

# MegaTorr<sup>®</sup> 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<sup>®</sup> 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.

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