



23G RO System

Medical Device

Reverse Osmosis System *3,000 to 16,500 GPD*

Hemodialysis providers and patients around the world rely on the 23G reverse osmosis machine for push button simplicity and reliability. The 23G RO is registered with the FDA as a Class II Medical Device and is designed and tested to meet or exceed AAMI RD62:2006 for RO product water.

Standard Features

- Quiet submersible high efficiency pump virtually eliminates annoying operating noise
- Free standing design makes installation and maintenance easy
- Unique expandable frame to increase output
- Adjustable Flow Block
- Quality tested spiral wound elements
- Quick-connect permeate manifold service ports
- User-friendly ECM-100 controller
- Permeate divert to ensure high quality product
- Chemically compatible with 1% Minncare[®] Cold Sterilant disinfectant solution

23G General Specifications

Recovery:	50-75%
Control Voltage:	115 VAC 60 Hz, 220 VAC 50 Hz Single-Phase
Motor Voltage:	208, 230, 460 VAC 60 Hz; 220, 380 VAC 50 Hz 3-Phase
Membrane:	HR (PA) Thin Film Composite
Rejection Ionic:	95-98% (Assumes typical water with mono & polyvalent salt mix)
Connections:	1-inch (2.5 cm) FNPT
Materials:	All Wetted Materials, Stainless Steel, or Inert Plastic



ECM-100 Controller

- System status lights: Run, alarm, permeate divert, status lights and auxiliary lights
- Alarm message center: Alarm messages, maintenance reminders, interfaces with system operations and displays date and time
- RO operating data
- High-contrast LCD module with LED backlighting
- User-adjustable alarm limits and timers

Options

- Automatic inlet shut-off valve
- Autoflush system
- 5-micron pre-filters
- Remote alarm
- Chemical feed system
- Clean-In-Place (CIP)
- pH monitor
- Expansion kits
- Medical casters
- Single-Phase motor voltage

Standard Models @ 77°F (25°C)

Capacity gpd (m3/d)	3,000 ¹ (11.4)	4,500 ¹ (17.1)	6,000 (22.7)	7,500 (28.4)	9,000 (34.1)	10,500 (39.8)	12,000 (45.5)	13,500 (51.2)	15,000 (56.9)	16,500 (62.5)
Power Requirements hp (kw)	3 (2.4)	3 (2.4)	3 (2.4)	3 (2.4)	3 (2.4)	5 (3.7)	5 (3.7)	5 (3.7)	5 (3.7)	7.5 (5.6)
QS Pump 60 Hz, (50 Hz)	1818 (1823)	1818 (1823)	1818 (1823)	1818 (1823)	1818 (1823)	2818 (2825)	2818 (2825)	2818 (2825)	2818 (2825)	2818 (N/A)

¹ 50% Recovery Available Only

Feedwater Requirements

Free Chlorine Level	(Min.) 0.0 ppm (mg/L)	(Max.) <0.1 ppm (mg/L)
pH	(Min.) 5.8	(Max.) 10.0
Pressure	(Min.) 20 PSI (1.4 bar)	(Max.) 60 PSI (4.1 bar)
Temperature	(Min.) 35°F (2°C)	(Max.) 85°F (29°C)

- Langelier Saturation Index (LSI) as calculated on concentrate total dissolved solids (TDS) must be negative.
- Permeate flows vary with temperature; all model capacities nominally rated at 77°F (25°C).

23G Self-Diagnostics

At the heart of the 23G RO is the ECM-100. This solid state controller/monitor is user-friendly. The liquid crystal display (LCD) makes it easy to see operating parameters. Everything is conveniently displayed in one easy-to-find location. The unique Alarm Message Center identifies individual alarms and helps facilitate corrective action. You can also program the ECM-100 to remind you to perform scheduled maintenance and sanitization.



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