

# GateKeeper® GPU Gas Purifiers Model GPUS5000F

*Superior purity control*

Entegris' GateKeeper® GPU gas purifiers were designed to improve purity consistency, lifetime and final purity. Leveraging its expertise in material science, Entegris has developed a new generation of purification products that deliver unsurpassed value and performance. The model 5000 is designed for peak flow rates up to 800 slpm.



## FEATURES & BENEFITS

### Process Control and Protection

- Purity control to ppt levels
- Low pressure drop across the purifier
- CE certified to the Pressure Equipment Directive (PED) and manufactured in an ISO® 9001:2000 facility

### Cost Effective

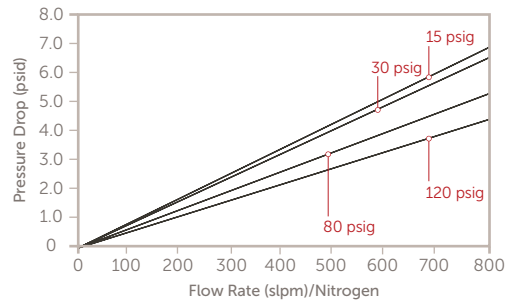
- Regenerable – eliminates disposal issues and costs
- Long lifetime – improved cost of ownership

### Safe and Simple to Use

- Use ambient temperature purification – no heat or power required to operate

## PERFORMANCE DATA

### Pressure Drop vs. Gas Flow Rate\*



\*The flow rate displayed on this graph may exceed maximum flow rate specification of the purifier model referenced in this data sheet. Please refer to maximum flow rate in the specifications section of this data sheet.

Note: Pressure drop may vary depending on media type.

## SPECIFICATIONS

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<b>Materials of construction (housing)</b>	316L stainless steel, electropolished
<b>Particle filtration type</b>	Wafergard® – 316L stainless steel membrane
<b>Particle retention</b>	Up to 3 LRV* for particles larger than 0.003 µm
<b>Filtration removal rating</b>	≥0.003 µm
<b>Maximum operating temperature</b>	65°C (149°F)
<b>Fitting size and type</b>	½" gasket seal**
<b>Fitting configuration</b>	Male-to-male
<b>Maximum operating pressure</b>	1724 kPa (250 psig)
<b>Maximum flow rate</b>	800 slpm
<b>Leak rating</b>	1 × 10 <sup>-9</sup> atm cc/sec
<b>Dimensions</b>	785 mm (30.9") L × Ø102mm (4")
<b>Approximate weight</b>	10 kg (22 lbs)

\*Referenced as most penetration particle size.

\*\*Also referred to as VCR® or face seal.

## AVAILABLE MEDIA

Media	Gases purified	Contaminants removed	Performance/validation technique
EX	H <sub>2</sub> , N <sub>2</sub> , Noble gases, H <sub>2</sub> /N <sub>2</sub> , H <sub>2</sub> /Noble gases	H <sub>2</sub> O, CO <sub>2</sub>	<100 ppt in H <sub>2</sub> and N <sub>2</sub> /APIMS
		O <sub>2</sub>	<250 ppt in H <sub>2</sub> and N <sub>2</sub> /APIMS
		CO	<1 ppb in H <sub>2</sub> and N <sub>2</sub> /APIMS
		C <sub>x</sub> H <sub>y</sub> (45–100 amu)	<10 ppt/GC-FID in N <sub>2</sub>
		C <sub>x</sub> H <sub>y</sub> (>100 amu)	<1 ppt/GC-FID in N <sub>2</sub>
		Refractory compounds (as HMDSO)	<1 ppt/GC-FID in N <sub>2</sub>
HX	H <sub>2</sub> , N <sub>2</sub> , Noble gases, H <sub>2</sub> /N <sub>2</sub> , H <sub>2</sub> /Noble gases	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub>	<100 ppt in H <sub>2</sub> and N <sub>2</sub> /APIMS
IX	N <sub>2</sub> , Noble gases	H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub> , H <sub>2</sub>	<100 ppt in Ar and N <sub>2</sub> /APIMS
	Freon <sup>2</sup> 13, 14, 23, 41, 116, 218	H <sub>2</sub> O, O <sub>2</sub>	
TX	CDA, N <sub>2</sub> , Noble gases CO <sub>2</sub> , NH <sub>3</sub>	Condensable organics (as Toluene)	<1 ppt/GC-FID
		Non-condensable organics <sup>1</sup> (as Butane)	<5 ppt/GC-FID
		Refractory compounds (as HMDSO)	<1 ppt/GC-FID
WX	CDA, H <sub>2</sub> , N <sub>2</sub> , Noble gases, CO <sub>2</sub> , NH <sub>3</sub> , AsH <sub>3</sub> , PH <sub>3</sub> , GeH <sub>4</sub> , SiH <sub>4</sub>	H <sub>2</sub> O	<100 ppt in N <sub>2</sub> /APIMS
			<12 ppb in NH <sub>3</sub> /CRDS
OP	CDA, N <sub>2</sub> , Noble gases	H <sub>2</sub> O	<100 ppt in N <sub>2</sub> /APIMS
		Condensable organics (as Toluene)	<1 ppt/GC-FID
		Non-condensable organics <sup>1</sup> (as Butane)	<5 ppt/GC-FID
		Refractory compounds (as HMDSO)	<1 ppt/GC-FID
		Volatile acids (as SO <sub>2</sub> )	<1 ppt/GC-PFPD
		Volatile bases (as NH <sub>3</sub> )	<10 ppt/IC

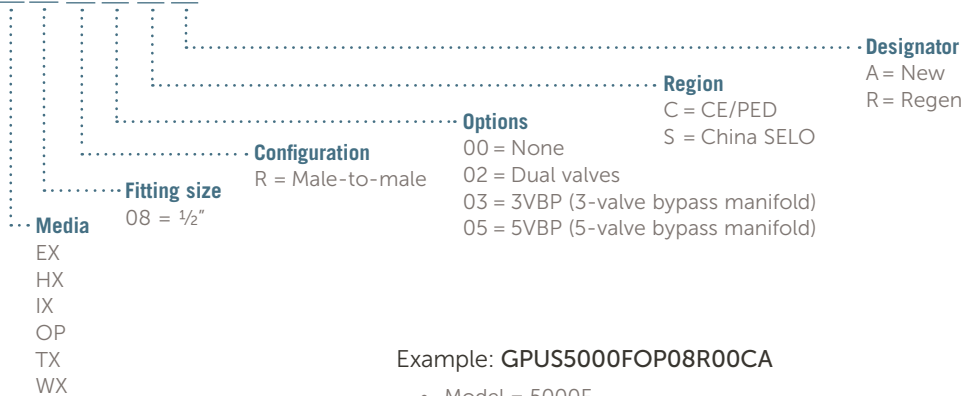
<sup>1</sup> Consult Entegris with specific non-condensable contaminants.

<sup>2</sup> Removal of H<sub>2</sub>O and O<sub>2</sub> only.

## ORDERING INFORMATION

GateKeeper GPU Gas Purifiers Model GPUS5000F: part number

GPUS5000F 08 R



Example: GPUS5000FOP08R00CA

- Model = 5000F
- Media = OP
- Fitting = 1/2"
- Configuration = Male-to-male
- Options = None
- Region = CE/PED
- Designator = New

## 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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