

Aerosart

Air Filter Cartridge for Venting and Gas Filtration



Description

Aerosart high performance air filter cartridges can significantly reduce operating costs. The Aerosart is a high flow rate, low differential pressure, hydrophobic membrane filter.

The unique single layer filter construction also reduces Blow-Down-time. Both the high flow rate and the short Blow-Down-time lowers the energy cost of air supply operations.

Applications

- Large-scale fermentation inlet and exhaust gas filtration,
- Storage tank venting,
- Filling equipment venting,
- Any dry gas filtration.

Microbiological Testing

They have been tested and passed :

- Aerosol bacterial and viral challenge tests. Tests were conducted using MS-2 coliphage (NCIMB 10 108) and bacillus subtilis var. niger spores (NCTC 10073) at a challenge level of greater than 2.5×10^7 under worst case conditions of greater than 90% relative humidity. No MS-2 coliphage or B. subtilis spores were detected on the downstream side of the Aerosart filter cartridges.
- Each membrane lot, liquid bacterial challenge test with the retention of $\geq 10^7$ Brevundimonas diminuta/cm² according to current ASTM F-838 guidelines.
- 100% integrity tested before to be released

Performance

The unique single layer pleated filter construction of the highly hydrophobic PTFE membrane provides low differential pressures, excellent flow rates and the fastest blow down times of any gas service filter

Long Service Life Time

The mechanical and thermal stresses experienced during steam in place sterilization pose the highest risk to any filter cartridge. In many cases, Aerosart filter cartridges will be used for more the 120 steaming cycles. Tests have shown Aerosart cartridges to pass integrity tests with greater than 150 steaming cycles.

Traceability

Clear labelling with lot number and individual unit number. All information lazer marked on each cartridge.



Technical Specifications

Materials

Filter Membrane:	PTFE
Support Fleece:	Polypropylene
Core:	Polypropylene
End Caps:	Polypropylene
O-Rings:	EPDM

Pore Size

0.2 µm

Available Sizes | Filtration Area

Available Sizes	Filtration Area [m ² ft ²]	Test Pressure [bar psi]	Max. Diffusion @ 0.7 bar 10.2 psi [mL/min]	Min. Bubble Point [bar psi]
Size 1 [10"]	0.75 8.1	0.7 10.2	11.0	1.0 14.5
Size 2 [20"]	1.5 16.1	0.7 10.2	22.0	1.0 14.5
Size 3 [30"]	2.25 24.2	0.7 10.2	33.0	1.0 14.5

Wetting agent: 60% IPA (Isopropyl Alcohol) | 40% water

Available Adapters

25, 27, 28

Packaging

6 cartridges per box

Operating Parameters

Max. Allowable Differential Pressure

- 5 bar | 72.5 psi at 20 °C
- 0.5 bar | 7 psi at 134 °C

Max. Allowable Back Pressure

- 3 bar | 43.5 psi at 20 °C
- 0.5 bar | 7 psi at 134 °C

Regulatory Compliance

Qualified for retention of aerosolized bacterial spores and viruses (coli-phages) in air.

- Non pyrogenic according to USP Bacterial Endotoxins
- Passes USP Plastics Class VI Test
- Non fiber releasing according to 21 CFR

Sterilization

In-Line Steam Sterilization

134 °C, 20 min. at a maximum differential pressure of 0.5 bar | 7 psi

Sterilization Cycles

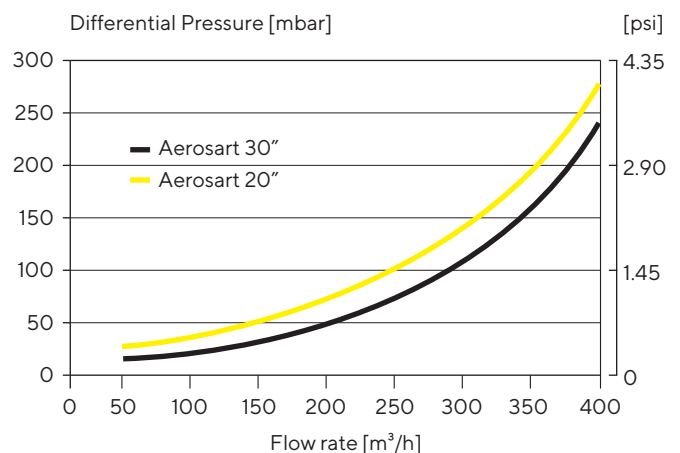
Autoclaving

- 134 °C, 2 bar | 29 psi, 30 min
- Sterilization Cycles: Min.25

In line Steam sterilization

- 134 °C, 20 min. at max differential pressure of 0.5 bar | 7.25 psi
- Sterilization Cycles: Max. 150

Air Flow Rates Aerosart



Air flow rate for Aerosart filter cartridges (0.2 µm) in relation to the filter cartridge heights at atmosphere pressure condition.

Ordering Information

Order Code	Pore Size [μm]	Size	Pack Size [Pieces]
5152507T1---E--C	0.2	10"	6
5152507T2---E--C	0.2	20"	6
5152507T3---E--C	0.2	30"	6
5152707T1---E--C	0.2	10"	6
5152707T2---E--C	0.2	20"	6
5152807T1---E--C	0.2	10"	6
5152807T2---E--C	0.2	20"	6

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Specifications subject to change without notice.

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DIR No.: 2791979-000-01 | Status: 12 | 16 | 2022