



# Reverse Osmosis Systems

*Envirogen Reverse Osmosis systems are used in the production of purified water. They can be used independently or in combination with other purification techniques, to meet various standards in industrial, healthcare and pharmaceutical applications.*

## Features

- 1 to 24 membranes for flows from 1500 to 181,000 gallons per day\*
- Low Energy Membrane Elements – other options available
- Vertical or Horizontal configurations
- 4" and 8" by 40" membranes modules utilized
- 5-micron sediment prefilter protects RO membrane from premature fouling
- FRP Membrane Housings – 450 psi
- Clean-in-Place (CIP) Ports



## Benefits

- Fully Equipped and Customizable
- Expandable and Skid Mounted
- Components Easily Accessible
- Pre-Piped, Wired and Assembled
- Individually Tested and Preserved
- Low Operation and Maintenance Costs
- Easy Maintenance and Servicing
- 1-Year Limited Warranty

## Operating Conditions

Normal Operating Temperature Range	40 to 85/4 to 29 (°F / °C)
Maximum Ambient Temperature	120 / 49 (°F / °C)
Minimum Ambient Temperature	40 / 4 (°F / °C)
Maximum Operating Pressure	400 / 28 (psi / bar)

## Feed Water Specifications

Maximum Feed Pressure	85 / 6 (psi / bar)
Minimum Feed Pressure	45 / 3 (psi / bar)
Maximum Feed Silt Density Index (SDI)	<3
Maximum Turbidity	<1 NTU
Maximum Free Chlorine	0 ppm
Maximum pH (Continuous)	11
Minimum pH (Continuous)	2

## Membrane Cleaning

Maximum pH (Cleaning 30 Minutes) 13  
 Minimum pH (Cleaning 30 Minutes) 1

## Product Range

Model	Flow Range (GPD)*	Orientation	Membrane Module Diameter (in)	Number of Membrane Modules
ROVS	1500-9000	Vertical	4	1, 2, 3, 4, 5, 6
ROHM	12,000 – 36,000	Horizontal	4	8, 12, 16, 20, 24
ROHL	30,240-181,440	Horizontal	8	4, 6, 8, 10, 12, 16, 20, 24

\* Based on 24 hour usage.

## Array Specifications

Model	Array	Number of Housings	Number of Membranes
ROVS-11-4040	1	1	1
ROVS-21-4040	1:1	2	2
ROVS-31-4040	1:1:1	3	3
ROVS-41-4040	1:1:1:1	4	4
ROVS-51-4040	1:1:1:1:1	5	5
ROVS-61-4040	1:1:1:1:1:1	6	6
ROHM-42-4040	2:2	4	8
ROHM-62-4040	2:2:2	6	12
ROHM-82-4040	3:3:2	8	16
ROHM-102-4040	3:3:2:2	10	20
ROHM-122-4040	3:3:2:2:2	12	24
ROHL-22-8040	1:1	2	4
ROHL-32-8040	1:1:1	3	6
ROHL-42-8040	2:1:1	4	8
ROHL-52-8040	2:1:1:1	5	10
ROHL-34-8040	2:1	3	12
ROHL-44-8040	2:1:1	4	16
ROHL-54-8040	3:1:1	5	20
ROHL-64-8040	3:2:1	6	24

## Standard Features and Options

Model	Standard Features	Options
ROVS	Small vertical footprint, computer processor with standard control functions for dual TDS monitoring, low pressure monitoring with alarm, pre-treatment lockout, feed flush and tank level input. Stainless steel multi-stage high pressure pump, low energy membrane elements, and a cartridge filter housing with a 5 micron sediment pre-filter.	Permeate divert, variable frequency drive, a chemical injection system and a clean-in-place system.
ROHM	Computer controller with dual TDS monitoring, low pressure monitoring and alarm, pretreatment lockout, and feed flush and tank level input. Larger models include an additional digital flow monitor. Low energy reverse osmosis membrane elements as standard, motorized feed valve, permeate sample ports and a bag filter housing with a 5 Micron filter bag.	Permeate flush, permeate divert, variable frequency drive, chemical injection system and clean-in-place system.
ROHL	panel-mounted pressure and flow instrumentation. The larger models include digital flow indicators and VFD motor control. Stainless steel components are used for the vertical multistage pump, cartridge filter housing, high pressure piping and valves, and the inlet/outlet ports of the housings	S – 200 computer controller, VFD, programmable logic controller (PLC) with touch screen, permeate and concentrate digital paddlewheel sensors, PVC feed motorized ball valve, PVC permeate divert motorized ball valve, permeate flush, pH sensor, ORP sensor, clean-in-place (CIP) skid mounted system, chemical feed system

## Ordering Information

Product Series	Orientation/Size	Number of Housings	Membrane Modules per Housing	Membrane Module Diameter	Membrane Module Length
RO	VS	1, 2, 3, 4, 5, 6	1	40 = 4"	40 = 40"
	HM	4, 6, 8, 10, 12	2	40 = 4"	
	HL	2, 3, 4, 5, 6	2, 4	80 = 8"	

*Replacement modules and ongoing service plans are available.*

RO-NA-1117

*Larger Systems also available – Consult Factory.*



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