

Filter cartridge amaFine TMV

1. Introduction

To maintain safe, balanced pressure during the filling or emptying of a storage vessel, tank vent filter cartridges are essential to help reduce the possibility of contaminating your product. The amaFine TMV filter cartridge is specially designed to be used as a vent filter to protect your product from viruses and micro-organisms. For vent filter housings we refer to the Data Sheet Tank vent filter housing, type AFV1.

Integrity testing

Acceptable limit for the diffusion flow test for a 10" cartridge is 11 ml/min at 0.8 bar. Integrity is verified by diffusion test using IPA 60/40 V/V as wetting agent.



2. Features

- Hydrophobic PTFE membrane
- Absolute filtration rating
- High air flow rates
- Manufactured in controlled environment
- Steamable in situ
- FDA listed material per CFR21
- Bio-Safety per USP-Plastics
- Each cartridge is integrity tested

4. Product/Performance specifications

Filter medium	: PTFE Membrane
Support medium	: polypropylene
Hardware	: polypropylene
Longitudinal weld	: ultrasonic welding
End cap seal	: thermally welded
Gaskets/O-rings	: silicone, EPDM, Viton®, other materials on request

Dimensions

External diameter	: 70 mm
Length	: see ordering information
Filtration area	: 0.7 m ² /10" cartridge

Maximum recommended differential pressure

Design	: 5.0 bar at 25 °C
Operating	: 2.0 bar at 25 °C
Maximum operating temperature	: 65 °C

Retention ratings absolute

In liquid	: 0.2 micron
In dry gas	: < 0.02 micron
Bacterial retention	: > 10 ⁷ CFU/cm ² Brevundimona diminuta in liquid as per ASTM F838-83 edition 1993

3. Sterilisation/Sanitation and Food safety

Sterilisation / sanitisation

Steam sterilisation cumulative time is 50 hours at 140 °C with cycles of 30 minutes. The cartridges can be sanitised with the standard chemical agents.

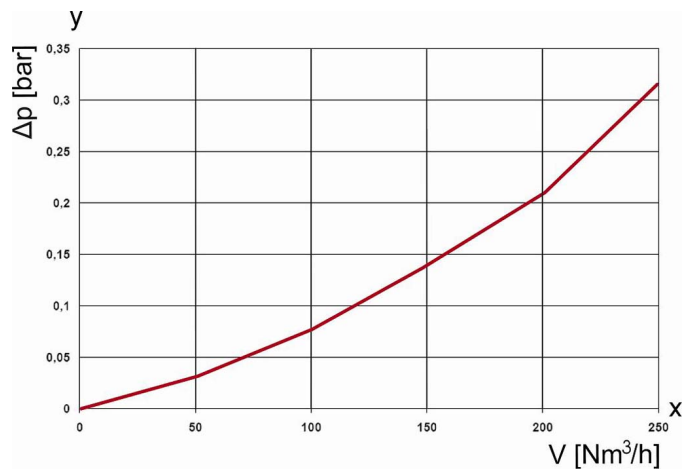
Food safety

All materials used are listed in the FDA CFR21 regulations.

Bio safety

The components of the filter cartridges (excl. O-rings and gaskets) pass the USP Biological Reactivity and Chemical-Physical tests for CLASS VI plastics.

5. Air flow rate for 10" cartridge at 1 bar



x: Flow rate

y: Pressure drop

6. Ordering code

Example

amafine TMV	0.2	20	U	X7	S
Cartridge type	Micron rating	Nominal length [inch]	Hardware material	Cartridge style	O-Ring material
	0.2	10 (254 mm) 20 (508 mm) 30 (762 mm) 40 (1016 mm)	U=polypropylene	X7 X8 X28	S=Silicone E=EPDM V=Viton®

X7=SOE with fin end, bayonet and external 226 O-Rings, X8=SOE with fin end and external 222 O-Rings, X28=SOE with fin end, 3 wing bayonet and external 222 O-rings