

We offer a reverse osmosis filter R / O are used for purification of well water. Our system does not require any prior osmosis water softener or use of any chemicals! With this system, water Drop does not contain any harmful to the environment. Performance filters offered are free. Reverse osmosis filter system is being built for the demand for chemically pure water as well as depending on the quality possessed by the customer well water. In Poland, the work already filters R / O with outputs 4, 15 and 30 m³ of fresh water per hour. Purified water has the EC in the range of 10-20 mS / cm³ after purification is no pollution or chemical compounds, has properties similar to those of distilled water.

Prior to passage through the appropriate filter from the osmotic membranes (semipermeable membranes), the water should be pre-cleaned of any mechanical impurities. In the first stage it is passed through a system of two mechanical filters with a triple bed (filter MMF). There are deposited solids which could damage the osmotic membrane. Mechanical filters MMF also regulate the pressure of the water entering and leaving the system. These devices self-cleansing, cleaning starts automatically once a day. If the well bore is deep drilled well above 50m may be omitted from the filter MMF. After passing through the filters MMF water goes to the next filters - and a bag of candle. The first is filtered through a bag made of special non-woven high density impervious to dust particles. The second is a system consisting of five candle filters (a single filter of this kind resembles the spool of wound string - gallery see below), the water enters into the "plug" and is forced under pressure through the wall to the outside. The last two types of filters in the tanks are closed, because cleaning dispenses under pressure.

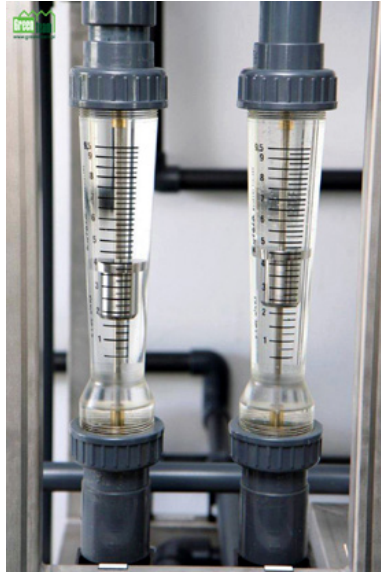
Then the pump is forced at very high pressure water completely devoid of mechanical impurities have to reverse osmosis filters, which are an essential element of deposits of semi-permeable membranes. In the process of forced under pressure reverse osmosis pure water molecules are separated from the impurities.



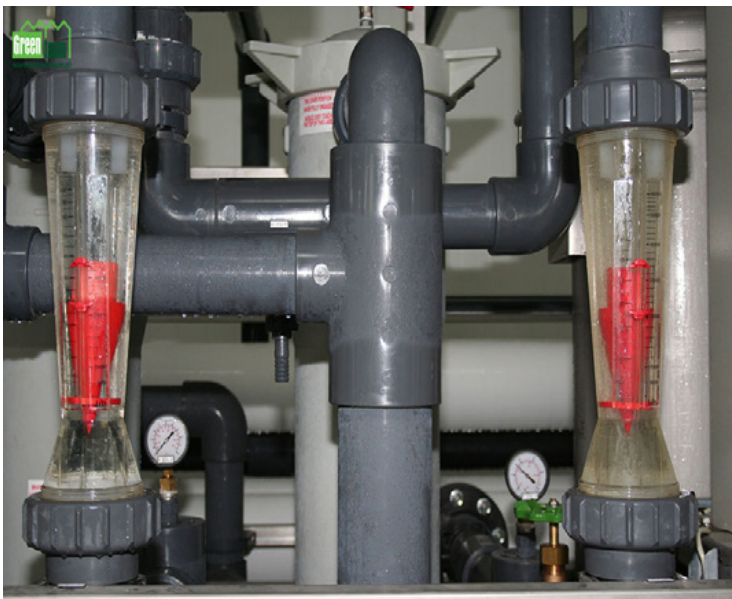
Dirty water from the filter is directed out to the natural settling tank in which soaks into the ground and returned to the environment. Pure goes to the tanks in a greenhouse or, if these are full, the rainwater tank. This water is very suitable for irrigation of plants because it is free of minerals, which allows precisely compose the culture medium. Osmotically purified water is used also fogging of greenhouses - due to the fact that it has no calcium and iron, there is a risk of clogging of the nozzles zamglawiaczy (a very small diameter). Thanks to this system works efficiently and correctly, creating a very fine drops. Using fogging ordinary well water after a certain time, the nozzles form lime deposits, and instead of the mist to the plant starts to drip. This reduces the plant health, and drops on the leaves form a precipitate, which impairs the commercial value of ornamental plants. Water from the reverse osmosis is also used poobniżania temperature in the greenhouse - by special sprinklers topping the roof of the greenhouse and during evaporation of water is taken up heat from the greenhouse thereby lowering the temperature inside the facility In this case also, the use of water free from mineral compounds prevents the formation of deposits on the glass.

