

# GateKeeper® GPU EX Media Gas Purifiers

*Superior purity control*

Entegris' GateKeeper® GPU gas purifiers were designed to improve purity consistency, lifetime, and final purity in microelectronics applications where high-purity gas is critical. Leveraging our expertise in material science, we have developed a new generation of EX gas purification products that deliver unsurpassed value and performance.



## APPLICATIONS

- Semiconductor
- Data storage
- Flat panel display
- LED
- Solar

## FEATURES & BENEFITS

<b>Process control and protection</b>	Purity control below part-per-billion (ppb) levels Low pressure drop through the purifier CE certified to the Pressure Equipment Directive (PED) Manufactured in an ISO® 9001:2015 facility
<b>Cost effective</b>	Regenerable – eliminates disposal issues and costs Long lifetime – improves cost of ownership
<b>Safe and simple to use</b>	Uses ambient temperature purification – no heat or power required to operate Insensitive to orientation (horizontal/vertical)

## GENERAL SPECIFICATIONS

<b>Gases purified</b>	H <sub>2</sub> , N <sub>2</sub> , Ar, He, Ne, Kr, Xe, H <sub>2</sub> /N <sub>2</sub> , H <sub>2</sub> /Noble gases	
<b>Impurities removed</b>	<b>CONTAMINANTS</b>	<b>OUTLET PURITY</b>
	H <sub>2</sub> O	<100 pptV
	CO <sub>2</sub>	<100 pptV
	O <sub>2</sub>	<250 pptV
	CO	<1 ppbV
	Volatile acids (as SO <sub>2</sub> )	<1 pptV
	Volatile bases (as NH <sub>3</sub> )	<10 pptV
	CxHy (45 – 100 amu)	<10 pptV
	CxHy (>100 amu)	<1 pptV
	Refractory compounds (as HMDSO)	<1 pptV
<b>Outlet particle filter</b>	Wafergard® — 316 stainless steel membrane, 20 µm or 0.0015 µm	
<b>Lifetime</b>	<p>One year with inlet challenge of 1 ppm moisture and 1 ppm oxygen with flow rates shown on the next page.</p> <p>The lifetime varies with the inlet impurities and flow rate. Contact Entegris for application specific lifetime calculations.</p>	
<b>Regenerable</b>	Yes	
<b>Dangerous goods (DG)</b>	Yes, UN3190, Class 4.2	
<b>Operating temperature</b>	0° – 65°C (32° – 149°F)	
<b>Leak rating</b>	1 × 10 <sup>-9</sup> atm cc/sec of He	
<b>Materials of construction</b>	Housing: 316L stainless steel	
<b>Certification</b>	<p>CE certified to the Pressure Equipment Directive (PED)</p> <p>Designed in accordance with ASME®</p>	

## OPERATING SPECIFICATIONS

Model	Maximum flow rate	Lifetime is 1 year at this flow rate, with 1 ppm moisture and 1 ppm oxygen	Maximum operating pressure – purifier only	Maximum operating pressure – purifier with options	Pressure drop, with 20 µm particle filter*	Pressure drop, with 0.0015 µm particle filter*
GPU 200	20 slpm	1.4 slpm	800 psig	250 psig	–	0.7 psid
GPU 300	50 slpm	2.1 slpm	800 psig	250 psig	–	1.3 psid
GPU 500	75 slpm	4.3 slpm	600 psig	250 psig	–	1.3 psid
GPU 700	120 slpm	6.0 slpm	600 psig	250 psig	–	1.8 psid
GPU 2500 4R	300 slpm	22.5 slpm	505 psig	250 psig	–	5.0 psid
GPU 2500 8R	500 slpm	22.5 slpm	505 psig	250 psig	–	5.6 psid
GPU 3000	500 slpm	26.3 slpm	505 psig	250 psig	–	5.6 psid
GPU 5000	500 slpm	42.0 slpm	505 psig	250 psig	–	7.0 psid
GPU 10M 8R	1,000 slpm	88.0 slpm	370 psig	250 psig	–	5.8 psid
GPU 10M 12R	1,000 slpm	88.0 slpm	370 psig	250 psig	–	8.0 psid
GPU 13M 12R	2,000 slpm	107.0 slpm	370 psig	250 psig	2.0 psid	–
GPU 13M 16R	2,500 slpm	107.0 slpm	370 psig	250 psig	3.0 psid	–
GPU 17M 12R	2,000 slpm	132.0 slpm	370 psig	250 psig	2.0 psid	–
GPU 17M 16R	2,500 slpm	132.0 slpm	370 psig	250 psig	3.0 psid	–
GPU 20M 12R	2,000 slpm	160.0 slpm	370 psig	250 psig	–	19.0 psid
GPU 20M 16R	2,500 slpm	160.0 slpm	370 psig	250 psig	–	19.0 psid

