

# Industrial Reverse Osmosis Systems

**Capacity: 100,000 to 380,000 GPD**

**RO-I-40**

**SERIES**

Reverse osmosis, also known as hyper filtration, is used to purify water and remove salts and other impurities. It is also capable of rejecting bacteria, sugars, proteins, particles, dyes, and other constituents that have a molecular weight of greater than 150-250 dalton.



## Standard Features

- 8" TFC spiral wound membranes
- FRP membrane housing
- Epoxy Painted or Stainless Steel Frame
- Stainless steel multi-stage pump with TEFC motor
- 5 micron cartridge prefilter
- Power supply: 380V/3Ph/50Hz
- Microprocessor based control panel
- Programmable time delay and set points
- Status lamps
- 220V/50Hz control voltage
- Motor starter
- Low pressure switch
- High pressure switch
- Liquid filled pressure gauges, panel mount for pump suction, membrane feed, and final concentrate
- Permeate conductivity monitor
- Permeate & concrete flow meters

## Available Options

- Membrane cleaning skid
- Automatic hourly flush
- Feed / Permeate blending
- Export crating
- Custom designed units
- Product tank level controller switch
- Feed pH controller with sensor
- Feed ORP controller with sensor
- Hour meter
- Water meter
- Chemical dosing units
- Media filters
- Ozonation system
- UV sterilizers
- Water softeners
- Iron removal filter
- Post DI polishers

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# Industrial Reverse Osmosis Systems

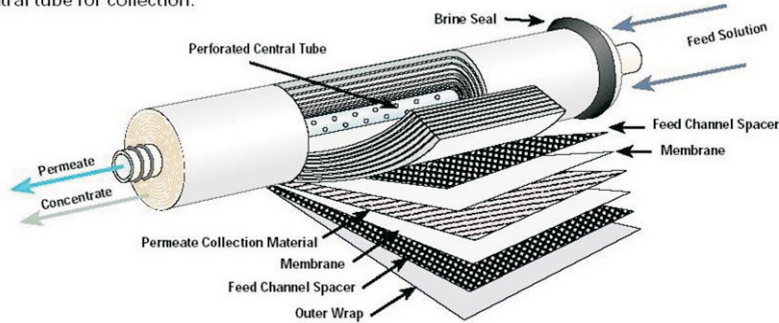
## How the Membrane System Works

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The spiral membrane is constructed from one or more membrane envelopes wound around a perforated central tube. The permeate passes through the membrane into the envelope and spirals inward to the central tube for collection.

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The illustration above represents a simplified spiral-wound membrane element. Recovery can be as high as 90% and systems may be capable of chemical cleaning in place (CIP).

## Operation Specifications

- Feed water temperature =45°C Max.
- Hydrogen Sulfide must be removed
- Feed water pressure = 20 to 80 psi
- Turbidity should be removed
- Operating pressure: 175 to 250 psi
- Iron tolerance: 0.05 ppm Max.
- Feed water TDS: 0-1,000 ppm, or higher as an option
- Hardness over 1 GPG requires antiscalant dosing
- PH range: 3-11
- Units can handle higher TDS by lowering recovery
- Silica Tolerance: 25 ppm max. @ 60% recovery

### Industrial Reverse Osmosis Systems

Model #	Permeate		Membranes		1000ppm Motor HP at 1000ppm		Dimensions L"xW"xH"	Approximate Weight Lbs
	GPD	M3/D	Array	Qty	60 Hz	50 Hz		
MW-100K-4480	100,000	378	2:1:1	16	18	15	197x72x80	2,600
MW-126K-5480	126,000	477	3:2	20	22	22	197x72x90	3,000
MW-158K-5580	158,000	598	3:2	25	30	30	236x72x90	3,600
MW-190K-6580	190,000	720	4:2	30	30	30	236x72x90	4,200
MW-250K-8580	250,000	946	5:3	40	45	37	236x70x80	5,000
MW-310K-10580	310,000	1173	7:3	50	75	45	236x70x90	6,000
MW-380K-12580	380,000	1438	8:4	60	75	45	236x70x90	7,000

All specifications are subject to change without notice.

We also supply the following:

- Multi-Media Pretreatment
- Carbon Pretreatment
- MBR Systems for Wastewater Treatment & Recycling
- Water Conditioning
- Chemical Metering Pump
- Ultra-Violet Sterilizer
- Ozone Sterilization

MEMBER



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