

## LiquiPro™ SH

Superior pleated PTFE membrane filters



**LiquiPro™ SH are superior pleated PTFE (Polytetrafluoroethylene) membrane filters with PFA support for chemical inertness across a broad range of microelectronics process and chemical applications.**

### Features and Benefits

- Ultra Clean PPB Grade. LiquiPro™ SH all PTFE filters are manufactured from the highest purity grade PFA for support hardware, in order to achieve superior total metal extractables <30 PPB per device.
- LiquiPro™ EZ key option available and universally compatible with industry standard 2-222 filter housings.
- Ultra clean manufacturing. Assembled, cleaned, tested in class 1000 and 100 manufacturing centre.
- PFOA-Free cartridge. PFOA is not used in the PFA resins or in the manufacturing process.
- 100% Successful Cartridge Installation. The cartridge locking feature prevents the cartridge from falling out or being pushed out by back pressure. Vertical installation ensures that O-rings will not roll.

### Typical Applications

- Chemical delivery system for the filtration of strong acid and base solutions at room temperature for semiconductor manufacturing.
- Solvent filtration.
- Aggressive chemical processes in the photovoltaic and data storage industries.

### Performance Specifications

#### Pore size rating

0.05, 0.1, 0.2, 0.45, 1.0, 5.0, 10.0µm

#### Maximum differential pressure:

5.1 bar (74 psid) @ 25°C (77°F)

2.0 bar (29 psid) @ 120°C (248°F)

#### Compatibility and purity

Filters do not use any binders, surfactants and adhesives for broad usage compatibilities. Only 100% high purity virgin polypropylene is used.

#### Materials of construction

Filter media:	Hydrophobic PTFE membrane
Support:	Dupont PFA 440 HP-J
End caps:	Dupont PFA 440 HP-J
Core, cage:	Dupont PFA 440 HP-J
O-rings:	FEP Encap. FKM, E-FKM

#### Cartridge Dimension

83mm (3.25") diameter

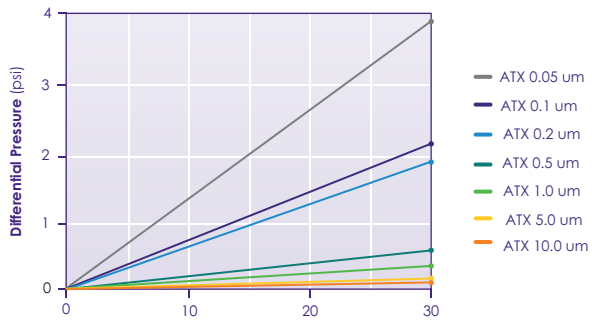
#### Metallic Cleanliness

<30 µg per device. Ultra-High-Purity. Cleaner and lower than semi industry benchmark filters.

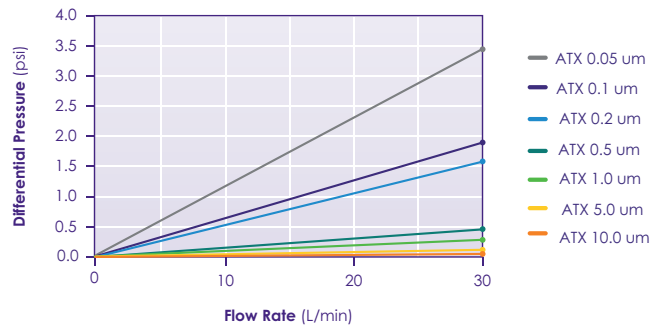
#### Maximum operating temperature

180°C (356°F) at the above conditions

Flow Rates: LiquiPro™ SH-ATX (1.3m<sup>2</sup>) series



Flow Rates: LiquiPro™ SH-ATM (1.8 m<sup>2</sup>) series



\*Flow rate is at 20°C, and for a 24 cm (10 in) cartridge. For liquids other than water, multiply differential pressure by fluid viscosity (cP).

## Element Dimensions

Type	Filter Area (m <sup>2</sup> )	Nominal Length	Diameter (mm)	Length (mm)
ATX	1.3	10"	83.0mm +/-0.5	246.0mm +/-2
ATM	1.8	10"	83.0mm +/-0.5	246.0mm +/-2
ATE	2.2	10"	83.0mm +/-0.5	246.0mm +/-2

## Ordering Information

To form a part number, please choose one option from each column below.

Product Code: **1** **2** **3** **4** **5** **6** **7** **8** **SH-ATX005AGB04**

Product Name	Micron Rating	Adaptor code	Seals	Cleanliness	Length	Key Option	Packaging Option
SH-ATX LiquiPro SH-ATX Area 1.3m <sup>2</sup>	005 0.05µm	A 222 / flat	G FEP Encap Silicone	B Basic Purity TOC < 50ppb	04 4"	- n/a	- Standard Dry
SH-ATM LiquiPro SH-ATM Area 1.8m <sup>2</sup>	010 0.1µm 020 0.2µm		K FFKM T E-FKM	M Ultra Low Metal < 10ppb	10 10" 20 20"	K EZ Key compatible to use with ChemLock® cartridge housing	W pre-wetted
SH-ATE LiquiPro SH-ATE Area 2.2m <sup>2</sup>	045 0.45µm 100 1µm 500 5µm 1000 10µm			U Ultra High Purity < 30ppb			