

Astera™ Advanced Liquid Filters

High-purity, dilute acid and base defect reduction solution that improves wafer yield performance

Astera™ liquid filters enable best-in-class filtration for high flow and point-of-use (POU) acidic and basic aqueous-based process chemistries. The 10 nm rating type provides advanced particle retention with flow rates characteristic of more open membranes. This advanced filter's high flow rate, combined with DI water prewet packaging, enables fast flush up with minimal downtime.

Astera filters feature native polysarylsulfone (PAS) membrane technology for both sieving and non-sieving contaminant capture, reducing on-wafer defects and providing clean chemical delivery. PAS continues to be the material of choice for dilute aqueous chemistries and the Astera filter's 10 nm native membrane builds on this choice with a superior all-pH option.

APPLICATIONS

- Acid-based process chemicals such as BOE and DHF
- Basic process chemicals such as NH₄OH and TMAH
- DI water
- Bulk and point of use
- Low-temperature processes (<70°C [158°F])



FEATURES & BENEFITS

Advanced 10 nm rated PAS membrane	Ensures chemical purity, providing lower baseline WPA
DI water prewet packaging	Enables fast flush up, which reduces downtime and allows faster release to production
High flow membrane	Enables fast flush up and facility chemical throughput, which reduces downtime and allows faster release to production
Native, unmodified membrane	Provides advanced particle retention at all pH levels, reducing inventory with a single product for multiple dilute applications
Standard clean with metals specification	Allows repeatable flush up time, enabling predictable PM downtime schedule

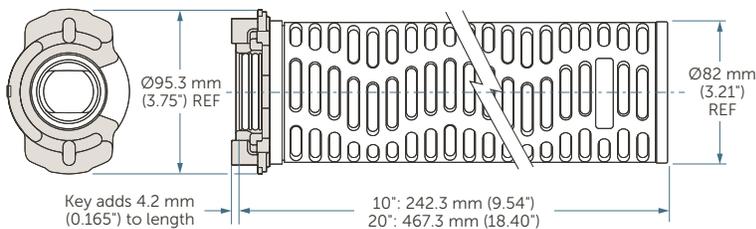
SPECIFICATIONS

Materials	Membrane	Polyarylsulfone (PAS)
	Supports, sleeve, core, end caps	High-density polyethylene (HDPE)
	Code 0 double 2-222 O-rings	Encapsulated fluoropolymer (E-FKM) or Kalrez® 6375
	Chem-Line™ II disposable outer shell	Polypropylene
Retention rating	10 nm	
Membrane surface area	10": 1.4 m ² (15.07 ft ²)	
	20": 2.8 m ² (30.14 ft ²)	
Maximum operating conditions	Maximum forward differential pressure: 0.21 MPa (2.1 bar; 30 psid) @ 25°C (77°F)	
	Maximum reverse pressure: 0.14 MPa (1.4 bar; 20 psi) @ 25°C (77°F)	
	Maximum operating pressure: 0.58 MPa (5.8 bar; 84 psi) @ 25°C (77°F)	
	Maximum operating temperature: 70°C (158°F) @ 10 psi	