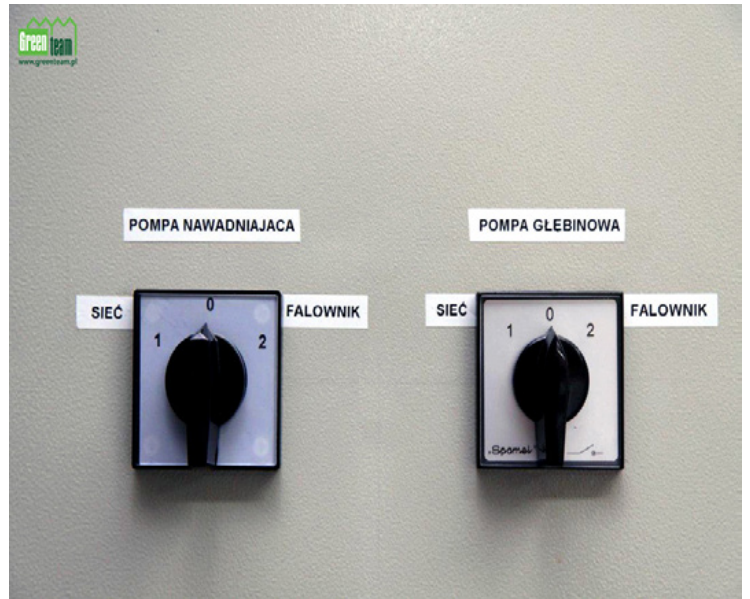
Typically, filters are working around the clock on and off only for the duration of self-cleaning sand filters or when the tanks are full. In addition, approximately every six months (depending on the quality and degree of contamination of well water) filter R / O chemically cleaning - water flow in the filter system is closed and the system is washed with a weak solution of acid, which cleans the filter sludge (membranes osmotic deposit formation of micro and macro). It is a convenient solution - the gardener does not have to bear the costs associated with hiring professionals to clean the filters, and with the help of this device can perform this task yourself. If a long time before reverse osmosis filter is not used, it is flooded with water with a preservative and protected so you can leave even for half a year, without fear, The device is controlled automatically. On the control panel can be programmed filter that supports a specific time and date control the operation. They are indicated and any abnormalities (eg. Pressure drop across the pump, stopping of the submersible pump, clogging mechanical filters or osmotic membranes contamination).











