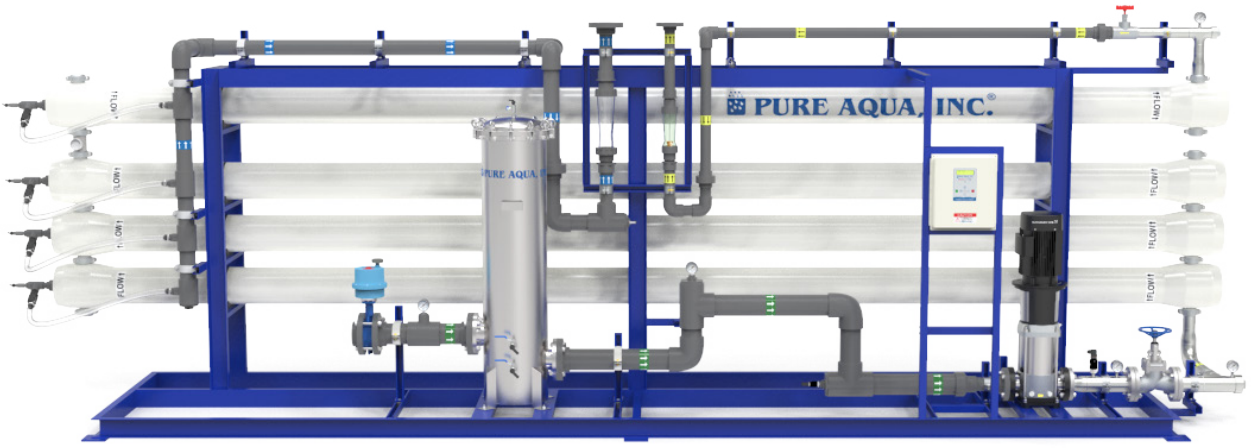
Industrial Brackish RO Systems

Capacity: 28,000 to 173,000 GPD

RO-400 SERIES

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.



TW-173K-4680

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.

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
- Microprocessor based control panel
- Programmable time delay and set points
- LCD screen
- Motor starter
- 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
- 220V or 380-415V/3ph/50Hz
- Product tank level switch
- Feed or product pH monitor with sensor
- Feed ORP monitor with sensor
- Flow totalizer
- Chemical dosing systems
- Media prefiltration systems
- UV sterilization systems
- Water softeners
- Post deionization polishers
- Skid mounted with pre or post treatment
- Containerized RO systems

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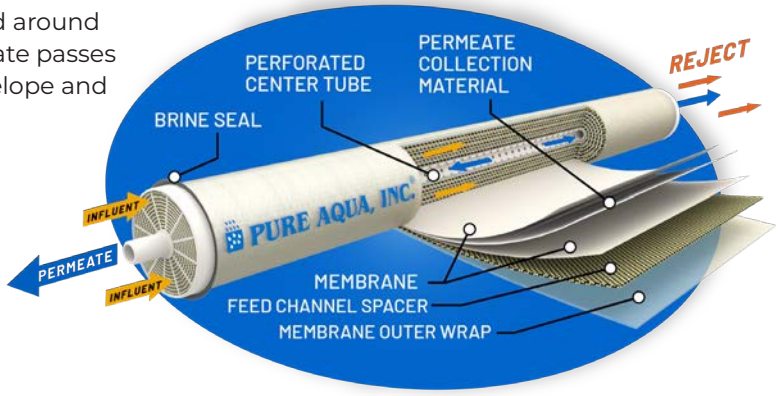
The spiral membrane is constructed from one or more membrane envelopes wound around a perforated central tube. The permeate passes through the membrane into the envelope and spirals inward to the central tube for collection.

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
- H_2S 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" Membranes	Motor Rating HP at 1,000 ppm		Approx. Weight (lbs)	Dimensions L"xW"xH"
	gpd	m^3/d		60Hz	50Hz		
TW-28K-1480	28,000	106	4	7.5	5	2,300	190x43x61
TW-36K-1580	36,000	136	5	7.5	5	2,350	230x43x61
TW-43K-1680	43,000	163	6	7.5	7	2,400	270x43x61
TW-57K-2480	57,000	216	8	7.5	7	2,500	190x43x63
TW-72K-2580	72,000	273	10	15	10	2,600	230x43x65
TW-87K-3480	87,000	329	12	15	15	2,700	190x43x75
TW-108K-3580	108,000	409	15	15	15	3,200	230x43x75
TW-130K-3680	130,000	492	18	20	15	3,500	270x53x77
TW-144K-4580	144,000	545	20	20	20	4,200	230x53x87
TW-173K-4680	173,000	655	24	20	25	4,550	270x53x88

Note: If the feed water TDS exceeds 1,000 ppm, the system model number changes to BW-XXXK-XXXX, 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 130,000 GPD with a feed water TDS of 5,000 ppm, the corresponding model number is: "BW-130K-3680-5".

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

PURE AQUA, INC.®
Water Treatment and Reverse Osmosis Systems
sales@pureaqua.com
www.pureaqua.com
+1 (714)432-9996
+1 (844)309-7501

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