

ABSOLUTE RATED FILTER CARTRIDGE FOR FINAL STERILE FILTRATION

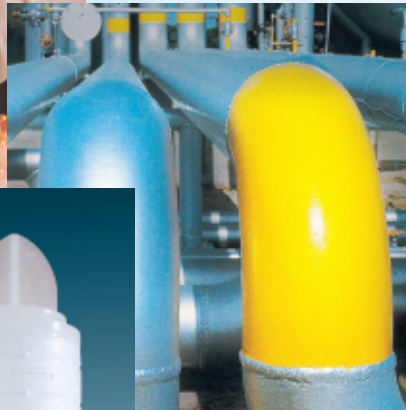
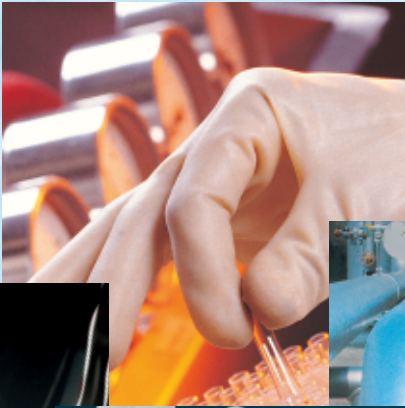
ABS[®]

**For sterile filtration that maintains
the process fluid properties intact.**

ABS[®] absolute rated cartridges confirm Ionex as the benchmark brand in critical sterile filtration. The membrane is made from a homogenous double layer of graded porosity polyethersulphone, ensuring microbiological security.

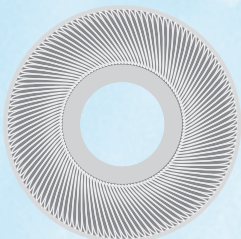
The membrane is inherently hydrophilic, and therefore does not need to be treated with chemical wetting agents. The filtration area has been significantly increased in comparison to the industry standard by an innovative 'veil' pleating method that optimises the position of the membrane in the cage. The ABS[®] cartridge's outstanding mechanical resilience is not solely due to the use of an extremely robust mirrored anisotropic PES membrane, but also thanks to a structure that compensates for expansion and shrinkage caused by temperature changes, especially during vaporisation. ABS[®] can therefore withstand harsh operating conditions, resisting mechanical and thermal stress and chemical aggression. This means that the cartridge can be subjected to numerous filtration and sterilisation cycles in complete safety with undiminished filtration capacity. The distinguishing characteristics of ABS[®] elements are: uniform pore distribution, repeatedly from batch to batch, operational stability, unvarying performance over time and verifiable efficiency through integrity test.

The use of thermo-bonding and ultrasound bonding processes in assembly without the use of resins or adhesives reduces the level of extractables to a minimum and makes the whole component compact and resilient. All elements are manufactured in a clean room and are tested individually to verify integrity before packaging.



ABSO®

For sterile filtration that maintains the process fluid properties intact.



OPTIMIZED PLEATING SYSTEM



FILTRATION SOLUTIONS

IONEX LLC - 33131 Miami (FL) USA

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TECHNICAL SPECIFICATIONS

- absolute retention ratings, high margins of operational safety
- excellent dirt holding characteristics, low Δp values
- biologically inert membrane, non-fibre releasing
- no colour or odour adsorption or release, reduced binding effect on proteins
- broad chemical compatibility, maximum resistance to stress
- long service life, even with frequent vaporisation cycles
- uniform filtration across the entire surface
- sterilisation in autoclave or with inline steam at 255°F
- all materials meet the requirements of FDA CFR Title 21 for food contact
- all materials compliant with USP class VI, 'Plastic Biosafety'
- 100% inherently hydrophilic, contains no adhesives, surfactants or wetting agents
- tested individually for integrity prior to despatch

OPERATING CONDITIONS

Max. operating temperature	175°F@35 psi (80°C@2,5 bar) 150°F@60 psi (65°C@4,2 bar) 120°F@80 psi (50°C@5,5 bar)
Max. operating pressure (Δp)	80 psid@120°F (5,5 bar @50°C)
Recommended operating Δp	35 psi (2,5 bar)
Back pressure rating (Δp)	22 psi@85°F (1,5 bar @30°C)

RECOMMENDED FLOW RATE (H₂O@68°F/10" – 1.0 psid)

MICRON RATING	0,1 µm	2.5 gpm (10 lpm)
"	0,2 µm	3.5 gpm (13 lpm)
"	0,4 µm	4.5 gpm (17 lpm)
"	0,6 µm	5.5 gpm (20 lpm)
"	0,8 µm	7.0 gpm (26 lpm)
"	1,0 µm	8.5 gpm (32 lpm)

SANITISATION

Hot water sanitisation	30'@175°F (80°C)
Steam sterilisation	20'@255°F (125°C) (with reinforcement ring for frequent cycles)
Autoclave sterilisation	30' - 60'@275°F (135°C)
Chemical sanitisation	with commonly available chemical products

MEMBRANE MICRON RATINGS

0,1 – 0,2 – 0,4 – 0,6 – 0,8 – 1,0 µm

Filtration efficiency: 99,9999%

(HIMA/ASTM CHALLENGE)

TYPICAL DATA

0,2µ	>10 ⁷ LRV/Cm ²	Pseudomonas Diminuta
0,45µ	>10 ⁷ LRV/Cm ²	Serratia Marcescens

MATERIALS OF CONSTRUCTION

Filter media	polieterosulfone (double membrane in /D version)
upstream/downstream support	polipropilene
inner support core	polipropilene
outer protection cage	polipropilene
end caps	polipropilene
seals	silicone (standard) Viton®, EPDM, Buna N, PTFE

SEALING METHOD

Ultrasound / Thermo-bonding

DIMENSIONS

Length	254 mm (10"), 508 mm (20") 762mm (30"), 1016 mm (40")
External diameter	69 mm
Internal diameter	26 mm

TRACEABILITY

Each filter element is identified with a batch number for complete traceability.