



MSP VPG-A6 IN-LINE Process Gas Filter User Guide

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The industry-leading VPG-A6 Vapor Process Gas filter is an ultralow pressure drop, ultra-high efficiency in-line filter designed for vapor and process gas filtration. This patent-protected 316L SS filter is chemical- and thermally-resistant and provides up to 99.999999999% (twelve 9s) of efficiency 2.5nm – an estimated particle penetration of less than one part per trillion (ppt). The extremely low-pressure drop of this filter makes it easier to work in ultra-low pressure environments and reduces the risk of gas-phase reactions occurring in the filter.

Conventional high-purity, point-of-use gas filters are used in a compressed gas line for particle removal. The VPG-A6 filter is also used downstream of a vaporizer under vacuum flow conditions to prevent particles, which could potentially be in the gas/vapor mixture, from entering the Chemical Vapor Deposition (CVD) or Atomic Layer Deposition (ALD) process chamber. Due to its unique design, the VPG-A6 filter has more thermal mass than competitive offerings, making it particularly well suited for use downstream of a vaporizer in a heated line – acting

as almost a second-stage heat exchanger.

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Applications

- Vapor process gas
- Ultra-high purity gas
- High temperature
- Inert or reactive gases
- High and ultra-high vacuum
- Semiconductor manufacturing

Features and Benefits

- 316 Stainless Steel
- The ultra-high particle removal efficiency
- Ultra-low pressure drop
- Solid core – more thermal mass
- ½" VCR fittings

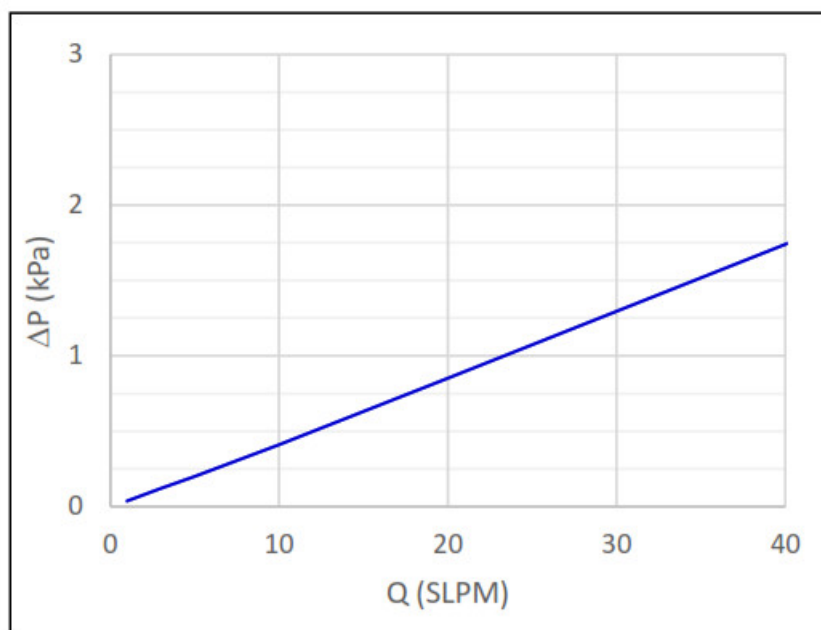
SPECIFICATIONS

VPG-A6 IN-LINE PROCESS GAS FILTER

Efficiency* @ 1 SLPM	2.5nm 10 nm 50 nm	99.9999999999% (twelve 9s) 99.99999999% (ten 9s) 99.999997% (seven 9s)
Filter Media	Sintered 316L SS Fiber	
Wetted Materials	Stainless Steel 316L	
Temperature Range (°C)	<400 (inert gases)	
Max Operating Pressure (psis)	2500	
Max. Differential Pressure (psid)	500	
Flow Rate Range (SLPM)	0-30	
Weight (kg/lb)	0.45/1	
Fittings**	1/2" male VCR with 7/8-14 thread	

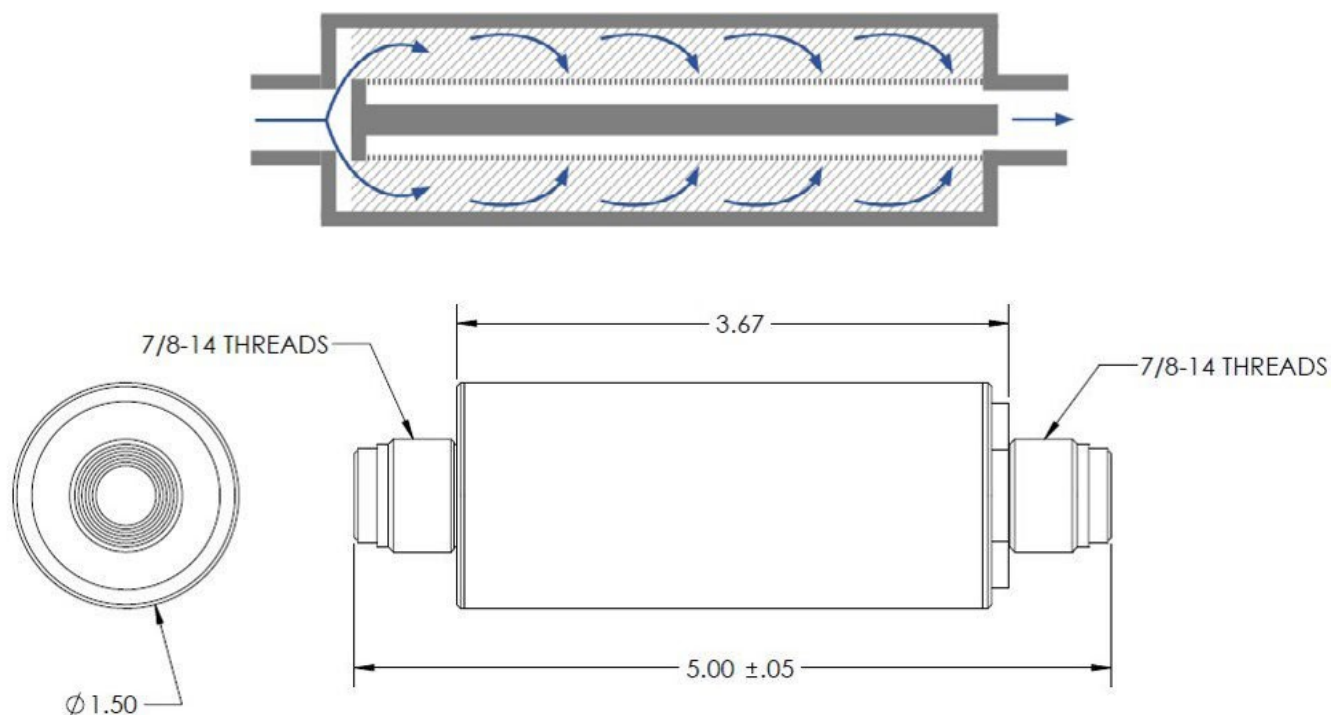
**Filtration efficiency at atmospheric pressure
** Alternative fitting options available by request

VPG-A6 Pressure Drop vs Flow Rate



Industry Leading, Patent-protected Design

Cross-flow construction and short fiber 316L stainless steel media provide ultra-high efficiency with ultra-low pressure drop. Solid core provides more thermal mass for better performance downstream of a vaporizer.



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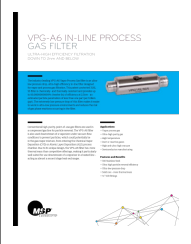
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Documents / Resources

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