

Ultramet-L® 5500 Series Filter Assembly (1.5 nm)



Data Sheet MEUL55ENa

Description

The Ultramet-L® 5500 Series Filter Assembly is an all 316L stainless steel filter designed for ≥ 1.5 nanometer (0.0015 μm) filtration of semiconductor process gases.

Features & Benefits

- 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 2014/68/EU



Specifications

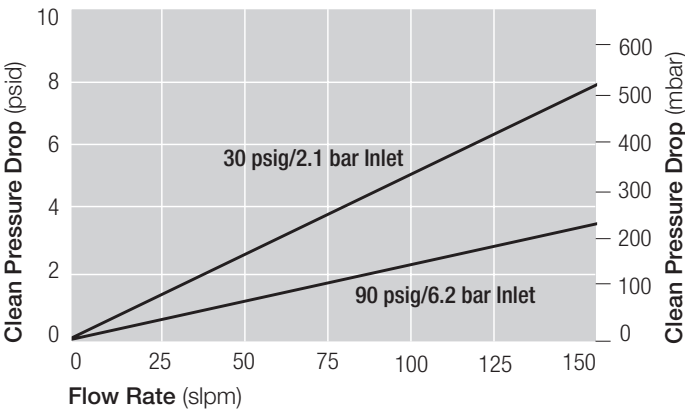
Filter Medium	316L stainless steel
Internal Surface Finish	5500: $\leq 10 \mu\text{in} / 0.25 \mu\text{m} R_a$ 5502: $\leq 0.7 \mu\text{m} R_{\text{max}}$
Housing	Electropolished 316L stainless steel Housing material meets or exceeds VIM / VAR specifications
Removal Rating	$\geq 1.5 \text{ nm}$
Particle Removal Characteristics	10^9 particle reduction up to 150 slpm < 10 ppb moisture contribution (Qualified per SEMASPEC test method #90120397B-STD)
Preconditioned Option ¹ (5502 Series)	< 10 ppb thc contribution (Qualified per SEMASPEC test method #90120396B-STD) < 10 ppb O ₂ contribution (Qualified per SEMASPEC test method #90120398B-STD) No particle contribution above background $\leq 1 \text{ particle} / (\text{ft}^3 \text{ or } \text{m}^3)$

Connections	$\frac{1}{4}$ " Gasket Seal Male / Male (VCR ² or compatible)
	$\frac{1}{4}$ " Butt Weld Male / Male (0.035" / 0.89 mm wall)
	$\frac{1}{2}$ " Gasket Seal Male / Male (VCR or compatible)
Leak Rating	$\frac{1}{2}$ " Butt Weld (0.049" / 1.24 mm wall)
	100% helium leak tested to $10^{-9} \text{ atm}\cdot\text{cm}^3/\text{s}$
	Design validated to $10^{-11} \text{ atm}\cdot\text{cm}^3/\text{s}$
Maximum Operating Pressure	750 psig @ 100 °F / 51.7 bar @ 38 °C 550 psig @ 800 °F / 38 bar @ 426 °C for inert gases only
Maximum Allowable Differential Pressure	75 psid @ 68 °F / 5.2 bar @ 20 °C
EU Pressure Equipment Directive	Assemblies have been evaluated and designed using SEP per the European Union's Pressure Equipment Directive 2014/68/EU and are not CE marked.

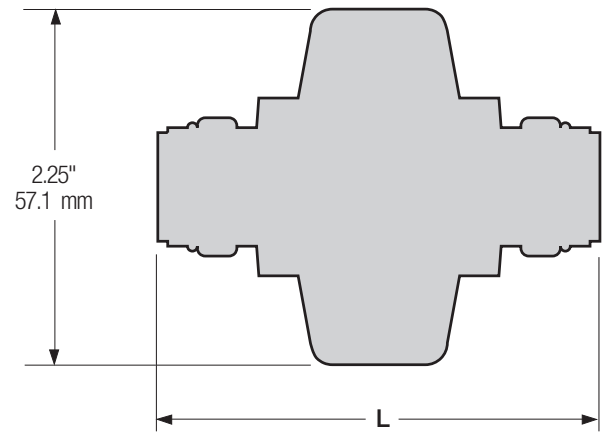
¹ The 5500 Series Filter Assembly is also available with a nickel filter. Contact Pall Microelectronics for more information.

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