PALL Microelectronics

Ultipleat® ME Filter

Description

The Ultipleat ME filter has been engineered to provide superior flow rates during deep submicron filtration used in today's HF and BOE recirculation bath processing. The unique combination of Pall's proprietary highly asymmetric membrane and crescent-shaped Ultipleat filter enables an almost 50% increase in flow rates over earlier designs. This breakthrough technology achieves the finest filtration possible with minimal demand on limited pumping capacity. The end result is fast starts, improved particle retention, reduced microbubble potential and improved bath quality.

When operated at ambient temperature, the Ultipleat ME filter is compatible with a wide range of etch solutions and semiaqueous strippers that are primarily HF based [1]. It is highly recommended for use in SiO_2 etch with surfactant and low horsepower internal pumps. The Ultipleat ME filter will pressure wet when used in SiO_2 etch without surfactant and with higher horsepower pumps.

- Excellent retention
- Very high flow rates
- Rapid bath turnover
- Low extractables
- Ultralow metal ion extractables option
- No prewetting with IPA required
- Manufactured in a cleanroom environment
- 100% integrity tested

Specifications

Materials

- Medium: Highly asymmetric hydrophilic polysulfone
- Core, cage and end caps: Polypropylene
- Support and drainage: Polypropylene
- O-ring options: Viton[2] A and FEP encapsulated fluoroelastomer

Removal Ratings

- 0.1 µm (0.05 µm RP)[3] and 0.05 µm (0.03 µm RP)[3]

Configurations

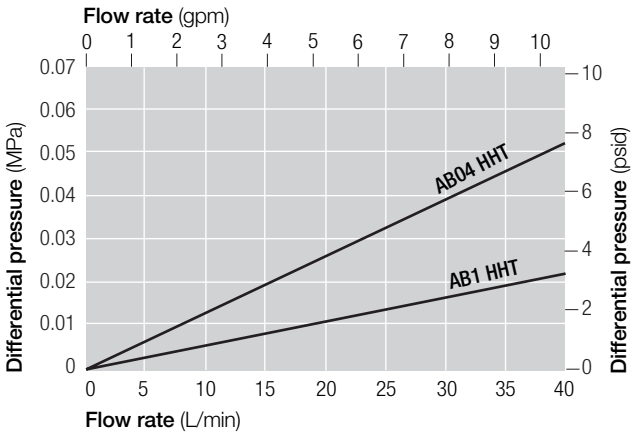
- Nominal length: 254 mm / 10 in, 102 mm / 4 in
- Diameter: 70 mm / 2.75 in
- O-ring size / end caps: Code 3: 222 double O-ring / raised flat end

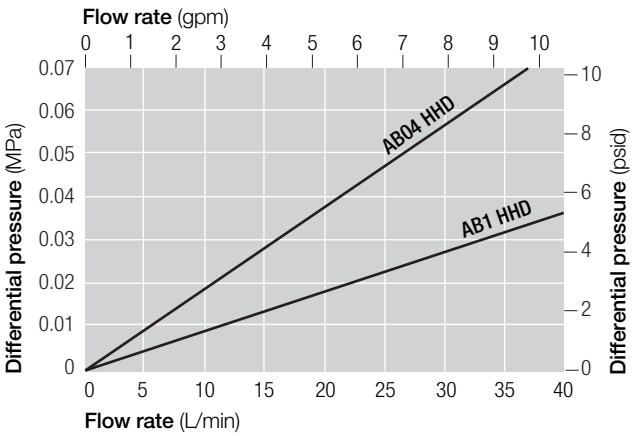
Operating Conditions

- Maximum operating temperature: 75°C / 165°F
- Maximum differential pressure: 0.21 MPa / 30 psid @ 15.6°C (60°F)

[1] The Ultipleat ME filter should be tested before installation to determine compatibility.
[2] Viton is a trademark of E.I. du Pont de Nemours and Company.
[3] Recirculating performance.

Pressure Drop vs. Liquid Flow Rate[4]





[4] For liquids with a viscosity differing from water, multiply the pressure drop by the viscosity in centipoise.

Part Numbers/Ordering Information

Part Number[5,6]	Removal Rating (µm)	Length[7] (mm / in)	Configuration Code	O-Ring Material[8]
AB1UHHT3EH1	0.1	279 / 11	3	FEP encapsulated fluoroelastomer
AB09UHHT3EH1	0.1	270 / 10.6	3	FEP encapsulated fluoroelastomer
AB04UHHT3EH1	0.1	131 / 5.2	3	FEP encapsulated fluoroelastomer
AB1UHHD3EH1	0.05	279 / 11	3	FEP encapsulated fluoroelastomer
AB09UHHD3EH1	0.05	270 / 10.6	3	FEP encapsulated fluoroelastomer
AB04UHHD3EH1	0.05	131 / 5.2	3	FEP encapsulated fluoroelastomer

[5] The AB1 filter configurations are also available in 508 mm / 20 in, 762 mm / 30 in, and 1016 mm / 40 in lengths. These can be ordered by changing the third digit in the part number to a 2, 3, or 4, respectively.
[6] For ultraclean option, add-K12 to the end of the part number.
[7] Overall length.
[8] Other O-ring materials are available.

Unit Conversion: 1 MPa = 10 bar

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