

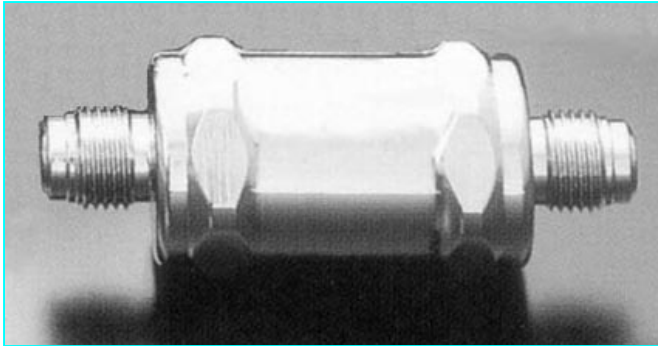
Ceramic and Metal Gas Particle Filters

Features

- Ultra fine filtration down to 0.003 μ m
- Particle retention up to 99.9999999% (9 log)
- Flow rates up to 360 slpm (at 5 atm operating)
- Inert and corrosive gas applications
- No shedding
- 316L SS VAR (<5 Ra EP) surface finish
- Hastelloy C-22 housing for corrosive gases
- Bakeable 450° C (SS) / 200° C (Ceramic)
- Operation to 450° C (SS) / 120° C (Ceramic)
- High Pressure Rating (to 3000 psig)
- Leak rate tested to < 2 x 10⁻¹⁰ atm cc/sec He

Applications

- Semiconductor Industry
- Zero for Particle Testing
- Gas Cabinets
- Valve Manifold Boxes
- Process Tool Gas Panels
- Research and Development
- Specialty Gas Mixing



In today's demanding semiconductor industry, there is a greater need for the removal of particles suspended in the gas phase to increase product yield and protect expensive tooling. In addition to the extensive gas purification product line, PFP offers a broad selection of both Ceramic and Metal particle filters giving the semiconductor industry and process equipment manufacturers a total solution to the delivery of Ultra-Clean gases to the point-of-use.

Ceramic Filter: PFP's C3 Series Ceramic Gas Filters employ tube-type ceramic filter media that features 20% less surface area than competitors hexagonal multichannel media. As a result these filters demonstrate excellent out-gassing characteristics and extremely rapid gas displacement. The use of rigid ceramic media eliminates particle shedding during pressure or flow fluctuations. Three layer construction, each layer with successively smaller pores, provides 99.9999999% retention efficiency at removing particles down to .003 μ m in size, while maintaining good flow characteristics.

C2 Ceramic Filter: PFP's C2 Series Ceramic Gas filters utilize a new two-layer tube type ceramic media. The C2 combines exceptionally low pressure drop at high flows with a 99.99999% particle retention efficiency down to 0.003 μ m, making it especially suitable for high-flow applications.

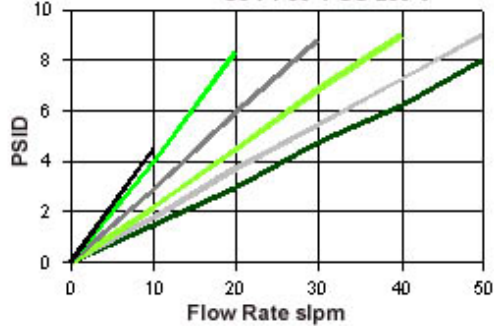
SS All-Metal Filter: The SS Series Gas Filter features all 316L stainless steel construction. The all metal design of this filter allows for operation at temperatures as high as 450° C. This high performance gas filter combines excellent particle removal efficiency, low out-gassing and low pressure drop in an extremely compact design. Factory bake-out is standard.

All the above series are available with either MVCR fittings, Swagelok type, or Surface Mount interface - (per SEMI 2787.1, .2, .3, .4, .5). The Surface Mount configurations are available in both the 1.5" and 1.125" sizes.