\*Purifier only at maximum flow rating with 90 psig inlet pressure

## FACILITY SPECIFICATIONS

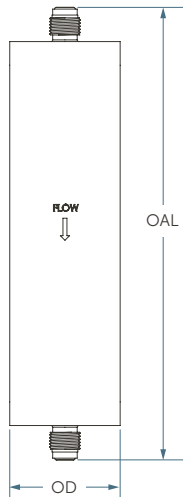
GPU model	Connection size (VCR)	Inlet/outlet connection type (VCR)	Outside Diameter (OD)	Overall length (OAL)	Approximate weight
GPU 200	¼"	Male/male	50.8 mm (2.0")	157 mm (6.2")	0.9 kg (2.0 lbs)
GPU 300	¼"	Male/male	50.8 mm (2.0")	208 mm (8.2")	1.1 kg (2.5 lbs)
GPU 500	¼"	Male/male	76.2 mm (3.0")	201 mm (7.9")	1.8 kg (4.0 lbs)
GPU 700	¼"	Male/male	76.2 mm (3.0")	254 mm (10.0")	2.5 kg (5.5 lbs)
GPU 2500 4R	¼"	Male/male	101.6 mm (4.0")	439 mm (17.3")	6.8 kg (15 lbs)
GPU 2500 8R	½"	Male/male	101.6 mm (4.0")	445 mm (17.5")	6.8 kg (15 lbs)
GPU 3000	½"	Male/male	101.6 mm (4.0")	508 mm (20.0")	7.3 kg (16 lbs)
GPU 5000	½"	Male/male	101.6 mm (4.0")	785 mm (30.9")	10.0 kg (22 lbs)
GPU 10M 8R	½"	Male/male	152.4 mm (6.0")	737 mm (29.0")	20 kg (44 lbs)
GPU 10M 12R	¾"	Male/male	152.4 mm (6.0")	749 mm (29.5")	21.8 kg (48 lbs)
GPU 13M 12R	¾"	Male/male	152.4 mm (6.0")	892 mm (35.1")	24.9 kg (55 lbs)
GPU 13M 16R	1"	Male/male	152.4 mm (6.0")	899 mm (35.4")	24.9 kg (55 lbs)
GPU 17M 12R	¾"	Male/male	152.4 mm (6.0")	1085 mm (42.7")	29.5 kg (65 lbs)
GPU 17M 16R	1"	Male/male	152.4 mm (6.0")	1090 mm (42.9")	29.5 kg (65 lbs)
GPU 20M 12R	¾"	Male/male	152.4 mm (6.0")	1290 mm (50.8")	34 kg (75 lbs)
GPU 20M 16R	1"	Male/male	152.4 mm (6.0")	1296 mm (51.0")	34 kg (75 lbs)

## FACILITY SPECIFICATIONS, PURIFIERS WITH ISOLATION VALVES

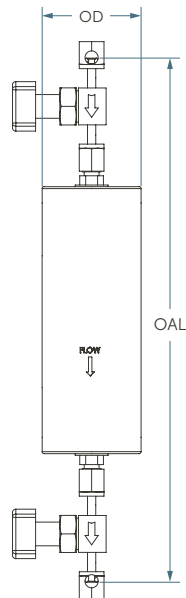
GPU model	Connection size (VCR)	Inlet/outlet connection type (VCR)	Outside Diameter (OD)	Overall length (OAL) with valves	Approximate weight with valves
GPU 200	1/4"	Female/female	50.8 mm (2.0")	307 mm (12.1")	1.7 kg (3.7 lbs)
GPU 300	1/4"	Female/female	50.8 mm (2.0")	358 mm (14.1")	1.8 kg (3.8 lbs)
GPU 300 (GC 300)	1/4"	Female/male	83.8 mm (3.3")	401.3 mm (15.8")	2.3 kg (5.1 lbs)
GPU 500	1/4"	Female/female	76.2 mm (3.0")	351 mm (13.8")	2.7 kg (6.0 lbs)
GPU 700	1/4"	Female/female	76.2 mm (3.0")	404 mm (15.9")	4.4 kg (9.6 lbs)
GPU 2500 4R	1/4"	Female/female	101.6 mm (4.0")	592 mm (23.3")	6.8 kg (15 lbs)
GPU 2500 8R	1/2"	Female/female	101.6 mm (4.0")	714 mm (28.1")	8.0 kg (17.7 lbs)
GPU 3000	1/2"	Female/female	101.6 mm (4.0")	777 mm (30.6")	8.5 kg (18.7 lbs)
GPU 5000	1/2"	Female/female	101.6 mm (4.0")	1054 mm (41.5")	12.5 kg (27.6 lbs)
GPU 10M 8R	1/2"	Female/male	152.4 mm (6.0")	970 mm (38.2")	22.5 kg (49.6 lbs)
GPU 10M 12R	3/4"	Female/female	152.4 mm (6.0")	1125 mm (44.3")	24.9 kg (55.0 lbs)
GPU 13M 12R	3/4"	Female/female	152.4 mm (6.0")	1270 mm (50.0")	28.1 kg (62.0 lbs)
GPU 13M 16R	1"	Female/female	152.4 mm (6.0")	1308 mm (51.5")	29.5 kg (65.0 lbs)
GPU 17M 12R	3/4"	Female/female	152.4 mm (6.0")	1461 mm (57.5")	32.7 kg (72.0 lbs)
GPU 17M 16R	1"	Female/female	152.4 mm (6.0")	1499 mm (59.0")	34.0 kg (75.0 lbs)
GPU 20M 12R	3/4"	Female/female	152.4 mm (6.0")	1666 mm (65.6")	37.2 kg (82.0 lbs)
GPU 20M 16R	1"	Female/female	152.4 mm (6.0")	1705 mm (67.1")	38.6 kg (85.0 lbs)