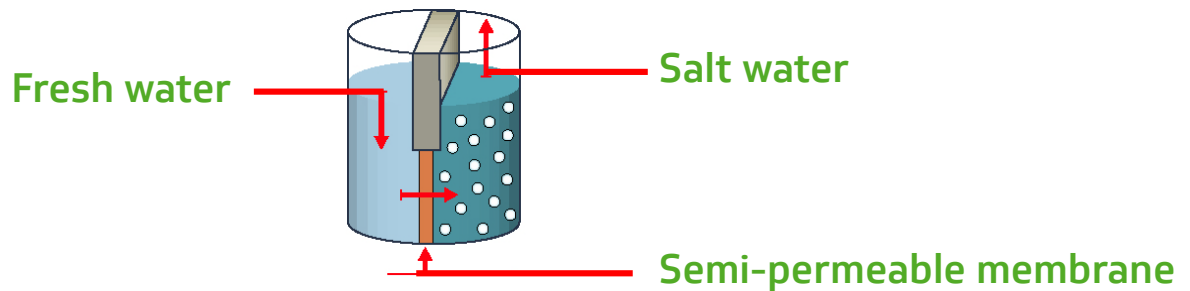
Low-sodium irrigation water by reverse osmosis



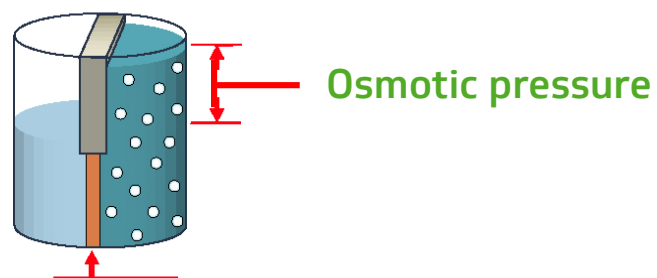
- The system requires minimal control and service;
- The system operation is fully automatic;
- Installation designed and adapted to individual needs;
- It does not require any chemicals;
- It can work at a certain time, e.g. in the period of a lower energy tariff;
- The CIP system allows periodic rinsing of the system in a closed system;
- The discharge water does not contain any compounds harmful to the environment;
- It is possible to suspend the filter for up to 6 months;

