

## 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<sup>2</sup>/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<sup>7</sup> CFU/cm<sup>2</sup> 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.

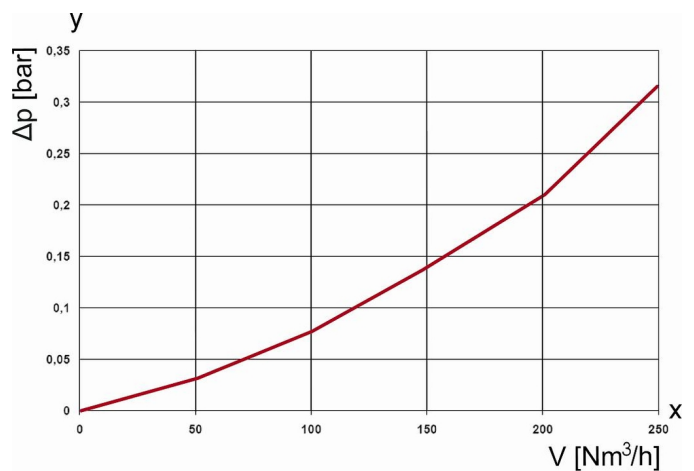
### Food safety

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
<b>Cartridge type</b>	<b>Micron rating [µm]</b>	<b>Nominal length [inch]</b>	<b>Hardware material</b>	<b>Cartridge style</b>	<b>O-Ring material</b>
	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

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