

Aerosart – 0.2µm

Airfilter Cartridge for Industrial Applications



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

The Aerosart is designed for large-scale fermentation inlet and exhaust gas filtration.

Microbiological Safety

Aerosart filter cartridges have been tested and passed aerosol bacterial and viral challenge tests. Tests were conducted using MS-2 coli phages (NCIMB 10 108) and B. 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% RH. No MS-2 coli phages or B. subtilis spores were detected on the downstream side of the Aerosart filter cartridges.

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.

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

Size 1	10"	0.75 m ² 8.1 ft ²
Size 2	20"	1.5 m ² 16.1 ft ²
Size 3	30"	2.25 m ² 24.2 ft ²

Available Adapters

25

Packaging

6 cartridges per box

Operating Parameters

Max. Allowable Differential Pressure:	5 bar 75 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

Integrity Test Limits

Bubble Point*:

Pore Size	Min. Bubble Point
0.2 µm	1.0 bar 14.5 psi

Diffusion*:

Pore Size	Height	Max. Diffusion	Test Pressure
0.2 µm	10"	11 ml/min	0.7 bar 10 psi
0.2 µm	20"	22 ml/min	0.7 bar 10 psi
0.2 µm	30"	33 ml/min	0.7 bar 10 psi

* Wetted with 60:40 IPA|H₂O

Membrane Filter Cartridges

Specifications

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

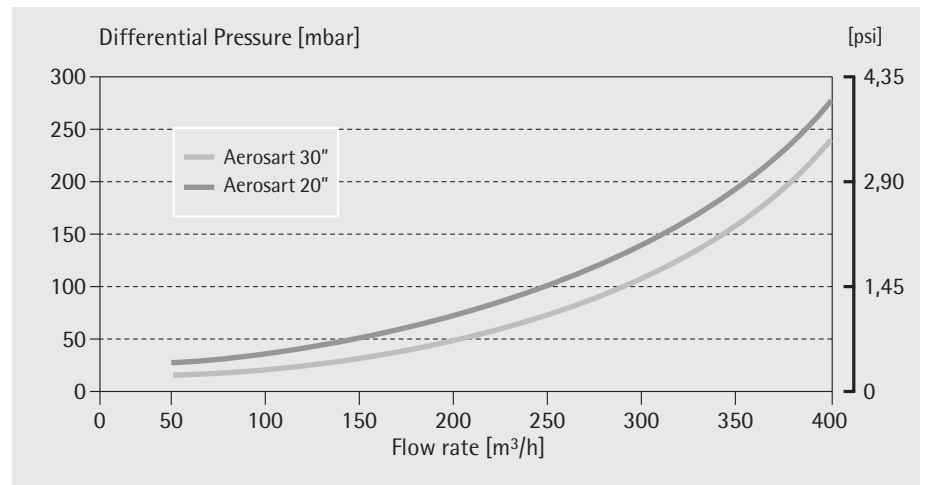
In-Line Steam Sterilization

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

Sterilization Cycles

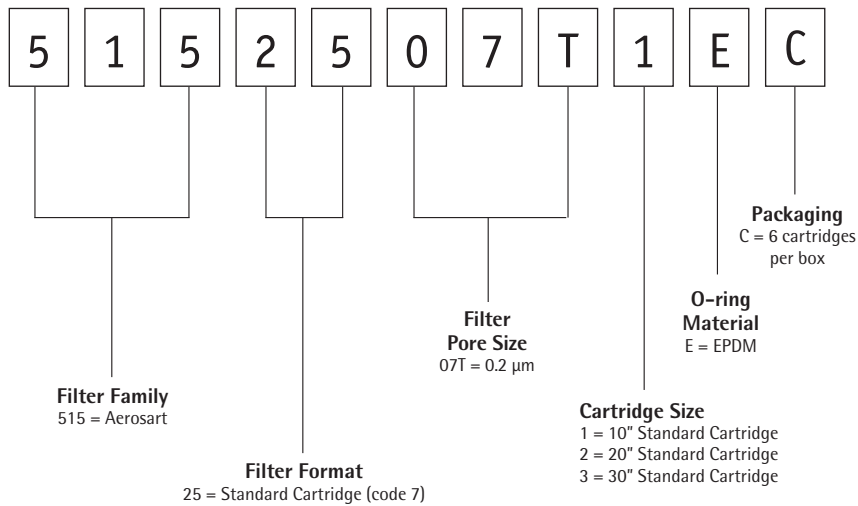
Minimum of 150 In-Line Sterilization cycles

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 Guide:



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Publication No.: SPK2045-e04041
Order No.: 85030-516-52