

# MegaTorr® PS9 Nitrogen Gas Purifiers

*Efficient bulk gas removal of H<sub>2</sub>O, O<sub>2</sub>,  
CO, CO<sub>2</sub>, H<sub>2</sub>, and THC impurities*

The catalyst and adsorber MegaTorr® PS9 Series nitrogen/rare 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.

## APPLICATIONS

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

## FEATURES & BENEFITS

|   |  |
|---|--|
| <b>Uses dual catalytic and adsorption processes</b>   | Provide ultra-high purity gas for semiconductor applications   |
| <b>A heated catalyst vessel converts CO, H<sub>2</sub>, and THC into CO<sub>2</sub> and H<sub>2</sub>O, then two adsorber vessels alternate between purify and regeneration modes to remove the CO<sub>2</sub> and H<sub>2</sub>O</b> | Provide continuous purification  |
| <b>Optimized design</b>   | Provides sub-ppb performance in small footprints with flow rates up to 200,000 slpm (12,000 Nm <sup>3</sup> /hr) |



*Optimized design with flow rates up to 200,000 slpm*

## SPECIFICATIONS

|  |   |                 |
|--|---|-----------------|
| <b>Gas purified</b>                    | N <sub>2</sub>  |                 |
| <b>Impurities removed to &lt;1 ppb</b> | H <sub>2</sub> O, O <sub>2</sub> , CO, CO <sub>2</sub> , H <sub>2</sub> , CH <sub>4</sub> |                 |
| <b>Flow rates*</b>                     | <b>Nm<sup>3</sup>/hr</b>  | <b>slpm</b>     |
| PS9-MGT15 - PS9-MGT60                  | 15 - 60   | 250 - 1,000     |
| PS9-MGT100 - PS9-MGT200                | 100 - 200   | 1,667 - 3,333   |
| PS9-MGT300 - PS9-MGT400                | 300 - 400   | 5,000 - 6,667   |
| PS9-MGT500 - PS9-MGT700                | 500 - 700   | 8,333 - 11,667  |
| PS9-MGT800 - PS9-MGT1800               | 800 - 1,800   | 13,333 - 30,000 |
| PS9-MGT2000 - PS9-MGT3000              | 2,000 - 3,000   | 33,333 - 50,000 |

\*Other flow rates are available. Contact Entegris for details.

**Maximum pressure drop** <0.7 bar (70 kPa) PS9-MGT15 - PS9-MGT60 only  
<1 bar (100 kPa)

**Note:** Purifiers are gas specific and should only be used for the gas indicated.

### Standard Features

- Automated microprocessor controller
- HMI (Human Machine Interface)
- System alarms
- Gas-to-gas heat exchanger
- Electric gas preheaters
- Closed-loop temperature controls
- All-metal cabinet with doors
- Hydrogen blending station
- High-temperature hardware interlock
- Over-pressurization safety relief system

### Optional Features

- Inlet and outlet isolation valves
- Mass flowmeter with 4-20 mA output
- Inlet and outlet pressure transducers
- Instrument air management system
- Cooling water management system
- Water cooled heat exchanger
- Auto or manual bypass
- Ultrafine 0.003 µm particle filter
- Separate control power
- MODBUS data communication port

#### 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.

#### TERMS AND CONDITIONS OF SALE

All purchases are subject to Entegris' Terms and Conditions of Sale. To view and print this information, visit [entegris.com](http://entegris.com) and select the [Terms & Conditions](#) link in the footer.



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

Entegris®, the Entegris Rings Design®, and other product names are trademarks of Entegris, Inc. as listed on [entegris.com/trademarks](http://entegris.com/trademarks). All third-party product names, logos, and company names are trademarks or registered trademarks of their respective owners. Use of them does not imply any affiliation, sponsorship, or endorsement by the trademark owner.

©2021 Entegris, Inc. | All rights reserved. | Printed in the USA | 7242-11576ENT-0821