

## 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 microorganisms. The 0.2 micron 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 9001:2015 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> |

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

#### Materials of Construction

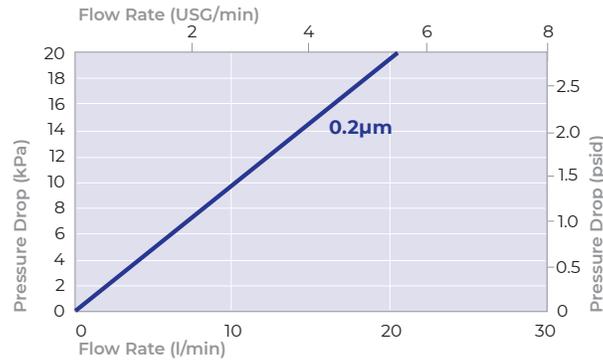
| Component                   | Description   |
|-----------------------------|---|
| End Caps                    | Polypropylene   |
| Cage                        | Polypropylene   |
| Drainage / Support Nonwoven | Polypropylene   |
| Filter Membrane             | Polyethersulfone (Hydrophilic)                              |
| 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 Information

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

### 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)         | 35 hours                     |
| 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.



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## Ordering Information

### Part Number

419 A 020 W   SP  
 Table 1 Table 2

**Example Part Number: 419 A 020 W 07 3 SP**  
 (See bold reference codes in tables.)

### Table 1: Adapter

| Code      | Description   |
|-----------|---|
| 03        | SOE - single open end with flat closed end and external 222 O-rings         |
| <b>07</b> | 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 |

### Table 2: Nominal Length

| Code     | Description   |
|----------|---------------|
| 1        | 254 mm (10")  |
| 2        | 508 mm (20")  |
| <b>3</b> | 762 mm (30")  |
| 4        | 1016 mm (40") |

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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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