Principle reverse osmosis

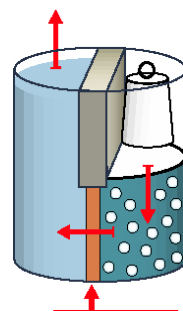
Osmosis



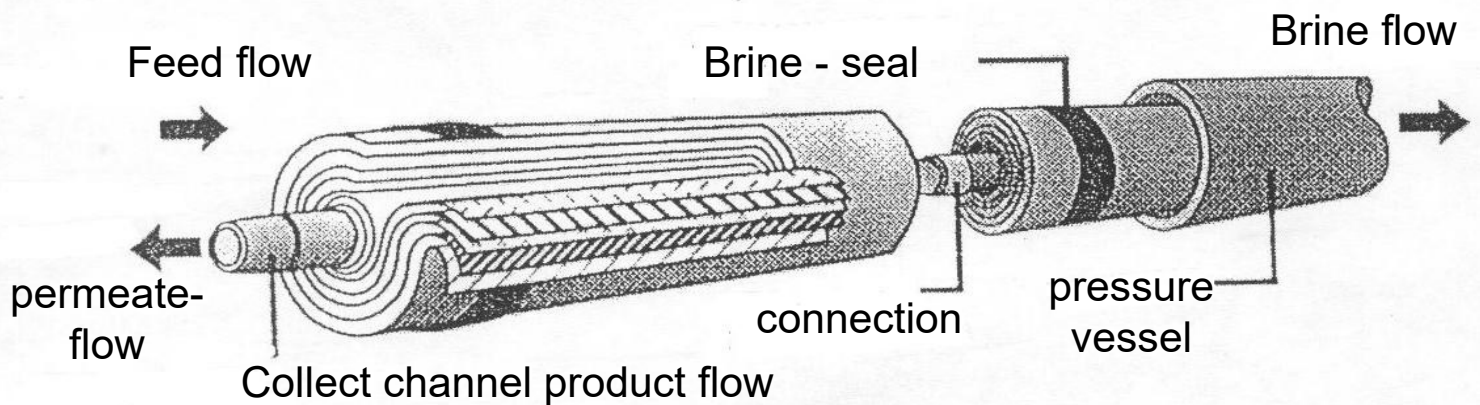
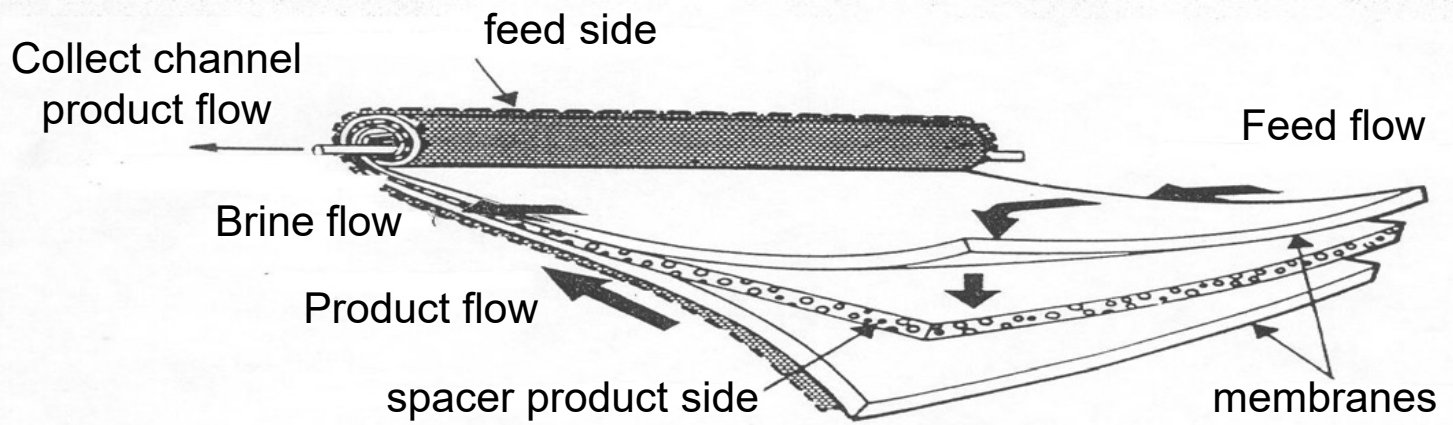
Osmosis in balance



