

GateKeeper® GPU 2500 8R 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 2500-8R is designed for peak flow rates up to 500 slpm.

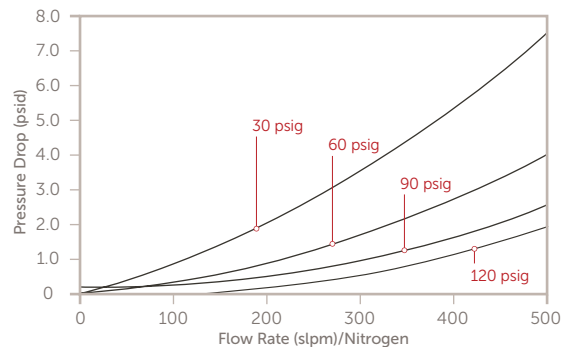


FEATURES & BENEFITS

| | |
|---------------------------------------|--|
| 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 Insensitive to orientation (horizontal/vertical) |

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

| | |
|--|---|
| Materials of construction (housing) | 316L stainless steel, electropolished |
| Particle filtration type | Wafergard® – 316L stainless steel membrane |
| Particle retention | Up to 3 LRV* for particles larger than 0.003 µm |
| Filtration removal rating | ≥0.003 µm |
| Operating temperature | 0 – 65°C (32–149°F) |
| Fitting size and type | ½" gasket seal** |
| Fitting configuration | Male-to-male |
| Operating pressure | 1.01 barg–34.8 barg (0 psig–505 psig) |
| Maximum flow rate | 500 slpm |
| Leak rating | 1 × 10 ⁻⁹ atm cc/sec |
| Dimensions | 445 mm (17.5") L × Ø102 mm (4") |
| Approximate weight | 6.3 kg (13.9 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 ³ |
|-------|--|--|---|--------------------------------|
| DZ | CO ₂ | Volatile acids | <1 ppt | 74 slpm |
| | | Volatile bases | <1 ppt | |
| | | Refractories | <1 ppt | |
| | | Condensable organics | <1 ppt | |
| | | H ₂ O | <1 ppb | |
| | | O ₂ | <200 ppt | |
| EX | H ₂ , N ₂ , Noble gases, H ₂ /N ₂ , H ₂ /Noble gases | H ₂ O, CO ₂ | <100 ppt in H ₂ and N ₂ | 123 slpm |
| | | O ₂ | <250 ppt in H ₂ and N ₂ | |
| | | CO | <1 ppb in H ₂ and N ₂ | |
| | | C _x H _y (45–100 amu) | <10 ppt in N ₂ | |
| | | C _x H _y (>100 amu) | <1 ppt in N ₂ | |
| | | Refractory compounds (as HMDSO) | <1 ppt in N ₂ | |

AVAILABLE MEDIA (CONTINUED)

| Media | Gases purified | Contaminants removed | Outlet purity | Nominal flow rate ³ |
|-------|--|---|---|--------------------------------|
| HX | H ₂ , N ₂ , Noble gases, H ₂ /N ₂ , H ₂ /Noble gases | H ₂ O, O ₂ , CO, CO ₂ | <100 ppt in H ₂ and N ₂ | 123 slpm |
| IX | N ₂ , Noble gases | H ₂ O, O ₂ , CO, CO ₂ , H ₂ | <100 ppt in Ar and N ₂ | 61 slpm |
| | Freon ¹ 13, 14, 23, 41, 116, 218 | H ₂ O, O ₂ | | |
| NX | O ₂ | CO ₂ | <1 ppb | 167 slpm |
| | | H ₂ O | <1 ppb | |
| OP | CDA, N ₂ , Noble gases | H ₂ O | <100 ppt in N ₂ | 129 slpm |
| | | Condensable organics (as Toluene) | <1 ppt | |
| | | Non-condensable organics ² (as Butane) | <5 ppt | |
| | | Refractory compounds (as HMDSO) | <1 ppt | |
| | | Volatile acids (as SO ₂) | <1 ppt | |
| | | Volatile bases (as NH ₃) | <10 ppt | |
| SX | NH ₃ | H ₂ O | <2 ppb in NH ₃ | 55 slpm |
| | | CO ₂ | <1 ppb | |
| | | O ₂ | <1 ppb | |
| | | Hydrocarbons | <1 ppt | |
| TX | CDA, N ₂ , Noble gases, CO ₂ , NH ₃ | Condensable organics (as Toluene) | <1 ppt | 170 slpm ⁴ |
| | | Non-condensable organics ² (as Butane) | <5 ppt | |
| | | Refractory compounds (as HMDSO) | <1 ppt | |
| WX | CDA, H ₂ , N ₂ , Noble gases, CO ₂ , NH ₃ , AsH ₃ , PH ₃ , GeH ₄ , SiH ₄ | H ₂ O | <100 ppt in N ₂ | 515 slpm ⁵ |
| | | | <12 ppb in NH ₃ | |

