High Purity Pleated Depth & Membrane Cartridges
We Provide Innovative, Real-Time Solutions

At Strainrite, we believe in developing and maintaining long-term, strategic relationships with clients in order to deliver innovative real time solutions to specific customer and market requirements. Our new product innovations are derived from a collaborative philosophy where new products are developed through customer-supplier communication and cooperation. Additionally, within our organization, a cross-functional approach to product development is utilized to ensure that the product realization cycle is fast, complete, and efficient. Due to this unique cross-functional approach and our customer-focused company culture to support this philosophy; we are able to consistently meet and exceed our customers’ expectations.

We Believe in Quality Control & Skilled Technical Support

At Strainrite, we believe in Science and Service. All Clarity™ pleated filter cartridges are manufactured in our 81,000ft² facility located in Auburn, Maine. Our Quality Management System is certified to be ISO 9001:2008 compliant, and our extensive internal systems ensure the highest quality products and processes. Our state-of-the-art equipment and highly skilled technicians are able to maintain the highest levels of product reliability and repeatability, from receipt of raw materials to shipment of finished filters.

A few controls that are in-place include:
- Raw material performance verification
- Bubble point and air diffusion testing
- Bacteria challenge verifications of performance
- Extractable verification and determination
- Ultra-pure water rinsing with resistivity verification of effectiveness
- Finished validated products are integrity tested by air diffusion

Our technical and scientific staff works closely with our clients during the validation process. The focus of this support is to offer technical advice on developing effective protocols and experimental testing parameters to assure predictable and repeatable output results.

Since 1978, The Strainrite Companies have designed and manufactured leading-edge filtration products for a variety of industries worldwide. Our Clarity™ pleated depth and membrane cartridge product lines offer a clear advantage over the competition. Building on our proven product development capabilities and over 30 years of experience manufacturing filtration products for a variety of global industries, our Clarity™ products offer our clients pleated filter cartridges that exceed expectations for quality, efficiency and total value. Whether you need pleated depth or membrane cartridges for the oil and gas, food and beverage, pharmaceutical or electronics industries Strainrite’s Clarity™ pleated products offer the Clear Solution.
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The Pur-MAXX-E was developed for the filtration of process fluids that require a high degree of particle retention and/or constant bacterial barrier for effective sterilization.

Hydrophilic asymmetric polyethersulfone membrane ensures excellent flow rates, broad chemical compatibility, low protein binding, low extractability, high mechanical strength, and temperature resistance in a variety of applications for the biopharmaceutical, microelectronics, chemical, food and beverage industries.

The Pur-MAXX-E meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics. Sterilizable using industry recognized and accepted methods.

Features and Benefits

• High surface area membrane offers excellent life and flux rates while providing absolute filtration
• Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
• Low pressure drops yield higher flow rates and reduced processing time
• Non-fiber shedding Polyester and Polypropylene support materials eliminate fiber migration
• MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
• All materials of construction are FDA compliant with CFR Title 21, Pharmaceutical grades are bio-safe in accordance with USP Class VI
• Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
• Low hold-up volumes
• Integrity tested
• High strength design allowing for extended use and multi-autoclave cycles
• Optional built-in pre-filter layer for extending membrane life and reducing filtration costs

Typical Applications

Liquid Clarification
Chemical Filtration
General-Use Water Filtration
Deionized Water Systems
## Specifications

