

# REVERSE OSMOSIS (RO)

Commercial 4-36 M<sup>3</sup>/Day

## OVERVIEW

Enviro Concepts Reverse Osmosis (RO) systems are engineered to economically produce low dissolved solids water from tap, surface or ground water by removal of dissolved minerals, heavy metals, bacteria, particles, and organic impurities.

Each RO system is pre-engineered, pre-assembled and factory tested ensuring reliable operation and minimising site installation and start-up time. Using proven, reliable components and brackish water low energy Thin Film Composite (TFC) RO membranes ensures reliable operation and efficient water purification for water treatment applications including municipal, industrial, process plants, stormwater recycling and a wide variety of water reuse applications.

## FEATURES

- Brackish Water TFC Membranes
- FRP RO Pressure Vessels
- High Pressure Stainless Steel Vertical Multistage Feed Pump
- Electrical Control Panel
- 5µm Guard Filters
- Manual & Electrical Solenoid Control Valve
- Pressure Gauges, Flow Meters
- Permeate Conductivity Meter
- PVC Low Pressure Feed, Product and Reject Piping
- Stainless Steel High Pressure Piping
- Coated Carbon Steel Frame
- Clean In Place Connections
- Skid Mounted and Mobile

## APPLICATIONS

- Spot Free Car Wash Rinse
- Municipal, Commercial and Industrial
- Manufacturing and Process Plants
- Resource Industry
- Stormwater Recycling
- Hotels and Resorts
- And a wide variety of other water reuse applications

## OPERATING LIMITS

Feed Water Source:	<b>Tap, Surface, Ground</b>
Recovery:	<b>70 to 90%</b>
Operating Temperature:	<b>&lt; 45 deg C</b>
Operating Pressure:	<b>&lt; 12 Bar</b>
Max. SDI (15min):	<b>&lt; 5.0</b>
pH Range:	<b>3 - 10</b>
Feed Max. Turbidity:	<b>&lt; 1.0 NTU</b>
Chlorine Concentration:	<b>&lt; 0.1 ppm</b>
Power Supply:	<b>240-415V, 3 Phases, 50 Hz</b>
Power Consumption:	<b>1.5 to 4.0 kW</b>



## MEMBRANE SPECIFICATIONS

Membrane Type:	<b>Thin Film Composite (TFC)</b>
Membrane Supplier:	<b>Hydranautics or Filmtec</b>
Material:	<b>Polyamide (PA)</b>
Charge:	<b>Negative</b>
Configuration:	<b>Spiral Wound, FRP Wrapping</b>
Membrane Size:	<b>Diameter 4" x Length 40" 102mm x 1,020mm</b>
Flux Rate:	<b>25 LMH</b>
Nominal Salt Rejection:	<b>95% to 98%</b>

Model No.	Clean Water Output		Membrane Elements	Line Sizes (inches)			Approx. System Dimensions (mm)			Approx. Weight (KG)
	L/Hr	m <sup>3</sup> /d		Inlet	Product	Reject	Length	Depth	Height	
RO 1.4	180	4	1 x 4" x 40"	3/4	1/2	1/2	600	600	2000	90
RO 2.4	380	9	2 x 4" x 40"	3/4	1/2	1/2	600	600	2000	100
RO 4.4	760	18	4 x 4" x 40"	1 1/2	3/4	3/4	1500	800	1850	200
RO 8.4	1500	36	8 x 4" x 40"	1 1/2	3/4	3/4	1500	1100	1850	200