

Ultramet-L® 5500 Series Filter Assembly



Description

The Ultramet-L® 5500 Series Filter Assembly is an all 316L stainless steel filter designed for ≥ 3 nanometer ($0.003 \mu\text{m}$) filtration of semiconductor process gases.

- All 316L stainless steel construction
- State-of-the-art 316L stainless steel media
- Excellent particle removal efficiency versus pressure drop
- Excellent gas displacement and desorption characteristics
- High temperature capabilities
- Compact size
- 100% helium leak tested
- Clean room manufactured and packaged
- Available preconditioned
- CE marked in accordance with PED 97/23/EC

Specifications

Materials

- Electropolished 316L stainless steel housing
- $10 \mu\text{in} / 0.25 \mu\text{m} R_a$ internal surface finish
- Cr:Fe (1:1) internal housing surface chemistry
- 316L stainless steel filter media*
- Housing material meets or exceeds VIM/VAR specifications
- Internal surface finish
5500: $\leq 10 \mu\text{in} / 0.25 \mu\text{m} R_a$
5502: $\leq 0.7 \mu\text{m} R_{\text{max}}$

Removal Rating

- $\geq 0.003 \mu\text{m}$

Preconditioned Option¹ (5502 Series)

- < 10 ppb moisture contribution (Qualified per SEMASPEC test method #90120397B-STD)
- < 10 ppb thc contribution (Qualified per SEMASPEC test method #90120396B-STD)
- < 10 ppb O₂ contribution (Qualified per SEMASPEC test method #90120398B-STD)
- No particle contribution above background ≤ 1 particle/(ft³ or m³)

Connections

- ¼" Gasket Seal Male/Male (VCR² or compatible)
- ¼" Butt Weld Male/Male (0.035" / 0.89 mm wall)
- ½" Gasket Seal Male/Male (VCR or compatible)
- ½" Butt Weld (0.049" / 1.24 mm wall)

Operating Conditions

- Maximum Operating Pressure:
750 psig @ 100°F/51.7 bar @ 38°C
- Maximum Allowable Differential Pressure:
75 psid @ 68°F/ 5.2 bar @ 20°C

Particle Removal Characteristics

- 10⁹ particle reduction up to 150 slpm

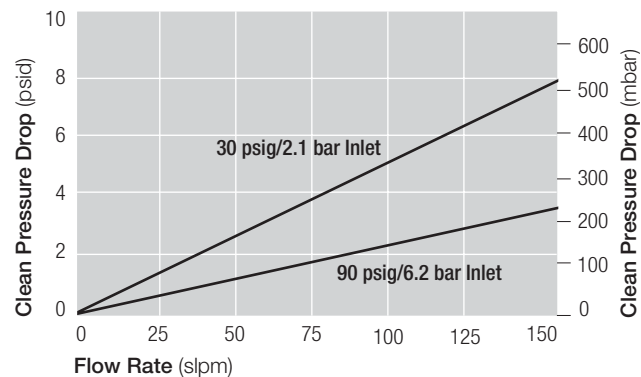
Leak Rating

- 100% helium leak tested to 10⁻⁹ atm·cm³/s
- Design validated to 10⁻¹¹ atm·cm³/s

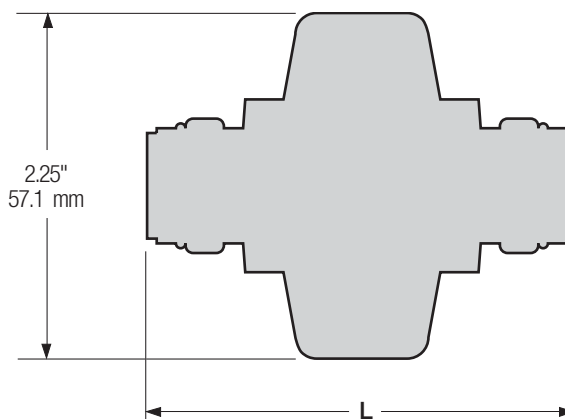
¹ The 5500 Series Filter Assembly is also available with a nickel filter. Contact Pall Microelectronics for more information.

² VCR is a registered trademark of Swagelok Co.

Pressure Drop vs. Gas Flow Rate



Dimensions



Part Numbers / Ordering Information

Part Number	Description	Fitting Type	Length (L) (in / mm)	Preconditioned
GLFF5500VMM4	All 316L Stainless Steel	¼" Gasket Seal (VCR or Compatible) Male/Male	5.00 / 127	No
GLFF5500VMM8	All 316L Stainless Steel	½" Gasket Seal (VCR or Compatible) Male/Male	5.00 / 127	No
GLFF5500BW4	All 316L Stainless Steel	¼" Butt Weld, 0.035" / 0.89 mm wall	2.50 / 64	No
GLFF5500BW8	All 316L Stainless Steel	½" Butt Weld, 0.049" / 1.24 mm wall	2.50 / 64	No
GLFF5502VMM4	All 316L Stainless Steel	¼" Gasket Seal (VCR or Compatible) Male/Male	5.00 / 127	Yes
GLFF5502VMM8	All 316L Stainless Steel	½" Gasket Seal (VCR or Compatible) Male/Male	5.00 / 127	Yes
GLFF5502BW4	All 316L Stainless Steel	¼" Butt Weld, 0.035" / 0.89 mm wall	2.50 / 64	Yes
GLFF5502BW8	All 316L Stainless Steel	½" Butt Weld, 0.049" / 1.24 mm wall	2.50 / 64	Yes
SGLFF5500VMM4	All 316L Stainless Steel	¼" Gasket Seal (VCR or Compatible) Male/Male	3.31 / 84	No
SGLFF5500VMM8	All 316L Stainless Steel	½" Gasket Seal (VCR or Compatible) Male/Male	3.31 / 84	No
SGLFF5502VMM4	All 316L Stainless Steel	¼" Gasket Seal (VCR or Compatible) Male/Male	3.31 / 84	Yes
SGLFF5502VMM8	All 316L Stainless Steel	½" Gasket Seal (VCR or Compatible) Male/Male	3.31 / 84	Yes

Unit conversion: 1 bar = 100 kilopascals



Microelectronics

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

Visit us on the Web at www.pall.com/micro

Pall Corporation has offices and plants throughout the world in locations including: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Poland, Puerto Rico, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, United Kingdom, United States, and Venezuela. Distributors are located in all major industrial areas of the world.

© Copyright 2004, Pall Corporation. Pall, are trademarks of Pall Corporation. ® Indicates a Pall trademark registered in the USA. Filtration, Separation, Solution.sm is a service mark of Pall Corporation.