

Wafergard® III NF-75 In-Line Gas Filters

*Superior particulate filtration for
ultrapure applications*

Wafergard® III nickel filters are the cleanest, most efficient all-metal filters available. The patented nickel filter membrane offers superior corrosion resistance and excellent compatibility with inert and reactive gases.*

A state-of-the-art housing assembly eliminates outgassing by minimizing weld area. The all-metal construction is ideal for high-temperature and dynamic-pressure applications. Its compact size and flexible choice of fittings provide ultimate design efficiency and minimize engineering costs.

*Nickel filters are not recommended for use with CO, O₃, and low-level hydride dopant gases.



APPLICATIONS

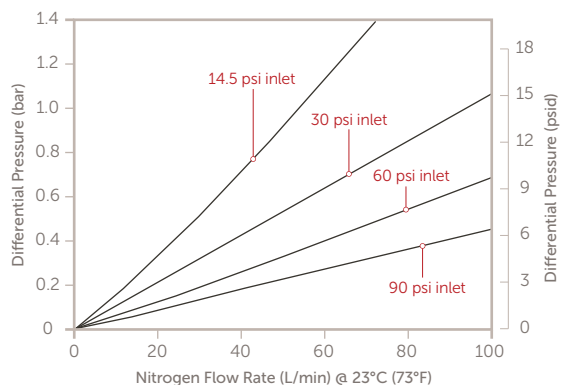
- Ultrapure gas lines
- High-temperature applications
- Valve-manifold boxes
- New fab construction
- Dynamic-pressure applications
- Inert and reactive gases

KEY FEATURES

- Cleanest, most efficient all-metal filter available
- Superior particulate filtration for ultrapure applications

PERFORMANCE DATA

Wafergard III NF-75



SPECIFICATIONS

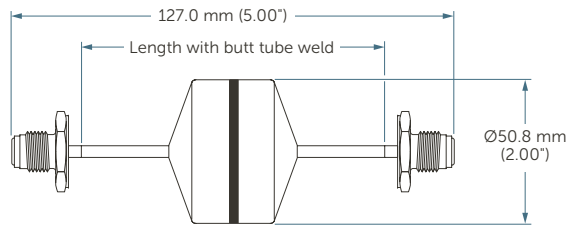
Materials	Filter element	Patented, sintered nickel membrane filter
	Housing	Electropolished VAR 316L stainless steel housing
Downstream cleanliness	Particles ¹	Less than 0.03 particles/liter (<1 particle/ft ³) greater than 0.01 μm
	Volatiles ²	Volatile outgassing of H ₂ O, O ₂ , and THC is below detectable limits (by RGA and FID at room temperature)
Removal rating	≥0.003 μm	
Surface finish interior	≤5 μin Ra	
Helium leak rating	Qualified	2 × 10 ⁻¹⁰ cc/min
	Tested	1 × 10 ⁻⁹ cc/min
Maximum operating conditions	Maximum inlet pressure: 70 bar (1000 psi) @ 100°C (212°F)	
	Maximum forward/reverse differential pressure: 10 bar (150 psid)	
	Maximum operating temperature	Inert gases: 400°C (752°F) @ 35 bar (500 psi) Corrosive and reactive gases: 50°C (122°F) @ 70 bar (1000 psi)
Warranty	5 year	
Particle retention	Greater than 99.9999999% (9 LRV) removal of all particles at maximum rated flow (referenced at the most penetrating particle size)	
Flow rating	See performance data	

¹ Particle cleanliness qualified following SEMASPEC Test Method for Particle Shedding (#93021511A-STD).

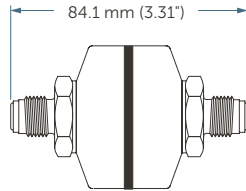
² Volatile cleanliness qualified following SEMASPEC Test Methods for: THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD), and Oxygen Contribution (#90120398B-STD).

DIMENSIONS

Standard Version



Short Version



ORDERING INFORMATION

Part number	Fitting options	Overall length
WG3N S4J J2	Wafergard III NF-75 filter, 1/4" butt weld tube	71.4 mm (2.81")
WG3N S4R R2	Wafergard III NF-75 filter, 1/4" gasket seal (VCR® fitting compatible) male inlet/outlet	127 mm (5.00")
WG3N S7S L2*	Wafergard III NF-75 filter, 1/4" gasket seal (VCR fitting compatible) male inlet/outlet	84.1 mm (3.31")

* Short length version

FOR MORE INFORMATION

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