

### RM/HD-RO SERIES

RIVAMED RM/HD-RO is designed as an economical and optimal solution for hemodialysis centers, capable of producing high-quality permeate water using municipal water as the feed source.

Engineered in full compliance with international hemodialysis standards and regulations, RIVAMED RM/HD-RO features an integrated chemical disinfection structure housed within a semi-enclosed cabinet, combining PVC-U and stainless steel piping to deliver an excellent budget solution.

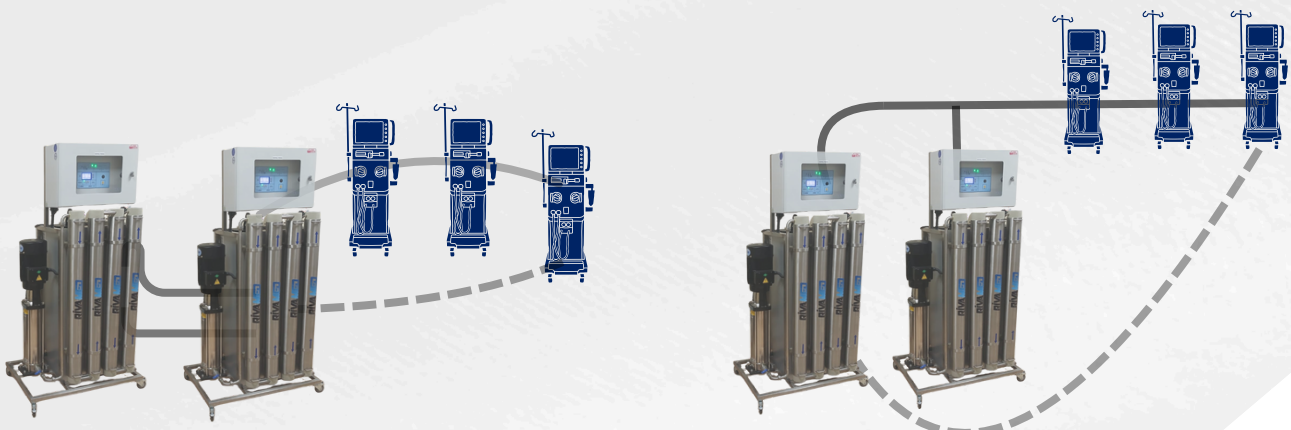
The system is designed to operate in full compatibility with RIVAMED Heat Disinfection and Ultrafiltration Systems for the thermal disinfection of distribution loops and hemodialysis machines.



#### Compliance with ISO Standards

- ISO 23500-1:** Addresses guidance for the preparation and quality management of fluids for hemodialysis and related therapies
- ISO 23500-2:** Covers water treatment equipment for hemodialysis applications and related therapies
- ISO 23500-3:** Specifies minimum requirements for water for hemodialysis and related therapies

RIVAMED RM/HD-RO Series can be configured with two units operating in parallel and series providing a redundant and double-pass configuration. This architecture significantly enhances treatment safety, ensures system continuity, and improves overall operational reliability.



# TECHNICAL INFRASTRUCTURE

- |  |   |  |
|--|---|--|
| ✓ Increased chemical and microbiological purity            | ✓ Permeate recirculation - Water saving | ✓ TFT 3.8" LCD screen                              |
| ✓ Semi-automatic chemical disinfection                     | ✓ High removal efficiency membrane      | ✓ Permeate pressure safety valve                   |
| ✓ Conductivity, pressure, temperature, and flow monitoring | ✓ Programmable on/off function          | ✓ Interval flush program                           |
| ✓ Automatic self-test and software update                  | ✓ PVC-U and stainless steel piping      | ✓ Protected authorized control system              |
| ✓ Visual and audio alarm / Motor protection                | ✓ Automatic startup after power outage  | ✓ Wheels with adjustable brakes for easy transport |
| ✓ Stainless steel chassis                                  | ✓ Microprocessor control card           |  |

## OPTIONAL CONFIGURATIONS



Leak Detector



Ultrafiltration  
(Bacteria and  
Endotoxin Filter)



Permeate Tank Control



Distribution Loop Heat  
Disinfection

# RIVAMED

*Save Water, Save Life*

# TECHNICAL DATA

PARAMETER	RM/HD-RO 250 – 1000	RM/HD-RO 1500 – 3000
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## 1. PERFORMANCE DATA

Dimensions (W x D x H)	90 x 65 x 180 cm	235 x 90 x 160 cm
Weight	Max 250 kg	Max 400 kg
Permeate Capacity	250 – 1500 lt/h	1500 – 3000 lt/h
Point of Use (dialysis machine)	Up to 31	Up to 62
Dialysis Water Pressure	2–6 bar	
Concentrate Pressure	< 20 bar	
Salt Rejection Rate	> 99% NaCl	
Bacteria and Endotoxin Removal	> 99%	
System Recovery	Up to 75%	
Noise Level	< 70 dB (A)	

## 2. WATER CONNECTIONS

Softened Water Inlet	DN 15 Thread	DN 25 Thread
Product Water Inlet	DN 15 Thread	DN 20 Thread
Wastewater	DN 15 Thread	DN 15 Thread

## 3. ELECTRICAL & SAFETY SPECIFICATIONS

Power Plug	CEE 16 A	
Power Supply Voltage	380–400 V AC – 3 Phase / 220–230 V AC	
Power Consumption	Max 3 kW	Max 5.5 kW
Protection Degree	IP44	
Operating Mode	Continuous operation	
Leakage Currents	Comply with ANSI/AAMI IEC 60601-1 standard	
Protection Class	I	
Applied Part Classification	Type B	



# TECHNICAL DATA

## PARAMETER

## RM/HD-RO 250 – 3000

### 4. FEED WATER

<b>Quality</b>	Softened Tap Water / Well Water*
<b>Hardness</b>	< 1.78 ppm CaCO <sub>3</sub> (0.018 mmol/l)
<b>SDI</b>	< 3
<b>Conductivity</b>	< 2000 µS/cm
<b>TDS</b>	< 1200 mg/l
<b>Iron</b>	< 0.1 mg/l
<b>Free Chlorine</b>	< 0.1 mg/l
<b>Temperature</b>	5 – 35 °C
<b>pH</b>	6.5 – 8.5

### 5. OPERATING CONDITIONS

<b>Transportation / Storage Temperature</b>	+1 to +45 °C
<b>Operating Temperature</b>	+1 to +35 °C
<b>Relative Humidity</b>	Max. 90% relative humidity, non-condensing environment
<b>Installation Altitude</b>	< 2000 m above sea level

### 6. SITE REQUIREMENTS

<b>Water Supply</b>	2 – 6 bar dynamic pressure**
<b>Wastewater</b>	50 mm piping, gravity drainage for 3 m <sup>3</sup> /h***

### 7. PRE-TREATMENT

#### Suggested Units

90 µm washable filter, multimedia filter, tandem water softener, activated carbon filter, microfiltration

\* When two RM/HD-RO units are connected in series.

\*\* A pressure reducing valve or a pressure boosting pump may be required.

\*\*\* Maximum 50 cm above floor level.

