

Gambro

WR0300

WATER PURITY FOR SINGLE PATIENTS

- Easy handling¹
- Compact design
- Low noise level
- Chemical disinfection
- Automated procedures minimize patient and caregiver involvement
- Automated shut-off at completion of disinfection process



Gambro WRO 300 unit

WATER FOR DIALYSIS

The quality of the water used in the preparation of dialysis fluid is very important. Even water considered as acceptable according to existing tap water regulations may have chronic as well as acute effects on the dialysis patient.^{2,3} The Gambro single patient reverse osmosis monitor WRO 300 is designed to provide the high quality water needed for dialysis.¹

REVERSE OSMOSIS

Reverse osmosis is today the preferred method for the purification of water for dialysis. This method removes more than 96% of dissolved salts and more than 99% of all particles, bacteria and pyrogens in the water. Most tap waters can therefore be purified to a standard which complies with existing recommendations for water for dialysis.^{2,3}

TECHNICAL DATA

PRODUCT WATER	
Output	Minimum 1.1 l/min at +10°C and 0.15 MPa (1.5 bar) outlet pressure
Quality	Depends on inlet water quality. If potable water is used, and WRO 300 is maintained according to the manual, the following minimum rejection rates will be obtained: Total dissolved salts: > 96% Bacteria and pyrogens: > 99%

FEED WATER SUPPLY	
Input	Min. 3.0 l/min
Pressure	0.15 to 0.8 MPa (1.5-8 bar)
Temperature	+ 5 to + 30°C
Quality	Potable water shall be used. Softener followed by carbon/particle filter ensures optimum performance To insure maximum membrane life expectancy, the following limits should not be exceeded:
Hardness	< 1° dH (20 ppm as CaCO ₃)
Iron	< 0.1 mg/l
Manganese	< 0.1 mg/l
Jackson Turbidity Unit (JTU)	< 1 JTU
Total dissolved salts (TDS)	< 1500 mg/l
Silt Density Index (SDI)	< 5
Chlorine (total)	< 0.1 mg/l

DRAIN REQUIREMENTS	
Operation	1.2 ±0.1 l/min
Peak flow (rinse)	Min. 3.0 l/min required

CONNECTIONS	
Supply and drain lines	Designed for flexible, reinforced tubing, 8 mm x 2.5 mm
Product water loop	Designed for flexible, reinforced tubing, 5 mm x 3 mm

The WRO 300 is a reverse osmosis unit designed specifically for dialysis. It combines simplicity, reliability and ease of use and is based on the long time experience of water treatment equipment within Gambro.

INTEGRATED CHEMICAL DISINFECTION

When a WRO 300 unit is fitted to a Gambro dialysis machine, one of the disinfection programs will allow an integrated chemical disinfection of the reverse osmosis unit, the connection line to the dialysis machine and the dialysis machine itself. This "end-to-end" action will ensure that the hygienic chain remains unbroken.

USER INTERFACE DISPLAYS	
Product water conductivity	Temperature compensated product water conductivity, operating range 1-500 µS/cm
Feed water conductivity	Temperature compensated feed water conductivity, operating range 10-2000 µS/cm
Rejection rate	Rejection rate, operating range 0-100%
Time	Date and time, total run time, time since last disinfection, cleaning, etc

TEMPERATURE MEASUREMENT	
Operating range	0-105°C

REVERSE OSMOSIS MEMBRANE	
Material	Polyamide, thin film composite
Configuration	Spiral wound
pH-tolerance	2-11

DISINFECTION & CLEANING	
Chemical disinfection	Automatic dilution of disinfectant. Rinse memory forcing the rinse program to start after chemical disinfection
Cleaning	Customized programs for different needs

POWER SUPPLY	
Mains voltage	100-115 or 220-240 V +/-10%, 50 or 60 Hz
Power	220-240 V: max 570 W 100-115 V: max 570 W

AMBIENT	
Temperature	+ 10 to + 40 °C

DIMENSIONS		
Depth	Max:	520 mm
	Footprint:	380 mm
Width	Max:	205 mm
	Footprint:	185 mm
Height		563 mm
Weight		29 kg

CE 0086 This product is CE-marked in accordance with the requirements in EC Council Directive 93/42/EEC of 14 June 1993 concerning medical devices.

Specifications subject to change without prior notice.
For further information and operating instructions, please refer to applicable operator's manual.

1. Operator manual
2. Hoernick N. et al. The importance of water quality and Haemodialysis fluid composition. Blood Purification, 2006; 24: 11-18
3. ISO 13959 2014

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