ECOSOFT MO-4 INDUSTRIAL REVERSE OSMOSIS SYSTEM

PURPOSE. Ecosoft MO-4 is an industrial reverse osmosis system for purification of brackish water. Ecosoft RO systems feature simple and efficient design for high recovery low energy operation.

MAIN SPECIFICATIONS:	
Nominal capacity[1]	4 m^3/h
Normal recovery rate[1]	75%
Electrical requirements	400 V, 50 Hz (3 phase)
Power requirements	4 kW
Membrane elements	Dow Filmtec™ 4 pcs
Crate dimensions (Height × Width × Depth)	2.2×3.1×1.3 m
[1] At 15°C, 2000 ppm feed water, ±10%	

KEY ASSETS.

- Energy efficiency with Dow Filmtec™ XLE membranes and Grundfos pump
- Reliable performance with quality components and engineering
- Individual project evaluation per request
- CE label for electrical safety compliance
- ISO 9001 certified factory

Purified water is used in most sectors of industry. Main applications of Ecosoft RO systems include:

Semiconductor manufacturing	*Steam boilers*	*Textile industry*
Pharmaceutical manufacturing	*Heat and cooling circuits*	*Fish farms*
Chemical manufacturing	*Agriculture*	*Utility water treatment*
Food processing	*Insulation glazing*	*Laundry and car wash*
Galvanic and electroplating works	*Desalination*	*Drinking water bottling*

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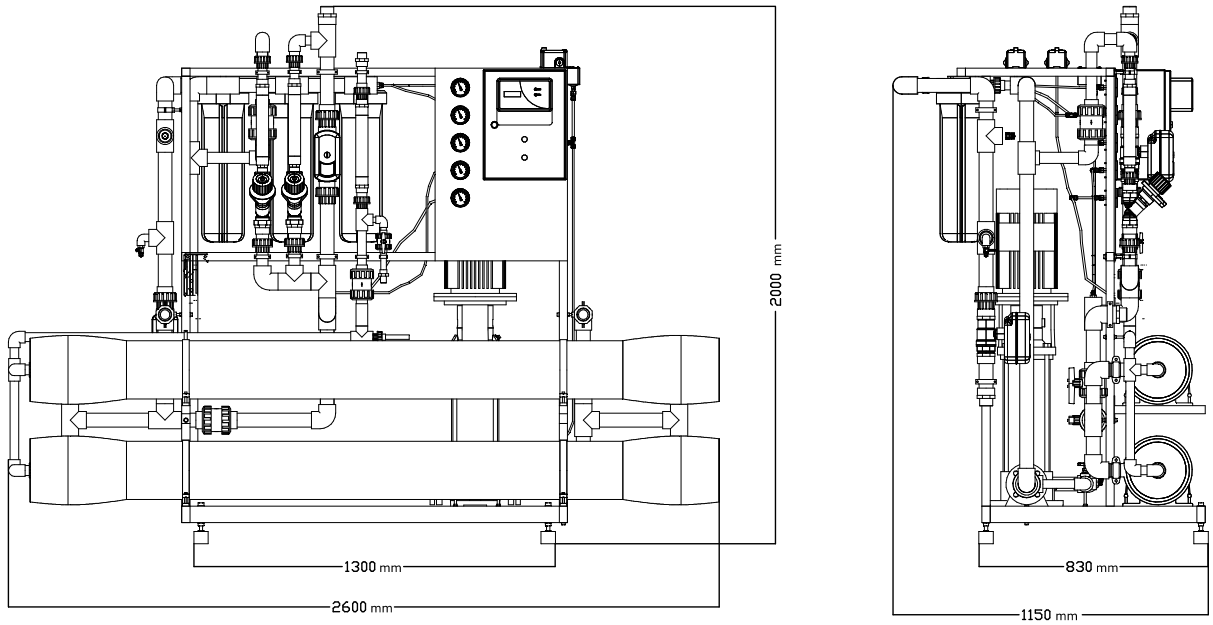
Dimensions[1].



[1] *Above dimensions are not binding and may vary within 30 mm*

Main equipment.

• DOW Filmtec™ XLE membranes	• Sediment pre-filters
• Grundfos CR pump	• 3 pressure switches
• Danfoss motorized valves	• Float switch
• Honeywell regulating valves	• Conductivity probe
• Ecosoft RO controller	• Anti-vibration pressure gauges and rotameters
• Praher and John Guest pipe, fitting, and valves	• Powder coated steel frame

Options.

Special purpose DOW Filmtec™ membranes	— For problem water with high nitrate, ammonium, TDS, TOC or other water quality issues
EMEC dosing pump	— For hard water or other water quality issues
Permeate rinse	— Prolongs membrane life and extends runtime before membrane clean (CIP)
Raw water blending	— Corrects purified water analysis and increases total flow rate

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EXTENDED SPECIFICATIONS.

Pump power		4	kW
Inlet pressure of water[1]		2…4	bar
Operating pressure		7…10	bar
Maximum pressure		14	bar
Influent flow rate during service		5…8	m^3/h
Influent flow rate during rinse		8…10	m^3/h
Connection port sizes:	— feed water — permeate — concentrate	DN40 DN25 DN40	
Dimensions (Height x Width x Depth)	— product — crate	2.0×2.6×1.15 2.2×3.1×1.3	m m
Weight	— product — cargo	500 660	kg kg

[1] stable pressure (±0.5 bar) within specified limits is required for sustainable operation

FEED WATER REQUIREMENTS.

1	Total Dissolved Solids	< 3000	mg/L (ppm)
2	Hardness[2]	< 150	mg/L $CaCO_3$ (ppm $CaCO_3$)
3	Iron	< 0.1	mg/L (ppm)
4	Manganese	< 0.05	mg/L (ppm)
5	Hydrogen Sulfide	none	
6	Silica[2]	< 20	
7	Chlorine	< 0.1	mg/L (ppm)
8	Silt Density Index	< 5	mg/L (ppm)

[2] Higher values can be treated with antiscalant