### Filter Media
Polyethersulfone

### Pleat Support Material
Polypropylene, Polyester

### End Caps
Polypropylene

### Cage/Core
Polypropylene

### Sealing
Thermal Bond

### Seals
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Example:
**Cartridge Series:**
- **PRMXE:** Pur-MAXX E
- **Micron Rating:** 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- **Length:** 10, 20, 30, 40
- **Pleat Support Materials:**
  - PE - Polyester
  - PP - Polypropylene
- **End Cap Configurations:**
  - C1-DOE flat open ends
  - C2-SOE recessed cup, internal 213 O-ring
  - C3-SOE flat closed ends, external 222 O-ring
  - C4-SOE flat closed end
  - C5-SOE recessed cup, external 222 O-ring
  - C6-SOE flat closed end, external 222 O-ring
  - C7-SOE fin end, external 226 O-ring
  - C8-SOE fin end, external 222 O-ring
- **Gasket/O-ring Materials:**
  - S - Silicone (standard O-rings)
  - B - Buna N (standard gaskets)
  - V - Fluorocarbon
  - E - EPDM
  - T - PTFE
  - TV - FEP Encapsulated Fluorocarbon
  - TS - FEP Encapsulated Silicone
- **Cartridge Guide:**
  - Blank - General
  - 1 - FDA Grade
  - 2 - Pharmaceutical
  - 5 - Water
- **Options:**
  - I - 316 Stainless Steel Insert
  - DIF - DI Flush

### Product Specifications

#### Dimensions
- **Outside Diameter:** 2.7” (6.87cm)
- **Lengths:**
  - 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- **Surface Area:** 6.8ft² per 10” equivalent

#### Performance Specifications
- **Absolute Rated Retention:** 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- **Maximum Forward Differential Pressure**
  - Forward: 50 psid (5.5 bar) @ 75°F (24°C)
  - 40 psid (2.8 bar) @ 180°F (82°C)
- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty

#### Toxicity
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

#### Sterilization
Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

### Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton
The Pur-MAXX-S was developed for the filtration of process fluids that require a high degree of particle retention and/or constant bacterial barrier for effective sterilization.

Hydrophilic asymmetric polysulfone membrane ensures excellent flow rates, broad chemical compatibility, low protein binding, low extractability, high mechanical strength, and temperature resistance in a variety of applications for the biopharmaceutical, microelectronics, chemical, food and beverage industries.

The Pur-MAXX-S meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics. Sterilizable using industry recognized and accepted methods.

**Features and Benefits**
- Highly tapered asymmetric pore structure which offers excellent flow rates and high solids loading characteristics
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- All materials of construction are FDA compliant with CFR Title 21, Pharmaceutical grades are bio-safe in accordance with USP Class VI
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- Low hold-up volumes
- Pharmaceutical and Electronics grades are integrity testable

**Typical Applications**
- Ink jet ink
- High purity aqueous chemicals
- DI water Pre and Post filter
- DI water Point-of-use
Specifications

**Materials of Construction**

**Filter Media**
- Polysulfone

**Pleat Support Material**
- Polypropylene

**End Caps**
- Polypropylene

**Cage/Core**
- Polypropylene

**Sealing**
- Thermal Bond

**Seals**
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

**Example:**

**Cartridge Series**
- PRMXS: Pur-MAXX S

**Micron Rating**
- 0.03, 0.05, 0.10, 0.20, 0.45, 0.65

**Length**
- 10, 20, 30, 40

**End Cap Configurations**
- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

**Gasket/O-ring Materials**
- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
- E - EPDM
- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS - FEP Encapsulated Silicone

**Cartridge Guide**
- Blank - General
- 1 - FDA Grade
- 2 - Pharmaceutical
- 3 - Electronics
- 5 - Water

**Options**
- I - 316 Stainless Steel Insert
- DIF - DI Flush

**Product Specifications**

**Dimensions**
- **Outside Diameter:** 2.7” (6.87cm)
- **Lengths:** 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- **Surface Area:** 6.8ft² per 10” equivalent

**Performance Specifications**

**Absolute Rated Retention:**
- 0.03, 0.05, 0.10, 0.20, 0.45, 0.65

**Maximum Forward Differential Pressure**
- **Forward:** 75 psid (5.5 bar) @ 75°F (24°C)
- 40 psid (2.8 bar) @ 180°F (82°C)

**Reverse:**
- 50 psid (3.4 bar) @ 75°F (24°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty

**Toxicity**
- Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

**Sterilization**
- Cartridge can be sterilized via steam or Autoclave:
  - 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

**Packaging Economy**
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

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The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
Pur-MAXX N pleated cartridges are highly retentive, naturally hydrophilic, Nylon membrane filters that are specially designed for critical filtration requirements of aqueous fluids. The Nylon 6,6 membrane in an all-polypropylene construction provides excellent wet-out characteristics and superior flow performance per surface area as compared to other membrane cartridges.

