sartorius stedim biotech

Sartofluor® HR

Heat Resistant Air | Gas Filter

Product Information

Sartofluor® has been synonomous with reliable air | gas filtration for decades. Employing the proven single-layer ePTFE membrane technology, this latest addition to the Sartofluor® broad offering of filter cartridges is specifically designed for long-term, high-temperature applications, such as Water For Injection (WFI) loop venting. Bacterial, phage and particle retention validation make Sartofluor® HR a valuable addition to the Sartofluor® product family.

Designed for High Temperature Applications

Sartofluor® HR filter cartridges can be used for an extended time period of at least six months at a temperature of 90°C. Incorporating the proven hydrophobic 0.2 µm Sartofluor® ePTFE membrane (sterilizing grade according to current ASTM F-838 guideline), Sartofluor® HR also provides a validated retention of particles (sizes 0.005 µm | 0.3 µm), which is of the utmost importance for these types of applications. Integrity testing by Water Intrusion Test (WIT) allows in-situ integrity testing and circumvents the use of alcohol for wetting. Multiple in-line steaming | autoclaving cycles can be conducted without any loss of performance.

Applications

- Water For Injection (WFI) tanks | loops (80 – 90°C)
- Autoclaves
- Permanently heated filter housings
- All applications where hot air (approx. 90°C) is used over long periods

Inherent quality provides full confidence

The 0.2 µm hydrophobic ePTFE membrane is self de-wetting and, therefore, provides high air flow rates even at very low differential pressures over an extended process time. Furthermore, the polyphenylene sulfide (PPS) drainage fleece is resistant to ozonated air.

Validated by various retention tests, Sartofluor® HR filter cartridges ensure sterile filtration of air | gas. The following indispensable requirements are fulfilled:

- Retention of ≥ 10^7 Brev. diminuta/cm^2
- Retention of ≥ 10^7 MS-2 coliphage/cm^2
- Retention of particles: sizes 0.005 µm | 0.3 µm
- Clear labeling with filter type, lot number, individual unit serial number, 2D data matrix code
- Developed, produced and distributed under a quality management system certified to DIN/ISO 9001.
- USP Plastic Class VI Test

Technical Data

Available Sizes	Filtration Area [m² | ft²]	Max. WIT @ 2.5 bar | 36 psi [mL/10 min]	Max. WFT @ 2.5 bar | 36 psi [mL/min]	Max. Diffusion @ 0.7 bar | 10 psi [mL/min]*	Min. Bubble Point [bar | psi]*
Cartridges					
Size 1 (10")	0.56 | 6.03	12	0.34	10	1 | 14.5
Size 2 (20")	1.12 | 12.06	24	0.68	20	1 | 14.5
Size 3 (30")	1.68 | 18.09	36	1.03	30	1 | 14.5

* Wetting agent IPA | Water (60 | 40).

Max. Differential Pressure for Air

In the direction of filtration:

Temperature [°C]	20	90
Pressure [bar]	5	2
Pressure [psi]	72.5	29

In the reverse direction of filtration:

Temperature [°C]	20	90
Pressure [bar]	2	1.5
Pressure [psi]	29	22

Materials

Membrane Filter
Single layer hydrophobic expanded polytetrafluoro-ethylene (ePTFE)

Drainage Layer
Polyphenylene Sulfide (PPS)

Core
Polypropylene (PP)

Outer Support
Polypropylene (PP)

End Caps
Polypropylene (PP)

O-Rings
Silicone

Pore Size

0.2 µm

Sterilization

In-Line Steam Sterilization
134°C, 30 min. at max. differential pressure of 0.5 bar | 7.25 psi in forward and reverse direction
Max. 100 Sterilization Cycles

or

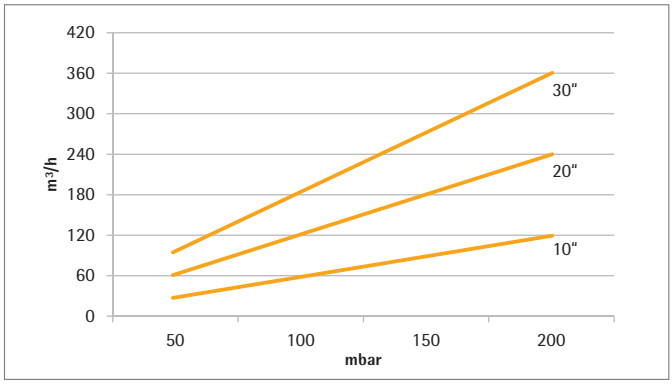
Autoclaving
134°C, 2 bar, 30 min
Max. 100 Sterilization Cycles

Technical Reference

Validation Guide SPK5814-e | 85037-554-85

Performance

Typical Air Flow



Ordering Information

517	25	07	T	•	-	-	-	-	HR

Adapter
25: 2 Flange Bayonet adapter with 226 double o-ring

Filter Size
1: 0.56 m² | 6.03 ft² (10")
2: 1.12 m² | 12.06 ft² (20")
3: 1.68 m² | 18.09 ft² (30")

Sartorius Stedim Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen, Germany

Phone +49.551.308.0
Fax +49.551.308.3289
www.sartorius-stedim.com

USA Toll-Free +1.800.368.7178
Argentina +54.11.4721.0505
Brazil +55.11.4451.6226
Mexico +52.5555.62.1102
UK +44.1372.737159
France +33.442.845600
Italy +39.055.63.40.41
Spain +34.913.586.098
Russian Federation +7.812.327.5.327
Japan +81.3.4331.4300
China +86.21.68782300

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