¹ Removal of H₂O and O₂ only.

² Consult Entegris with specific non-condensable contaminants.

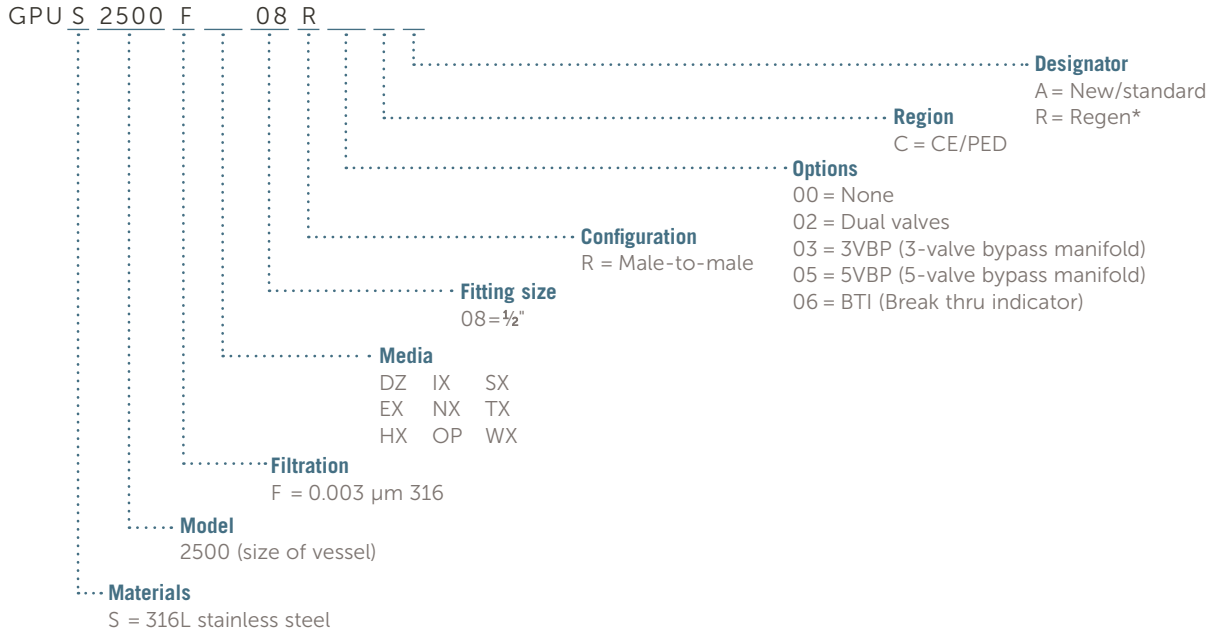
³ With a 1 ppm H₂O impurity inlet challenge

⁴ With a 1 ppm Toluene impurity inlet challenge over 1 year

⁵ Lifetime will exceed 1 year at its maximum flow rate

ORDERING INFORMATION

GateKeeper 2500 8R Gas Purifiers: part number



*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 and select the Contact Us link to find the customer service center nearest you.

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