No additives, resins, surfactants or binders are used in the manufacturing process, which dramatically reduces rinse up time, extractables and downtime. Pur-MAXX N cartridges are perfectly suited for critical applications where superior flow and particle removal efficiency between 0.1 and 1.2 micron is required.

Features and Benefits

- 100% Hydrophilic materials of construction that are FDA listed as suitable for contact with food and beverage
- Absolute-rated media provides reliable, consistent and repeatable filtrate quality
- No adhesives, binders, resin or surfactants are used during manufacturing resulting in superior downstream purity
- High surface area yielding lower pressure drops and longer filter life
- Lower filter extractables than other hydrophilic membranes
- Non-fiber shedding polyester and polypropylene support materials eliminates fiber migration
- IPA pre-wetting not required
- Manufactured in an ISO 9001 Certified Quality System
- Integrity Testable

Typical Applications

- Reagent Grade Chemicals
- API Chemicals
- Fine Chemicals
- Biological Fluids
Specifications

Filter Media: Nylon 6,6 cast on polyester
Pleat Support Material: Polypropylene, Polyester
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond
Seals: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

**Cartridge Series**
- PRMXS: Pur-MAXX N

**Micron Rating**
- 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

**Length**
- 10, 20, 30, 40

**Pleat Support Materials**
- PE - Polyester
- PP - Polypropylene

**End Cap Configurations**
- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

**Gasket/O-ring Materials**
- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
- E - EPDM
- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS - FEP Encapsulated Silicone

**Cartridge Guide**
- Blank - General
- 1 - FDA Grade
- 2 - Pharmaceutical
- 5 - Water

**Options**
- I - 316 Stainless Steel Insert
- DIF - DI Flush

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**Product Specifications**

**Dimensions**
- **Outside Diameter:** 2.7” (6.87cm)
- **Lengths:** 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- **Surface Area:** 6.8 ft\(^2\) per 10” equivalent

**Performance Specifications**

**Absolute Rated Retention:**
- 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

**Maximum Forward Differential Pressure**
- **Forward:** 75 psid (5.5 bar) @ 75°F (24°C)
- 40 psid (2.8 bar) @ 180°F (82°C)
- **Reverse:** 50 psid (3.4 bar) @ 75°F (24°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty Polypropylene Hardware

**Toxicity**
- Cartridge materials meet CFR 21 for food and beverage contact

**Sterilization**
- Cartridge can be sterilized via steam or Autoclave.
- Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

**Packaging Economy**
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton
Pur-MAXX CN pleated cartridges are manufactured with highly retentive, naturally hydrophilic, Nylon membranes that have an added cationic, positively charged, functional group. The positive surface charge or positive zeta potential, provides enhanced retention of smaller negatively charged particles such as endotoxins by electrokinetic mechanisms. Therefore The Pur-MAXX CN provides absolute particle retention by size exclusion while having the added benefit of removing significantly smaller, negatively charged particles.

The Charged Nylon 6,6 membrane in an all-polypropylene construction provides excellent wet-out characteristics and superior flow performance per surface area as compared to other membrane cartridges.

Pur-MAXX CN cartridges are perfectly suited for critical applications where superior flow and particle removal efficiency between 0.04 and 1.2 micron is required.

Features and Benefits

- Meets USP Biological Tests for USP Class VI – 121°C Plastics, in vivo and Cytotoxicity tests in vitro
- 100% Hydrophilic materials of construction that are FDA listed as suitable for contact with food and beverage
- Positive zeta potential for removal of particles smaller than absolute rating of filter
- Absolute-rated media provides reliable, consistent and repeatable filtrate quality
- High surface area yielding lower pressure drops and longer filter life
- Lower filter extractables than other hydrophilic membranes
- Non-fiber shedding polyester and polypropylene support materials eliminates fiber migration
- IPA pre-wetting not required
- Manufactured in an ISO 9001:2008 Certified Quality System
- Integrity Testable

