

MegaTorr® PS31, PS32, PS33 Carbon Dioxide Gas Purifiers

*Efficient bulk gas removal of H₂O,
organics, refractory compound, acid,
and base impurities*

The auto regenerable MegaTorr® PS31, PS32, PS33 Series carbon dioxide 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

Uses adsorption processes	Provide ultra-high purity carbon dioxide gas for semiconductor applications
Dual adsorber vessels alternate between purify and regeneration modes	Provide continuous purification in a single process
Model PS33 includes a heated catalyst vessel	Converts total hydrocarbons (THC), H ₂ , and carbon monoxide (CO) into carbon dioxide (CO ₂) and water (H ₂ O)
Optimized design	Provides sub-ppb performance in small footprints with flow rates up to 8,333 slpm (500 Nm ³ /hr)



Optimized design with flow rates up to 8,333 slpm.

SPECIFICATIONS

Flow rate		0 - 8333 slpm (0 - 500 Nm³/hr)		
Gas purified		CO₂		
		PS31	PS32	PS33
Impurities	H ₂ O	to <1 ppb	to <1 ppb	to <1 ppb
	O ₂	–	to <1 ppb	to <1 ppb
	CO	–	to <1 ppb	to <1 ppb
	H ₂	–	to <1 ppb	to <1 ppb
	COS, CS ₂ , H ₂ S	–	to <1 ppb	to <1 ppb
	THC (including CH ₄)	–	–	to <1 ppb
	Total volatile acids (as SO ₂)	to <1 ppt	to <1 ppt	to <1 ppt
	Condensable organics (HCs > 100 amu, as Decane)	to <1 ppt	to <1 ppt	to <1 ppt
	Non-condensable organics (HCs >58 amu, as Toluene)	to <1 ppt	to <1 ppt	to <1 ppt
	Refractories (as HMDSO)	to <1 ppt	to <1 ppt	to <1 ppt
	Total volatile bases (as NH ₃)	to <5 ppt	to <5 ppt	to <5 ppt
Note:		Purifiers are gas specific and should only be used for the gas indicated		

Standard Features	Optional Features
<ul style="list-style-type: none"> Automated microprocessor controller HMI (Human Machine Interface) System alarms Electric gas preheaters Closed-loop temperature controls All metal cabinet with doors High-temperature hardware interlock Over-pressurization safety relief system 	<ul style="list-style-type: none"> Mass flowmeter Inlet and outlet pressure transducers Instrument air management system Auto or manual bypass Ultrafine 0.003 µm particle filter Separate control power MODBUS data communications port Factory regenerable or automatically regenerable purifier in the bypass line

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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