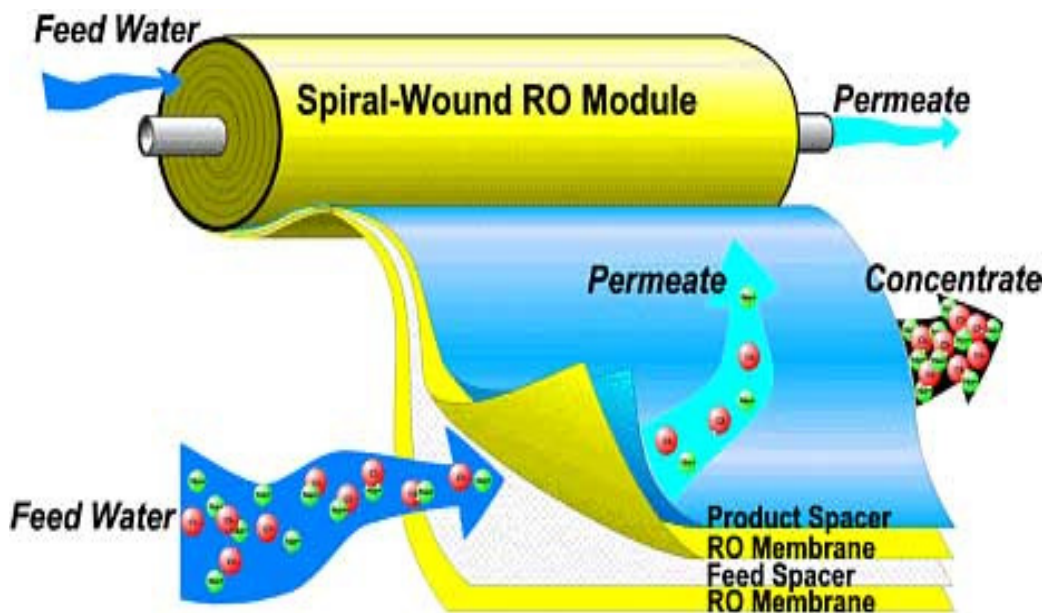
Reverse osmosis



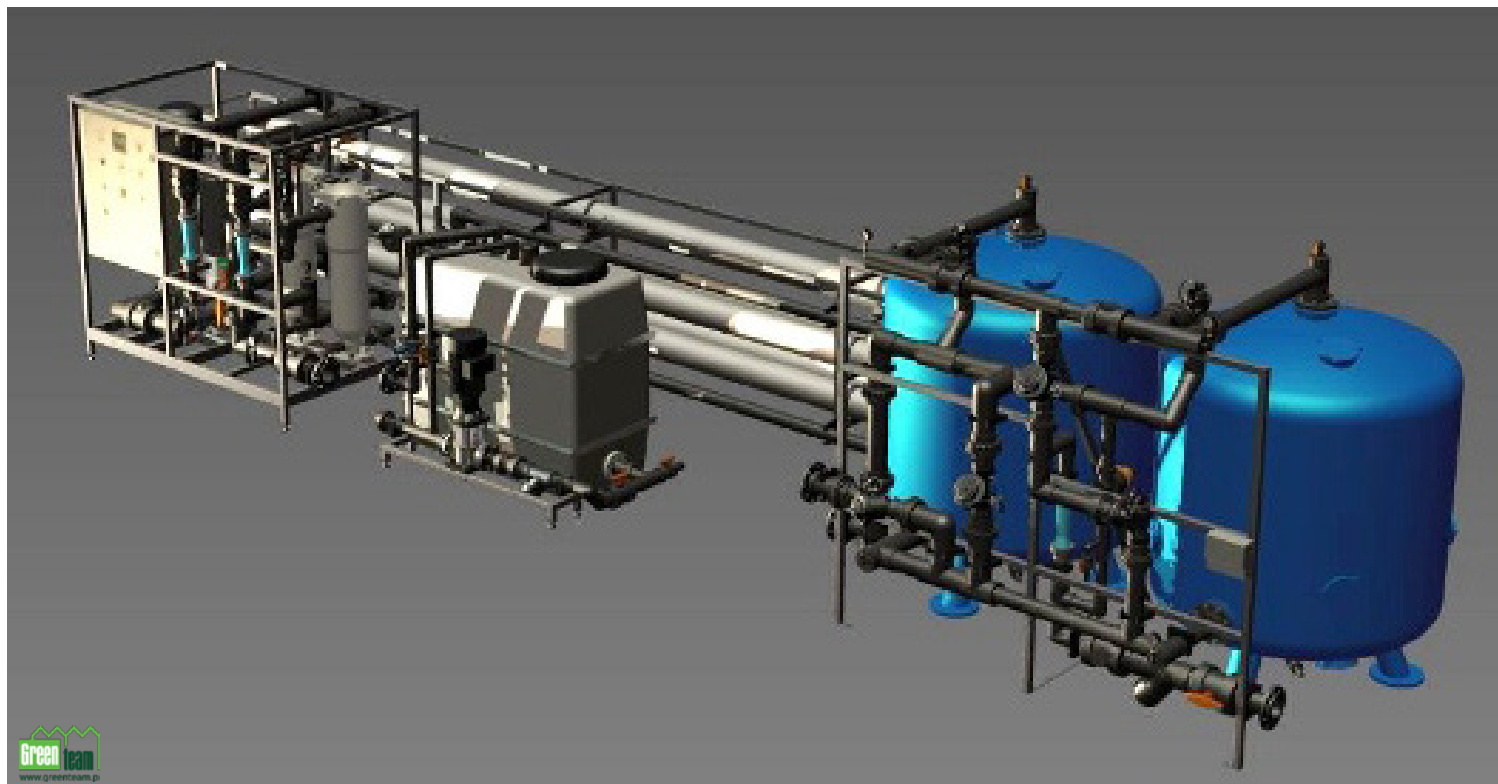
Principle reverse osmosis



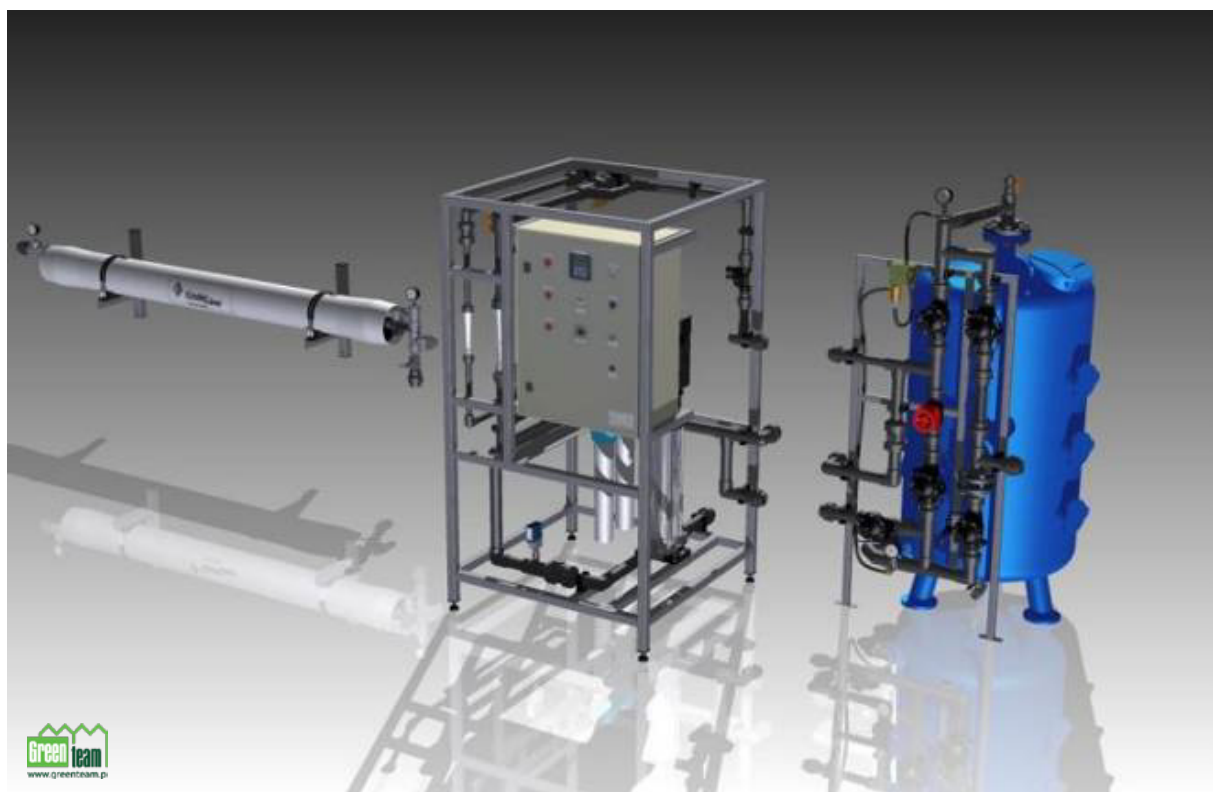
Principle membrane filtration



3-D drawing reverse osmosis with multi media prefiltration and cleaning unit



Made to measure systems





Reverse osmosis installation with a capacity of 360 m³/day. Desalination of min. 98% of well or mains water. Complete with a.o. conductivity meter (EC) and timer for automatic production of water at off peak hours.



Reverse osmosis installation with a capacity 15 m³/h



Multi Media Filter (MMF) with capacity 30 m³/h

