

Reverse Osmosis



A range of EWS Reverse Osmosis systems

Environmental Water Systems (UK) Ltd specialises in the design, manufacture, supply and service of water purification and wastewater recovery systems.

The EWS range of reverse osmosis systems are used in the production of purified water systems. They can be used independently or in combination with other purification techniques, to meet various standards in industrial, healthcare and pharmaceutical applications.

Reverse osmosis process

Reverse Osmosis is a membrane separation process which is capable of separating the dissolved salts (ions) present in the water and allows clean water molecules to pass through the membrane. In reality, it is the water molecules that are separated from the dissolved salts and not, as is known from ion exchange, the ions that are removed from the water.

The dissolved salts are removed almost 100% and the pores of the membrane are so small that even micro-organisms like bacteria and pyrogens cannot penetrate. The treated water (the permeate) is collected in a reservoir tank and from here it will be pumped to the user installation. The reject water (the concentrate) will flow to drain.

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Environmental Water Systems (UK) Ltd
Total Capability in Water Purification and Water Treatment



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Reverse osmosis

Technical specification

Performance specifications	RO 1-3	RO1910-RO1940	RO2010-2040
Capacity/hour +/- 5%	160-450 l/hr	480-1000 l/hr	480-1900 l/hr
Water quality typically (μ S)	<30	<30	<30
Salt rejection %	98	98	98
Particulate/bacterial rejection %	99	99	99
Electrical connection V/Hz	230/50	400/50	400/50
Installed output Kw	1.5	2.2 – 3	2.2 - 4
Inlet	1/2" BSP	3/4" BSP	3/4 "
Outlet	1/2" BSP	1/2" BSP	3/4 "
Drain	12 mm	12 mm	3/4 "
Inlet Pressure min/max bar	3/6 barg	3/6 barg	3/6 barg
Dimensions mm W x D x H	600 x 600 x 1000	590 x 520 x 1450	750 x 755 x 1620

Feed water specifications

General Potable water free from organics, colloids and suspended matter

Total dissolved solids	< 1000 mg/l	< 1000 mg/l	< 1000 mg/l
Free Chlorine	0.1 ppm	0.1 ppm	0.1 ppm
Temperature	5-40°C	5-40°C	5-40°C
Pressure	3-6 bar	3-6 bar	3-6 bar
Silt density index	< 3 SDI units	< 3 SDI units	< 3 S DI units

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