

# GateKeeper® GPU 300 4R Gas Purifiers

*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 300 is designed for peak flow rates up to 50 slpm.

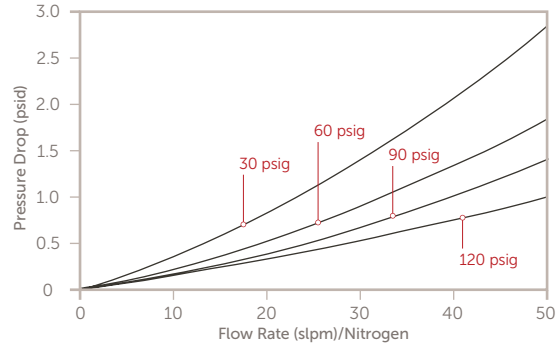


## FEATURES & BENEFITS

<b>Process control and protection</b>	<p>Purity control to ppt levels</p> <p>Low pressure drop across the purifier</p> <p>CE certified to the Pressure Equipment Directive (PED) and manufactured in an ISO® 9001:2000 facility</p>
<b>Cost effective</b>	<p>Regenerable – eliminates disposal issues and costs</p> <p>Long lifetime – improved cost of ownership</p>
<b>Safe and simple to use</b>	<p>Use ambient temperature purification – no heat or power required to operate</p> <p>Insensitive to orientation (horizontal/vertical)</p>

## 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 6 LRV* for particles larger than 0.003 µm
<b>Filtration removal rating</b>	≥0.003 µm
<b>Maximum operating temperature</b>	0 – 65°C (32–149°F)
<b>Fitting size and type</b>	¼" gasket seal**
<b>Fitting configuration</b>	Male-to-male
<b>Maximum operating pressure</b>	1.01 barg–55.1 barg (0 psig–800 psig)
<b>Maximum flow rate</b>	50 slpm
<b>Leak rating</b>	1 × 10 <sup>-9</sup> atm cc/sec
<b>Dimensions</b>	208 mm (8.2") L × Ø51 mm (2")
<b>Approximate weight</b>	1 kg (2.2 lbs)

\*Referenced as most penetration particle size.

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

## AVAILABLE MEDIA

Media	Gases purified	Contaminants removed	Outlet purity	Nominal flow rate <sup>3</sup>
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>	13 slpm
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>	6.5 slpm
	Freon <sup>1</sup> 13, 14, 23, 41, 116, 218	H <sub>2</sub> O, O <sub>2</sub>		
NX	O <sub>2</sub>	CO <sub>2</sub>	<1 ppb	16 slpm
		H <sub>2</sub> O	<1 ppb	
OP	CDA, N <sub>2</sub> , Noble gases	H <sub>2</sub> O	<100 ppt in N <sub>2</sub>	13.7 slpm
		Condensable organics (as Toluene)	<1 ppt	
		Non-condensable organics <sup>2</sup> (as Butane)	<5 ppt	
		Refractory compounds (as HMDSO)	<1 ppt	
		Volatile acids (as SO <sub>2</sub> )	<1 ppt	
		Volatile bases (as NH <sub>3</sub> )	<10 ppt	
SX	NH <sub>3</sub>	H <sub>2</sub> O	<2 ppb in NH <sub>3</sub>	5.3 slpm
		CO <sub>2</sub>	<1 ppb	
		O <sub>2</sub>	<1 ppb	
		Hydrocarbons	<1 ppt	
TX	CDA, N <sub>2</sub> , Noble gases, CO <sub>2</sub> , NH <sub>3</sub>	Condensable organics (as Toluene)	<1 ppt	18.3 slpm <sup>4</sup>
		Non-condensable organics <sup>2</sup> (as Butane)	<5 ppt	
		Refractory compounds (as HMDSO)	<1 ppt	
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>	53 slpm <sup>5</sup>
			<12 ppb in NH <sub>3</sub>	

<sup>1</sup> Removal of H<sub>2</sub>O and O<sub>2</sub> only.

<sup>2</sup> Consult Entegris with specific non-condensable contaminants.

<sup>3</sup> With a 1 ppm H<sub>2</sub>O impurity inlet challenge

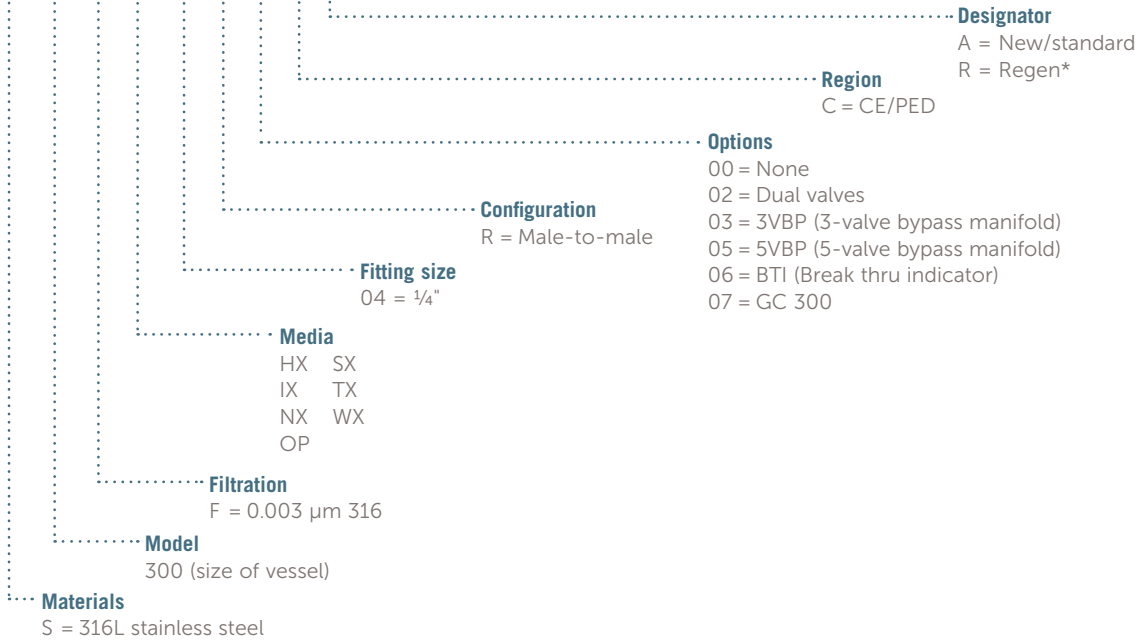
<sup>4</sup> With a 1 ppm Toluene impurity inlet challenge over 1 year

<sup>5</sup> Lifetime will exceed 1 year at its maximum flow rate

## ORDERING INFORMATION

GateKeeper 300 4R Gas Purifiers: part number

GPU S 300 F 04 R



\*Contact Entegris to determine if the purifier is designed for regeneration.

## 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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