



WAFERGARD® III NF-75 IN-LINE GAS FILTERS

*Superior particulate filtration for
ultrapure applications*

Overview

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.*



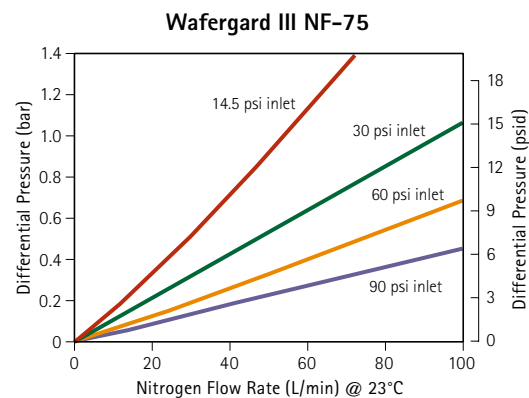
Applications

- 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



Specifications

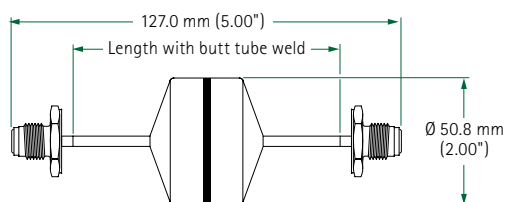
Materials:	Filter element	Patented, sintered nickel membrane filter	
	Housing	Electropolished VAR 316L stainless steel housing	
Downstream cleanliness:	Particles ¹	Less than 0.03 particles/liter (<1 particle/ft ³) greater than 0.01 µm	
	Volatiles ²	Volatile outgassing of H ₂ O, O ₂ and THC is below detectable 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	
	Maximum forward/reverse differential pressure	10 bar (150 psid)	
	Maximum operating temperature	Inert gases	400°C @ 35 bar (500 psi)
		Corrosive and reactive gases	50°C @ 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).

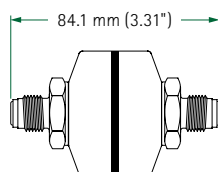
² Volatile cleanliness qualified following SEMASPEC Test Methods for: THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD) and Oxygen Contribution (#90120398B-STD).

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

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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