

## Personal Reverse Osmosis (RO) System

In Co-operation with AquaCare®

### Personal 5-stage RO Model RO200

#### Advantages

- Reverse osmosis is an efficient membrane filtration technique which reliably removes dissolved solids and undesirable substances such as nitrate, silicic acid, pesticides, chloride, and traces of pharmaceuticals from drinking water. It effectively retains bacteria, virus, algae, and radioactive particles
- Easy to operate: no addition of chemicals (required only for operation at high recovery rates).
- Works with a tap water connection working with a minimum 1 bar (15 psi) line pressure
- Iron and manganese concentration below 0.1 mg/L (ppm).
- Strontium and barium not detectable
- Bacteria concentration below detectable limit
- The unit is supplied with a mounting bracket, for mounting under a sink, in another room, or in the basement at a wall.
- Integrated Micro-controller.



5-stage Reverse Osmosis unit (modifications possible)

*This reverse osmosis plant consists of three pre-filters (sediment filter, activated carbon filter, combination filter), a reverse osmosis membrane (TFC) with an average rejection of 95-97%, an automatic flushing device for preventive membrane maintenance, a micro-controller for all important signals, a pure water pressure tank, a faucet, and the necessary assembly material.*

Maximum flow	200 litres per day (at 4 bar (60 psi) line pressure, 15 °C water temperature, 500 ppm TDS, and empty storage tank)
Rejection	95-97 % (same conditions as above)
Minimum line pressure	approx. 1 bar (15 psi)
Operation pressure of booster pump	approx. 7 bar (100 psi)
Tank volume	approx. 10 litres
Dimension (W×H×D)	40 x 47 x 21 cm
Dimensions of tank (d×H)	28 x 41 cm
Other tanks	on request
Control	Micro-controller with display of status (flushing, standby, operation, errors, tank pressure control, line pressure control)
Flushing intervals	automatically every 30 minutes for about 30 seconds or manually for 60 seconds
Automatic filling of storage tank	depending on tank pressure (starting at approx. 2 bar (30 psi))
Electrical connection	24 VDC, 25 VA (during operation)
Accessories	water faucet, 5 m PE-pressure tubing, reject water connector, feed connector 3/4" (other connectors on request), wrench, instruction manual in English

# Personal RO

## Installation

Installation under a sink is recommended and quite easy. The RO system is simply to be anchored at a wall. For the feed connection, a 3/4" connector is part of the package. The reject water line is connected to the drain with a special fitting. For the permeate, a faucet hole should be drilled in a corner of the sink. The faucet can be bolted on very easily. The pressure tank can also be placed under the sink. All tubings are then connected with the fittings. With that, the system is ready to be powered up when the feed water line is opened.

## Operation and Maintenance

System operation is automatic. After the initial automatic flushing, the unit produces water and stores it in the permeate water tank. When the tank is full, the plant switches off. It switches on again as soon as water is used.

This reverse osmosis plant is nearly maintenance-free. To ascertain a perfect water quality, only some simple tasks must be done: weekly emptying of the pressure tank, every 6 months control of the water quality and the pre-filters, as laid out in the manual.

## Miniature RO

Pressureless reverse osmosis system. Operates without a booster pump, driven by line pressure only.

Modell	Flow	Rejection
RO 030	30 liters per day	95 %
RO 090	90 liters per day	95 %

## Performance

- +/- 15% at 4 bar (60 psi) pressure, 15 °C,
- ratio concentrate / permeate 3:1
- 500 mg/l (ppm) TDS;
- rejection detected with conductivity

## Options

- In-line sediment filter 5 µm
- In-line activated carbon filter



RO 090

## Applications

- household drinking water supply when regular tap water is of low quality;
- special water supply for people on a low- sodium diet (dialysis patients);

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