

# 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*

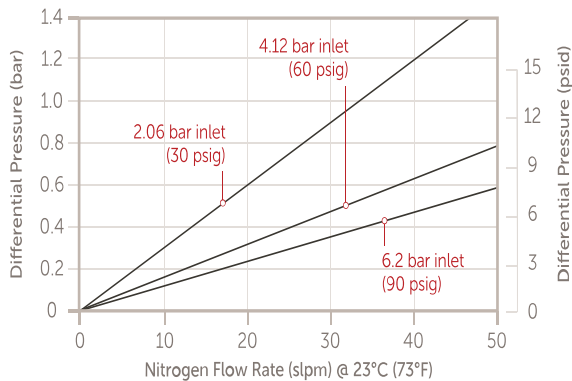
## SPECIFICATIONS

<b>Materials</b>	Filter Element: Patented, sintered nickel membrane filter Housing: Electropolished F20 stainless steel housing
<b>Downstream cleanliness</b>	Particles*: Less than 0.03 particles/Liter (less than 1 particle/ft <sup>3</sup> ) greater than 0.01 μm Volatiles**: 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: 2 x 10 <sup>-10</sup> cc/min. Tested: 1 x 10 <sup>-9</sup> cc/min.
<b>Maximum operating conditions</b>	Maximum inlet pressure: 70 bar (1000 PSI) at 100°C Maximum forward/reverse differential pressure: 10 bar (150 psid)
<b>Maximum operating temperature</b>	Inert gases: 400°C at 35 bar (500 psi) Corrosive and reactive gases: 50°C 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

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

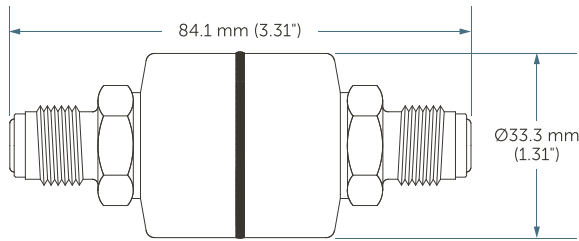
\*\*Volatile cleanliness qualified following SEMASPEC Test Methods for: THC Contribution (#90120396B-STD), Moisture Contribution (#90120397B-STD), Oxygen Contribution (#90120398B-STD)

## PERFORMANCE DATA

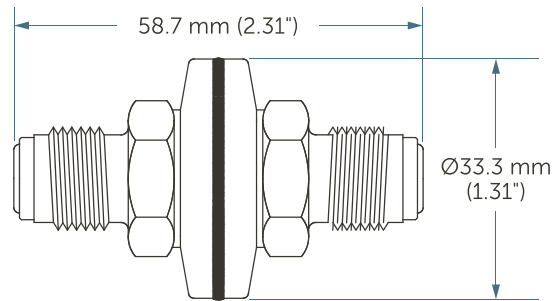


## DIMENSIONS

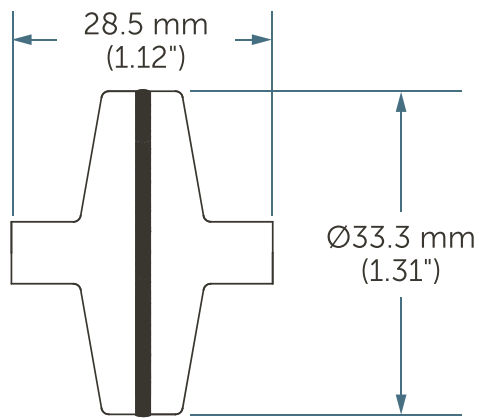
WG3N S6 RR2: 1/4" Gasket Seal, Male



WG3N S6 SL2: 1/4" Gasket Seal (Short), Male



WG3N S3 JJ2: 1/4" Butt Weld



## ORDERING INFORMATION

PART NUMBER	FITTING SIZE & TYPE	LENGTH
WG3NS3FF2	1/4" Gasket seal (compatible with VCR fitting) female inlet/outlet	58.4 mm (2.30")
WG3NS3FR2	1/4" Polarized gasket seal (compatible with VCR fitting) female inlet/outlet	71.1 mm (2.80")
WG3NS3JJ2	1/4" Butt weld tube	28.4 mm (1.12")
WG3NS3RF2	1/4" Polarized gasket seal (compatible with VCR fitting) male inlet/outlet	71.1 mm (2.80")
WG3NS3SL2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet, short Version	58.7 mm (2.31")
WG3NS6RR2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")

#### FOR MORE INFORMATION

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