

# Wafergard® III NF-30 In-line Gas Filters

*The nickel filter membrane offers superior corrosion resistance*

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 and potential contamination 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 offers design efficiency at minimal cost.

## APPLICATIONS

- Bulk gas delivery
  - Photolithography
  - Deposition
  - Dry etch
  - Ion implantation
- 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>Patented nickel filter membrane</b>	Offers superior corrosion resistance and excellent chemical compatibility
<b>Innovative housing design</b>	Helps eliminate outgassing and reduces drydown time



*Offers excellent compatibility with inert and reactive gases*

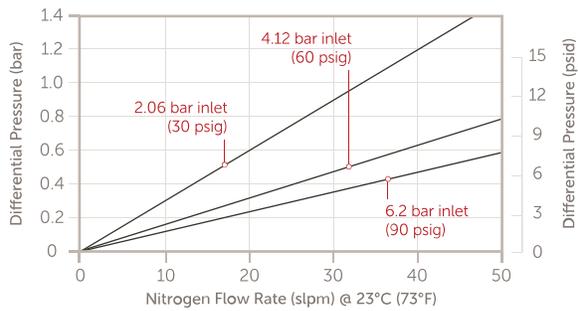
## SPECIFICATIONS

<b>Materials</b>	Filter membrane	Patented, sintered nickel
	Housing	Electropolished F20 stainless steel
<b>Downstream cleanliness</b>	Particles <sup>†</sup>	<0.03 particles/Liter (<1 particle/ft <sup>3</sup> ) >0.01 μm
	Volatiles <sup>**</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)
<b>Removal rating</b>	≥0.0015 μm	
<b>Surface finish interior</b>	≤5 μin Ra	
<b>Helium leak rate</b>	Qualified	2x10 <sup>-10</sup> atm cc/sec
	Tested	1x10 <sup>-9</sup> atm cc/sec
<b>Maximum operating conditions</b>	Maximum inlet pressure:	70 bar (1000 psi) @ 100°C (212°F)
	Maximum forward/reverse differential pressure:	10 bar (150 psid)
<b>Maximum operating temperature</b>	Inert gases	400°C (752°F) at 35 bar (500 psi)
	Corrosive and reactive gases	50°C (122°F) at 70 bar (1000 psi)
<b>Warranty</b>	5 year	
<b>Particle retention</b>	Greater than 99.9999999% (9 LRV) removal of all particles at 30 slpm	
	Greater than 99.9999% removal of all particles at 75 slpm (referenced at the most penetrating particle size)	
<b>Flow rate</b>	Refer to flow curve	

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

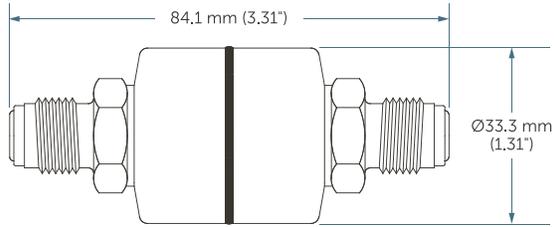
<sup>\*\*</sup>Volatile cleanliness qualified following SEMASPEC Test Methods for: THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD), Oxygen Contribution (#90120398B-STD)

## PERFORMANCE DATA

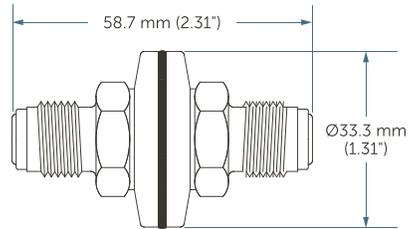


## DIMENSIONS

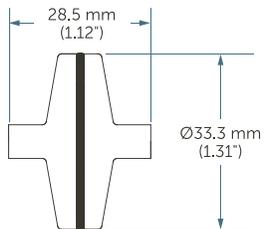
WG3NS6RR2: 1/4" Gasket Seal, Male



WG3NS6SL2: 1/4" Gasket Seal (Short), Male



WG3NS3JJ2: 1/4" Butt Weld



## ORDERING INFORMATION

PART NUMBER	FITTING SIZE AND TYPE	LENGTH
WG3NS3FF2	1/4" Gasket seal (compatible with VCR fitting) female inlet/outlet	58.4 mm (2.30")
WG3NS3JJ2	1/4" Butt weld tube	28.4 mm (1.12")
WG3NS3RF2	1/4" Polarized gasket seal (compatible with VCR fitting) male inlet/female outlet	71.1 mm (2.80")
WG3NS6RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")
WG3NS6SL2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet, short Version	58.7 mm (2.31")

#### FOR MORE INFORMATION

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