

Nephros SSU-D - Dialysis Instructions for Use

INTRODUCTION

Information on this sheet must be read before the use of this device to ensure safe and effective operation.

Recommended Storage: Between 5 and 35°C (41 and 95°F).

INDICATIONS

Description: The Nephros SSU-D is intended to be used to filter water or bicarbonate concentrate used in hemodialysis devices. It assists in providing hemodialysis quality water or bicarbonate concentrate. The device is not a complete water treatment system, but serves to remove biological contaminants. Therefore it must be used in conjunction with other water treatment equipment (RO, DI, etc.).

Use: The device is intended for long term continuous use. Once it completes its useful life, the filter should be replaced and discarded. Do not attempt to sterilize or reuse it.

CONTRAINDICATIONS

Medical: While the SSU-D produces ultrapure water, the water is not intended to be used in medical applications where USP sterile water is normally used.

Chemical: The SSU-D retains biological contaminants. To obtain chemically pure water it is necessary to use the filter in conjunction with other devices such as DI beds or RO systems.

WARNINGS & PRECAUTIONS

Caution: When used as a medical device, federal law (USA) restricts this device to sale by or on the order of a physician.

Pressure: The SSU-D is intended for a maximum incoming water pressure of 75 psi (5 bar).

Replacement: The filter should be replaced if the flow rate begins to noticeably decrease. As long as it is flowing the SSU-D will continue to filter microbiological contaminants. However, it is recommended to establish a regular maintenance schedule for replacing the filter.

INSTALLATION & REMOVAL

Note: If it is the first time a SSU-D is installed in a location, please refer to the *Nephros SSU-D Dialysis Installation Instructions*. Prior to handling a new filter it is recommended that one wash their hands and wear disposable gloves.

- Open a new SSU-D blister pack and set aside the port caps.
- Mark the label with the installation date.
- Turn off the water source upstream of the filter.
- Disconnect the inlet side of the used filter, then the outlet side.
- Seal the used filter ports with the caps to minimize water leakage.
- Remove the used filter from its clamp and discard appropriately.
- Mount the new filter in the same direction of flow as before.
- Connect the outlet water line to the filter followed by the inlet line.
- After a new SSU-D is installed, prime the filter to drain for several minutes to purge it of trapped air.
- If connecting to the bicarbonate supply it may be necessary to first prime the filter using the RO water supply. The bicarbonate line pressure alone may not be sufficient to remove air from the filter.
- Verify there are no leaks or flow restrictions.

Note: Prolonged exposure of the filter to alkyl dimethyl benzyl ammonium chloride (ADBAC) may result in cracks to the external housing. It is recommended not to use ADBAC based cleaners.

OPERATION/ DISINFECTION

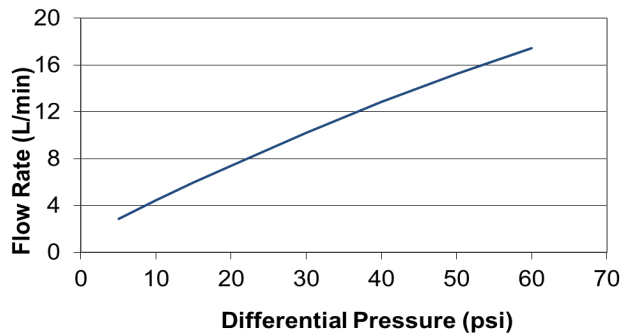
- Following installation, it is recommended to disinfect the lines downstream of the SSU-D as per standard clinic procedure.
- The SSU-D is compatible with most common dialysis disinfection methods. It can be subject to the following disinfectants for 1 year of weekly exposures with no degradation in safety or efficacy.
 - 1% MinnCare
 - 1% Bleach
 - 2% Vinegar
 - 85°C Water
 - Hydrochloric Acid / Sodium Hydroxide (monthly)

- Disinfection should be carried out as per standard clinic procedures. No special precautions or procedures are required for the SSU-D. It is to be treated simply as an extension of the distribution system.
- Following chemical disinfection the water must be tested for residual disinfectant with test strips or other means. The presence of the SSU-D may require longer rinsing times.
- The pressure drop across the SSU-D generally reduces the flow rate by about ¼ to ⅓ of the rate without a filter. The filter should operate under normal use with minimal degradation in flow. If the flow rate degrades significantly, replace the filter.

INTEGRITY TESTING

- Connect a sterile 60 cc syringe to the sample port post filter.
- Disconnect the inlet port from the source and close off flow downstream of the sample port.
- With the inlet to drain pump air into the filter using the 60 cc syringe until water stops flowing out the inlet port (2-3 syringe volumes).
- Attempt to push one final syringe volume of air into the filter. Hold the plunger down for 5 seconds then release it.
- If the plunger rises the filter passes. If it does not the filter fails.

SSU-D - Clean Water Flow



Specifications	Nephros SSU-D
Max Inlet Pressure	75 psi (5 bar)
<u>Filter Membrane</u>	Medisulfone®
Material	Polysulfone
MW cut-off	15 kDa
Bacterial Retention	> 10 ¹¹ (B. diminuta)
Virus Retention	>10 ⁸ (PhiX-174)
Endotoxin Retention	> 10 ⁵ EU/ml
Expected Life	Up to 1 year

Medisulfone® is a registered trademark of Medica S.p.A.

Assembled at:

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Medolla, Italy

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