

ChamberKleen™ Diffusers



Description

Gas diffusers are ideally suited for vent applications on load lock interfaces or other vacuum chambers where large volumes of gas are flowing in a short amount of time.

The Pall ChamberKleen™ 1100 and 5500 Series diffusers combine a stainless steel filter and a unique diffuser membrane that allows flow in 360 degrees. This combination allows large volumes of gas to flow in a uniform manner, limiting the disturbance of particles in the chamber. Consequently, fast vent times can be achieved with little particle disturbance.

- Reduces turbulent gas flow during venting of process chambers
- 360° diffuser design optimizes gas flow
- 316L stainless steel filter medium
- 316L stainless steel diffuser
- Cleanroom manufactured and packaged

Specifications

Materials

- 316L stainless steel filter medium
- 316L stainless steel diffuser
- Viton¹ O-ring
- $\leq 22 \mu\text{in} / 0.56 \mu\text{m}$ R_a internal surface finish

Removal Rating

- $\geq 0.003 \mu\text{m}$
- No particle contribution above background; ≤ 1 particle / (ft³ or m³)

Connections

- 1100 Series: NW25 ISO Vacuum Flange
- 5500 Series: NW63 ISO Vacuum Flange

Operating Conditions

Design Flow Rate²

- 1100 Series: 15 slpm @ 15 psig / 1 bar inlet and outlet to full vacuum (<10 torr)
- 5500 Series: 150 slpm @ 15 psig / 1 bar inlet and outlet to full vacuum (<10 torr)

Maximum Operating Temperature

- 1100, 5500 Series: 300°F / 149°C (limited by O-ring flange connection)

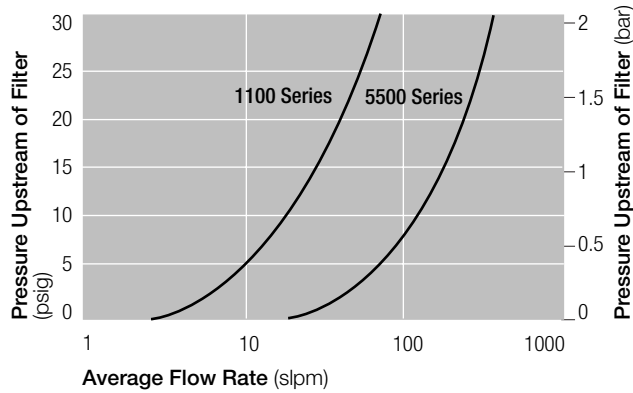
Recommended Applications

- Vacuum chamber
- Load lock chamber

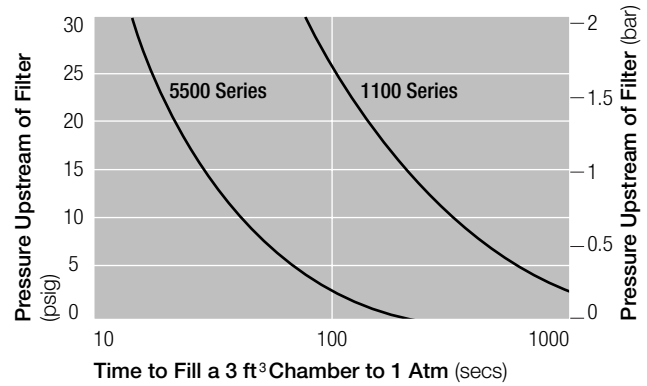
¹ Viton is a registered trademark of DuPont Dow Elastomers

² Additional designs are available. Please contact Pall Microelectronics for more information.

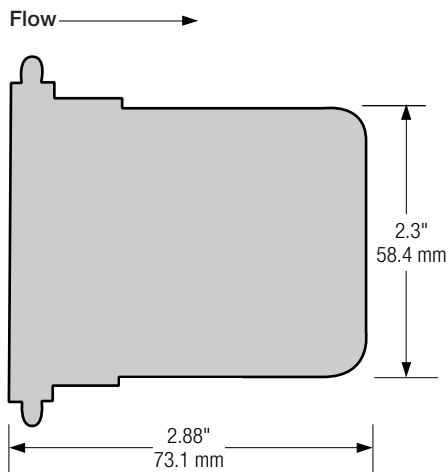
Pressure vs. Average Flow Rate



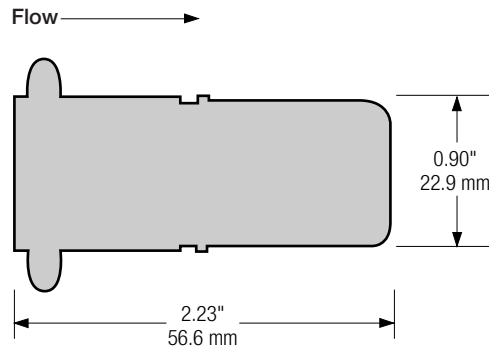
Pressure vs. Chamber Fill Time



Dimensions



5500 Series



1100 Series

Part Numbers / Ordering Information

Part Number	Description	Design Flow Rate ³ (slpm)
CK1100I25H	1100 Series, 316L stainless steel filter, Viton ¹ O-ring	0-15
CK5500I63H	5500 Series, 316L stainless steel filter, Viton O-ring	0-150

³ Reference Design Flow Rate on page 182 of catalog.

Unit conversion: 1 bar = 100 kilopascals



2200 Northern Boulevard
East Hills, New York 11548-1289 USA

1.800.360.7255 toll free (Only in US)
1.516.484.5400 phone
1.516.625.3610 fax

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