

# H<sub>2</sub>PS Deoxo Dryer – Zero Loss Gas Purifier

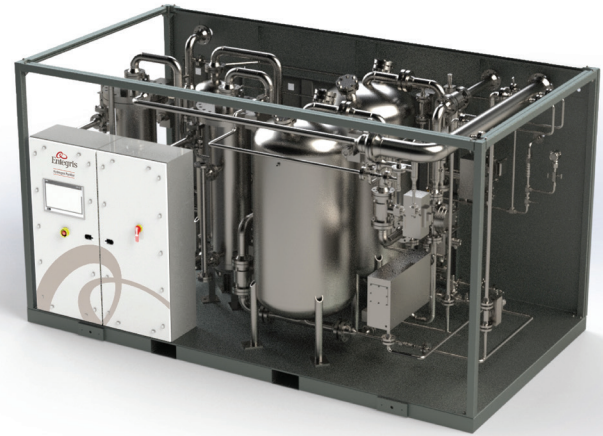
*Purification Solution for  
Energy Applications*

Entegris gas purification systems utilize a three-stage purification process. This process enables the purification of fully saturated, oxygen-rich hydrogen produced by electrolyzers to achieve sub-ppm (parts per million) purity levels. Leveraging decades of material science developing, manufacturing, and optimizing purification media, Entegris offers the highest capacity and efficiency temperature swing adsorber beds available, as well as the highest efficiency catalyst used in deoxygenation beds.

Along with offering the most advanced purification technologies, Entegris purification systems provide the lowest TCO possible with longer intervals between regeneration cycles, lower regeneration temperatures, as well as innovative features such as a fully closed loop regeneration capabilities with ZERO hydrogen loss.

## STANDARD FEATURES

- A fully automated microprocessor controller
- Safety Instrumented System (SIS) controller
- Human machine interface (HMI)
- Electric gas preheaters
- Closed-loop temperature control
- Standard customer interface connections:
  - Alarm relay
  - Remote contact shutdown
  - Gas relay



- Oil-free water-cooled compressor
- System pressure monitors
- High temperature hardware interlock
- Over pressurization safety system
- Ground fault for equipment protection (GFEP)
- Emergency off (EMO) button
- Inlet and outlet isolation valves

## OPTIONAL FEATURES

- Outlet mass flow meter
- In-situ outlet gas analysis
- Gas analyzers
- C1 D2 Group B/ATEX enclosure

## Process Gas Specifications

<b>Flow rate (maximum purified gas delivered)</b>	1250 Nm <sup>3</sup> /hr – 20,000 Nm <sup>3</sup> /hr; 5 MW – 100 MW modular to GW scale
<b>Flow rate (minimum*)</b>	10% max flow
<b>Inlet pressure</b>	System can be designed for a range of input pressures maxing out at 55 bar
<b>Inlet gas temperature</b>	5° – 75°C (32° – 167°F)
<b>Outlet gas temperature</b>	Below 35°C (95°F)

\*The minimum flow is the lowest flow rate at which Entegris will guarantee that outlet gas purity will be met as well as the minimum flow that must be available from the supply to support regeneration.

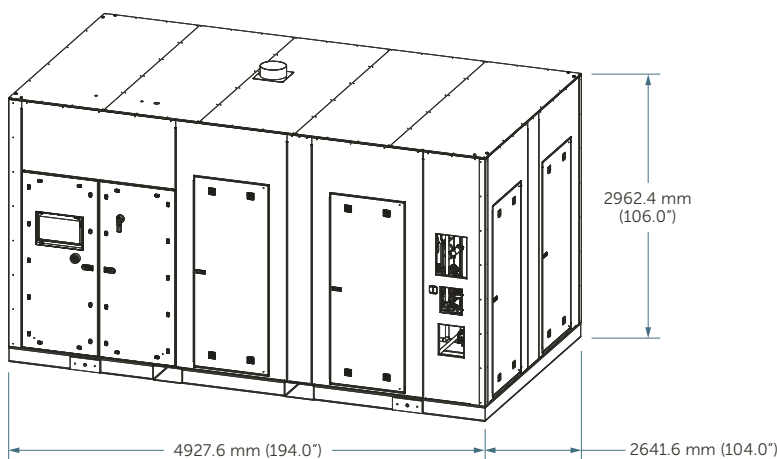
## Facilities Requirements – Electrical

<b>Main power (customer to specify voltage at time of order)</b>	208 VAC, 3 phase, 50/60 Hz 400 VAC, 3 phase, 50/60 Hz 480 VAC, 3 phase, 50/60 Hz
<b>Separate control power (optional – customer to specify voltage at time of order)</b>	120 VAC, 1 phase, 50/60 Hz 230 VAC, 1 phase, 50/60 Hz 24 VDC

## Facilities Requirements – General

<b>Instrument air pressure (clean dry air or nitrogen filtered to 10 µm)</b>	6.6 barg (95 psig) minimum 9.7 barg (140 psig) maximum
<b>Regeneration flow rate (Nm<sup>3</sup>/hr)</b>	Determined based on customer requirements
<b>Cabinet ventilation (facilities vacuum)</b>	Based on design flow rate
<b>Indoor installation, ambient temperature</b>	5° – 35°C (41° – 95°F)
<b>Certifications/Compliance</b>	ASME, PED, KGS, JIS

## DIMENSIONS – GENERAL



## 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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