

Nephros DSU™ - Instructions for Use

INTRODUCTION

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

Sterility: The device is sterilized by ethylene oxide.

Recommended Storage: Between 5 and 30°C (41 and 86°F).

INDICATIONS

Description: The Nephros DSU is a disposable point of use water ultrafilter that delivers microbiologically pure water for washing and drinking.

Single Use: The device is intended for single use. Once installed the filter is intended to be used for approximately 3 months. After such time the unit should be replaced and discarded. Do not attempt to sanitize or re-sterilize it.

CONTRAINDICATIONS

Medical: While the DSU produces microbiologically pure water, the water is not intended to be used in medical applications where USP sterile water is normally used.

Chemical: The DSU removes 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

Pressure & Temperature: The DSU is designed for a maximum incoming water pressure of 75 psi (5 bar) and a maximum temperature of 60°C (140°F).

Replacement: The filter should be replaced when the flow rate begins to noticeably decrease. The DSU will continue to deliver microbiologically pure water as long as it is flowing. However, it is recommended that one establish a maintenance schedule of replacing the filter every 3 months dependent on water quality.

INSTALLATION & REMOVAL

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

Under Sink / In-Line:

- Open a new DSU blister pack and remove the two port caps.
- Mark the label with the installation date.
- Disconnect the inlet side of the used filter followed by the outlet side. Unless one is using a filter with threaded end caps it is not necessary to turn off the water valves before disconnecting the filter as the female quick connectors have internal shut off valves.
- Seal the used filter ports with the caps to minimize water leakage.
- Slide the used filter off the mounting pins and discard appropriately.
- Place the new filter on the pins making sure the flow direction arrows point towards the faucet or water outlet.
- Connect the outlet water line to the filter followed by the inlet line using the quick connectors.

Shower:

- Open a new DSU blister pack and remove the two port caps.
- Mark the label with the installation date.
- Disconnect the inlet line from the used filter by the female quick connector.
- Seal the used filter inlet with the port cap.
- Remove the used filter from the mounting pins. Unscrew the shower hose from the filter and cap the outlet port.
- Discard the filter appropriately.

Note: Generally the hand shower and hose can be reused since they are on the outlet (clean water) end of the DSU. However, it may be replaced periodically at the user's discretion.

- Connect the shower hose to the outlet of the new filter and place the filter on the mounting pins.

- Connect the water inlet line to the filter inlet with the quick connector.

OPERATION

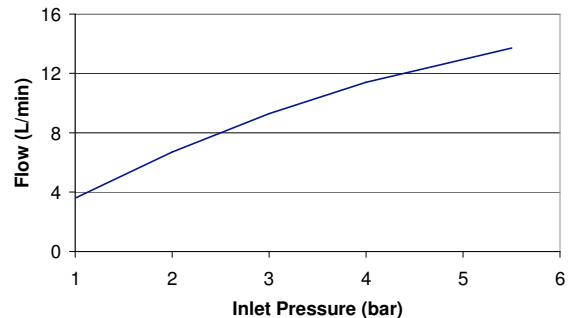
After a new DSU is installed, water should be run through the filter for approximately 2-3 minutes to purge it of trapped air.

The pressure drop across the DSU generally reduces the flow rate by about 1/3 to 1/2 of the rate without a filter. The filter should operate for 3 months of normal use with minimal degradation in flow. If the flow rate degrades significantly, the filter should be replaced.

SAFETY

The DSU has a unique double ultrafiltration design such that all the filtration occurs in the front section of the filter while the back section serves as a redundant safety filter. During the course of operation the front section of the filter is likely to become fouled with particulate from the incoming water while the back section remains clean. In the unlikely event there is a small breach in the first filter stage water is still completely purified by the second (redundant) filter stage.

DSU - Clean Water Flow Rate



Specifications	Nephros DSU™
Sterilization Method	Ethylene Oxide
Max Inlet Pressure	75 psi (5 bar)
Max Inlet Temperature	60°C (140°F)
Filter Membrane	Medisulfone®
Material	Polysulfone
MW cut-off	15 kDa
Bacterial Retention	> 10 ¹⁰ (B. diminuta)
Virus Retention	> 10 ⁸ (PhiX-174)
Endotoxin Retention	> 10 ⁵ EU/ml
Expected Life	3 months

Medisulfone® is a registered trademark of Medica S.r.l.

Assembled at:

Medica S.r.l.
Medolla, Italy

Manufacturer:

Nephros Inc.
41 Grand Ave
River Edge, NJ 07661 USA