



**ETCHGARD™ HP AND HPX
CARTRIDGE FILTERS**

*Hydrophilic, high-performance filters for
HF and BOE recirculation bath processes*



rapid particle removal with improved bath quality

Overview

Etchgard™ HP and HPX cartridge filters achieve the highest rates of quality and efficiency, improving overall equipment efficiency (OEE) rates.

High Flow Rate, High Bath Turnover, Improved Bath Quality

Bath particle counts directly impact the device particle counts. In a recirculation bath, a high turnover rate ensures rapid particle removal. Entegris manufactures Etchgard HP and HPX cartridge filters with a patented high-efficiency, high-flow membrane that delivers improved bath quality. The large filtration area and high flow rates result in more passes through the filter and optimal bath turnover.

Controls Microbubbles

Particles represent only one source of defects in wafer processing. Microbubbles can also negatively impact the bath, causing streaks and other types of defects. By eliminating nucleation sites, the Etchgard filter's patented hydrophilic membrane structure reduces the potential for microbubble formation. The result – elimination of bubbles at startup as well as elimination of bubble generation during wafer processing.

Reduction in Setup, Maintenance and Equipment Downtime

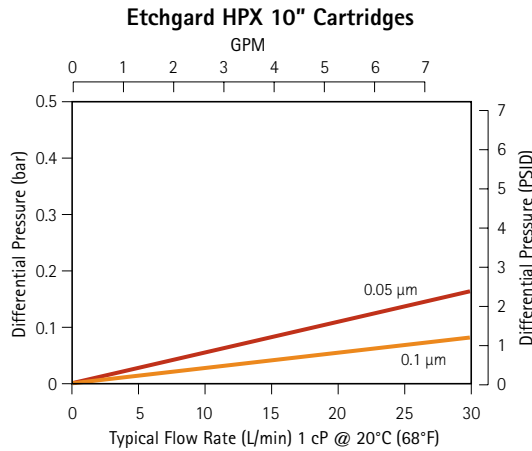
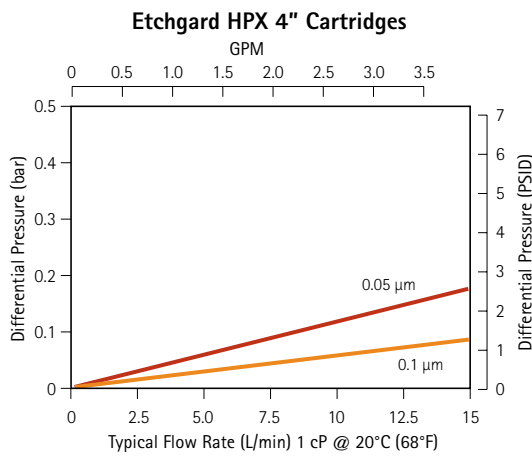
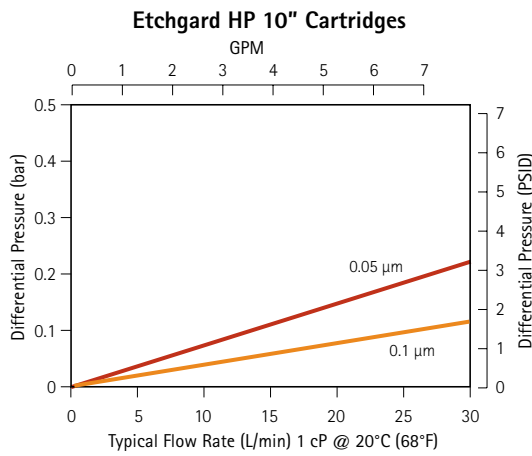
Installation of Etchgard HP and HPX cartridge filters is simple and fast. Prewetting is not required, which reduces time and costs. The large surface area further reduces maintenance as less frequent filter changeout is required.

Features	Benefits
Hydrophilic, patented UPE membrane	Eliminates prewetting and flushing. Saves time at changeout, increases equipment uptime, and provides better, more consistent performance.
Available in retention ratings of 0.05 µm and 0.1 µm	Excellent small particle retention: ensures minimal particles in bath and on wafer.
High membrane-area cartridge, with low pressure drop across the membrane	High flow and efficient particle removal: ensures rapid particle removal in recirculating applications.
All-polyethylene construction	Provides excellent chemical compatibility, long lifetime, reduced changeout and system startup times.
Available in 4" and 10" cartridge sizes	Designed to fit the flow and process needs and space constraints for a wide variety of customers and original equipment manufacturing (OEM) suppliers.

Specifications

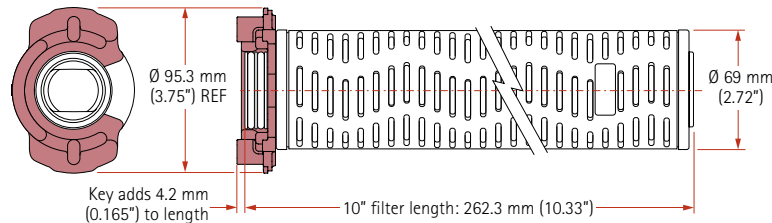
Type		HP	HPX
Materials:	Membrane	Patented hydrophilic ultra-high molecular weight polyethylene (UPE)	
	Supports, sleeve, core, end caps	Nonwoven high-density polyethylene (HDPE)	
	Code O double 2-222 o-rings	Teflon® encapsulated Viton® (TEV)	
Retention rating:		0.1, 0.05 µm	
Membrane surface area:		—	4": 0.5 m ²
		10": 0.85 m ²	10": 1.1 m ²
Maximum operating conditions:	Maximum forward differential pressure	0.35 MPa (3.5 bar; 50 PSID) @ 25°C (77°F)	
	Maximum reverse differential pressure	0.35 MPa (3.5 bar; 50 PSID) @ 25°C (77°F)	
	Maximum operating temperature	60°C (140°F) at the above conditions	

Performance Data

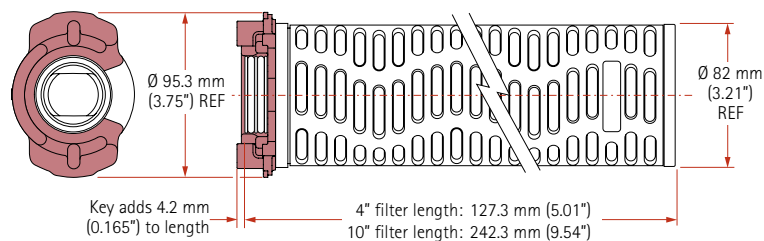


Dimensions (Nominal)

Etchgard HP Cartridge Filters



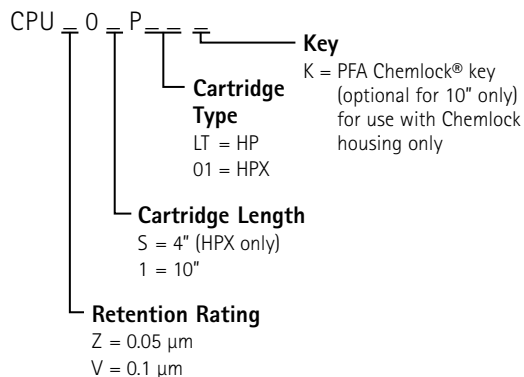
Etchgard HPX Cartridge Filters



Ordering Information

Etchgard HP and HPX Cartridge Filters

Part Number



For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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