

Alpha™ BW



Alpha™ brand Brackish Water Reverse Osmosis systems from Winda Technologies provide the right combination of value and features required for any desalination application. Every Alpha™ Brackish Water R.O. system is manufactured from the highest quality components to the exacting standards of all Winda Technologies equipment. Standard Alpha™ Brackish Water R.O. models are available for any brackish water industrial application from 1,600 to over 150,000 GPD.

Alpha™ Brackish Water Reverse Osmosis systems are specially designed for feed waters with elevated levels of TDS. Each Alpha™ Brackish Water system is designed to provide potable product water from feed water with TDS of up to 10,000 ppm. Only industrial-quality corrosion-resistant components are used to ensure maximum reliability.



Experience and Technology – The Winda Difference

Alpha™ BW



Design Assumptions

- Feed water of 10,000 mg/L TDS at 25° C, SDI < 5, Turbidity < 1
- Negligible permeate back pressure
- 3rd year of operation allowing for Flux Decline and Salt Passage Increase
- Flux, Minimum Brine Flow, and Recovery per membrane manufacturers recommendations
- Brackish Water Systems may require extensive pre-treatment to prevent membrane scaling

Standard Features

- Fiberglass-Wrapped TFC Membranes
- 316SS Pump, Valves, Pressure Gauges
- 316L Stainless Steel High-Pressure Piping
- 60Hz/230V-460V, TEFC motor
- Automatic High and Low Feed Pressure Shut-off
- Permeate and Concentrate Flowmeters
- Automatic Feed Water Shut-off Valve
- 5-micron Sediment Prefilter
- Fiberglass Pressure Vessels
- Prefilter Pressure Gauges

Optional Features

- Chemical Dosing System
- Clean-in-Place System
- TDS, pH, Temperature, Turbidity Instruments
- PLC Control
- Special Color or Private Label
- 50Hz Motor
- Automatic Feed Water or Permeate Flush
- Crating

System Specifications

Model	System Configuration						Approximate Shipping Dimensions			Approximate Skid Dimensions		
	Production GPD	Recovery m ² /D	Recovery (%)	Number and Size Elements	Motor 60Hz (HP)	Motor 50Hz (KW)	(L x W x H) (inches)	(L x W x H) (cm)	Weight (lbs/Kg)	(L x W x H) (inches)	(L x W x H) (cm)	Weight (lbs/Kg)
Alpha-BW-025	360	1.4	13	1 (2.5")	1/2	1/3	26 x 26 x 57	66 x 66 x 145	69/31	20 x 20 x 50	51 x 51 x 127	55/25
Alpha-BW-05	720	2.7	22	2 (2.5")	1/2	1/3	26 x 26 x 57	66 x 66 x 145	79/36	20 x 20 x 50	51 x 51 x 127	65/30
Alpha-BW-1	1,000	4	15	1 (4")	4	2.2	26 x 26 x 57	66 x 66 x 145	74/34	20 x 20 x 50	51 x 51 x 127	60/27
Alpha-BW-1.5	2,200	8	27	2 (4")	4	2.2	26 x 26 x 57	66 x 66 x 145	89/40	20 x 20 x 50	51 x 51 x 127	74/34
Alpha-BW-2	3,200	12	35	3 (4")	5.5	2.2	26 x 26 x 57	66 x 66 x 145	99/45	20 x 20 x 50	51 x 51 x 127	85/39
Alpha-BW-3	4,500	17	43	4 (4")	5.5	3	26 x 26 x 57	66 x 66 x 145	106/48	20 x 20 x 50	51 x 51 x 127	92/42
Alpha-BW-4	5,500	21	36	5 (4")	5.5	4	26 x 26 x 57	66 x 66 x 145	120/55	20 x 20 x 50	51 x 51 x 127	106/48
Alpha-BW-5	7,200	27	43	7 (4")	5.5	4	120 x 40 x 72	315 x 102 x 183	1175/534	108 x 32 x 60	274 x 81 x 152	875/398
Alpha-BW-10	14,400	55	50	14 (4")	9	5.1	120 x 50 x 72	315 x 127 x 183	1300/591	108 x 42 x 60	274 x 96 x 152	1000/455
Alpha-BW-15	21,600	82	55	21 (4")	10.5	7	168 x 50 x 72	427 x 127 x 183	1475/670	156 x 42 x 60	396 x 96 x 152	1150/523
Alpha-BW-20	28,800	110	55	27 (4")	15	8.6	168 x 60 x 72	427 x 152 x 183	1700/773	156 x 52 x 60	396 x 132 x 152	1350/614
Alpha-BW-25	36,000	140	55	33 (4")	19	9.5	168 x 60 x 72	427 x 152 x 183	1900/864	156 x 52 x 60	396 x 132 x 152	1550/705
Alpha-BW-30	43,200	165	50	9 (8")	25	18	168 x 60 x 72	427 x 152 x 183	2100/955	156 x 52 x 60	396 x 132 x 152	1750/795
Alpha-BW-45	64,800	250	50	15 (8")	30	19.5	228 x 60 x 84	579 x 152 x 213	2900/1318	216 x 48 x 72	549 x 122 x 183	2500/1136
Alpha-BW-60	86,400	330	55	20 (8")	40	30	228 x 60 x 84	579 x 152 x 213	3450/1568	216 x 48 x 72	549 x 122 x 183	3050/1386
Alpha-BW-75	108,000	410	55	24 (8")	40	30	228 x 74 x 84	579 x 188 x 213	4050/1841	216 x 62 x 72	549 x 157 x 183	3600/1636
Alpha-BW-90	129,600	490	60	30 (8")	45	35.5	228 x 74 x 84	579 x 188 x 213	4600/2091	216 x 62 x 72	549 x 157 x 183	4150/1886
Alpha-BW-105	151,200	570	60	36 (8")	50	37.5	306 x 74 x 84	777 x 188 x 213	5400/2455	288 x 62 x 72	732 x 157 x 183	4800/2182

