



Why you need sterile air or gas

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

It also helps protect production yield, especially in high-tech industries (electronics, plating, magnetic media, etc.) where submicron particle contamination can significantly reduce yields, resulting in product and dollar loss. The use of high efficiency submicron air and gas filters have become a standard "current good manufacturing practice" allowing for more productive and economical processing.

How MicroPure does it better

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

Self-sealing PTFE membranes with a 0.1 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, ensure consistent, uncompromised security for any application.

No other filter offers this combination of features:

- Perforated Stainless Steel Modular Segments
 - allows for bi-directional flow
 - 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
 - Simple, on-site visual inspection or "plating" or individual filter membrane; easily removable for laboratory analysis or culture.



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 sanitizing agent.

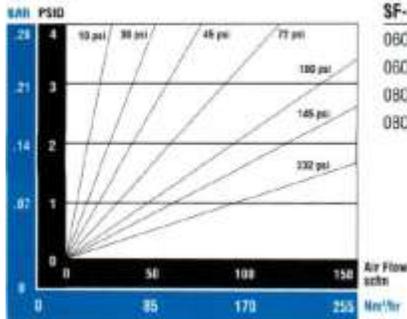
**Reference laboratory report RP5268-challenge organism *Bacillus Stearotherophilus* at a concentration of 1×10^5 spores/ml.



Flow Rate vs. Differential Pressure Charts

Air Flow

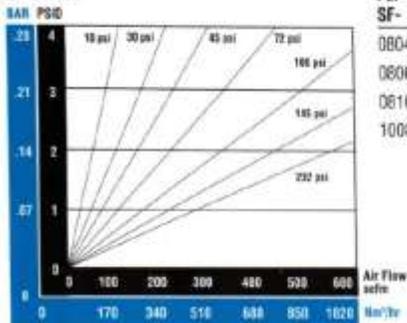
SF-0606



Conversions

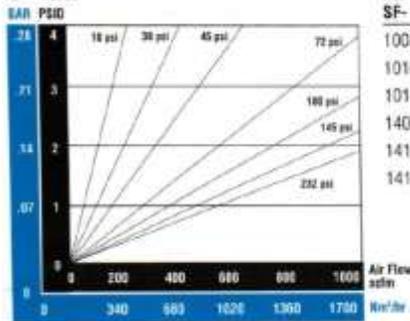
For SF-	Multiply PSID (bar) by:
0602	3.00
0604	1.50
0602	1.00
0604	0.50

SF-0808



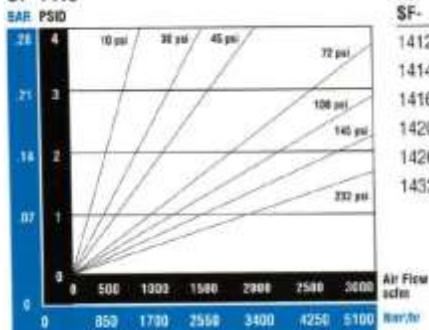
For SF-	Multiply PSID (bar) by:
0804	2.00
0806	1.30
0810	0.80
1008	0.70

SF-1012



For SF-	Multiply PSID (bar) by:
1008	1.50
1010	1.20
1014	0.90
1408	0.75
1410	0.60
1412	0.50

SF-1418



For SF-	Multiply PSID (bar) by:
1412	1.50
1414	1.30
1416	1.10
1420	0.90
1426	0.70
1432	0.60

Technical Data

Maximum Operating Pressure	232 psig	16 bar
Maximum Differential Pressure	75 psid	5.2 bar
Pressure		
Maximum Reverse Pressure	75 psid	5.2 bar

Pore Sizes .1 micron absolute.
(Other sizes available upon request)

Material of Construction:	
Housing	304 SS
Segmented Filter Discs	304 SS
Filter Media	304 SS
O-Rings	EPDM

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.

Applications

- Bulk Filtration of air or gas
- Point of use filter for CO2 or N2
- Bottling and canning lines
- Packaging lines
- Wort aeration

Ordering Information

Please contact us by phone or email to set up an evaluation of your air or gas system requirements and proper filter sizing.



MICROPURE® FILTRATION

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