SARTORIUS

Product Datasheet



Sartovent® DG

Sterile Venting of Transport Containers

DOMINIQUE DUTSCHER SAS

Description

Sartovent® DG filter cartridges are used for the removal of particles and the sterile filtration of liquids and gases.

Applications

- Sterile venting of transport containers
- Sterile air filtration during fermentation
- Sterile filtration of compressed air | gases that is required for filling and draining of tanks, containers, filling machines, autoclaves or lyophililizers.

Flushing

For the filtration of gases, no flushing is required before use. For the filtration of liquids, flushing could be reasonable for ensuring the absence of any particles in the entire system.

Autoclaving

Sartovent® DG filter cartridges should be autoclaved at 134 °C. and 2 bar for at least 20 minutes after the sterilization temperature has been reached.

In-line Steam Sterilization

Sartovent® DG can be steam sterilized in-line in either direction at 134 °C. and 2 bar for at least 20 minutes after the sterilization temperature has been reached. In order to prolong the life of the membrane, the differential pressure between the inlet and the outlet sides should not exceed 0.5 bar.

A vacuum due to condensation during the cooling phase can be avoided by cooling the filter system after steam sterilization with either compressed air or nitrogen at a pressure of 0.2 bar higher than the pressure used for sterilization.

Steaming Cycles

Up to 50 cycles of 20 min at 134 °C (2 bar) in the direction of filtration and opposite direction.

Flow Capacity

Despite the relative small filtration area, its minimal flow resistance allows draining velocities of 1,000 L within only 10 min.

Permanent Hydrophobicity

The PTFE membrane has the highest hydrophobicity of all membranes for air | gas filtration. Even repeated autoclaving or steaming does not change its characteristics. The sterile filtration of dry or moist air | gas is guaranteed.

Quality

All materials of construction used to produce Sartovent® DG products are selected in compliance with the EU requirements for products intended to come in contact with foodstuff:

- Meet the requirements for European Food Contact Materials Regulation as detailed in Regulation (EC) No 1935/2004 and (EU) 10/2011

Materials

Membrane filter	PTFE*
O-rings	Silicone**
All other parts	Polypropylene

* PTFE = Polytetrafluorethylen
** EPDM or Fluoroelastomer o-rings optional

Pore Size	Filtration Area
0.2 µm	0.05 m^2

Operating Parameters

The cartridges withstand high differential pressures in both directions. The filter structure remains intact even after shock pressures and high flow rates

Max. allowable differential pressure	5.0 bar at 21 °C 1.5 bar at 121 °C 0.5 bar at 134 °C
Max. allowable back pressure	3.0 bar at 21 °C 1.5 bar at 121 °C 0.5 bar at 134 °C

Flow Rates

Flow Rate for air at different differential pressures (Δp) against 0 bar:

Δp	100	200	400	800
m^3/h	5.5	10	16.5	28

Flow Rate in opposite direction:

Δp	100	200	400	800
m^3/h	5	9	15	26

Dimensions

Outer diameter	70 mm
Height	33 mm

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Available Adapter

18 layout type
double O-Ring type

Integrity Testing

Using the Sartorius Stedim Biotech Sartocheck® Integrity Test System, the bubble point, diffusion and pressure hold tests can be performed automatically and the corresponding data recorded.

For parallel manual testing of the Bubble Point, a multi-filter-housing is available.

Integrity Test Specifications

	Test Pressure	Wetting Medium	Limit*
Bubble Point (bar)	–	60% IPA**	≥ 1.0 bar
Diffusion (mL/min)	0.7 bar	60% IPA**	≤ 2
Pressure Drop (bar)	0.7 bar	60% IPA**	To be caculated

* Test limits for a temperature of 20°C
** IPA = Isopropanol

Order Code

5181807T6------D	(10 pieces)
5181807T6------K	(50 pieces)

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