

# Wafergard® IV HF Mini In-line Gas Filters

*Superior particulate filtration for  
ultrapure and corrosive gas systems*

Wafergard® IV alloy-22 (commonly referred to by the brand name HASTELLOY® C-22® alloy) filters are the cleanest, most efficient all-metal filters available for corrosive and ultrapure environments. The alloy-22 membrane offers the most inert and reactive gas compatibility in the Wafergard product line capable of filtering carbon monoxide, hydrogen bromide, chlorine, and other corrosive 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.

## APPLICATIONS

- Ultrapure gas lines
- High-temperature applications
- Dynamic-pressure applications
- New fab construction
- Corrosive gases

\*Not recommended for use with O<sub>3</sub> gases.

## FEATURES & BENEFITS

<b>Alloy-22 membrane</b>	Offers the most inert and reactive gas compatibility in our Wafergard product line
<b>State-of-the-art housing assembly</b>	Minimized weld area, eliminates outgassing
<b>Clean, all metal construction</b>	Provides superior chemical compatibility and corrosion resistance Ideal for high-temperature and dynamic-pressure applications



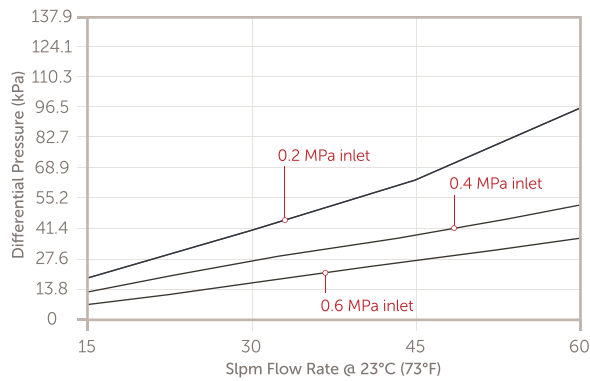
*Offers the most inert and reactive gas compatibility*

## SPECIFICATIONS

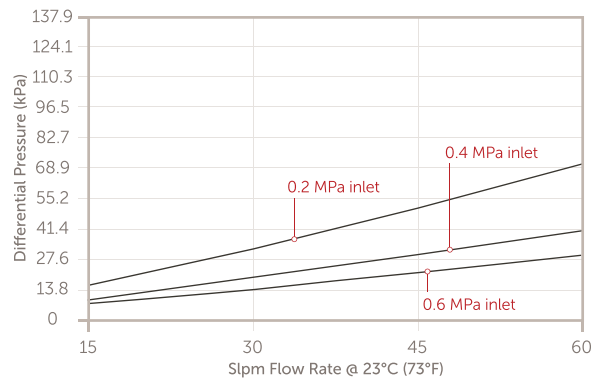
<b>Materials</b>	Filter element	Sintered alloy-22 membrane
	Housing	Electropolished VAR 316L stainless steel
<b>Downstream cleanliness</b>	<0.03 particles/liter (<1 particle/ft <sup>3</sup> ) >0.01 μm at specified flow	
<b>Removal rating</b>	≥0.0015 μm	
<b>Surface finish interior</b>	≤5 μin Ra	
<b>Helium leak rating</b>	Qualified	2 × 10 <sup>-10</sup> atm cc/sec
	Tested	1 × 10 <sup>-9</sup> atm cc/sec
<b>Operating conditions</b>	Maximum inlet pressure	17.2 MPa (2500 psig) @ 20°C (68°F)
	Maximum forward/reverse differential pressure	0.8 MPa (120 psid) @ 20°C (68°F)
	Maximum operating temperature	450°C (842°F) - inert gases 100°C (212°F) - corrosive and reactive gases
<b>Warranty</b>	5 year	
<b>Particle retention</b>	Greater than 99.9999999% (9 LRV) removal of all particles; referenced at the most penetrating particle size	
<b>Flow rating</b>	Refer to performance data	

## PERFORMANCE DATA

Wafergard IV HF Mini ¼" VCR®  
WGL045HS3R2

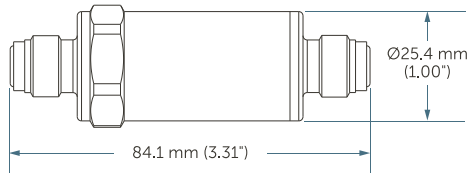


Wafergard IV HF Mini ½" VCR  
WGL045HS3R4

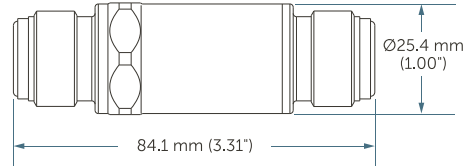


## DIMENSIONS

WGL045HS3R2 1/4" Gasket Seal, Male Inlet/Outlet



WGL045HS3R4 1/2" Gasket Seal, Male Inlet/Outlet



## ORDERING INFORMATION

PART NUMBER	FITTING SIZE AND TYPE	LENGTH
WGL045HS3R2	1/4" Gasket seal (compatible with VCR Fitting) male inlet/outlet	84.1 mm (3.31")
WGL045HS3R4	1/2" 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](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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