

Etchgard™ HP and HPX Filters

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

Etchgard™ HP and HPX 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 filters with a 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 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 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

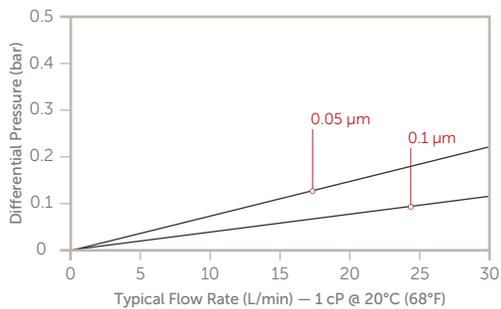
Hydrophilic UPE membrane	Eliminates prewetting and flushing. Saves time at changeout, increases equipment uptime, and provides better, more consistent performance.
Available in retention ratings of 0.05 µm and 0.1 µm	Good retention – ensures minimal particles in bath and on wafer.
High membrane area, with low pressure drop across the membrane	High flow and efficient particle removal – ensures rapid particle removal in recirculating applications.
All-polyethylene construction	Provides good chemical compatibility, long lifetime, and reduced changeout and system startup times.
Available in 4", 10", and 20" cartridge sizes and Chem-Line™ I PFA disposables	Designed to fit the flow and process needs and space constraints for a wide variety of customers and original equipment manufacturing (OEM) suppliers.

SPECIFICATIONS

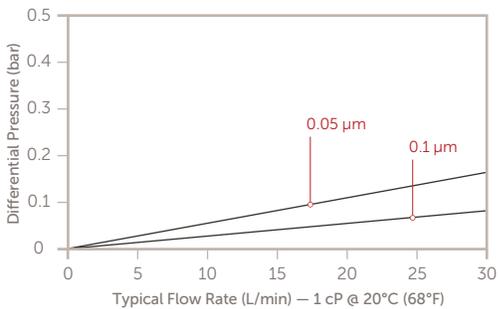
FILTER TYPE	HP		HPX
Materials of construction	Membrane	Hydrophilic ultra-high molecular weight polyethylene (UPE)	
	Supports, sleeve, core, end caps	Nonwoven high-density polyethylene (HDPE)	
	Code 0 double 2-222 O-rings	Encapsulated fluoropolymer (E-FKM) or Kalrez® 4079 and 6375	
	Chem-Line I disposable outer shell	N/A	PFA
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	
		20": 2.2 m ²	
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

