

Mini Ultramet-L® 1100 Series Filter Assembly (1.5 nm)



Data Sheet MEMUL11ENb

Description

The Mini Ultramet-L® 1100 Series assembly is available with an all 316L stainless steel housing and either a 316L stainless steel or nickel filter. It is designed for ≥ 1.5 nm ($0.0015 \mu\text{m}$) filtration of semiconductor grade gases, and is ideally suited for point-of-use applications.

The 1100 Series filter is recommended for all applications with process gases that are compatible with 316L stainless steel or nickel.

Features & Benefits

- One circumferential weld in entire product
- State-of-the-art 316L stainless steel or nickel medium
- Excellent particle removal efficiency vs. pressure drop
- Accommodates extremely high flow rates for the assembly size
- Excellent gas displacement and desorption characteristics
- High temperature and pressure capabilities
- Compact size
- 100 % helium leak tested
- Cleanroom manufactured and packaged



Specifications

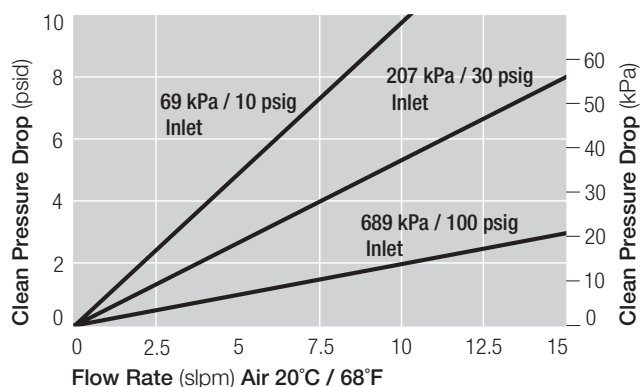
Filter Medium	316L stainless steel or nickel
Internal Surface Finish	$\leq 0.13 \mu\text{m} / 5 \mu\text{in } R_a$
Housing	Electropolished 316L stainless steel Housing material meets or exceeds VIM / VAR specifications.
Internal Housing Surface Chemistry	Cr:Fe (1:1) chromium-enriched
Removal Rating	≥ 1.5 nm
Particle Removal Characteristics	10^9 particle reduction up to 15 slpm
Connections	$\frac{1}{4}$ " gasket seal (VCR ¹ or compatible) $\frac{1}{4}$ " butt weld (0.89 mm / 0.035 in wall)

Leak Rating	100% helium leak tested to 10^{-9} atm cm^3/sec Design validated to 10^{-11} atm cm^3/sec
Maximum Operating Pressure	20.7 MPa @ 38 °C / 3000 psig @ 100 °F 11.6 MPa @ 450 °C / 1685 psig @ 840 °F
Maximum Allowable Differential Pressure	316L stainless steel filter: 0.86 MPa @ 38 °C / 125 psid @ 100 °F 0.41 MPa @ 450 °C / 60 psid @ 840 °F Nickel filter: 0.69 MPa @ 38 °C / 100 psid @ 100 °F 0.41 MPa @ 450 °C / 60 psid @ 100 °F
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.

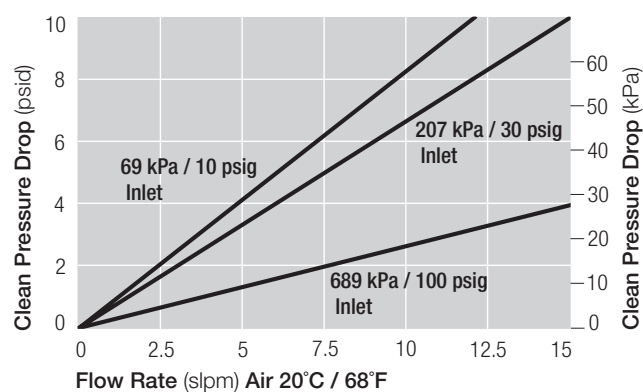
¹ VCR is a trademark of Swagelok Company.

Pressure Drop vs. Gas Flow Rate

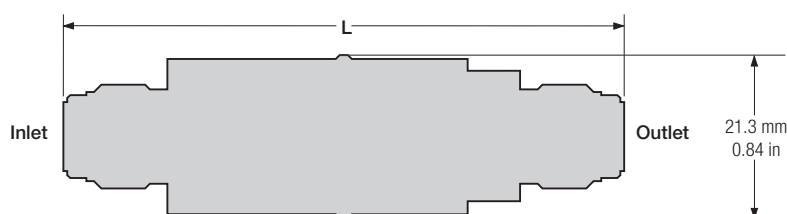
316L Stainless Steel Filter Assembly



Nickel Filter Assembly



Dimensions



Part Numbers / Ordering Information

Part Number	Description	Fitting Type	Length (L) (mm / in)	Preconditioned
GLFF1100VMM4	All 316L stainless steel	¼" gasket seal (VCR or compatible) male / male	84 / 3.31	No
GLFF1100VFM4	All 316L stainless steel	¼" gasket seal (VCR or compatible) female inlet / male outlet	88 / 3.47	No
GLFF1100BW4	All 316L stainless steel	¼" butt weld, 0.89 mm / 0.035 in wall	42.5 / 1.75	No
GLFF1102VMM4	All 316L stainless steel	¼" gasket seal (VCR or compatible) male / male	84 / 3.31	Yes
GLFN1100VMM4	Nickel media, 316L stainless steel housing	¼" gasket seal (VCR or compatible) male / male	84 / 3.31	No
GLFN1100VMF4	Nickel media, 316L stainless steel housing	¼" gasket seal (VCR or compatible) male inlet / female outlet	71.1 / 2.80	No
GLFN1100BW4	Nickel media, 316L stainless steel housing	¼" butt weld, 0.89 mm / 0.035 in wall	42.5 / 1.75	No
GLFN1102VMM4	Nickel media, 316L stainless steel housing	¼" gasket seal (VCR or compatible) male / male	84 / 3.31	Yes

Unit conversion: 100 kilopascals = 1 bar

Preconditioned Options / 1102 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 / m³ or ft³

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IF APPLICABLE Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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