

## MEMBRACart XL II Filter Cartridges

### Reliable microbial retention

#### Description

MEMBRACart XL II filter cartridges were developed and validated for the beverage industry to provide secure and reliable removal of spoilage microorganisms. The filter medium is a highly efficient polyethersulfone membrane which, in combination with the construction of the MEMBRACart XL II filter, ensures excellent service life and filtration results.

The MEMBRACart XL II is an excellent choice as a final filter prior to bottling or storage of beverages and liquid food products.

#### Features and Benefits

- Inert filter material can preserve the organoleptic properties of the product
- Reliable reduction of microorganisms
- Broad chemical compatibility
- Repeated sterilization capability for economical operation
- Easy to wet with cold water for integrity testing

#### Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2008 certified Quality Management System
- Each individual filter element is integrity tested prior to release from manufacturing

#### Food Contact Compliance

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

#### Traceability

In order to ensure traceability each filter element is marked on the cage with ordering code and batch number. In addition, every filter cartridge bears an individual number. Product name, removal rating, ordering code and batch number are indicated on the packing label.



MEMBRACart XL II filter element

#### Typical Titer Reduction<sup>1</sup>

Removal Rating	Test Organism	Titer Reduction
0.2 µm	<i>Brevundimonas diminuta</i>	≥10 <sup>10</sup>
0.45 µm	<i>Serratia marcescens</i>	≥10 <sup>9</sup>
0.65 µm	<i>Saccharomyces cerevisiae</i>	≥10 <sup>10</sup>

<sup>1</sup>The typical titer reduction is determined in laboratory liquid challenge tests on 10" filter

#### Materials of Construction

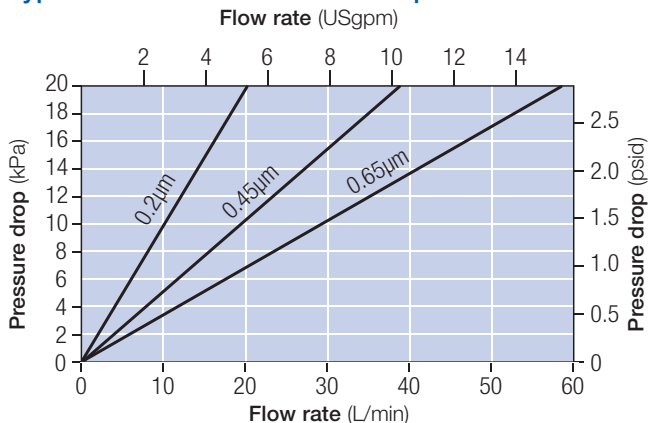
End Caps	Polypropylene
Cage	Polypropylene
Drainage / Support nonwoven	Polypropylene
Filter Membrane	Polyethersulfone (Hydrophilic)
Core	Polypropylene
Adapter	Polypropylene (Stainless steel ring in adapter 7, 8 and 41)
O-ring Seals	Silicone elastomer

All construction parts of the MEMBRACart XL II filter are thermo-plastically welded, that means no adhesives are used.

## Technical Data

Nominal Length	Nominal Filter Area
254 mm (10")	0.6 m <sup>2</sup> (6.5 ft <sup>2</sup> )
508 mm (20")	1.2 m <sup>2</sup> (13 ft <sup>2</sup> )
762 mm (30")	1.8 m <sup>2</sup> (19.5 ft <sup>2</sup> )
1016 mm (40")	2.4 m <sup>2</sup> (26 ft <sup>2</sup> )

## Typical Flow Rate / Pressure Drop



Typical flow rate per 254mm (10") element for clean water

## Ordering Information

Part Number: **419** **A** **W** **SP**

Table 1 Table 2 Table 3

Table 1 : Microbial Removal Rating

Code	Rating
020	0.2 µm
045	0.45 µm
065	0.65 µm

Table 2 : Adapter

Code	Description
03	SOE - single open end with flat closed end and external 222 O-rings
07	SOE - single open end with fin end, 2 locking tabs and external 226 O-rings
08	SOE - single open end with fin end and external 222 O-rings
41	SOE - single open end with fin end, 3 locking tabs and external 222 O-rings

## Maximum allowable Differential Pressure

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

Temperature	Max. allowable Differential Pressure <sup>2</sup>
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)

<sup>2</sup> In fully compatible fluids which do not chemically attack, soften or adversely affect the filter in any way.

## Sterilization and Sanitization

MEMBRACart XL II filters can be repeatedly steam-sterilized or autoclaved *in situ*, or they can be sanitized with hot water.

Medium	Temperature	Max. allowable Differential Pressure	Cumulative Time <sup>3</sup>
Steam	125 °C (257 °F)	30 kPa (0.3 bard) (4.4 psid)	50 hours <sup>4</sup>
Hot water	85 °C (185 °F)	250 kPa (2.5 bard) (36.3 psid)	50 hours

<sup>3</sup> Measured under laboratory test conditions. The actual cumulative time depends on the process conditions.

<sup>4</sup> Note: 35 hours for 0.2 µm MEMBRACart XL II filter cartridges.

Example Part Number: **419 A 020 W 07 3 SP**

(See bold reference codes in tables)

Table 3 : Nominal Length

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



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