

MEMBRACart XP Filter Cartridges For Final Filtration

MEMBRACart XP filter cartridges are hydrophilic membrane filters designed for removal of spoilage microorganisms in the food and beverage industry.

Description

MEMBRACart XP filter cartridges are filters constructed from an inert polyethersulfone membrane which, in combination with the robust construction enables excellent mechanical strength and exposure to repeated hot water, chemical and steam sanitization cycles for long service life.

The cartridges are available in single open ended (SOE) configurations to fit in sanitary housings to ensure effective microbial removal and assembly integrity.

Features

Inert polyethersulfone (PES) filter material

Cartridges resistant to numerous sanitization cycles

Hydrophilic membrane

Validated with Food & Beverage microorganisms

Individually serialized cartridges

Integrity testable

Multiple adaptor options

Benefits

- Maintaining organoleptic characteristics of the filtered product
- Wide range of chemical compatibility

- Economical operation
- Consistent filtrate quality

- Easy to wet and integrity test

- Increased process safety
- Reliable reduction of microorganisms

- Full traceability

- Brand protection
- Documentation for quality records

- Easy installation into sanitary housings

Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2015 certified Quality Management System

Food Contact Compliance

Please refer to the Pall website <http://www.pall.com/foodandbev> for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.



MEMBRACart XP Filter Cartridges

Microbial Removal Rating

Grade	Test Organism	Titer Reduction Value ¹ (LRV)
B	<i>Serratia marcescens</i> (ATCC 14756)	≥ 10
K	<i>S. cerevisiae</i>	Yeast free

¹ Challenges were performed at a level of $\geq 10^7$ per cm² of effective filtration area on new and unused filters.

Materials of Construction

Component	Description
Filter medium	Polyethersulfone (hydrophilic)
Support and drainage	Polypropylene
Core, Cage, End Cap and Fin End	Polypropylene
Adaptor	Polypropylene with internal stainless steel reinforcing ring
O-ring seal	Ethylene propylene rubber or Silicone elastomer

Technical Information

Nominal Length	Nominal Filter Area
254 mm (10 in.)	0.6 m ² (6.5 ft ²)
508 mm (20 in.)	1.2 m ² (13 ft ²)
762 mm (30 in.)	1.8 m ² (19.5 ft ²)
1016 mm (40 in.)	2.4 m ² (26 ft ²)

Operating Characteristics in Compatible Fluids²

The maximum allowable differential pressure in a forward flow direction for MEMBRACart XP filters is shown in the table below.

Temperature	Max. Allowable Differential Pressure
Up to 40 °C (104 °F)	500 kPa (5 bard) (72.51 psid)
40 °C to 80 °C (104 °F to 176 °F)	300 kPa (3 bard) (43.51 psid)

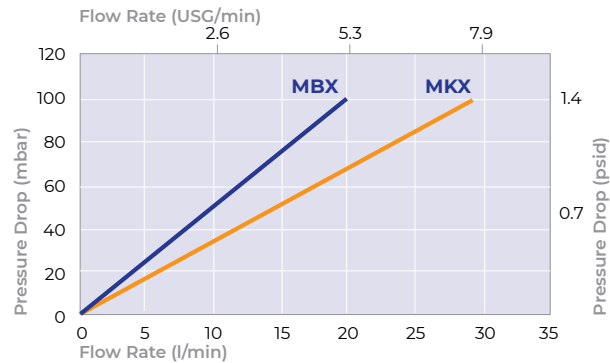
² Compatible fluids are defined as those which do not swell, soften or attack any of the filter components.

Sterilization and Sanitization

Media	Temperature	Maximum Cumulative Time/Cycles ³
Steam	125 °C (257 °F)	50 hours / 150, 20 minute cycles
Hot water	85 °C (185 °F)	50 hours / 100, 30 min cycles
Peracetic acid (PAA), 325 ppm PAA (1275 ppm H ₂ O ₂ to give 1600 ppm of total peroxides)	ambient	2000 hours

³ Measured under laboratory test conditions. The actual cumulative time depends on the process conditions. For applications requiring sterilization or sanitization Pall recommends the use of Code 7 adaptors to ensure filter sealing after cooling. Cartridges should be cooled to system operating temperature prior to use. Contact Pall for recommended procedures.

Pressure Drop vs Liquid Flow Rate⁴



Ordering Information

Cartridge Part Number

AB M X W
 Table 1 Table 2 Table 3 Table 4

This is a guide to the Part Numbering structure only. For specific options, please contact Pall.

Table 1: Nominal Length

Code	Description
1	254 mm (10")
2	508 mm (20")
3	762 mm (30")
4	1016 mm (40")

Table 2: Microbial Removal Rating

Code	Microbial Removal Rating
B	0.45 µm
K	0.65 µm

Table 3: Adaptor

Code	Description
3	SOE – single open end with flat closed end and external 222 O-rings
7	SOE – single open end with fin end, 2 locking tabs and external 226 O-rings
8	SOE – single open end with fin end and external 222 O-rings
28	SOE – single open end with fin end, 3 locking tabs and external 222 O-rings

Table 4: O-Ring Seal Material

Code	Description
H4	Silicone Elastomer
J	Ethylene Propylene Rubber

⁴ Typical initial clean media differential pressure (dP) per 254 mm (10 in.) cartridge for water at 20 °C (68 °F); viscosity 1 centipoise. For 508, 762 mm and 1016 mm configurations divide the differential pressure by 2, 3, and 4 respectively.



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IF APPLICABLE Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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