

# Chambergard™ BGN Fast Vent Diffusers

*High-volume throughput and rapid venting to atmospheres*

Using a patented, sintered nickel filter element to quickly diffuse the flow of incoming gas, Chambergard™ BGN diffusers allow the load lock and/or transfer chamber to fill at a higher rate without particle disturbance or excessive turbulence. The highly retentive nickel element of the BGN diffuser removes submicron particle contamination from incoming gas and rapidly vents to the atmosphere, thereby reducing wafer defects and decreasing cycle times. The BGN diffuser is designed to meet the needs of flat panel display and 300 mm tool customers for greater efficiency, decreased chamber vent time, and greater throughput. With our global infrastructure we can provide Chambergard BGN fast vent diffusers to meet your needs worldwide.



## FEATURES & BENEFITS

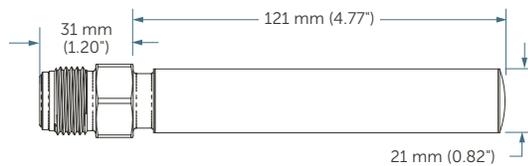
<b>Industry-leading, patented, sintered nickel technology in a compact diffuser unit</b>	Provides superior performance in all applications
<b>Removal of particles greater than 0.0015 µm from incoming gas</b>	Minimizes defects on wafers
<b>Easy installation/retrofit into existing tools</b>	Minimizes downtime
<b>Manufactured, tested, and packaged in a cleanroom</b>	Assures product cleanliness at time of installation
<b>Rapid vent, gentle flow to atmosphere</b>	Decreases cycle time, increases throughput, and OEE
<b>Rated at 100,000 cycles before changeout</b>	Robust and efficient

## SPECIFICATIONS

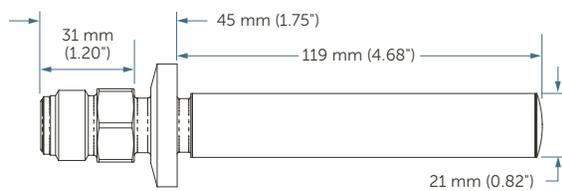
<b>Materials of construction</b>	Diffuser element	Patented, sintered nickel membrane filter
	O-ring	Fluorocarbon
	Housing	316L stainless steel
	Surface finish	≤32 µin Ra
<b>Connections</b>	Inlet	Gasket seal (VCR® compatible)
	Outlet	ISO NW bulkhead mounting compatible vacuum flange (compatible with standard ISO quick fitting, KF or QF, bulkhead clamps), or none (flangeless)
<b>Downstream cleanliness</b>	<0.003 particles/liter (<1 particle/ft³) >0.01 µm	
<b>Removal rating</b>	≥0.0015 µm	
<b>Reliability</b>	100,000 cycle reliability at maximum rated inlet pressure @ 25°C (77°F)	
<b>Maximum operating conditions</b>	Maximum inlet pressure with outlet to vacuum: 4 bar (60 psig)	
	Maximum differential pressure: 5 bar (75 psid)	
	Maximum operating temperature: 100°C (212°F)	
<b>Warranty</b>	5 year or 100,000 cycles	

## DIMENSIONS

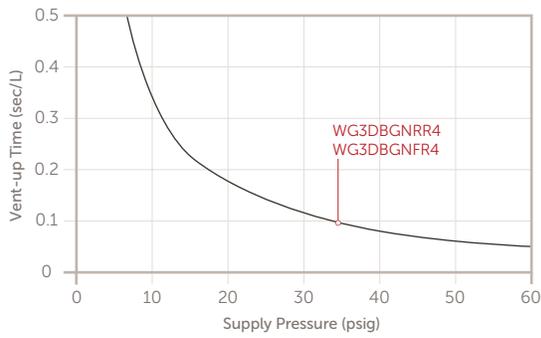
WG3DBGNRR4



WG3DBGNFR4



## PERFORMANCE DATA



## ORDERING INFORMATION

Part number	Inlet	Outlet
WG3DBGNRR4	½" MVCR	Flangeless
WG3DBGNFR4	½" MVCR	ISO NW-25

## 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.

## TERMS AND CONDITIONS OF SALE

All purchases are subject to Entegris' Terms and Conditions of Sale. To view and print this information, visit [entegris.com](http://entegris.com) and select the [Terms & Conditions](#) link in the footer.



Corporate Headquarters  
129 Concord Road  
Billerica, MA 01821  
USA

Customer Service  
Tel +1 952 556 4181  
Fax +1 952 556 8022  
Toll Free 800 394 4083

Entegris®, the Entegris Rings Design®, and other product names are trademarks of Entegris, Inc. as listed on [entegris.com/trademarks](http://entegris.com/trademarks). All third-party product names, logos, and company names are trademarks or registered trademarks of their respective owners. Use of them does not imply any affiliation, sponsorship, or endorsement by the trademark owner.

©2004-2021 Entegris, Inc. | All rights reserved. | Printed in the USA | 4516-5506ENT-0121