

What's New & Sexy in Water Purification for Dialysis

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Mar Cor Purification

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Definition

Purification – n. The act of cleaning by getting rid of impurities.

Impurities – n. pl. The quality or condition of being impure, especially due to contamination or pollution. Something that renders something else impure; an additive.

New & Sexy Water Purification?



Remove Different Sized Impurities



Topics for Discussion

- WRO 300 H Portable RO
- Millenium HX Portable RO
- Compact Carbon Filtration
- **Ergonomic** Transport Systems
- Posiclear Capsule Filter

Mar Cor WRO 300 H

- Mar Cor's new line of single patient reverse osmosis machines.
- Maintain the well known properties of previous concept, i.e. small size, low noise level & high quality pure water.
- Modern and simple user interface.
- Product water loop to avoid stagnation.
- Hot water disinfection of complete RO.



WRO 300
WRO 300 H

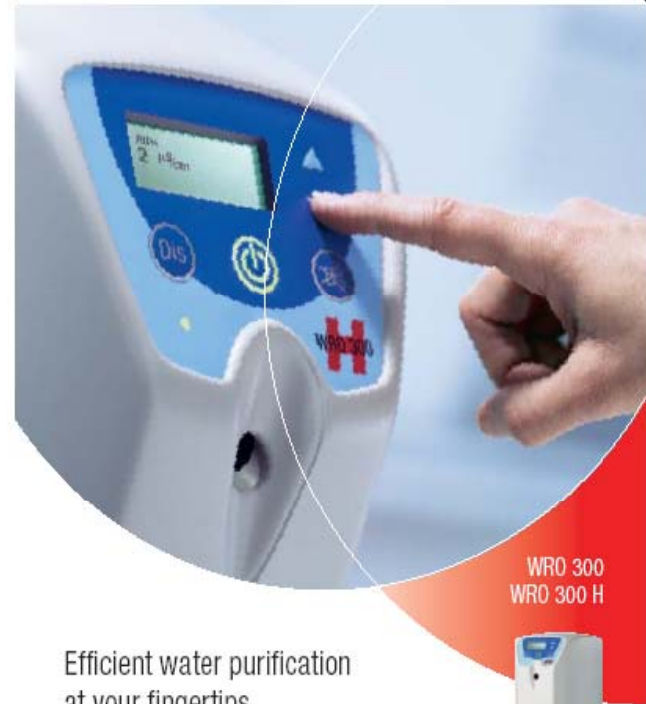
Efficient water purification
at your fingertips

- Two new water purification units from Gambro
- Simple cleaning and disinfection procedures
- The WRO 300 H even offers hot water disinfection



Mar Cor WRO 300 H

- Weekly hot water disinfection of complete RO.
- Alternative heat programs.
 - Manual
 - Automatic



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WRO 300 H

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WRO 300 H Additional Features

- Auto flush in standby mode at preset intervals.
- Customized cleaning and disinfection programs.
- Water saving function.
- Reduces reject flow by periodically diverting reject back to inlet tank. Nice feature when:
 - availability of water is limited and/or expensive.
 - low flow dialysis is practiced.



Mar Cor Millenium HX (MHX)

- Newest portable RO product.
- Designed with the home and acute environment in mind.
- Hot water disinfection while disconnected from water.
- Remote data collection and view.
- Early stages of product launch.



Compact Carbon Filtration

- New carbon design utilizes carbon block technology.
- Reduced size/weight has great appeal to caregivers.
- ANSI/AAMI RD52:2004 allows for carbon block technology under the phrase “two carbon block filters in series arrangement can be used provided that performance can be verified by the manufacturer/supplier”.
- Completed testing to demonstrate the capability and projected life of the carbon.

Testing Summary

- Test system was set up to mimic worse case conditions in field situations.
- Series carbon block setup was assembled.
- Feed water was produced to result in a feed to the cartridges as follows:
 - 3.0 ppm chloramine
 - pH of 8.75- 9.25
 - Excess ammonia of 2-3 ppm
 - Flowrate of 1.1gpm
 - On/off operation to mimic intermittent operation

Results Discussion

- No breakthrough of chloramine after 30,800 gallons.
- 30,800 gallon target was selected because it represented a scenario of 1 treatment (340 gallons) per day for 13 weeks (3 months).
- Chlorine feed would result in much longer carbon life.

PTG 520 Cartridges

- Each cartridge is rated for 30,000 gallons based on less than 3 ppm chloramine in feed.
- Chlorine feed will be much longer but should be changed every 6 months.
- Each cartridge weighs less than 10 lbs wet.
- Can be set up in a worker /polisher arrangement for a more economical usage.
- Cartridge has a 1 micron rating to help control any fines.



PTG 520 Cartridge System Design

- Series design is compact.
- Design includes pressure gauges, sample ports, manifold.
- Weight will make the cart easier to move and less “tippy”.



Cart w/ duplex carbon block arrangement

PTG Retrofit Kits

- Package to retrofit existing carts.
- Includes support plate, fittings, housings, initial cartridges, instructions.



M2 Ergonomic Transport System



Ergonomic Docking Station



Ergonomic Transport Systems

- Complete solution for transport of pre-treatment, RO, and dialysis machine in the acute setting.
- Large 4” swivel wheels with locking features for ease of maneuverability.
- Ergonomically designed handles to allow for improved maneuverability and less strain for the operator.
- Welded-in eyelet fixtures for easily attaching elastic hook cords for securing carbon tanks, including 0.85 cuft. tanks.
- Static strap and anti static casters to dissipate residual static build-up that may exist on the cart frame.
- Anodized corrosion resistant carbon and stainless steel frame with off white epoxy finish.

Posiclear Capsule Filter

- FDA 510(k) cleared.
- Positively charged, pleated membrane.
- Filters through size exclusion and adsorption.
- 0.2 micron absolute filter.
- Hot water (90 C) and peracetic acid compatible for disinfection.
- High flow rate up to 2 GPM.
- Replace every 6 months or with significant decrease in flow rate.



Thank You