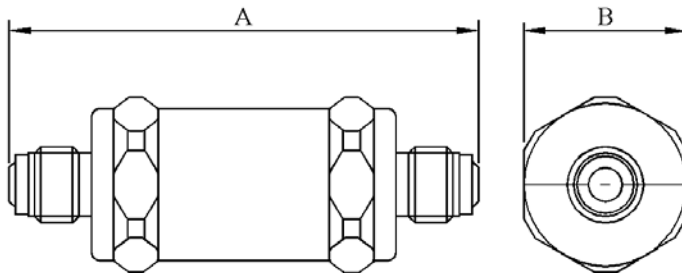
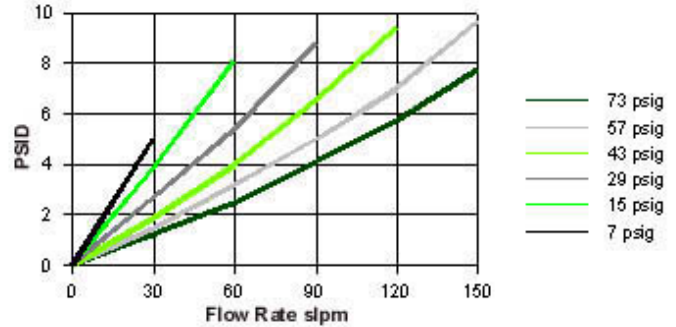
Gas Particle Filters

Typical Performance and Dimensional Specifications

Flow Rate Vs Pressure Drop
C3-71-30-T-SS-250-V



Flow Rate Vs Pressure Drop
SS-127-130-M-SS-250-V



Part Number	Max Flow (slpm)	A (inches)	B (inches)	Filter Media	Housing Material	Maximum Pressure	Standard Fitting
C3-84-10-T-SS-250-V-B**	10 @ 9 LRV	3.31"	0.83"	Ceramic	316L SS/VAR	2500 psig	1/4" VCR*
C3-71-30-T-SS-250-V-B**	30 @ 9 LRV	2.80"	1.18"	Ceramic	316L SS/VAR	2500 psig	1/4" VCR*
C3-84-40-T-SS-250-V-B**	40 @ 9 LRV	3.31"	1.18"	Ceramic	316L SS/VAR	2500 psig	1/4" VCR*
C3-130-80-T-SS-250-V-B**	80 @ 9 LRV	5.12"	1.18"	Ceramic	316L SS/VAR	2500 psig	1/4" VCR*
C2-84-60-T-SS-250-V-B**	60 @ 7 LRV	3.31"	1.18"	Ceramic	316L SS/VAR	2500 psig	1/4" VCR*
C2-146-120-T-SS-375-V-B**	120 @ 7 LRV	5.75"	1.67"	Ceramic	316L SS/VAR	2500 psig	3/8" VCR*
C2-284-360-T-SS-500-V-B**	360 @ 7 LRV	11.18"	1.67"	Ceramic	316L SS/VAR	2500 psig	1/2" VCR*
SS-65-10-M-SS-250-V	10 @ 6 LRV	2.56"	1.06"	316L SS	316L SS/VAR	3000 psig	1/4" VCR*
SS-84-30-M-SS-250-V	30 @ 6 LRV	3.31"	1.18"	316L SS	316L SS/VAR	3000 psig	1/4" VCR*
SS-127-130-M-SS-250-V	130 @ 6 LRV	5.0"	1.06"	316L SS	316L SS/VAR	3000 psig	1/4" VCR*
Contact Factory	10,40, 80	-	-	Ceramic	316L SS/VAR	3000 psig	Surface Mount
Contact Factory	10,40, 80, 120	-	-	316L SS	316L SS/VAR	3000 psig	Surface Mount
Maximum Pressure	250 psig (USA) / 9.9 kg/cm ² G (Japan)			Materials	316L SS (< 10Ra EP) finish		
Operating Temperature	Room Temperature			Fittings	1/4" VCR ³		
Leak Rate	< 2 x 10 ⁻⁹ atm cc/sec He			Gas Inlet	VLSI grade (99.9995% minimum)		

* .VCR and Swagelok are the trademarks of Swagelok Co. For Swagelok fittings, replace "V" by "S" in the Part Number.

** -B denotes ceramic filter to be supplied with optional bake-out and shipped with 316L SS Caps

NOTE: Baking and capping is included at no charge in all metal filters.

To order a particle filter with Hastelloy C-22 housing, please replace "SS" with "HS"