Typical Applications

- Endotoxin removal
- Reagent Grade Chemicals
- Silica removal
- API Chemicals
- Fine Chemicals
- Biological Fluids
Specifications

Filter Media
Charged Nylon 6,6 cast on polyester

Pleat Support Material
Polypropylene

End Caps
Polypropylene

Cage/Core
Polypropylene

Sealing
Thermal Bond

Seals
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
Cartridge Series
PRMXCN: Pur-MAXX CN

Micron Rating
0.04, 0.05, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

Length
10, 20, 30, 40

Pleat Support Materials
PE - Polyester
PP - Polypropylene

End Cap Configurations
C1-DOE flat open ends
C2-SOE recessed cup, internal 213 O-ring
C3-SOE flat closed ends, external 222 O-ring
C4-SOE flat closed end
C5-SOE recessed cup, external 222 O-ring
C6-SOE flat closed end, external 226 O-ring
C7-SOE fin end, external 226 O-ring
C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Cartridge Guide
Blank - General
1 - FDA Grade
2 - Pharmaceutical
5 - Water

Options
I - 316 Stainless Steel Insert
DIF - DI Flush

Product Specifications

Dimensions
Outside Diameter: 2.7" (6.87cm)

Lengths: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

Surface Area: 6.8ft² per 10" equivalent

Performance Specifications

Absolute Rated Retention:
0.04, 0.05, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

Maximum Forward Differential Pressure
Forward: 75 psid (5.5 bar) @ 75°F (24°C)
40 psid (2.8 bar) @ 180°F (82°C)

Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty Polypropylene Hardware

Toxicity
Cartridge materials meet CFR 21 for food and beverage contact

Sterilization
Cartridge can be sterilized via steam or Autoclave:
20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch 24 per carton
20 inch 12 per carton
30 inch 12 per carton
40 inch 9 per carton

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
The Pur-MAXX T PTFE membrane filter was developed for critical filtration applications where PTFE and Polypropylene materials are compatible. Utilizing a proprietary PTFE membrane casting method we are able to achieve a pore configuration that optimizes cartridge flow rates with absolute and reliable particle and microorganism retention. This unique combination of features positions Pur-MAXX T as one of the most reliable and economical PTFE membranes in the market.

Pur-MAXX T pleated membrane cartridges are manufactured and tested in 3rd party certified clean rooms with components that meet USP Class VI Biological Reactivity Test resulting in extremely low extractables. These high purity elements are perfect for biopharmaceutical, microelectronics and high purity chemical applications.

Features and Benefits

- PTFE membranes
- Pharmaceutical Grade elements are 100% integrity tested
- High flow rates
- Low extractables
- Thermally bonded construction
- FDA listed materials per CFR 21
- Manufactured in a ISO 9001:2008 certified facility
- Quality control certificate packaged with every filter
- Manufactured in 3rd party certified clean rooms
Specifications

Filtration Membrane: Polytetrafluoroethylene (PTFE)
Pleat Support Material: Polypropylene
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond

Example:

Cartridge Series: PRMXT
Micron Rating: 0.10, 0.20
Length: 10, 20, 30, 40
Pleat Support Materials: PP - Polypropylene
End Cap Configurations:
- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials:
- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
- E - EPDM
- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS - FEP Encapsulated Silicone

Cartridge Guide:
- Blank - General
- 2 - Pharmaceutical

Options:
- I - 316 Stainless Steel Insert
- DIF - DI Flush

Product Specifications

Dimensions
- Outside Diameter: 2.7” (6.87cm)
- Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- Nominal Surface Area: 6.8ft² per 10” equivalent

Performance Specifications

Absolute Rated Retention:
- 0.10, 0.20

Maximum Forward Differential Pressure
- Forward: 75 psid (5.5 bar) @ 75°F (24°C)
- 40 psid (2.8 bar) @ 180°F (82°C)

Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature
- 180°F (82°C) Continuous Duty

Packaging Economy

Bulk packaging in case quantities to reduce material disposal:

