

RO-2000



Application

Autoclaves
Battery water
Car washing plants
Evaporator
District heating plants
Pharmaceutical industry
Food industry
Nursery gardens
Boiler water and steam
production
Chemical industry
Coolants
Laboratories
Air moistening plants
Process water
Printing offices

These reverse osmosis plants are primarily used where reduction of the salt content of the water is of significance.

Advantages

Compact
High capacity system
Permeate and concentrate flow meters
Complete with Grundfos pump, all mounted on a stainless steel frame

Fast and simple plumbing and electrical wiring
Fully assembled panel with built-in micro processor
Low Pressure inlet sensor

Reverse Osmosis

Reverse Osmosis is a membrane process where water is pumped at high pressure through a semi permeable membrane. The membrane pore structure is very fine and allows the passage of water whilst at the same time rejecting the dissolved salts. The Reverse Osmosis process will reduce the concentration of dissolved salts by up to 99% when new. The permeate (pure water) production rate is normally 70% to 75% of the feed flow with the concentrate (waste water) being 25% to 30%, these figures are based on a softened water feed.

The purity of the permeate depends on the quality of the feed water and the efficiency of any pre treatment required. Most UK water are below 350ppm dissolved solids and typical water qualities produced will be in the range 10 to 30 $\mu\text{s/cm}$. The water quality is measured on the outlet by a conductivity monitor and this instrument can be linked to a dump valve to ensure out of specification water is diverted to drain. The purified water will need to be collected in a suitable treated water tank prior to being pumped to the process or further treatment.

Reverse osmosis will also remove bacteria, pyrogens and yeast cells, however, to keep the water in this clean state further treatment may be required.

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Total Capability in Water Purification and Water Treatment



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The plant is also available as a complete package including softening and treated water tank with T.W. pump.

Technical specifications

Technical Data	RO-2010	RO-2020	RO-2030	RO-2040
Capacity, litres/hour*	480	800	1500	1900
Water Utility, Maximum %	75	75	75	75
Salt reduction, %	98	98	98	98
Typical water quality, $\mu\text{S/cm}^*$	30	30	30	30
Reservoir/pump	option	option	option	option
Softening filter	option	option	option	option
Pump connection, V/Hz	3x400/50	3x400/50	3x400/50	3x400/50
Installed power, kW	2.2	2.2	4	4
Intake, \O "	3/4	3/4	3/4	3/4
Outlet, \O mm	3/4	3/4	3/4	3/4
Discharge, \O mm	14	14	14	14
Feed water pressure, min/max, bar	3/7	3/7	3/7	3/7
Dimensions, W x D x H, mm	720 x 570 x 1670	720 x 570 x 1670	720 x 570 x 1670	720 x 570 x 1670

**Depends on the water quality. The stated data is nominal and based on a potable feed water supply with a maximum total dissolved solids level of 500 mg/l, a minimum temperature of 10°C and a 3 bar inlet pressure.*

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