

# 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. The compact size and flexible choice of fittings provide ultimate design efficiency and minimize engineering costs.

*Ideal for high temperature and dynamic pressure applications*

## APPLICATIONS

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

Note: Not recommended for use with CO, O<sub>3</sub>, and low level hydride dopant gases.

## FEATURES & BENEFITS

<b>All-metal construction</b>	Provides clean, efficient filtration performance
<b>Nickel filter membrane</b>	Offers superior corrosion resistance and excellent chemical compatibility with inert and reactive gases
<b>State-of-the-art housing assembly</b>	Eliminates outgassing by minimizing weld area
<b>Compact size and flexible choice of fittings</b>	Provide ultimate design efficiency and minimize engineering costs

## SPECIFICATIONS

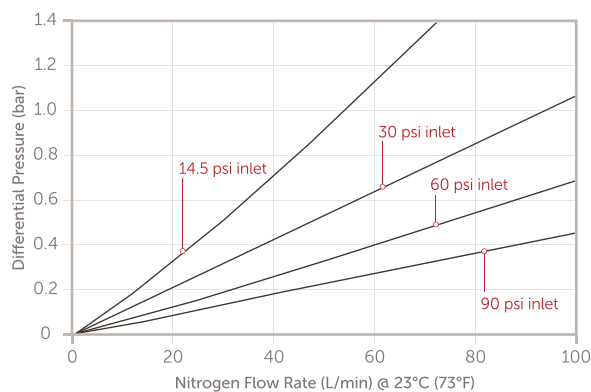
Materials	Filter element	Patented, sintered nickel membrane filter	
	Housing	Electropolished VAR 316L stainless steel housing	
Downstream cleanliness	Particles <sup>1</sup>	Less than 0.03 particles/liter (<1 particle/ft <sup>3</sup> ) greater than 0.01 μm	
	Volatiles <sup>2</sup>	Volatile outgassing of H <sub>2</sub> O, O <sub>2</sub> , and THC is below detectable limits (by RGA and FID at room temperature)	
Removal rating	≥0.0015 μm		
Surface finish interior	≤5 μin Ra		
Helium leak rating	Qualified	2 × 10 <sup>-10</sup> atm cc/sec	
	Tested	1 × 10 <sup>-9</sup> atm cc/sec	
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		

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

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

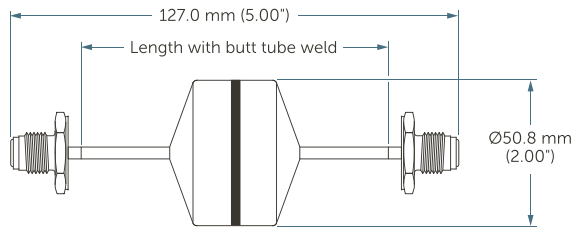
## PERFORMANCE DATA

### Wafergard III NF-75

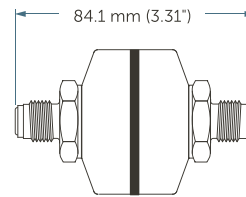


## DIMENSIONS

Standard Version



Short Version



## ORDERING INFORMATION

PART NUMBER	FITTING SIZE AND TYPE	LENGTH
WG3NS4JJ2	1/4" Butt weld tube	71.4 mm (2.81")
WG3NS4RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	127.0 mm (5.00")
WG3NS7SL2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")

## FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](https://www.entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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