<table>
<thead>
<tr>
<th>Length</th>
<th>Carton Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 inch</td>
<td>24 per carton</td>
</tr>
<tr>
<td>20 inch</td>
<td>12 per carton</td>
</tr>
<tr>
<td>30 inch</td>
<td>12 per carton</td>
</tr>
<tr>
<td>40 inch</td>
<td>12 per carton</td>
</tr>
</tbody>
</table>

The Strainrite Companies  |  www.strainrite.com  |  Toll Free 800-487-3136
Designed as a “Pre-Final” filter the Duo-MAXX was created to protect final filters saving money and extending the life of your final filters. Duo MAXX incorporates a synchronized media design. Duo-MAXX design utilizes a prefiltration layer up-stream or over our final membrane layer in the same cartridge. Duo-MAXX is a pre-filter and a final filter in one.

Duo-MAXX is available in multiple micron ranges and combinations to meet the requirements of your process. Duo MAXX is available in two prefiltration materials; Polypropylene microfiber and Borosilicate microglass. The final filtration layer is available in Nylon, Polysulfone, Cellulose Acetate, and Strainrites’ asymmetric Polyethersulfone membrane.

Features and Benefits

- Reliable non fiber releasing media
- Synchronized media
- Thermally bonded construction
- No additives or glue
- All materials of construction are FDA compliant with CFR Title 21
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- High strength design allowing for extended use and multi-autoclave cycles

Typical Applications

- Pre-final Ultra pure water
- Pre-final high purity chemicals
- Bio-pharmaceutical
- Bio-Burden reduction
- Viscous fluids and polymers

Clarity™
clear solutions
### Specifications

#### Pre-Filter Media
- Borosilicate Microglass (GF), Polypropylene (MF)

#### Membrane Media
- Polyethersulfone, Nylon, Polysulfone, Cellulose Acetate

#### Pleat Support Material
- Polypropylene, Polyester

#### End Caps
- Polypropylene

#### Cage/Core
- Polypropylene

#### Sealing
- Thermal Bond

#### Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Example:

#### Cartridge Series
- DMX: Duo-MAXX

#### Pre-Filter Materials
- GF: Borosilicate Microglass
- MF: Polypropylene Micro-Fiber

#### Micron Rating*
- 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

#### Membrane
- E: Polyethersulfone
- N: Nylon
- P: Polypropylene

#### Length
- 10, 20, 30, 40

#### End Cap Configurations
- C1: DOE flat open ends
- C2: SOE recessed cup, internal 213 O-ring
- C3: SOE flat closed ends, external 222 O-ring
- C4: SOE flat closed end
- C5: SOE recessed cup, external 222 O-ring
- C6: SOE flat closed end, external 226 O-ring
- C7: SOE fin end, external 226 O-ring
- C8: SOE fin end, external 222 O-ring

#### Gasket/O-ring Materials
- S: Silicone (standard O-rings)
- B: Buna N (standard gaskets)
- V: Fluorocarbon
- E: EPDM
- T: PTFE
- TV: FEP Encapsulated Fluorocarbon
- TS: FEP Encapsulated Silicone

#### Cartridge Guide
- Blank - Industrial

#### Options
- I: 316 Stainless Steel Insert
- DIF: DI Flush

---

* Refer to Absolute Rated Retention for membrane micron availability

#### Cartridge Guide

**DMXGF04E10C7SDIF**

---

### Product Specifications

#### Dimensions
- **Outside Diameter:** 2.7" (6.87cm)
- **Lengths:** 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

#### Surface Area
- **GF:** 5ft² per 10" equivalent
- **MF:** 6.3ft² per 10" equivalent

#### Performance Specifications

**Absolute Rated Retention:**
- Polyethersulfone: 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- Polysulfone: 0.05, 0.10, 0.20, 0.45, 0.65
- Nylon: 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- Cellulose Acetate: 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

**Maximum Forward Differential Pressure**
- Forward: 50 psid (5.5 bar) @ 75°F (24°C)
- Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty

#### Toxicity
- Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

#### Sterilization
- Cartridge can be sterilized via steam or Autoclave:
  - 20 times at 275°F (135°C)
  - Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

#### Packaging Economy
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton
The **Pur-MAXX C** was developed for the filtration of fluids that require a high degree of particle retention and/or constant bacterial barrier for effective sterilization. Our CA membrane is manufactured under a proprietary manufacturing process that meets rigorous quality standards throughout every step of production. This process generates consistent lot-to-lot filtration properties among the membranes to ensure product uniformity.

