

## Ventafil™

ePTFE Membrane  
Cartridge Filters for  
Autoclave Venting



Ventafil™ cartridges are manufactured using a highly hydrophobic ePTFE membrane and are designed for autoclave venting. The enhanced ePTFE membrane offers exceptionally high gas flow rates at low pressure differentials.

Ventafil™ cartridges are designed with either a ¼" or ½" BSP male thread for autoclave and small tank venting applications. The hydrophobic characteristics of the ePTFE membrane makes the Ventafil™ filter cartridge particularly suitable for rapid vacuum break in autoclaves.

### Ordering Information

Product Code:		1	2	3
<b>1: J-Style</b>		<b>2: Length</b>		<b>3: Options Threaded</b>
F20VENT	Ventafil™	25	77.5mm (2.5")	B 1/2" BSP
		50	136mm (5")	X 1/4" BSP

### Typical Applications

- Autoclave vents
- Sterile product storage vessels

### Features and Benefits

- Guaranteed microbial ratings in a liquid challenge
- Bacterial spores and viruses
- Steam sterilisation
- Cartridge integrity and low TOC levels
- Full traceability
- Controlled manufacturing environment

## Specifications

### Materials of Manufacture

Filter membrane:	ePTFE
Membrane support:	Polypropylene
Irrigation mesh (support):	Polypropylene
Drainage layer:	Polypropylene
Inner core:	Polypropylene
Outer support:	Polypropylene
End fittings:	Polypropylene
Sealing:	Fusion bonding

### Cartridge Dimensions (Nominal)

Effective Filtration Area:	0.37m <sup>2</sup> (4.0ft <sup>2</sup> ) per 5" module.
Diameter:	70mm (2.8")
Length:	64mm (2.5") 136mm (5")

### Cartridge Treatment

Standard:	Cleaned and flushed, without further treatment
Rinsed:	Ultra-clean, pulse flushed to give a system resistivity of 18MΩ.cm

### Adaptor and O-Ring

Silicone (other materials are available on request)  
¼" and ½" BSP male thread.

### Maximum Differential Pressure

Normal flow direction at:	
20°C (68°F):	6.0bar (87psi)
80°C (176°F):	4.0bar (58psi)
100°C (212°F):	3.0bar (44psi)
120°C (248°F):	2.0bar (29psi)
125°C (257°F):	1.5bar (22psi)

### Sterilisation

*In situ* steam 70 x 25 minute cycles at 135°C (275°F)

### Extractables

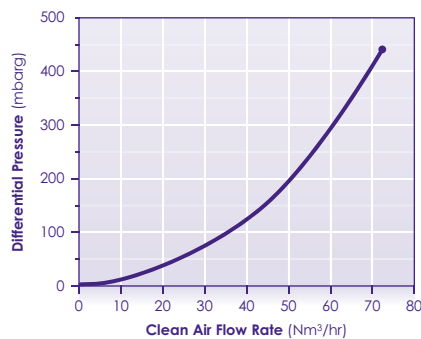
Minimum total extractables. Please refer to the Fluorofil™ Validation Guide.

### Integrity Testing

Each Ventafil™ cartridge is individually integrity tested using the Diffusive Flow Test, which correlates to the HIMA and ASTM F838-05 bacterial challenge tests. Non-destructive integrity tests, such as Diffusive Flow, Water Intrusion, Pressure Hold and Bubble Point, can be performed by customers. Procedural details are available from **Porvair**.

### Clean Air Flow Rates

- Typical clean air flow rate:  
A 136mm (5") Ventafil™ cartridge exhibits the flow-ΔP characteristics indicated below.



### Filter Selection

- Vacuum break application:  
If the initial vacuum is at -980 mbarg, the time required before the vacuum break conditions required to safely open the autoclave door (at -20mbarg) are achieved, is indicated below.

