

MegaTorr® PS7-PD Hydrogen Gas Purifiers

Efficient bulk gas removal of H₂O, O₂, CO, CO₂, THC, N₂, He, and Ar impurities

The MegaTorr® PS7-PD Series palladium hydrogen gas purifiers are enhanced, optimized designs providing sub-ppb performance in compact footprints.

Entegris has drawn on years of experience in ultra-high purity (UHP) piping design, advanced process material analysis, and state-of-the-art integrated control systems to develop this family of purifiers to meet the needs of low capital cost, high reliability, and high performance.



Optimized design with flow rates up to 2,170 slpm

APPLICATIONS

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

FEATURES & BENEFITS

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|---|--|
| Micro-channel palladium membrane | Produces the purest hydrogen on the planet by allowing only hydrogen to pass through while all other impurities travel out the bleed line |
| | Provides a solid barrier with no breakthrough as compared to catalysts and getters that rely on chemical reactions on the reactive surface |
| Optimized design | Provides sub-ppb performance in small footprints with flow rates up to 2,170 slpm (130 Nm ³ /hr) |
| Three platforms available | Models PS7-PD05, PS7-PD1, and PS7-PD2 have various flow capabilities to suit any application |

SPECIFICATIONS

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|-----------------------|----------------|
| Gases purified | H ₂ |
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| Impurities removed to <1 ppb | H ₂ O, O ₂ , CO, CO ₂ , H ₂ , He, Ar, THC (including CH ₄) |
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| PD05 Series | Flow rates* | Power |
|--------------------|-------------------------------------|--------------------|
| PS7-PD05-08 | 5.5 slpm (0.3 Nm ³ /hr) | 120 VAC or 230 VAC |
| PS7-PD05-21 | 12.5 slpm (0.8 Nm ³ /hr) | 120 VAC or 230 VAC |
| PS7-PD05-50 | 28.4 slpm (1.7 Nm ³ /hr) | 120 VAC or 230 VAC |

*Assuming 200 psig inlet pressure, 60 psig outlet pressure

| PD1 Series | Flow rates* | Power |
|-------------------|-------------------------------------|--------------------|
| PS7-PD1-10 | 96 slpm (5.8 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD1-20 | 193 slpm (11.6 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD1-30 | 290 slpm (17.4 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD1-40 | 386 slpm (23.2 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD1-50 | 483 slpm (29.0 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD1-60 | 580 slpm (34.8 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD1-70 | 676 slpm (40.6 Nm ³ /hr) | 208 VAC or 230 VAC |

*Assuming 260 psig inlet pressure, 80 psig outlet pressure

| PD2 Series | Flow rates* | Power |
|-------------------|---------------------------------------|--------------------|
| PS7-PD2-40 | 773 slpm (46.4 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD2-50 | 966 slpm (58.0 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD2-60 | 1,160 slpm (69.6 Nm ³ /hr) | 208 VAC or 230 VAC |
| PS7-PD2-70 | 1,353 slpm (81.2 Nm ³ /hr) | 208 VAC or 230 VAC |

*Assuming 260 psig inlet pressure, 80 psig outlet pressure

Notes: Purifiers are gas specific and should only be used for the gas indicated. Other flow rates are available. Contact Entegris for details.

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|-----------------|-----------------------------|
| Features | Palladium Advantages |
|-----------------|-----------------------------|

SPECIFICATIONS

- Ultrapure H₂ from any source
 - <99.9999999% purity; <1 ppb total impurities
 - Patented palladium micro-channel technology
 - Lowest power consumption
 - Smallest footprint
 - Automatic nitrogen (N₂) purge for cell protection
 - Color touchscreen HMI with PLC controller
 - Outlet check valve to prevent back diffusion
 - Boost bleed valve for quick bleed line purging
 - Electrical cabinet purge
 - High/low temperature alarms
 - CE marked
 - Only H₂ passes through the pure side
 - Every impurity is removed, no exceptions
 - Nonconsumable technology
 - Separates pure H₂ from source gas with ppm or % level impurities
 - Easy to verify performance with in-situ helium (He) leak test
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FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](https://www.entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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Corporate Headquarters
129 Concord
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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