MAR COR
A Cantel Medical Company

Competent, Consistent, & Compliant

4400M Medical Series

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

510(k) Medical Device

Mar Cor Purification's 4400M Medical Series RO Machines are designed for durable operation, high quality product water production, easy installation and straight-forward control. This 4400M Series holds a FDA cleared claim to purify pre-treated water using reverse osmosis for making dialysate for hemodialysis applications and Health Canada as a class III medical device.The BioPure HX2 is designed to meet current ANSI/AAMI 13959, and CAN/CSA/ISO 13959 water standards. The system holds a FDA cleared claim to purify pre-treated water using reverse osmosis for making dialysate for hemodialysis applications and a Class III Device Licence in Canada.

Standard Features

- Free standing powder coated steel frame
- Quiet, high efficiency pump and motor
- Quality tested spiral wound elements in stainless housings
- Low micron rated prefilter in opaque housing
- User-friendly digital controller with water quality readings & alarms
- Full range of flow meters and pressure gauges
- Automatic inlet shut-off valve
- Adjustable reject recirculation
- Programmable auto-flush system
- Permeate divert ensuring high quality product
- Clean-In-Place ports
- Compatible with MINNCARE® Cold Sterilant Products

General Specifications

- Production: 4,000 to 24,000 GPD @ 77°F (25°C)
- Recovery: 50-75%
- Motor Horsepower: 2.0 to 7.5, 3 Phase, 60HZ
- Element: Full Fit, Thin Film composite membrane, 4x40
- Nominal Rejection: 95-99% of all ionic material
- Connections: 1/2-inch FNPT to 1-1/2-inch FNPT
- Materials: All critical wetted materials are stainless steel or inert plastic

Materials of Construction

- Frame: Powder Coated Steel
- Membrane Elements: Thin Film Polyamide
- Membrane Housing: 304 Stainless Steel
- Low Pressure Pipe: Schedule 80 PVC
- High Pressure Tube: 316L Stainless Steel
- Control Panel Enclosure: NEMA 4/12
- Reverse Osmosis Pump: Stainless Steel

Typical Medical Application

- Hemodialysis
- Clean Sterilize Reuse (CSR)
- Sterile Processing Department (SPD)
- Central Laboratory

Technical Data

4400M 60 Hz Specifications @ 25°C								
Standard Systems								
Model Number	Permeate gpm (lpm)	Concentrate gpm (lpm)	Motor hp	Elements Number	Inlet in (mm)	Permeate in (mm)	Concentrate in (mm)	Weight lbs (kg)
4400M-4K	2.8 (10.5)	0.8 (3.0)	2.0	2	3/4 (19)	1/2 (13)	1/2 (13)	438 (199)
4400M-8K	5.6 (21.2)	1.8 (6.8)	3.0	4	3/4 (19)	3/4 (19)	3/4 (19)	506 (230)
4400M-12K	8.3 (31.4)	2.8 (10.6)	5.0	6	1 1/2 (38)	3/4 (19)	3/4 (19)	627 (284)
4400M-16K	11.0 (41.6)	3.7 (14.0)	5.0	8	1 1/2 (38)	1 (25)	1 (25)	721 (327)
Non Standard Systems (Additional lead time will apply)								
Model Number	Permeate gpm (lpm)	Concentrate gpm (lpm)	Motor hp	Elements Number	Inlet in (mm)	Permeate in (mm)	Concentrate in (mm)	Weight lbs (kg)
4400M-6K	4.2 (15.9)	1.3 (4.9)	3.0	3	3/4 (19)	1/2 (13)	1/2 (13)	481 (218)
4400M-10K	6.9 (26.1)	2.3 (8.7)	5.0	5	3/4 (19)	3/4 (19)	3/4 (19)	593 (269)
4400M-18K	12.5 (47.3)	4.2 (15.9)	7.5	9	1 1/2 (38)	3/4 (19)	1 (25)	764 (347)
4400M-20K	13.9 (53.0)	4.7 (17.8)	7.5	10	1 1/2 (38)	1 (25)	1 (25)	783 (355)
4400M-24K	16.7 (64.4)	5.7 (21.6)	7.5	12	1 1/2 (38)	1 (25)	1 (25)	832 (377)
System Dimensions: 80.5” High x 38” Wide x 29” deep (All weights and dimensions are approximate). Example: 4400M-8K = 8,000 GPD								

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)
- Electrical Requirements: 208/3/60

* Sanitary Low Fouling minimum: 50 PSIG (345 KPA)

Ordering Information

☐ ☐ M 1 6 B - 2 ☐

Number of RO Elements

2, 3, 4, 5, 6, 8, 9, 10, 12

Membrane Type

2 - Sanitary, 5 - Sanitary Low Fouling

Control Interface Options

E - Direct feed design, F - Storage tank design

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 capability.
- Minimum dynamic operating pressure of 30 PSIG is required for proper operation*. The max pressure is 90 PSIG.
- Additional water system instrumentation and alarms available.

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	2-11
Total Dissolved Solids	<1,000 ppm
Softened or Langelier Index	< 0.5
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.

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