

## Standard Plants

### Reverse Osmosis

Esmil Process Systems offer a range of standard “skid mounted” Reverse Osmosis desalination systems for industrial applications. Designed to produce a clear, softened and low saline water, the permeate can be used for drinking water, boiler feed water or process water.

The units are designed for automatic, unattended operation - an integrated PLC operates the entire system. Shop-testing prior to shipment ensures “plug in and play” with minimal erection time. Esmil Process Systems are available for commissioning, supervision of erection and start-up.

### 50 - 200 m<sup>3</sup>/d Membrane Systems



### 200 – 1200 m<sup>3</sup>/d Membrane Systems



Similar plants are available for a wide range of process applications:  
Beverage Manufacture  
Laundry and Washing Processes  
Textile Industry

## SPECIALISTS IN PROCESS WATER TREATMENT

<b>Standard Reverse Osmosis Membrane Systems</b>		
	50 – 200 m <sup>3</sup> /d Plants	200 – 1200 m <sup>3</sup> /d Plants
<b>Operating Parameters</b>		
Inlet Pressure	2 barg	2 barg
Operating Pressure	12 – 15 barg	12 – 15 barg
Operating Temperature	4 – 29°C	4 – 29°C
<b>Process Efficiency</b>		
Salt Rejection	95 – 98% Removal of most colloids Removal of bacteria and viruses	95 – 98% Removal of most colloids Removal of bacteria and viruses
<b>Membrane Housing</b>	10 cm	20 cm
<b>Membrane Elements</b>	Spiral wound	Spiral wound
<b>Feed Pump</b>	Multi stage centrifugal pump S.S Shell and Housing	Multi stage centrifugal pump S.S Shell and Housing
<b>Standard Features</b>	High pressure St.St. pipework 5 micron pre-filter with SS housing Automatic inlet shut-off valve Automatic flush system Pressure gauges Digital permeate / concentrate flow meters Digital conductivity meter Integrated alarm system PLC control (optional)	High pressure St. St. pipework 5 micron pre-filter with SS housing Automatic inlet shut-off valve Automatic flush system Pressure gauges Digital permeate / concentrate flow meters Digital conductivity meter Integrated alarm system PLC control Modem control facilities
<b>Frame</b>	Epoxy coated carbon steel	Epoxy coated carbon steel

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