

# MED-RO<sup>®</sup> Reverse Osmosis Medical Systems RX Series

## The Right Solutions, Flexible and Economical

Med-RO<sup>®</sup> Reverse Osmosis medical systems are specifically designed for hemodialysis water treatment applications. Our Med-RO<sup>®</sup> RX Series systems offer you the greatest flexibility possible from a standard system. The control system is an easy to use advanced microprocessor based system. The Med-RO<sup>®</sup> RX Series systems range in product flow from 1.4 to 15 gpm (5.3 to 56.8 lpm).

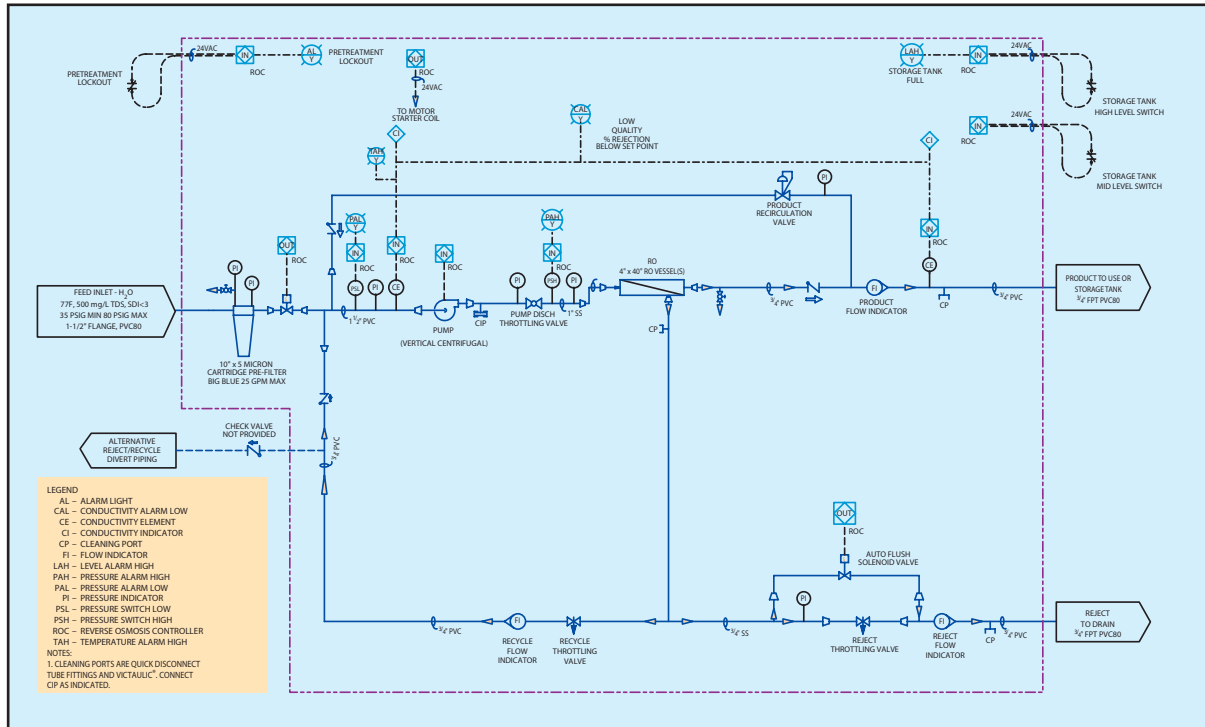
## Custom Solutions Through Advanced Standardization

### Features that make the difference:

- Manufactured for hemodialysis water treatment applications, 510(k) file number K013677
- Easier to clean – “full fit” thin film composite RO membranes mean less bacterial contamination and less biofilm buildup
- Small footprint requires minimal space
- Reject recycle maximizes water recovery and minimizes waste flow
- Clean-in-place connection minimizes disinfection downtime and overall cleaning time
- Systems manufactured at a QSR/ISO 9001, ISO 13485 compliant registered facility
- Used with Siemens’ registered medical pretreatment components, 510(k) file number K980182
- Used with Siemens’ Canadian medical device license number 32985



## Med-RO® RX Series system Process Flow Diagram (Typical)



Design Parameters	Common Specifications
Configuration	Multi-Stage, Single Pass
Inlet Pressure Requirements	35 PSIG (2.4 bar)
Design, Feed Water Temperature*	77°F* (25°C)
Feed Water Source	Softened, Carbon Treated, Potable
Prefiltration Requirements	5μ nominal
Feed Water Fouling Index	Silt Density Index (SDI) <3
System Recovery (Nominal)	75% (50% for RX01, 02 & 03)
Product Pressure Available	25 PSIG (1.7 bar)
Membrane Salt Rejection	99% nominal (based on 2000 mg/L NaCl @ 225 PSI, (15.5 bar) 77°F (25°C), pH 8, and 15% recovery)
Performance Basis	A specific computer projection must be run for each individual application
General specifications	
RO Vessels	Stainless steel
Conductivity Sensor	Epoxy coated 3/4" MNPT
Flow Indicator (Product)	Rotameter, PVC/acrylic construction, 3/4" FPT connections
Flow Indicator (Reject)	Rotameter, PVC/acrylic construction, 3/4" FPT connections
Flow Indicator (Recycle)	Rotameter, PVC/acrylic construction, 3/4" FPT connections
Control System	Microprocessor, NEMA 4X enclosure, UL/cUL Listed
Operating Limits	
Maximum Feed Temperature	95°F (35°C)
Minimum Feed Temperature*	50°F* (10°C)
Maximum Feed Pressure	80 PSIG (5.5 bar)
Minimum Feed Pressure	35 PSIG (2.4 bar)
Feed water requirements	
Maximum SDI Rating	3
Maximum Turbidity	1 NTU
Maximum Free Chlorine and/or Chloramine	<0.02 mg/L
Maximum pH (Continuous)	11
Minimum pH (Continuous)	4
Maximum pH (Cleaning, 30 min.)	12
Minimum pH (Cleaning, 30 min.)	1

\*Lower temperature will reduce product flow and may require upsizing the unit selection.

