

Avin Palayesh Niroom LTD.

Brackish Water Reverse Osmosis Summary



Brackish Water
Reverse Osmosis Machine
BWRO-APB-3-2200 / 50 Hz



Brackish Water
Reverse Osmosis Machine
BWRO-APB-3-8800 / 50 Hz

Standard Features:

- 1.0 or 5.0 micron pre-filter
- Automatic inlet shut-off valve
- Centrifugal type pump
- Two rotameters
- Auto-flush system
- Status indicators
- Adjustable reject recirculation
- Pre-filter, post filter, pump discharge
- Concentrate pressure gauges
- Single source power
- Digital purity monitor
- Mimic diagram c/w pilot lights

BWRO-APB-3 Series

BWRO-APS-5 Series are designed to product with:

- BWRO-APB-3-2200: up to 347 Lt/Hr
- BWRO-APB-3-4400: up to 694 Lt/Hr
- BWRO-APB-3-6600: up to 1041 Lt/Hr
- BWRO-APB-3-8800: up to 1388 Lt/Hr

BWRO-APS-5 Series combines high quality product water, user-friendly controls, durable construction and easy installation.

Typical Applications:

- Hemodialysis
- Safe drinking water
- Research and laboratory
- Pharmaceutical
- Boiler feed water
- Humidification system
- Rinse water
- Ion exchange pre-treatment
- Commercial applications

Operating parameters:

- Operating pressure: 15 bar
- Maximum recovery: 75%
- Nominal rejection: 95-98%
- Design temperature: 25 °C
- Operating temperature: 20 to 40 °C
- Minimum inlet pressure: 2 bar (30 psi)

Material of construction:

- Frame: Stainless Steel
- Membrane elements: TFC polyamide
- Membrane housing: Polish Stainless Steel
- Low pressure pipe: SCH.80 PVC
- High pressure pipe: Stainless Steel
- Control enclosure: NEMA 4
- Pump: Stainless Steel

BWRO – APB-3 Series Brackish Water Reverse Osmosis Systems



BWRO-APB-3 SERIES

BWRO-APB-3 SERIES				
SPECIFICATIONS	2200	4400	6600	8800
Permeate Lt/Hr (GPD) :	347 (2200)	694 (4400)	1041 (6600)	1388 (8800)
feed Lt/Hr (GPD) :	463 (2933)	926 (5866)	1389 (8799)	1852 (11732)
Concentrate Lt/Hr (GPD) :	116 (733)	232 (1466)	348 (2199)	464 (2932)
Recovery :	75%	75%	75%	75%
Quantity of Element(s) :	1	2	3	4
Motor(KW-H)	1.5	1.5	2.2	2.2
CONNECTIONS				
Feed :	1	1	1	1
Perm. :	1/2	3/4	1	1
Conc. :	1/2	1/2	3/4	3/4
DIMENSIONS (CM)				
Height :	160	160	160	160
Width :	70	70	80	80
Depth :	70	70	70	70
SHIPPING WEIGHT (KG)				
	145	160	180	195

Feed water requirements:

The Reverse Osmosis machines require the following feed water conditions:

- Temperature : 20 to 40
- Functional pH : 5 to 10 (ultimate pH element limit 3 to 11)
- Langelier index : -0.5
- Residual Chlorine (PPM) : < 0.02 to Nil
- Silt Density Index (SDI) : < 3
- Total Dissolved Solids (PPM) : < 1500
- Metals – Iron, Manganese (PPM) : < 0.03

* Recommendation: Should the feed water does not meet above requirement, the typical pretreatment to be considered shall be :

- : Multi-Media filter (will remove Turbidity)
- : Activated Carbon Filter (will remove Organic Matters, Chlorine)
- : Softener (will remove Hardness, Metals)

Installation Considerations:

- The system should be installed on a firm, level surface.
- A drain with suitable capability to handle the concentrate flow rate is required.
- A power source of 380V 3PH 50Hz or 460V 3PH 60Hz is required.
- Minimum dynamic operating feed pressure of 2 bar for proper system operation.

