

# PENTAIR® X-FLOW™

## R-120 MICROFILTRATION MEMBRANE

ARTICLE CODES :2031EL422A

### GENERAL INFORMATION

R-120 is a stainless steel module used for the filtration and/or clarification of aqueous solutions and beverages such as wine, juice or cider.

Mode of operation is feed and bleed in crossflow mode with regular backwash.

### MATERIALS OF CONSTRUCTION

Housing	Stainless steel AISI 316/316L
Potting	Epoxy, food grade
O-ring	EPDM
Membrane	PES/PVP

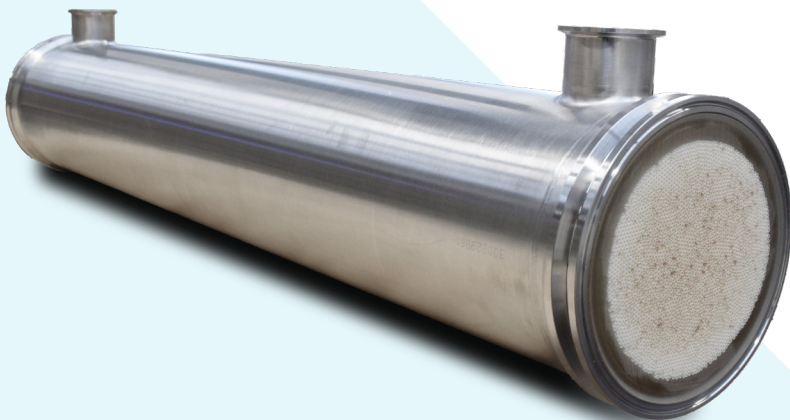
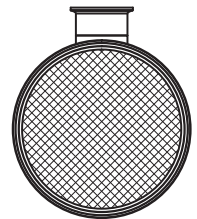
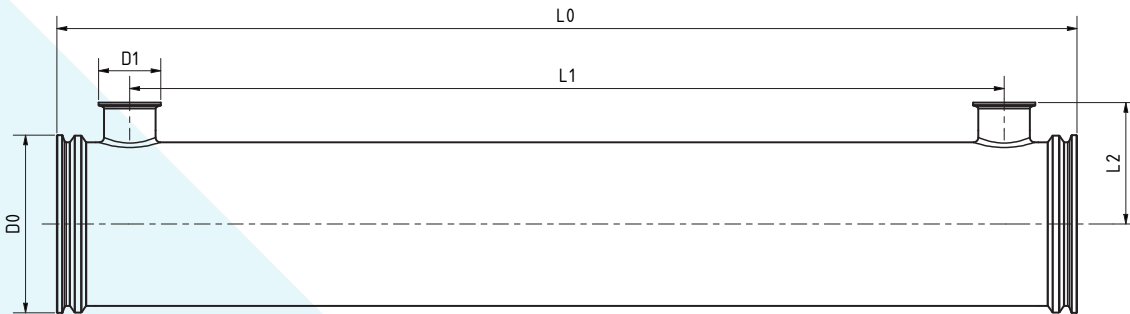
### CONNECTION SPECIFICATIONS

Feed side	Tri clamp DN150 DIN 32676-B
Permeate side	Tri clamp DN50 DIN 32676-A

### MODULE SPECIFICATIONS

Module weight:	13,7 kg
Module length $L_0$ :	1050 mm
Permeate port distance $l_0$ :	900 mm
Permeate port protrusion $l_1$ :	125 mm
Feed connection $D_0$ :	183 mm
Permeate connection $D_1$ :	64 mm

HYDRAULIC MEMBRANE DIAMETER	MEMBRANE AREA
[mm]	[m <sup>2</sup> ]
1.5	12



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DATASHEET

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### OPERATING SPECIFICATIONS

MAX. SYSTEM PRESSURE	MAX. TRANS-MEMBRANE PRESSURE	MAX. BACKFLUSH PRESSURE	TEMP. RANGE
[kPa]	[kPa]	[kPa]	[°C]
at 20 °C 800	at 0-50 °C 300	at 0-30 °C 200	65
at 65 °C 600	at 50-65 °C 200	at 30-40 °C 150	
		at 40-65 °C 100	

- Final maximum operating limits are determined by the lowest values of the membrane and element pressure and temperature specifications
- 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 decreases. Do not exceed 65 °C process temperature. Bring the module or element back to ambient operating temperature slowly (typical value 2-3 °C/min). Failure to adhere to this guideline can result in irreparable damage

### PROCESS CHARACTERISTICS\*

MEMBRANE DIAMETER	CROSSFLOW FLOW RATE (*)	PRESSURE-DROP ACROSS MODULE AT 1 M/S	PRESSURE-DROP ACROSS MODULE AT 2 M/S
[mm]	[m³/h]	[kPa]	[kPa]
1.5	12 x v	14	58

\* Water, 20 °C  
Superficial velocity (v) in m/s

### STORAGE

New membrane modules can be stored as supplied.

Membrane modules should be stored in a dry, normally ventilated place, away from sources of heat, ignition and direct sunlight. Store between 0 and 40 °C at a relative humidity between 20 and 80 %.

The membrane modules should not be subjected to any freezing temperatures.

After use, MF membranes can be dried. After drying the membrane can be spontaneously re-wetted without the use of any wetting agents.

To avoid biological growth during shutdowns or storage, wet membranes should be treated with a compatible biocide. The membrane is compatible with many common disinfecting agents or biocidal preservatives.

For short-term shutdowns, a daily flush with permeate quality water containing up to 2.0 ppm free available chlorine for 30 to 60 minutes may be adequate for bacteria control.

In case of long-term storage, membranes should be cleaned before the disinfection step is carried out. For disinfection, a 1% sodium metabisulfite solution can be used.



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