

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 cm² of effective filtration area.

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



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 for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

Technical Information

Operating Characteristics in Compatible Fluids¹

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

¹Compatible 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 ²
Steam	140 °C (284 °F)	15 hours / 45 cycles
Steam	125 °C (257 °F)	50 hours / 150 cycles

² Measured under laboratory test conditions. The actual cumulative time depends on the process conditions.

Pressure Drop vs. Liquid Flow Rate³

~1.5 liters per minute @ 100 mbar

~0.27 US gpm @ 1 psi

³Typical 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 m² (1.6 ft²) of filter area. The adaptor is a plug seal with locking tabs and double external silicon elastomer o-rings.



Pall Corporation

Pall Food and Beverage

New York – USA
+1 516 484 3600 telephone
+1 866 905 7255 toll free

foodandbeverage@pall.com

Visit us on the Web at www.pall.com/foodandbev

Pall Corporation has offices and plants throughout the world. For Pall representatives in your area, please go to www.pall.com/corporate_contact.asp

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.

Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your Pall representative or visit www.pall.com to verify that this information remains valid.

© Copyright 2015, Pall Corporation. Pall, (PALL), and Fluorodyne are trademarks of Pall Corporation. ® Indicates a trademark registered in the USA. Filtration. Separation. Solution.SM is a service mark of Pall Corporation.