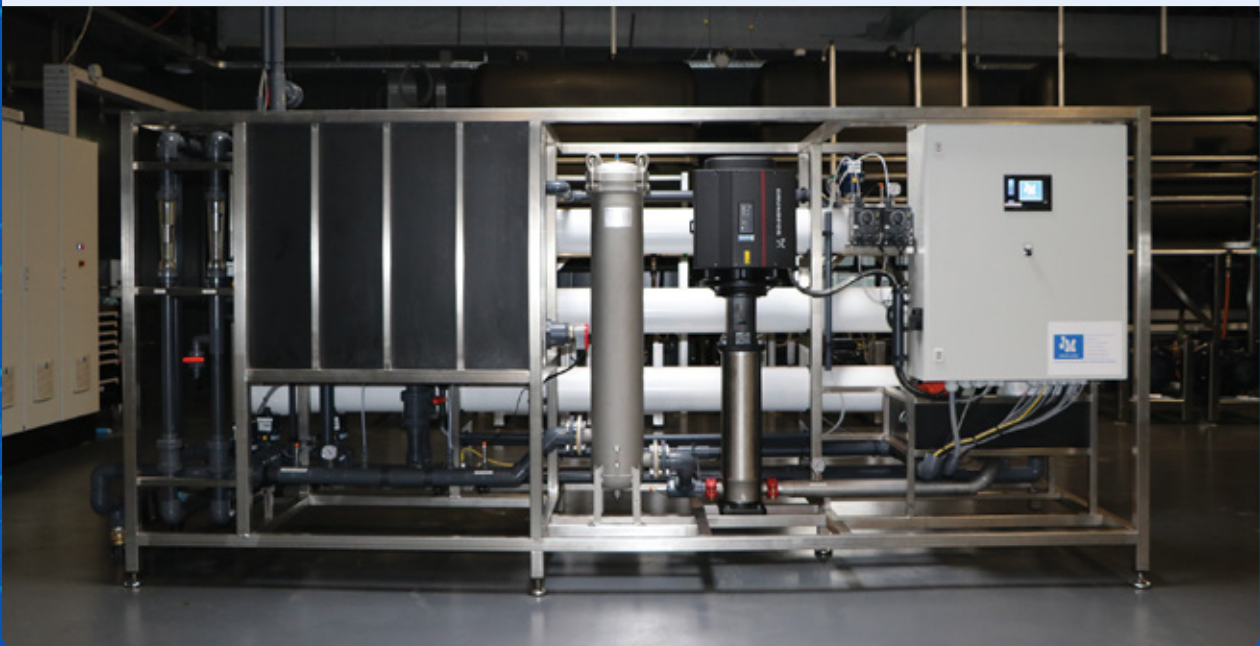


What is reverse osmosis and what are its areas of application?

Throughout the world, reverse osmosis is the most commonly used method of filtering any dissolved salts, such as sodium, together with heavy metals and organic contaminants, such as bacteria and viruses, from water. The advantage of reverse osmosis is that you can filter any kind of water to obtain any desired water quality. For example, most reverse osmosis systems operate on well water or seawater, although with the right pre-treatment, such as ultrafiltration, the system can also be used for surface water. The process also has its drawbacks; it always produces wastewater or brine as a by-product. The challenge is to keep this water stream as small as possible and to use water and electricity efficiently. Depending on water quality, a 95% recovery is feasible with reverse osmosis!

With a reverse osmosis system there always is sufficient irrigation water with low EC and little sodium, which enables the grower to optimally add nutrients. The low sodium concentration furthermore effectively facilitates water recycling without further treatment, with the objective of retaining water and fertilisers.

Should sodium concentration levels nevertheless become a problem in a closed water management environment, we have a solution for that as well. Combined with other technologies, Mienis is able to lower sodium concentration, while retaining virtually all nutrients.



Mienis Water's innovations

Many of our innovations have been adopted by the market over the years. Jan Mienis, our company's founder, over 50 years ago discovered how to retain the stability of reverse osmosis applied to well water. Nowadays this procedure is used throughout the world.

Yet, Mienis's reverse osmosis continues to make the difference.

Over the years we gained a great deal of experience with different contaminants. We optimally use this knowledge to provide advice about new membranes, the right pre-treatment and the right chemicals, such as Anti-scalant. However, it is not always possible to prevent membranes from becoming contaminated. This is why we have developed a reverse osmosis system that is able to maintain itself through means of a Cleaning in Place (CIP) process.

Cleaning modules, such as CIP, have been in existence for some time; however, Mienis is the only supplier that has fully automated this process. The system uses sensors to determine when a CIP needs to be started up and carries out the cleaning process independently. The systems we ship to Africa and the Middle East are equipped with this capability as a standard feature.

It is of course better to delay a CIP as long as possible. Most of the contamination develops when the system is not producing. We developed a solution for this more than 50 years ago. Our systems may be shutdown for 6 to 12 months, after which they will start up again without any problems. By contrast, the systems of our competitors must be turned on for a short period of time every day in order to prevent the build-up of contaminants, with unnecessary energy consumption as a consequence.

An example: the water in Kenya's and Ethiopia's Rift Valley contains lots of bicarbonates and silica, both problematic for reverse osmosis membranes. By contrast to other suppliers we successfully manage to achieve high recovery rates in this area.

'Mienis is the only supplier that has fully automated this process.'

Explore the world of water with us!

What makes Mienis Water's reverse osmosis unique?



We only make use of A brands.



All of our pumps are equipped with High Performance Grundfos frequency regulators, as a result of which energy consumption is relatively low.



Depending on the incoming water, a recovery rate of up to 95% is feasible, which results in efficient water use.



Our systems are connected to the Mienis Cloud, where all logged data can be read out, alarms can be transferred to mobile devices and you can remotely log in to the unit's operating screen.



Mienis Cloud ensures a high service level. In addition, all data can be read using an API, which permits optimal integration with the climate control computer.



Mienis virtually always uses compact disc filters for pre-filtration. These are cheaper to acquire and consume much less flush water.



Due to the automatic, integrated CIP module, the system is very low maintenance.



The automatic preservation extends the membranes' service life.



Membranes are easy to replace using our side-entry membrane housings.





50 m³/h reverse osmosis and 36 m³/h ultrafiltration in Saudi Arabia

*We go above and
beyond to help
you with
everything water
related!*



[mienis-water.nl](https://www.mienis-water.nl)



Mienis Waterzuivering is an innovative family business, with a history dating back more than 150 years, that stands for high quality water treatment. The company currently is managed by the family's fourth generation. Our customers make grateful use of our knowledge and accumulated experience: we are one of the oldest specialists in reverse osmosis throughout the world and were first in successfully introducing ultrafiltration in the greenhouse sector in the Netherlands. Our innovative, sustainable and robust products are used by a range of diverse companies.



24/7 Service

Excellent service is a key focus for us.



Customer is King

Having excellent customer relationships is extremely important to us.



Top-quality products

We only make use of the very best brands.



A partner through thick and thin

We will always help you, even if the problems are not caused by us.
We solve them together.



A fair price

Although we exclusively use A brands, our prices remain competitive. Our customers tell us that the return on investment of our systems is two years or shorter.