Our **Pur-MAXX C** filter cartridges use highly asymmetric cellulose acetate supported membrane that is hydrophilic, which ensures excellent flow rates, quick wet out and rinse up characteristics. **Pur-MAXX C** is naturally low binding, which is excellent for application where maximum recovery of protein is critical.

**Features and Benefits**

- High surface area elements offers excellent life and flux rates while providing absolute filtration
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- Non-fiber shedding Polyester and Polypropylene support materials eliminate potential for fiber migration
- All materials of construction are FDA compliant with CFR Title 21, Pharmaceutical grades are bio-safe in accordance with USP Class VI and Gamma Irradiation stable
- 100% Thermally bonded construction
- Integrity tested
- Low extractables, which ensures filtrate will be clean with consistent results
- Low protein binding
- High strength design allowing for extended use and multi-autoclave cycles.

**Typical Applications**

- Protein and enzyme filtration
- Biological fluid sterilization
- Tissue culture media sterilization
Specifications

Filter Media: Cellulose Acetate
Pleat Support Material: Polypropylene, Polyester
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond Seals
Seals: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
Cartridge Series
PRMXC
Micron Rating
0.10, 0.20, 0.45, 0.65, 0.80, 1.20
Length
10, 20, 30, 40
Pleat Support Materials
PE - Polyester
PP - Polypropylene
End Cap Configurations
C1-DOE flat open ends
C2-SOE recessed cup, internal 213 O-ring
C3-SOE flat closed ends, external 222 O-ring
C4-SOE flat closed end
C5-SOE recessed cup, external 222 O-ring
C6-SOE flat closed end, external 226 O-ring
C7-SOE fin end, external 226 O-ring
C8-SOE fin end, external 222 O-ring
Gasket/O-ring Materials
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Cartridge Guide
Blank - General
1 - FDA Grade
2 - Pharmaceutical
Options
I - 316 Stainless Steel Insert
DIF - DI Flush

Product Specifications
Dimensions
Outside Diameter: 2.7” (6.87cm)
Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
Surface Area: 6.8 ft² per 10” equivalent

Performance Specifications
Absolute Rated Retention:
0.10, 0.20, 0.45, 0.65, 0.80, 1.20
Maximum Forward Differential Pressure
Forward: 50 psid (5.5 bar) @ 75°F (24°C)
40 psid (2.8 bar) @ 180°F (82°C)
Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty

Toxicity
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization
Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch 24 per carton
20 inch 12 per carton
30 inch 12 per carton
40 inch 9 per carton

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
The Mem-PLEAT E was developed for the filtration of process fluids that require a high degree of particle retention and/or a constant bacterial barrier for effective sterilization.

Hydrophilic asymmetric polyethersulfone membrane ensures excellent flow rates, broad chemical compatibility, low protein binding, low extractability, high mechanical strength and temperature resistance in a variety of applications for the biopharmaceutical, microelectronics, chemical, food and beverage industries.

The Mem-PLEAT E meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics.

Features and Benefits

- High surface area membrane offers excellent life and flux rates, while providing absolute-rated filtration
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- Low pressure drops yield higher flow rates and reduced processing time
- Non fiber-shedding Polyester and Polypropylene support materials eliminate fiber migration
- Pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- Low hold-up volumes
- Integrity tested
- High strength design allowing for extended use and multi autoclave cycles

Typical Applications

- Liquid Clarification
- Chemical Filtration
- General-Use Water Filtration
- Deionized Water Systems
### Specifications

#### Materials of Construction

<table>
<thead>
<tr>
<th>Filter Media</th>
<th>Polyethersulfone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleat Support Material</td>
<td>Polypropylene, Polyester</td>
</tr>
<tr>
<td>End Caps</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Cage/Core</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Sealing</td>
<td>Thermal Bond</td>
</tr>
<tr>
<td>Seals</td>
<td>Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE</td>
</tr>
</tbody>
</table>

