Tank Vent Filter

MICROPURE® FILTRATION

Why you need sterile tank vent filters

To reduce batch contamination, spoilage, and product loss, effective sterile submicron filtration is a necessary part of your process. Especially important in the food, beverage, and pharmaceutical industries, sterile filtration protects your product from harmful submicron particle contamination and bacterial transfer or growth.

To maintain safe,balanced pressure during the filling or emptying of a storage vessel, tank vent or breather filters are essential to reduce the possibility of contaminating your product.

How Micropure does it better

MicroPure Segmented Tank Vent Filters feature a patented design that offers significant advantages over conventional filter cartridges.

Self-sealing PTFE membranes with a 0.2 micron retention efficiency for air and gas are sandwiched between perforated stainless steel segments within an stainless steel housing. The independently functioning modular segments are clamped together by a stainless steel tension rod that provides continued support upstream and downstream of the filter membrane. The required cartridge length and diameter are determined by your application.

Unlike conventional pleated cartridges that degrade with each sterilization, Micropure filters can be steam sterilized in place up to 150 times with no loss of filtering effectiveness, as validated by an internationally recognized food laboratory. Other sterilization or cleaning methods commonly used are autoclave, hydrogen peroxide, steam, or a variety of sanitizing agents.*

When membrane replacement becomes necessary, the operational-and disposal-cost is considerably lower than for other filters. With Micropure filters, only the small membrane media are replaced-not the entire cartridge.

Due to the porosity of our double-layer PTFE membrane, Micropure filters permit higher flow rates than conventional filters, while maintaining submicron, bacterial retention efficiency.**

The rugged, reliable design of Micropure Segmented Filters has been subjected to extensive testing in Europe and the United States, with more than 5,000 systems installed in food-and beverage-processing applications.

The results are unquestionable: MicroPure Segmented Filters, designed for two-way flow, ensureconsistent, uncompromised security for any application.

No other filter offers this combination of features:

Perforated Stainless Steel Modular Segments

-allows for bi-directional flow during sterile breathing on tanks and containers

*-Clean-in-place with steam (150 times) or common sanitizing agent**

Durable Materials of Construction—Stainless Steel and PTFE

-broad range of chemical compatibility

-autoclavable, high temperature tolerance

-low extractable levels

Unique Flat, Double Layer Membrane Design

-low replacement cost compared to conventional cartridge

-long operational periods due to high throughput,initial pressure drop and high capcacity.

-Simple, on-site visual inspection or "plating" or individual filter membrane; easily removable for laboratory analysis or culture.

Simplicity of Design

-Easily mounted on tanks or containers

-excellent breathing properties with weatherproof cover

-capacity increased by adding segmented discs.

Segmented Design

The Micropure Segmented design (shown above) offers significant advantages over conventional filter cartridges. Air or gas flows through the filter media into an adjacent segment. Filtered air or gas exits through openings at the center of the cartridge and out the sterile side of the housing.

***Check for chemical compatibility of PTFE prior to selecting a saniti**

****Reference laboratory report RP5268-challenge organism bacillus Stearothermophilus at a concentration of 1 x 10^5 spores/ml.**

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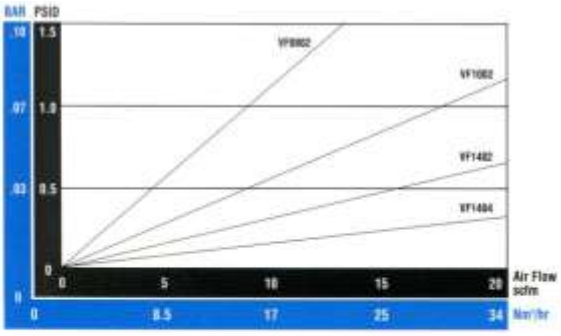
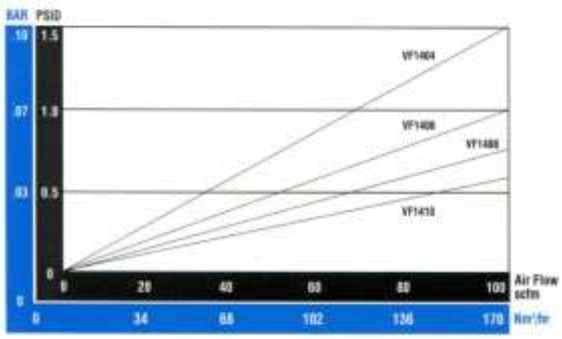
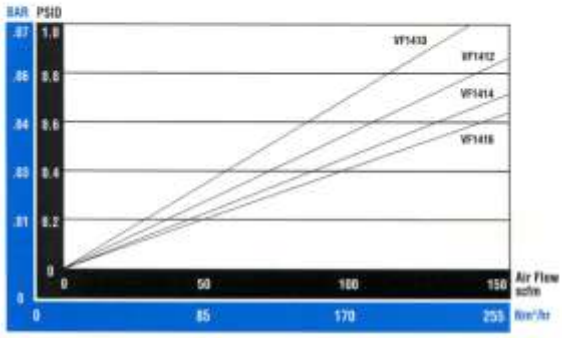
Flow Rate vs. Differential Pressure Charts

All flow rates are based off 15 psi tank pressure







Maximum Operating Pressure	232 psig	16 bar
Maximum Differential Pressure	75 psid	5.2 bar
Maximum Reverse Pressure	75 psid	5.2 bar
Maximun operating temp	250◦F/121◦C	
Maximun Intermittent temp	400◦F/204◦C	
Pore Sizes	.2 micron absolute. (Other sizes available upon request)	
Material of Construction:		
Housing	304 SS	
Segmented Filter Discs	304 SS	
Filter Media	304 SS	
Rainproof Cover	304 SS	

Recommended Sterilization Procedures

Saturated Steam	20 mins @ 250◦F
Hot Air	12 hrs @ 250◦F

Warranty

Micropure Filtration, Inc. provides a five year limited warranty on all parts except O-rings and media. A one year warranty on filter media is based a maximum loading of 140 million particles per cubic meter (normal conditions). These warranties extend only to media purchased from Micropure or a certified Micropure Filtration Vendor.

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Technical Data