



reverse osmosis  
water purification  
internal transport  
container systems  
growing benches

# BRUINE DE BRUIN B.V.



## Reverse Osmosis

**Reverse osmosis is the ideal and proven method for producing clean water!**

As a specialist with more than 35 years of experience in the field of Reverse Osmosis, Bruine de Bruin BV offers free advice on the optimum size and configuration for your company. Bruine de Bruin BV designs, builds and installs all produced Reverse Osmosis installations herself. Our systems are installed worldwide in various markets, in short, wherever there is a need for clean water!

### Reverse osmosis

Reverse Osmosis is a process driven by a pressure differential across two sides of a semi-permeable membrane. The membrane has the capacity of separating dissolved salts, heavy metals, and pesticides from the water. If the installation is designed with a low recovery it is possible to produce desalted water without adding chemicals to the water. In specific cases the recovery can be improved by adding Anti-Scalant. We can also help to optimise Anti-Scalant dosage on already operational systems and thereby lower the operational cost of your system.

### Areas of application

In the past decades we have delivered installations to countries throughout the world: Canada, America, Germany, Belgium, Austria, Malta, Spain, Portugal, Morocco, Turkey, Hungary, Africa and the Middle-East.

Our installations have proven their value and reliability in horticultural enterprises, laundries, soft drink companies, truck wash sites and distilleries. In short, wherever there is a need for clean water.

### System Engineering

For delivery to a purification plant a certain amount of research is necessary. First we list the specific requirements of the customer. Then we analyse the available water supply. There are many different types of water, i.e. seawater, spring water, tap water and surface water. Each

type of water has different qualities and different requirements for treatment.

Water analysis is indispensable. Characteristics including the required capacity and the quality of the water determine what the installation will be like.

A few aspects of our apparatus for reverse osmosis are worth mentioning, especially the fact that it provides direct advantages for the user. This is the case with membranes. We use various types of membrane including tap water, brackish water, seawater and high retention membranes. For each type of water there is a suitable type. The installations can be delivered with a capacity of a few m<sup>3</sup> per day or up to many thousands of m<sup>3</sup> per day.

We also have an eye for detail and user-friendliness. It's not for nothing that our installations are recognised as being "user friendly" and reliable.



# Reverse Osmosis



## Advantages

- Over 1.000 installations delivered
- More than 35 years of experience
- Extensive water analysis for the right membrane choice
- Minimal maintenance required
- Service: 24 hours a day, seven days a week
- Short delivery time
- User friendly

**Inquire about all the possibilities!**

## EC value

Market gardens in the South Holland glasshouse district that use spring water have to deal with a high EC value. The influence of the sea is unmistakable. This problem was experienced by a vegetable business with spring water of more than 20 EC. An installation was made for this business with special stainless steel pumps that function well with this water quality even under high pressure. The water is cleaned at a pressure of 32 bar and produces 200 m<sup>3</sup> of pure water per twenty four hours.

## Collective projects

As part of our service, it is also possible to request a feasibility study prior to the development of new horticultural area's. In this specific case we can calculate the approximate price of one cubic metre of water on the basis of the available sources for the to be developed area (groundwater, surface water or a combination). Currently two installations with a combined capacity over 4000 m<sup>3</sup> per day are used to deliver water to such projects. The required infrastructure for the delivery of the water can be easily integrated into the total infrastructure of the horticultural cluster along with the required facilities for electricity and gas/heat transport. Due to the large scale of these installations, the cost price per m<sup>3</sup> is often lower than smaller, individual solutions.

