# Commercial Brackish RO Systems

### RO-300 SERIES

Capacity: 13,000 to 32,000 GPD

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 commercial BWRO systems are strategically designed to be energy efficient and environmentally friendly while producing high-quality water.



BW-32K-7340-5

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
- 4" 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**

- ♦ Feed water conductivity monitor
- Membrane cleaning skid
- Automatic hourly flush
- ♦ Feed/Permeate blending
- Export crating
- 220V or 380-415V/3ph/50 or 60Hz
- Product tank level switch
- Feed pH monitor with sensor
- Feed ORP monitor with sensor
- Water and hour meters
- Chemical dosing systems
- Media prefiltration systems
- Ozonation and UV sterilization systems
- Water softeners
- Post deionization polishers
- Skid mounted with pre or post treatment
- Containerized RO systems



## **Commercial Brackish RO Systems**

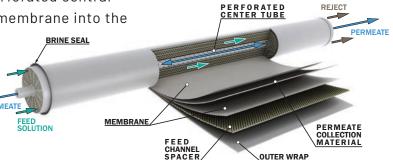
Capacity: 13,000 to 32,000 GPD



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
- Hydrogen Sulfide must be removed
- Turbidity must be removed
- Max. iron content: 0.05 ppm

- Feed water TDS: 0 to (1,000 or 3,000 or 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 4"	Motor Rating at 1,000 ppm		Approx. Weight	Dimensions L"xW"xH"
	GPD	M³/D	Membranes	60Hz (hp)	50Hz (kw)	(lbs)	L XVV XFI
TW-13K-3340	13,000	49	9	2	2	750	145x35x60
TW-15K-5240	15,000	57	10	3	3	850	105x35x70
TW-18K-4340	18,000	68	12	5	3	875	145x35x70
TW-22K-5340	22,000	83	15	5	3	900	145x35x70
TW-24K-8240	24,000	91	16	5	4	950	105x35x75
TW-27K-6340	27,000	102	18	5	4	990	145x35x70
TW-32K-7340	32,000	121	21	5	4	1,025	145x35x75

Note: If the feed water TDS exceeds 1,000 ppm, the system model number changes to BW-XXK-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 27,000 GPD with a feed water TDS of 5,000 ppm, the corresponding model number is: "BW-27K-6340-5".

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



Water Treatment and Reverse Osmosis Systems

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