

# X-FLOW RX300 0.83UFC ULTRAFILTRATION MEMBRANE

## MEMBRANE ELEMENT DATASHEET

1" RX300 0.83UFC 0.83mm  
ARTICLE CODE : 1051BL895A

### GENERAL INFORMATION

RX300 0.83UFC is an ultrafiltration pilot module, used for production of process and potable water. Typical applications are the filtration of surface water, potable water and WWTP effluent. Mode of operation is feed-and-bleed with a minor crossflow or dead-end mode with regular backwash (permeate only) and chemically enhanced backwash.

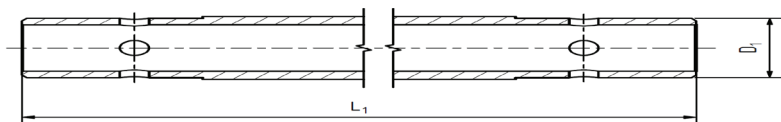
### MEMBRANE CHARACTERISTICS

#### Materials of Construction

Housing	PSF
Potting	EP resin
Membrane	PES/PVP

### ELEMENT SPECIFICATIONS

Hydraulic membrane diameter [mm/mil]	Membrane area [m <sup>2</sup> /ft <sup>2</sup> ]	Element length L <sub>0</sub> [mm/Inch]	Element outer diameter [mm/Inch]
0.83 [32.7]	0.08 [0.86]	300 [11.8]	23.9 [0.94]



### OPERATING SPECIFICATIONS

Max. system pressure	Max. trans-membrane pressure	Max. backflush pressure	Max. temp.
[kPa/psi]	[kPa/psi]	[kPa/psi]	[°C/°F]
at 20 °C 800 [116]	at 0-30 °C 300 [43]	at 0-30 °C 300 [43]	60 [140]
at 40 °C 600 [86]	at 30-60 °C 200 [29]	at 30-60 °C 150 [21.5]	
at 60 °C 400 [58]			

- Final maximum operating limits are determined by the lowest values of the membrane and element pressure and temperature specifications

### PROCESS CHARACTERISTICS (WATER 20 °C)

Membrane diameter	Flow rate (*)	Pressure-drop across module at 1 m/s	Pressure-drop across module at 2 m/s
[mm/mil]	[m <sup>3</sup> /h/gpm]	[kPa/psi]	[kPa/psi]
0.83 [32.7]	0.27 x v [1.19 x v]	11 [1.6]	24 [3.5]

(\*) superficial velocity (v) in m/s [ft/s]

- Backwash water should be free of particulates and should be of permeate quality or better
- Backwash pumps should preferably be made of non-corroding materials, e.g., plastic or stainless steel. If compressed air is used to pressurize the backwash water, do not allow a two-phase air/water mixture to enter the element
- To avoid mechanical damage, do not subject the membrane module or element to sudden temperature changes, particularly decreasing. Do not exceed 60 °C process temperature. Bring the module or element back to ambient operating temperature slowly (typical value 1 °C/min). Failure to adhere to this guideline can result in irreparable damage

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### STORAGE

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New membrane modules can be stored as supplied in the original packaging. The membrane modules contain an aqueous preservation solution of glycerine (20wt%) and sodium metabisulfite (1wt%) to prevent dehydration and control bacterial growth. The membrane modules are packed in plastic bags which are vacuum sealed to keep the moisture in the module. Membrane modules should be stored in a dry, normally ventilated place, away from sources of heat ignition and direct sunlight. Storage temperature should be between 0 and 40 °C. Pentair instructions for transport and storage are to be followed at all times and available upon request. It is recommended to have the membrane modules installed into the UF skids and commissioned as soon as possible. The membrane shelf life is maximum 6 months from the date the modules are announced ready for delivery ex works Pentair warehouse. After expiry of the shelf life all warranties are null and void.



#### X-FLOW BV

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