#### Cartridge Series

**Example:**

<table>
<thead>
<tr>
<th>Micron Rating</th>
<th>0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>10, 20, 30, 40</td>
</tr>
<tr>
<td>Pleat Support Material</td>
<td>PE - Polyester</td>
</tr>
<tr>
<td></td>
<td>PP - Polypropylene</td>
</tr>
<tr>
<td>End Cap Configurations</td>
<td>C1-DOE flat open ends</td>
</tr>
<tr>
<td></td>
<td>C2-SOE recessed cup, internal 213 O-ring</td>
</tr>
<tr>
<td></td>
<td>C3-SOE flat closed ends, external 222 O-ring</td>
</tr>
<tr>
<td></td>
<td>C4-SOE flat closed end</td>
</tr>
<tr>
<td></td>
<td>C5-SOE recessed cup, external 222 O-ring</td>
</tr>
<tr>
<td></td>
<td>C6-SOE flat closed end, external 222 O-ring</td>
</tr>
<tr>
<td></td>
<td>C7-SOE fin end, external 226 O-ring</td>
</tr>
<tr>
<td></td>
<td>C8-SOE fin end, external 222 O-ring</td>
</tr>
<tr>
<td>Gasket/O-ring Materials</td>
<td>S - Silicone (standard O-rings)</td>
</tr>
<tr>
<td></td>
<td>B - Buna N (standard gaskets)</td>
</tr>
<tr>
<td></td>
<td>V - Fluorocarbon</td>
</tr>
<tr>
<td></td>
<td>E - EPDM</td>
</tr>
<tr>
<td></td>
<td>T - PTFE</td>
</tr>
<tr>
<td></td>
<td>TV - FEP Encapsulated Fluorocarbon</td>
</tr>
<tr>
<td></td>
<td>TS - FEP Encapsulated Silicone</td>
</tr>
</tbody>
</table>

#### Ordering Information

<table>
<thead>
<tr>
<th>Cartridge Guide</th>
<th>Blank - General</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 - FDA Grade</td>
</tr>
<tr>
<td></td>
<td>2 - Pharmaceutical</td>
</tr>
<tr>
<td></td>
<td>5 - Water</td>
</tr>
</tbody>
</table>

| Options           | I - 316 Stainless Steel Insert |
|-------------------| DIF - DI Flush               |

#### Product Specifications

**Dimensions**

- **Outside Diameter:** 2.55" (6.48cm)
- **Lengths:** 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
- **Surface Area:** 6.8ft² per 10" equivalent

**Performance Specifications**

- **Absolute Rated Retention:**
  - 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- **Maximum Forward Differential Pressure**
  - **Forward:** 75 psid (5.5 bar) @ 75°F (24°C)
  - 40 psid (2.8 bar) @ 180°F (82°C)
- **Maximum Reverse Differential Pressure**
  - 50 psid (3.4 bar) @ 75°F (24°C)
- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty

**Toxicity**

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

**Sterilization**

Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:

- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

---

**MPE Pressure Drop vs. Flow Rate**

![Graph showing pressure drop vs. flow rate]

**Product Specifications**

- **Outside Diameter:** 2.55" (6.48cm)
- **Lengths:** 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
- **Surface Area:** 6.8ft² per 10" equivalent

**Performance Specifications**

- **Absolute Rated Retention:**
  - 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- **Maximum Forward Differential Pressure**
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- **Maximum Reverse Differential Pressure**
  - 50 psid (3.4 bar) @ 75°F (24°C)
- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty

**Toxicity**

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

**Sterilization**

Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:

- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

---

**MPE04-10PPC7S1DIF**
The Mem-Pleat S was developed for the filtration of process fluids that require a high degree of particle retention and/or constant bacterial barrier for effective sterilization.

Hydrophilic asymmetric polysulfone membrane ensures excellent flow rates, broad chemical compatibility, low protein binding, low extractability, high mechanical strength, and temperature resistance in a variety of applications for the biopharmaceutical, microelectronics, chemical, food and beverage industries.

