



**Donaldson**  
FILTRATION SOLUTIONS

**PF-PT**

**MEMBRANE FILTER ELEMENTS**

Compressed Air & Process Filtration

**PT-FE membrane filter elements for filtration of aggressive solvents, chemicals and gases.**

Whether you require retention of 0.003  $\mu\text{m}$  particles for clean dry air in semiconductor manufacturing or bacteria retention for a dairy tank vent, Donaldson's PT-FE membrane cartridges are the ideal solution.

With absolute retention rates from 0.1  $\mu\text{m}$  to 1.0  $\mu\text{m}$  and a complete line of filter housings, Donaldson can maximize efficiency of your operation, while minimizing costs. Donaldson can even provide premium filter cartridges for most existing filter housings.

- Non-fiber releasing
- Thermally welded endcaps and membrane
- FDA CFR Title 21
- USP Class VI
- Manufactured in accordance with cGMP
- Inherently hydrophobic media



PF-PT membrane as seen under the scanning electron microscope

**PF-PT**

## **APPLICATIONS**

PF-PT membrane filter elements are designed and developed for use in the following industries and applications:

- Chemical
- Dairies
- Pharmaceutical
- Aseptic packaging
- Biotechnology
- Food
- Breweries
- Hospitals

Donaldson PF-PT membrane filter elements are the ideal choice for gas filtration and aggressive solvent chemicals.

- Compressed air
- Technical gases
- Solvents
- Photo resins
- Fermentation air
- Tank ventilation
- Alcohols
- Acids & Bases

## DIMENSIONS & SPECIFICATIONS

FEATURES	BENEFITS
Inert PT-FE and polypropylene components*	Extremely wide durability range against chemicals, permits use in broad range of fluids and applications
Absolute ratings of 0.1 µm, 0.2 µm, 0.45 µm and 1.0 µm*	Precise particle retention at rated level. 0.2 µm and 0.45 µm meet bacterial validation acc. to HIMA/ASTM standards
Highly porous PT-FE membrane	High flow rates, long service life, maximum chemical resistance with minimum extractables
Inherently hydrophobic	Natural barrier to water without the use of additives or surface modifying agents which can leach or wash out
Rugged thermal bonded construction	Reliable integrity under severe process conditions, withstands multiple sterilizations
Contains no binders or adhesives	Wide solvent compatibility, extremely low extractables
Fully integrity testable	Assurance of product integrity and effectiveness in operation
Biologically inert and non-toxic	Meets FDA requirements for food contact use, passes USP Class VI biological test for plastics
100% integrity tested	Assured product reliability and consistency

\*Additional documentation is available upon request.

MATERIALS		CFR TITLE
Filter Media	PT-FE membrane	177.1550
Upstream support	Polypropylene	177.1520
Downstream support	Polypropylene	177.1520
Outer guard	Polypropylene	177.1520
End Caps	Polypropylene	177.1520
O-Rings	EPDM (other materials available upon request)	177.2600

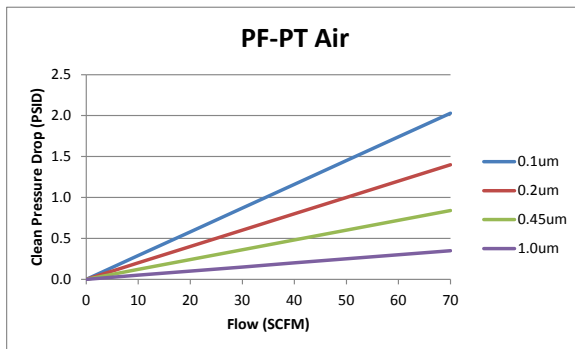
### ABSOLUTE RETENTION RATE

0.1 µm, 0.2 µm, 0.45 µm and 1 µm

### MAXIMUM DIFFERENTIAL PRESSURE

Operating Temperature	Differential Pressure
100°F	80 psid
150°F	60 psid
180°F	30 psid

### PF-PT Differential Pressure Per Ten Inch Equivalent (TIE)—Air



### DIMENSIONS

Diameter	2.75"
Length	10", 20", 30" or 40"

### INTEGRITY TESTING

Wetting agent Isopropylalcohol (IPA)

Pore size	Bubble point
0.1 µm	≥ 18 psig
0.2 µm	≥ 14 psig
0.45 µm	≥ 7 psig
1.0 µm	not testable

### STERILIZATION

In-line sterilization with slow speed saturated steam: 250-275°F for 30-60 minutes

Autoclave: 260°F for 30-60 minutes

PF-PT filter elements are capable of repeated sterilization cycles without loss of integrity

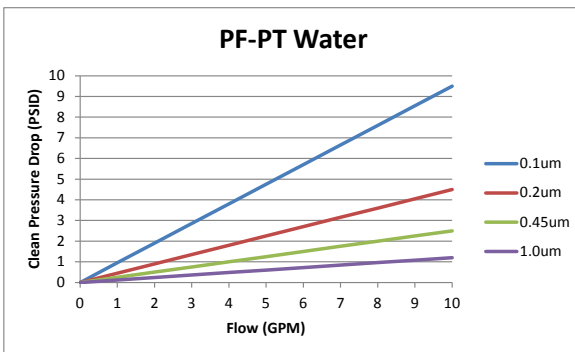
### BACTERIAL RETENTION

HIMA challenge per ASTM

0.2 µm *Pseudomonas diminuta*

0.45 µm *Serratia marcescens*

### PF-PT Differential Pressure Per Ten Inch Equivalent (TIE)—Water



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