## DIMENSIONS

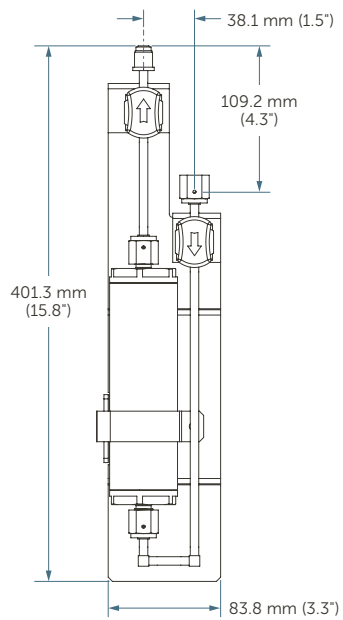
Purifier Only



Purifier with Isolation Valves

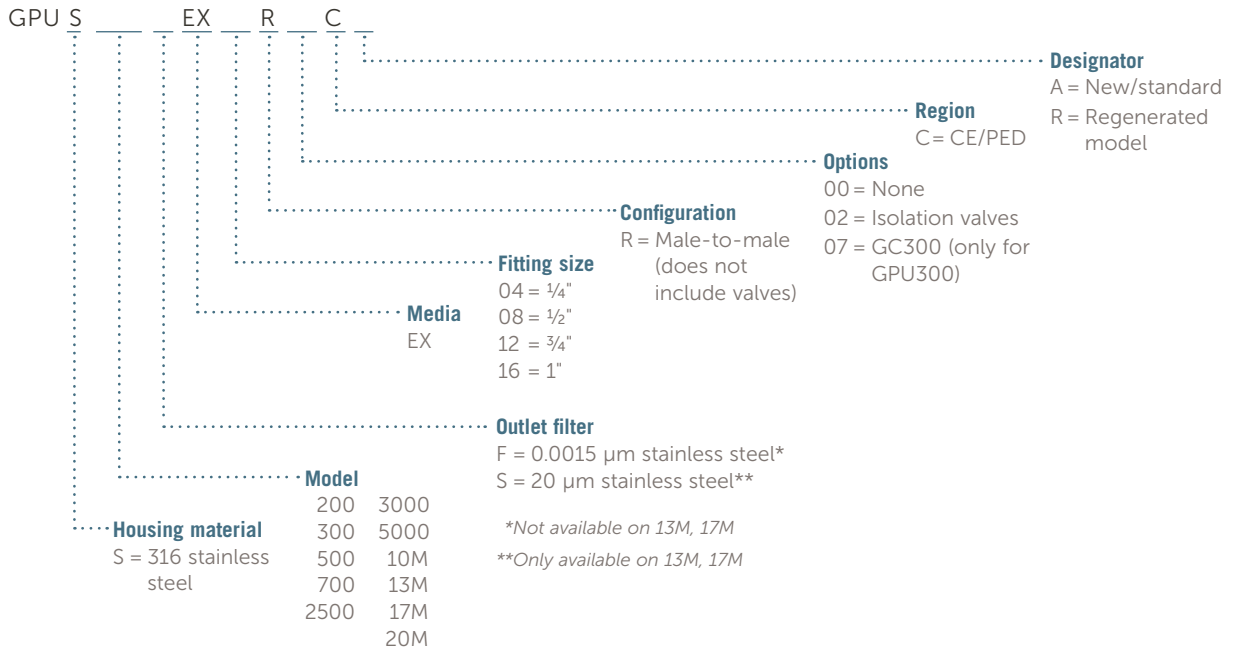


GPU 300 with GC 300 Manifold



## ORDERING INFORMATION

GateKeeper GPU EX Media Gas Purifiers: part number



## REGENERATION



REGEN, REDUCE, REUSE

[Contact](#) your local regeneration center:

## ADDITIONAL OPTIONS

**BYPASS ASSEMBLIES:** This assembly contains additional valves and piping so the process gas can bypass around the purifier. Entegris offers 3 and 5 valve bypass assemblies for many of our standard GPU Gas Purifiers (sold separately).

**BREAK THRU INDICATOR (BTI):** Detects moisture downstream of a purifier and notifies the customer that a replacement or regeneration is required.

## 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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### 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

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