

HOH WaterTechnology A/S

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The HOH Group has for decades been working for better water for households and industries by providing worldwide supply and consultancy services. The company is based in Denmark, employs 250 people and has subsidiaries in the Nordic countries.

HOH provides contracting services in all aspects of water supply and in design and construction of water treatment plants for industries, power plants, waterworks and district heating boiler houses. And every day we work in close cooperation with industry, public waterworks, authorities and research institutes.

We also supply small standard water treatment units to be used in hotels, restaurants, holiday resorts, construction sites, etc. for purification and softening of water. The basic technologies applied in the standard programmes are reverse osmosis (RO), ion exchange and filtration.



Application

- Autoclaves
- Car-washing plants
- Evaporators
- Pharmaceutical industry
- District heating plants
- Foodstuff industry
- Green houses
- Boiler water and steam production
- Chemical industry
- Coolants
- Laboratories
- Air humidification plants
- Process water
- Printing firms

Reverse osmosis is primarily used where reduction of the salt content is of importance. The purity of the permeate depends on the quality of the raw water that is to be treated. If the raw water is normal drinking water, the conductivity of the treated water will typically be about 10-20 $\mu\text{S}/\text{cm}$.

Conductivity meter is available as auxiliary equipment.

HOH's reverse osmosis plants:

- Compact and with everything in one cabinet
- Easy to place where space is limited
- Ready-assembled control cabinet - no extra electrical installations
- Produced of quality products such as Grundfos pump, Danfoss valves, electronic control and constructed in a protective cabinet
- Flowmeter and manometer installed for direct reading of permeate output and pressure
- In case of lacking water supply (inlet pressure) the plant switches off automatically
- High capacity per membrane
- Fast and simple electrical wiring and plumbing
- UV and mixed-bed plant can be connected as optional equipment (ask for our special brochure)

Function

Reverse osmosis is a membrane separation process which, by means of a high water pressure, is capable of separating (repelling) the dissolved salts (ions) that exist in the raw water and let the clean water molecules pass through the membrane.

In reality it is the water molecules that are removed from the dissolved salts

and not - as we know it from ion exchange - the ions that are removed from the water.

The dissolved salts will almost be removed 100 %, and the pores of the membrane are so small that even micro-

organisms such as bacteria and pyrogens cannot penetrate.

The treated water (permeate) is collected in a reservoir tank and from here it is pumped on to the user installation. The "filthy" water (concentrate) will be led to drain.



RO-953S

Technical data	RO-951L	RO-951S	RO-952S	RO-953S
Capacity, litres/hour*	300	400	600	800
Water utilisation max., %	80	80	80	80
Salt reduction approx., %	> 98	> 98	> 98	> 98
Water quality approx., µS/cm	< 20	< 20	< 20	< 20
Reservoir/pressure vessel, l	500	500	500	500
Electrical connection, V/Hz	3x400/50	3x400/50	3x400/50	3x400/50
Installed capacity, kW	3,1	3,1	3,1	3,1
Electricity consumption, m ³ /kWh	5,4	5	3,8	3
Inlet, Ø"	3/4	3/4	3/4	3/4
Outlet, Ø"	3/4	3/4	3/4	3/4
Discharge point, Ø"	3/4	3/4	3/4	3/4
Dimensions L x W x H, mm	660 x 1500 x 1350	660 x 1500 x 1350	660 x 1500 x 1350	660 x 1500 x 1350

* Depends on the water quality. The stated data are nominal and based on drinking water quality of maximum 500 mg/l total salt content, 10° C and an inlet pressure of 3 bar.