# **Industrial Brackish RO Systems**

Capacity: 1 to 3 MGPD



Pure Aqua's reverse osmosis systems are capable of removing salts as well as other impurities such as bacteria, sugars, proteins, dyes and constituents having a molecular weight greater than 150-250 Daltons. Our industrial BWRO systems are strategically designed to be energy efficient and environmentally friendly while producing high-quality water.



Pure Aqua supplies a full line of standard and fully customizable reverse osmosis systems, all of which are engineered using advanced 3D computer modeling and process design software for accurate and customized solutions.

### **Standard Features**

- ♦ Powder coated carbon steel frame
- ♦ 8" TFC spiral wound membranes
- ♦ Stainless steel multi-stage pump with TEFC motor
- FRP membrane housings
- ♦ 5 micron cartridge prefilter
- ♦ 460V/3ph/60Hz power requirement
- PLC based control panel
- Programmable time delay and set points
- ♦ NEMA 12 enclosure
- ♦ Low pressure switch
- High pressure switch
- Liquid filled pressure gauges
- Permeate conductivity monitor
- Permeate & concentrate flow meters

## **Available Options**

- Remote monitoring
- ♦ Feed water conductivity monitor
- ♦ Membrane cleaning skid
- ▲ Automatic hourly flush
- ♦ Feed/Permeate blending
- **♦** 380-415V/3ph/50 or 60Hz
- ♦ Product tank level switch
- ♦ pH & ORP controller with sensor
- ♦ Flow totalizer
- Chemical dosing systems
- ♦ Media prefiltration systems
- ♦ UV systems

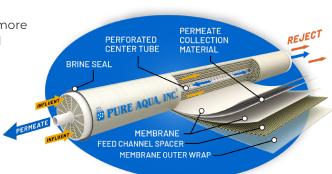
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RO-600 SERIES

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.

The layers of the membrane envelope are detailed in the diagram to the right.



#### **Operation Specifications**

- Max. feed water temperature: 42°C
- ♦ Feed water pressure: 20 to 80 psi
- ♦ Operating pressure: 150 to 250 psi
- ♦ H₂S must be removed
- Turbidity must be removed
- ♦ Max. iron content: 0.05 ppm
- ♦ Feed water TDS: 0 to 5,000 ppm
- Equipment upgrade for TDS over 5,000 ppm
- ♦ Hardness over 1 GPG requires antiscalant dosing
- ♦ pH tolerance range: 3-11
- ♦ Max. Silica tolerance: 60 ppm @ 60% recovery
- ♦ Operate at higher TDS by lowering recovery



Model #	Permeate Flow Rate		Quantity of 8"	Motor Rating HP at 1,000 ppm		Approx. Weight	Dimensions
	MGPD	M³/D	Membranes	60Hz	50Hz	(lbs)	L"xW"xH"
TW-1.0M-24680	1.00	3,785	144	100	75	12,200	Multiple Skids Contact Factory
TW-1.25M-24780	1.25	4,731	168	125	95	15,000	
TW-1.5M-30780	1.50	5,677	210	150	120	18,000	
TW-2.0M-37780	2.00	7,570	259	250	200	22,500	
TW-2.6M-54780	2.60	10,000	378	300	250	31,950	
TW-3.1M-64780	3.10	12,000	448	400	350	40,800	

Note: If the feed water TDS exceeds 1,000 ppm, the system model number changes to BW-XM-XXXXX, and a suffix is added to the end of the model number: "-3" is added if the TDS is 3,000 ppm or less, and "-5" is added if the TDS is 5,000 ppm or less.

Example: Required system to produce 1.5 MGPD with a feed water TDS of 5,000 ppm, the corresponding model number is: "BW-1.5M-30780-5".

Pure Aqua also supplies: Custom Engineered Solutions, Multimedia Pretreatment, Activated Carbon Pretreatment, Water Conditioning, Chemical Dosing Systems, Ultraviolet (UV) Sterilizers and Ozonation Systems.



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