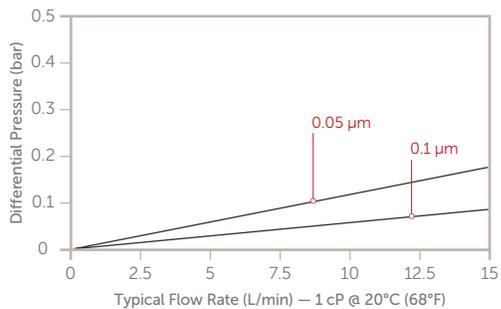
Etchgard HP 10" Cartridges



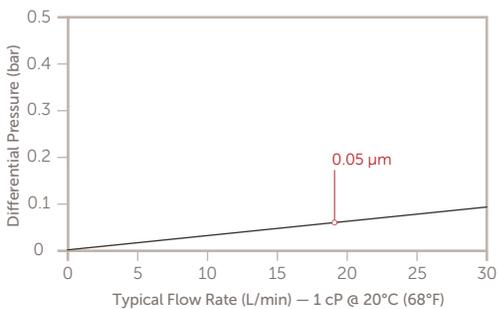
Etchgard HPX 10" Cartridges



Etchgard HPX 4" Cartridges

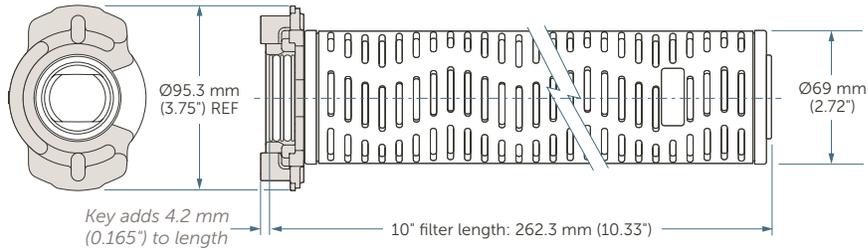


Etchgard HPX 20" Cartridges

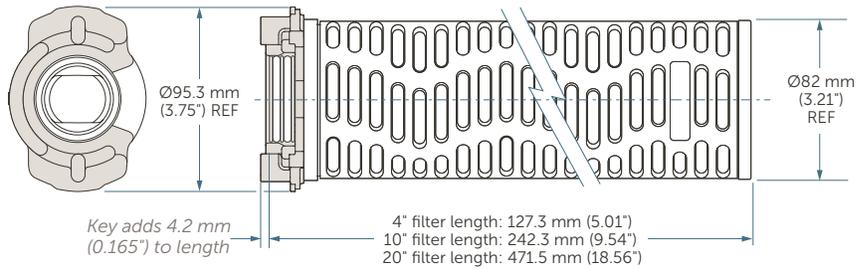


DIMENSIONS (NOMINAL)

Etchgard HP Cartridge Filters



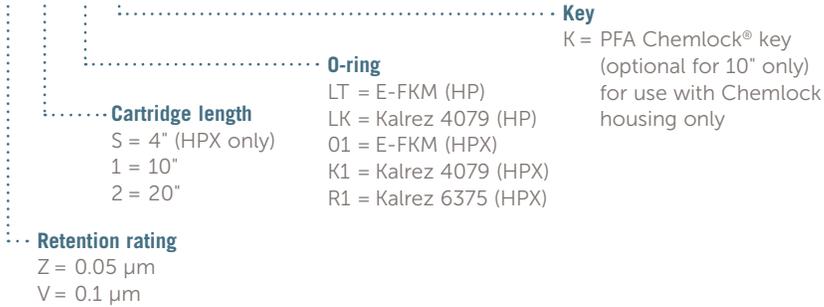
Etchgard HPX Cartridge Filters



ORDERING INFORMATION

Etchgard HP and HPX Cartridge Filters: part number

CPU_0_P_K

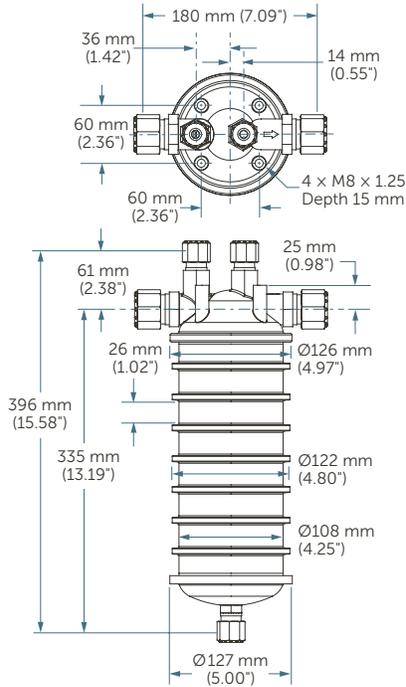


Etchgard Disposable Filters

DIMENSIONS

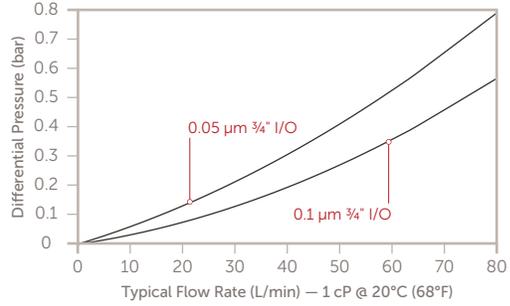
Chem-Line I (PFA) Disposable Filters

TH: T-line 3/4" Super Type Pillar Fittings



PERFORMANCE DATA

Etchgard 10" Disposable Filters



ORDERING INFORMATION

Etchgard 10" Disposable Filters: part number

EPF_HPXTH



FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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