

Fluorodyne® II JSD Filter Cartridges For Enhanced Microbial Retention

Fluorodyne II filter cartridges are hydrophilic membrane filters designed for reliable retention of bacteria in the final filtration of bottled water.

Description

The **Fluorodyne II JSD** filter was developed and validated to provide enhanced, secure and reliable removal of microorganisms from bottled water.

The cartridge is constructed from serial layers of 0.2 and 0.1 micron polyvinylidene fluoride (PVDF) membrane. The single open ended (SOE) configuration is designed to fit into sanitary housings to ensure effective microbial removal and assembly integrity.

The **Fluorodyne II JSD** filter is suitable for exposure to *in situ* steam sanitization cycles for longer service life.

Media

- Hydrophilic, easy to wet and integrity test
- Fixed pores, non-shedding, resin and surfactant free

Element

- Multiple adapter options for installation into sanitary housings
- Repeated sanitization/sterilization capability for economical operation
- Individually serialized for full traceability

Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2000 certified Quality Management System

Microbial Removal Rating

Fluorodyne II JSD 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.

Fluorodyne II JSD filter cartridges passing the appropriate Forward Flow integrity test have also been shown in laboratory tests to give titre reductions of typically 10^8 when challenged with *Acholeplasma laidlawii* ATCC28206 at a challenge level of 10^7 per cm² filtration area.



Fluorodyne II JSD filter cartridge

Materials of Construction

Filter Medium	Hydrophilic polyvinylidene fluoride
Support and Drainage	Polypropylene
Core, Cage, End Cap and Fin End	Polypropylene
Adaptor	Polypropylene with internal stainless steel reinforcing ring
O-ring Seal	Silicone elastomer (H4)

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)	80 °C (176 °F) ²
300 mbard (4.4 psid) (reverse pressure)	In normal operation or <i>in situ</i> steam sterilization

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

² Maximum operating temperature is 90 °C.

Sterilization and Sanitization

Fluorodyne II JSD filters may be repeatedly steam sterilized.

Media	Temperature	Cumulative Time/Cycles ³
Steam	140 °C (284 °F)	5 hours /5 cycles
Steam	125 °C (257 °F)	30 hours /30 cycles
Steam (reverse)	125 °C (257 °F)	5 hours /5 cycles

³ Measured under laboratory test conditions. The actual cumulative time depends on the process conditions.

Pressure Drop vs. Liquid Flow Rate⁴

4.2 liters per minute @ 100 mbar

0.76 US gpm @ 1 psi

⁴ Typical initial clean media differential pressure (ΔP) per 250 mm (10") 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.

Ordering Information

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

Cartridge Part Numbers: AB  JSD  WH4

Table 1

Table 2

Table 1: Nominal Length

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

Table 2: Adaptor

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

* Available in AB3 only