

# Wafergard® II SF Mini/Mini XL In- line Gas Filters

*Superior particulate filtration for  
ultrapure gas system filtration*

Wafergard® II stainless steel gas filters are the filter of choice for high-purity gas systems when all-stainless steel construction is preferred. 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 minimizes engineering costs.

## APPLICATIONS

- Ultrapure gas lines
- High-temperature applications
- Dynamic-pressure applications
- Inert and reactive gases\*
- Gas cabinets
- Gas panels
- Valve manifold boxes
- Hookup

\*Not compatible for O<sub>3</sub>

## FEATURES & BENEFITS

<b>All 316L stainless steel components</b>	Provides good chemical compatibility with most semiconductor process gases, preventing costly use of incompatible filters and gases
<b>Specialized cleaning and high-temperature baking process</b>	Achieves superior initial cleanliness, enabling quick gas start-up
<b>High flow rate/low pressure drop characteristics</b>	Suitable for use with low vapor pressure gases
<b>High particle removal efficiency</b>	Reduces on-wafer defectivity, increasing yield



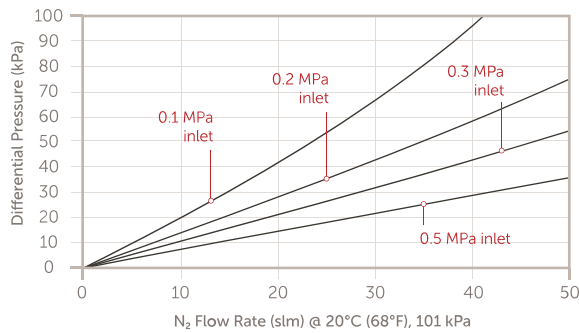
*Ideal for high-temperature and dynamic-pressure applications.*

## SPECIFICATIONS

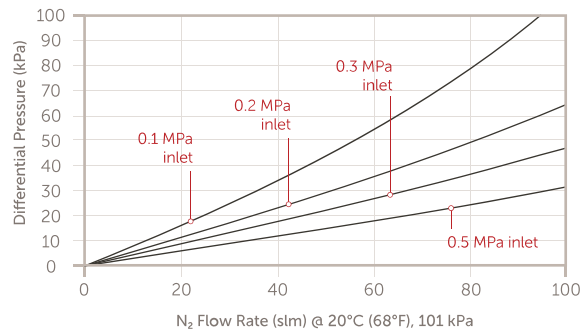
<b>Materials</b>	Filter element	316L stainless steel
	Housing, end cap	Low sulfur 316L stainless steel
<b>Initial downstream cleanliness</b>	$\leq 0.03$ particles/liter ( $\leq 1$ particle/ft <sup>3</sup> ) $\geq 0.01$ $\mu\text{m}$	
<b>Removal rating</b>	$\geq 0.0015$ $\mu\text{m}$	
<b>Particle retention</b>	Greater than 99.9999% (6 LRV) removal of all particles at 30 slm (Mini) and 60 slm (Mini XL); referenced at the most penetrating particle size	
<b>Surface finish interior</b>	$\leq 5$ $\mu\text{in Ra}$	
<b>Helium leak rating</b>	Qualified	$2 \times 10^{-11}$ Pa m <sup>3</sup> /sec ( $2 \times 10^{-10}$ atm cc/sec)
	Tested	$9 \times 10^{-10}$ Pa m <sup>3</sup> /sec ( $9 \times 10^{-9}$ atm cc/sec)
<b>Maximum conditions</b>	Maximum operating pressure:	16.2 MPa (162 bar, 2346 psig) @ 20°C (68°F)
	Maximum forward/reverse differential pressure:	3 MPa (30 bar, 435 psid) @ RT
	Maximum operating temperature:	Inert gases: 400°C (752°F)
<b>Flow rating</b>	See performance data	

## PERFORMANCE DATA

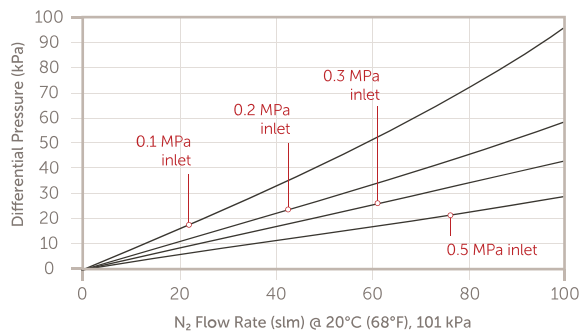
**Wafergard II SF Mini**  
WGMSA1HRU



**Wafergard II SF Mini XL**  
WGMS02PRU



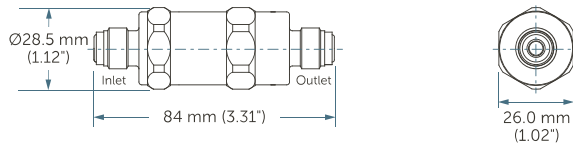
**Wafergard II SF Mini XL**  
WGMS32PRU



## DIMENSIONS

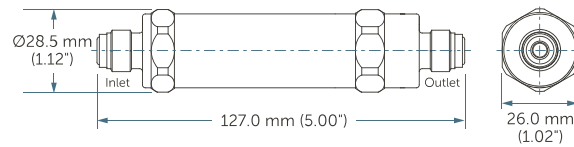
### Wafergard II SF Mini

WGMS A1HRU 1/4" Gasket Seal, Male Inlet/Outlet



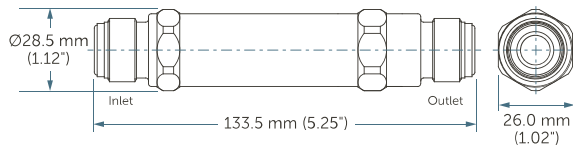
### Wafergard II SF Mini XL

WGMS 02PRU 1/4" Gasket Seal, Male Inlet/Outlet



### Wafergard II SF Mini XL

WGMS 32PRU 1/2" Gasket Seal, Male Inlet/Outlet



## ORDERING INFORMATION

PART NUMBER	FITTING SIZE	FITTING TYPE	LENGTH
WGMS02PRU	1/4"	VCR	127 mm (5.00")
WGMS32PRU	1/2"	VCR	133.5 mm (5.26")
WGMSA1HRU	1/4"	VCR	84 mm (3.31")

## FOR MORE INFORMATION

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