Astera Cartridge Filters

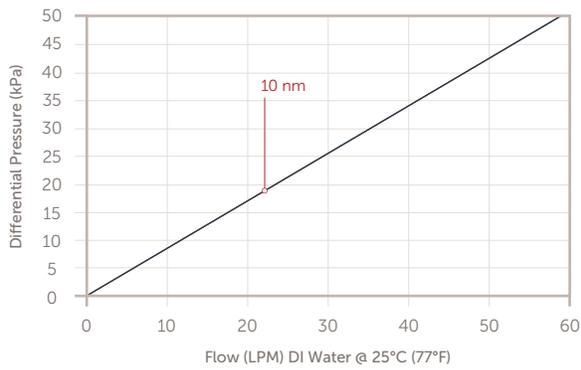
DIMENSIONS

Astera PAS Cartridge Filters

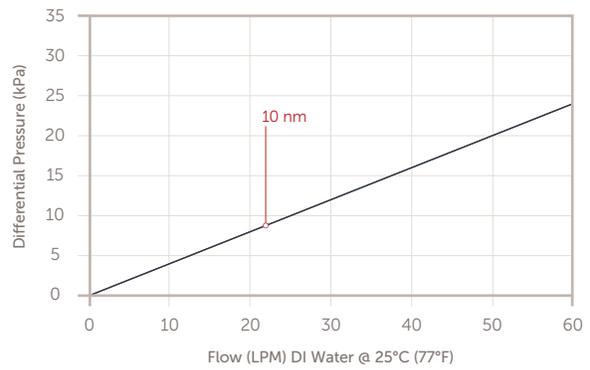


PERFORMANCE DATA

Astera PAS 10" Cartridge Filter



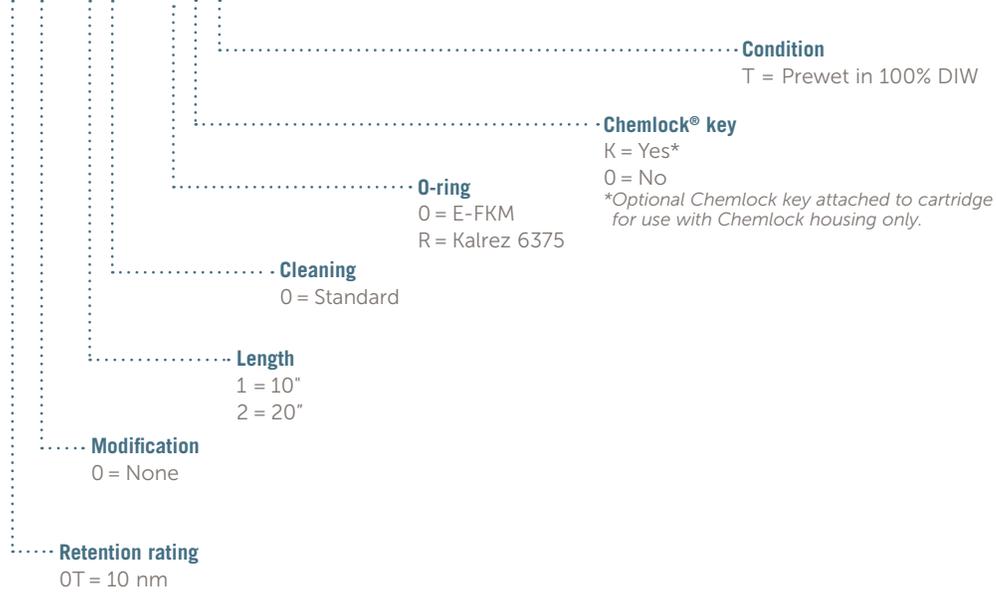
Astera PAS 20" Cartridge Filter



ORDERING INFORMATION

Astera Cartridge Filters: part number

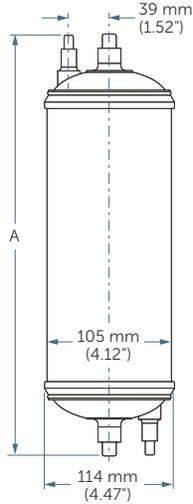
AEC OT 0 M 0 0 0 T



Astera Chem-Line II Disposable Filters

DIMENSIONS

Chem-Line II (PP) Disposable Filters



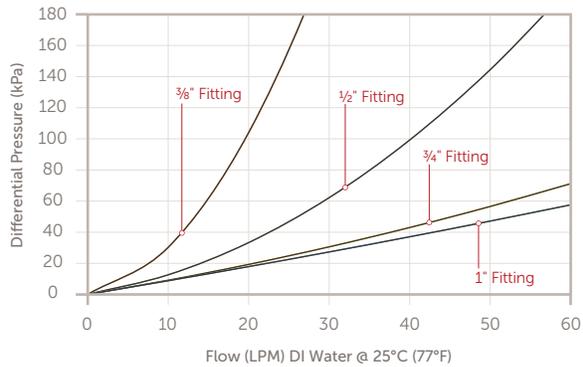
DIMENSION A

Inlet/outlet size	10" disposable filter with Flaretek® fittings
3/8"	350 mm (13.77")
1/2"	360 mm (14.17")
3/4"	360 mm (14.17")
1"	370 mm (14.57")

Vent/drain all versions: 1/4"

PERFORMANCE DATA

Astera 10" Chem-Line II Disposable Filters



ORDERING INFORMATION

Astera Chem-Line II PP Disposable Filters: part number

AE2 OT 0 M 1 0 0 T



FOR MORE INFORMATION

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