

4400C Series RO

Reverse Osmosis System 60 Hz 4,000 to 24,000 GPD

The Biolab 4400C Series Reverse Osmosis Systems are designed to produce up to 17 US gpm (3.86 m³/h) of pure water. The 4400C Series provides high quality product water, user-friendly controls, durable construction, and easy installation.

Operating Parameters

- Operating Pressure: 250 psig (1724 KPA)
- Maximum Recovery: 75%
- Nominal Rejection: 95-99%
- Operating Temperature: 2-35°C (35-95°F)
- Minimum Inlet Pressure: 30 psig (210 KPA)
- Design Temperature: 25° C (77° F)

Standard Construction

- Frame: Powder Coated Steel
- Membrane Elements: TF Polyamide
- Membrane Housing: Stainless Steel
- Low Pressure Pipe: Sch. 80 PVC
- High Pressure Pipe: Stainless Steel
- Control Enclosure: NEMA 4/12
- Pump: Stainless Steel

Typical Applications

- Commercial Applications
- Clean Sterilize Reuse (CSR)
- Central Laboratory
- Boiler Feed Water
- Humidification Systems
- Process Ingredient Water
- Rinse Water
- Ion Exchange Pre-Treatment



Standard Features

- 1.0 - micron graded density pre-filter
- Automatic inlet shut-off valve
- Multi-stage 316SS centrifugal pump, TEFC
- Three variable flow meters
- Stainless steel pressure gauges
- Programmable auto-flush feature
- Digital system control
- Adjustable reject recirculation
- Clean-In-Place valving
- Automatic permeate divert system add-on
- Up to 75% recovery

Technical Data

Product Specifications

4400C 60 Hz Specifications @ 25°C

Model Number	Stock Number	Permeate gpm (lpm)	Concentrate gpm (lpm)	Motor hp	Elements Number	Inlet in (mm)	Permeate in (mm)	Concentrate in (mm)	Weight lbs (kg)
4400C-4K	22C16B-2RO	2.8 (10.5)	0.8 (3.0)	2.0	2	3/4 (1.9)	1/2 (1.3)	1/2 (1.3)	438 (199)
4400C-6K	32C16B-2RO	4.2 (15.9)	1.3 (4.9)	3.0	3	3/4 (1.9)	1/2 (1.3)	1/2 (1.3)	481 (218)
4400C-8K	42C16B-2RO	5.6 (21.2)	1.8 (6.8)	3.0	4	3/4 (1.9)	3/4 (1.9)	3/4 (1.9)	506 (230)
4400C-10K	52C16B-2RO	6.9 (26.1)	2.3 (8.7)	5.0	5	3/4 (1.9)	3/4 (1.9)	3/4 (1.9)	593 (269)
4400C-12K	62C16B-2RO	8.3 (31.4)	2.8 (10.6)	5.0	6	1 1/2 (3.8)	3/4 (1.9)	3/4 (1.9)	627 (284)
4400C-16K	82C16B-2RO	11.0 (41.6)	3.7 (14.0)	5.0	8	1 1/2 (3.8)	1 (2.5)	1 (2.5)	721 (327)
4400C-18K	92C16B-2RO	12.5 (47.3)	4.2 (15.9)	7.5	9	1 1/2 (3.8)	1 (2.5)	1 (2.5)	764 (347)
4400C-20K	102C16B-2RO	14.0 (53.0)	4.7 (17.8)	7.5	10	1 1/2 (3.8)	1 (2.5)	1 (2.5)	783 (355)
4400C-24K	122C16B-2RO	17 (64.4)	5.7 (21.6)	7.5	12	1 1/2 (3.8)	1 (2.5)	1 (2.5)	832 (377)

Note: All weights and dimensions are approximate.

Feed Water Requirements*	Specifications
Feed Water Source	Potable Tap
Maximum Silt Density Index	< 3
Maximum Chlorine Free	< 0.1 ppm
Operating Temperature Range	2-35°C (35-95°F)
Operating pH Range	2.0-11.0
Total Dissolved Solids	<1,000 ppm
Softened or Langelier Index	Negative
Iron / Manganese	< 0.1 ppm

*If any of the feed water parameters are not within the limits given, consult one of our application specialists for assistance.

System Dimensions	
Height	77.5"
Width	38"
Depth	29"

Ordering Information

4400C Part Number Matrix

Number of RO Elements

2 3 4 5 6 8 9 10 12

Membrane Type

2 - Thin Film Composite

Application Type

C - Commercial / Industrial

Housing Type

1 - 304 SS

Electrical Requirements

2 - 230/1/60 5 - 115/1/60 8 - 460/3/60
 3 - 380/3/50* 6 - 208/3/60 9 - 575/3/60
 4 - 420/3/50* 7 - 230/3/60

Pump Type

B - 316SS*

Panel Options

2 - Digital with conductivity 3 - PLC controller

Unit Type

RO - Reverse Osmosis Systems

	2	C	1		B	-		RO
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* Pump horse power will change

Installation Considerations

- For proper serviceability, there should be 18" of space around the system, including front, back, and sides.
- The system should be installed on a firm, level surface and have a drain with suitable capacity.
- Minimum dynamic operating pressure of 30 psig is required for proper operation. The maximum pressure is 90 psig.



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