## SYSTEM SPECIFICATIONS

Model Number	RX01	RX02	RX03	RX04	RX05	RX06	RX08	RX09	RX12
Product Flow* gpm (lpm)	1.4 (5.3)	2.8 (10.6)	4.0 (15.1)	5.2 (19.7)	6.2 (23.5)	7.0 (26.5)	10.0 (37.8)	12.0 (45.4)	15.0 (56.8)
Feed Flow gpm (lpm)	2.8 (10.6)	5.6 (21.2)	8.0 (30.3)	6.9 (26.1)	8.3 (31.4)	9.3 (35.2)	13.3 (50.3)	16.0 (60.6)	20.0 (75.7)
Reject Flow gpm (lpm)	1.4 (5.3)	2.8 (10.6)	4.0 (15.1)	1.7 (6.4)	2.1 (7.9)	2.3 (8.7)	3.3 (12.5)	4.0 (15.1)	5.0 (18.9)
Reject Recycle gpm (lpm)	7.0 (26.5)	5.0 (18.9)	4.0 (15.1)	6.0 (22.7)	6.0 (22.7)	6.0 (22.7)	8.0 (30.3)	11.0 (41.6)	10.0 (37.8)
<b>Connection</b>									
Feed Inlet	1 1/2" flange								
Product Outlet	3/4" NPT								
Reject to Drain Outlet	3/4" NPT								
Waste Drain—max gpm (lpm)	2.8 (10.6)	5.6 (21.2)	8.0 (30.3)	6.9 (26.1)	8.3 (31.4)	9.3 (35.2)	13.3 (50.3)	16.0 (60.6)	20.0 (75.7)
Floor Drain	A floor drain (in addition to a waste drain) should be supplied for general maintenance								
<b>Membranes</b>									
Membrane/Vessel	1	1	1	1	1	1	1	1	1
Membrane Quantity	1	2	3	4	5	6	8	9	12
Membrane Type	RO-4040-FF								
<b>RO Vessels</b>									
Vessel Array	1	1:1	1:1:1	1:1:1:1	1:1:1 :1:1	1:1:1:1 :1:1	2:2:1:1 :1:1	3:2:2 :1:1	3:3:2:2 :1:1
Vessel Quantity	1	2	3	4	5	6	8	9	12
<b>Cleaning Connection</b>									
Feed	1 1/4" Victaulic® coupling								
Interstage	1/2" tube								
Reject	1/2" tube								
Product	1/2" tube								
<b>System Dimensions**</b>									
H x W x D									
inches	76 x 34 x 42								
cm	193 x 86 x 107								
<b>Shipping Weight</b>									
lb	550	575	600	625	650	675	750	775	850
kg	250	261	273	284	295	307	340	352	386
<b>Electrical</b>									
High Voltage Service	480 VAC (options available)								
High Voltage Amp Draw (480V)	4	4	4	4	4	4	9	9	9
Booster Pump Motor HP (ref.)	3	3	3	3	3	3	7.5	7.5	7.5

\*Product flow rates are based on equipment design parameters. These product flow rates may not be appropriate for other feed waters.

\*\*Does not include servicing space requirements.

Standard Options	Description
Motor voltages	This option provides a standard model Reverse Osmosis unit with voltage specific wiring and electrical components designed for the electrical service available.

**Services from our professional staff include:**

- Troubleshooting
- Emergency and preventative maintenance on our systems or any other manufacturer's system
- New system installations and upgrades
- Water sampling and analysis

We take pride in providing our customers support for their water treatment equipment with professional maintenance and service technicians who ensure the efficiency and reliability of your system, which is so critical during hemodialysis use. Siemens' 80 local branches located throughout the United States and Canada make certain you receive immediate and reliable service when and where you need it.

**Call us today for more information on Siemens' Dialysis water systems and services.**

Standard Product Ordering Information	
<b>Med-RO® Part Number Matrix / Single Pass Reverse Osmosis Units</b>	
	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">MRO</div> <div style="border: 1px solid black; padding: 2px;">RX</div> <div style="border: 1px solid black; padding: 2px;">04</div> <div style="border: 1px solid black; padding: 2px;">AX</div> </div>
<b>Med-RO® Model</b>	
RX	Vertical w/ controller, medical RO, centrifugal pump
<b>Ro Vessel Quantity Designation</b>	
01	1 VESSEL
02	2 VESSELS
03	3 VESSELS
04	4 VESSELS
05	5 VESSELS
06	6 VESSELS
08	8 VESSELS
09	9 VESSELS
12	12 VESSELS
<b>RX Option Designations</b>	
AX	208VAC 3PH 60HZ
BX	230VAC 3PH 60HZ
CX	460VAC 3PH 60HZ
DX	380VAC 3PH 50HZ
EX	575VAC 3PH 60HZ

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