

## Fluorodyne® II Junior Style Filter Cartridges

### For Secure Microbial Retention

**Fluorodyne II** Junior Style filter cartridges are hydrophilic membrane filters designed for reliable retention of bacteria in the final filtration of critical fluids in the food and beverage industry.

#### Description

The **Fluorodyne II** filter was developed and validated to provide a secure and reliable removal of microorganisms.

The cartridge is constructed from two layers of 0.2 micron polyvinylidene fluoride (PVDF) membrane. The Junior style configuration is designed to handle small liquid flow rates in compact installations to ensure effective microbial removal.

**Fluorodyne II** Junior Style filter cartridges are suitable for exposure to repeated hot water and *in situ* steam sanitization cycles for longer service life.

#### Microbial Removal Rating

**Fluorodyne II** Junior Style filter cartridges, passing an appropriate integrity test, provide a sterile effluent when challenged with *Brevundimonas diminuta* at  $\geq 1 \times 10^7$  CFU per cm<sup>2</sup> of effective filtration area.

Features	Benefits
Cartridges resistant to numerous sterilization cycles	<ul style="list-style-type: none"> <li>• Process reliability</li> <li>• Economical operation</li> <li>• Consistent filtrate quality</li> </ul>
Hydrophilic PVDF media	<ul style="list-style-type: none"> <li>• Microbial stabilization of dosed ingredients</li> <li>• Easy to wet and integrity test</li> </ul>
Individually serialized cartridges	<ul style="list-style-type: none"> <li>• Full traceability</li> </ul>



Fluorodyne II Junior Style Cartridge

#### Materials of Construction

Filter Medium	PVDF (hydrophilic)
Support and Drainage	Polypropylene
Core, Cage, and End Cap	Polypropylene
Adaptor	Polypropylene
O-ring Seal	Silicone Elastomer

#### Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2008 certified Quality Management System

#### 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.

## Technical Information

### Operating Characteristics in Compatible Fluids<sup>1</sup>

Maximum Differential Pressure	Operating Temperature
5.3 bard (76.9 psid) (forward pressure)	50 °C (122 °F)
3.4 bard (49.3 psid) (forward pressure)	90 °C (194 °F)
300 mbard (4.4 psid) (reverse pressure)	In normal operation or <i>in-situ</i> steam sterilization

<sup>1</sup>Compatible fluids are defined as those which do not swell, soften or attack any of the filter components.

### Sterilization and Sanitization

Fluorodyne II Junior Style filters may be repeatedly steam sterilized.

Media	Temperature	Cumulative Time/Cycles <sup>2</sup>
Steam	140 °C (284 °F)	15 hours / 45 cycles
Steam	125 °C (257 °F)	50 hours / 150 cycles

<sup>2</sup> Measured under laboratory test conditions. The actual cumulative time depends on the process conditions.

### Pressure Drop vs. Liquid Flow Rate<sup>3</sup>

~1.5 liters per minute @ 100 mbar

~0.27 US gpm @ 1 psi

<sup>3</sup>Typical initial clean media differential pressure (dP) per 106 mm (4.17") cartridge for water at 20 °C (68 °F); viscosity 1 centipoise.

## Ordering Information

Part Number: MCY4440FSDWH4

### Nominal Dimensions and Adaptor Description

The code 4440 cartridge is 106 mm (4.17") in length with approximately 0.15 m<sup>2</sup> (1.6 ft<sup>2</sup>) of filter area. The adaptor is a plug seal with locking tabs and double external silicon elastomer o-rings.



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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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