# ULTRA ILTER LIQUID THE FILTRATION MANUFACTURER THE SCANDINAVIAN FILTRATION PARTNER GAS LEAIR AIR FTFFF

# ULTRA-MEM PF-PT STERILE AIR MEMBRANE

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#### STERILE AIR MEMBRANE FILTER Ultra-Mem PF-PT

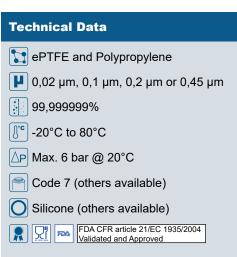


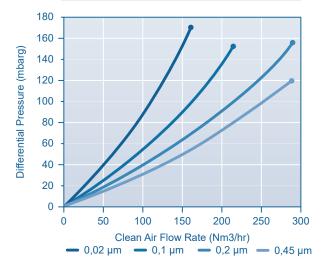
For critical applications in sterile filtration, use of a hydrophobic PTFE membrane is recommended, especially in applications such as pharmaceutical industry and biotechnology. PTFE membranes are also well suited for sterile steam applications.

PF-PT Series cartridges are manufactured using a highly hydrophobic ePTFE membrane. The enhanced ePTFE membrane offers exceptionally high gas flow rates at low pressure differentials (see graph). PF-PT Series cartridges are recommended for sterile gas filtration and venting applications. The hydrophobic characteristics of the ePTFE membrane makes the PF-PT Series filter cartridge particularly suitable for wet gas sterilising applications, such as fermenter air feed.

For solvent and aggressive chemical filtration applications, PF-PT Series cartridges offer a wide range of chemical compatibility with high thermal stability. Suitable for the most demanding microfiltration applications, the cartridges can be used for the filtration of aggressive chemical solutions including acids, alkalis, solvents and etchants.







#### **Maximum Differential Pressure**

Normal flow direction at:

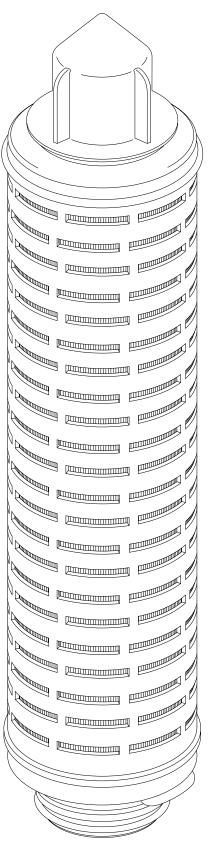
| 20°C (68°F):               | 6.0bar (87lb/in2) |  |
|----------------------------|-------------------|--|
| 80°C (176°F):              | 4.0bar (58lb/in2) |  |
| 100°C (212°F):             | 3.0bar (43lb/in2) |  |
| 120°C (248°F):             | 2.0bar (29lb/in2) |  |
| 125°C (257°F):             | 1.5bar (22lb/in2) |  |
| Reverse flow direction at: |                   |  |
| 20°C (68°F):               | 2.1bar (30lb/in2) |  |
| 80°C (176°F):              | 1.0bar (15lb/in2) |  |
| 100°C (212°F):             | 0.5bar (7lb/in2)  |  |

#### STERILE AIR MEMBRANE FILTER Ultra-Mem PF-PT



| Element Dimensions (mm) |        |          |                       |
|-------------------------|--------|----------|-----------------------|
| Element size            | Length | Diameter | Filtration<br>Surface |
| 5" (05/30)              | 127    | 70       | 0,37 m²               |
| 10" (10/30)             | 254    | 70       | 0,73 m²               |
| 20" (20/30)             | 508    | 70       | 1,46 m²               |
| 30" (30/30)             | 762    | 70       | 2,19 m²               |
| 40" (40/30)             | 1016   | 70       | 2,92 m²               |

| Materials                                          |                                                                                                                                                                                                             |  |  |  |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|                                                    |                                                                                                                                                                                                             |  |  |  |
| Filter membrane                                    | ePTFE                                                                                                                                                                                                       |  |  |  |
| Membrane support                                   | Polypropylene                                                                                                                                                                                               |  |  |  |
| Irrigation mesh (support)                          | Polypropylene                                                                                                                                                                                               |  |  |  |
| Drainage layer                                     | Polypropylene                                                                                                                                                                                               |  |  |  |
| Inner core                                         | Polypropylene                                                                                                                                                                                               |  |  |  |
| Outer support                                      | Polypropylene                                                                                                                                                                                               |  |  |  |
| End fittings                                       |                                                                                                                                                                                                             |  |  |  |
| Sealing                                            | Fusion bonding                                                                                                                                                                                              |  |  |  |
| O-rings                                            | Silicone (others available)                                                                                                                                                                                 |  |  |  |
|                                                    |                                                                                                                                                                                                             |  |  |  |
| Features                                           | Benefits                                                                                                                                                                                                    |  |  |  |
| Guaranteed microbial ratings in a liquid challenge | Validated for bacterial removal in liquids<br>in accordance with PDA, HIMA guidelines<br>and ASTM F838-05, with a log reduction<br>value >7.                                                                |  |  |  |
| Flow $\Delta P$ characteristics                    | Exceptionally high gas flow rates at low<br>differential pressure. These features<br>result in lower energy consumption and<br>fewer filter cartridges per system.                                          |  |  |  |
| Steam sterilisation                                | PF-PT Series cartridges have been<br>designed and validated to be repeatedly<br>steam sterilised in-situ at temperatures of<br>up to 135°C (275°F) for 100 cycles at 20<br>minutes per cycle.               |  |  |  |
| Bacterial spores and viruses                       | The retention of bacterial spores and<br>viruses carried in aerosols over extended<br>time periods has been independently<br>validated in tests.                                                            |  |  |  |
| Cartridge integrity and low TOC levels             | All PF-PT Series cartridges are integrity<br>tested and supplied clean, having been<br>flushed with pure water. When required<br>they can be pulse flushed with 18MΩ. cm<br>pyrogen-free ultra-clean water. |  |  |  |
| Full traceability                                  | All PF-PT Series cartridges are individually<br>and batch identified with a unique serial<br>number.                                                                                                        |  |  |  |
| Controlled manufacturing environment               | PF-PT Series cartridges are manufactured<br>in an ISO Cleanroom environment by<br>fully gowned staff, minimising the risk of                                                                                |  |  |  |



contamination.



#### THE SCANDINAVIAN FILTRATION PARTNER

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At www.ultra-filter.com you will find a wide selection of filtration products ready for you to order.



www.ultra-filter.com

#### **ABOUT US**

Ultrafilter Scandinavia offers a wide selection of filtration products for compressed air, liquids and gas. We have stock in Denmark and from here we distribute all of our products to Scandinavia and the Baltic countries.

Ultrafilter Scandinavia is a part of the Ultrafilter group. Our production facility is in Germany and we have several subsidiaries in Europe and the United States.

You can buy our products on local websites. Information about our products as well as brochures and manuals can be found on our website (www.ultra-filter.com).

We can adapt all of our filtration products to your needs, and we offer visits from our consultants in order to find the right solution for you. We also offer on going service on our products once they are installed.

### **FILTRATION OF**



## ULTRAFILTER SKANDINAVIEN APS

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