The Mem-Pleat S meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics. Sterilizable using industry recognized and accepted methods.

**Features and Benefits**

- Highly tapered asymmetric pore structure which offers excellent flow rates and high solids loading characteristics
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- MAXXimum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- All materials of construction are FDA compliant with CFR Title 21, Pharmaceutical grades are bio-safe in accordance with USP Class VI
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- Low hold-up volumes
- Pharmaceutical and Electronics grades are integrity testable

**Typical Applications**

- Ink jet ink
- High purity aqueous chemicals
- DI water Pre and Post filter
- DI water Point-of-use
Specifications

Filter Media: Polysulfone
Pleat Support Material: Polypropylene
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond
Seals: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

Cartridge Series: MPS: Mem-PLEAT S
Micron Rating: 0.03, 0.05, 0.10, 0.20, 0.45, 0.65
Length: 10, 20, 30, 40
End Cap Configurations: C1-DOE flat open ends C2-SOE recessed cup, internal 213 O-ring C3-SOE flat closed ends, external 222 O-ring C4-SOE flat closed end C5-SOE recessed cup, external 222 O-ring C6-SOE flat closed end, external 226 O-ring C7-SOE fin end, external 226 O-ring C8-SOE fin end, external 222 O-ring


Cartridge Guide: Blank - General 1 - FDA Grade 2 - Pharmaceutical 3 - Electronics 5 - Water
Options: I - 316 Stainless Steel Insert DIF - DI Flush

MPS Pressure Drop vs. Flow Rate

Materials of Construction

Product Specifications
Dimensions
Outside Diameter: 2.55” (6.48cm)
Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
Surface Area: 6.8ft² per 10” equivalent

Performance Specifications
Absolute Rated Retention:
0.03, 0.05, 0.10, 0.20, 0.45, 0.65

Maximum Forward Differential Pressure
Forward: 75 psid (5.5 bar) @ 75°F (24°C) 40 psid (2.8 bar) @ 180°F (82°C)
Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty

Toxicity
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization
Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch 24 per carton
20 inch 12 per carton
30 inch 12 per carton
40 inch 9 per carton

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
Mem-PLEAT N pleated cartridges are highly retentive, naturally hydrophilic nylon membrane filters that are specially designed for critical filtration requirements of aqueous fluids. The Nylon 6,6 membrane, in an all-polypropylene construction, provides excellent wet-out characteristics and superior flow performance per surface area as compared to other membrane cartridges. No additives, resins, surfactants or binders are used in the manufacturing process, which dramatically reduces rinse up time, extractables and downtime.

Mem-PLEAT N cartridges are perfectly suited for critical applications where superior flow, and particle removal efficiency between 0.1 and 1.2 micron is required.

**Features and Benefits**

- 100% Hydrophilic materials of construction that are FDA listed as suitable for contact with food and beverage
- Absolute-rated media provides reliable, consistent and repeatable filtrate quality
- No adhesives, binders, resin or surfactants are used during manufacturing, resulting in superior downstream cleanliness
- High surface area, yielding lower pressure drops and longer filter life
- Lower filter extractables than other hydrophilic membranes
- Non fiber-shedding polyester and polypropylene support materials eliminate fiber migration
- IPA pre-wetting not required
- Manufactured in an ISO 9001: 2008 Certified Quality System Environment
- Integrity Testable

**Typical Applications**

- Reagent Grade Chemicals
- API Chemicals
- Fine Chemicals
- Biological Fluids
### Specifications

#### Filter Media
Nylon 6,6 cast on polyester

#### Pleat Support Material
Polypropylene, Polyester

#### End Caps
Polypropylene

#### Cage/Core
Polypropylene

#### Sealing
Thermal Bond

#### Seals
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

#### Example: Cartridge Series
**MPN:** Mem-PLEAT N

<table>
<thead>
<tr>
<th>Micron Rating</th>
<th>Pressure Drop vs. Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10, 0.20, 0.45, 0.65, 0.80, 1.20</td>
<td><img src="image" alt="Graph" /></td>
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</tbody>
</table>

#### Materials of Construction

<table>
<thead>
<tr>
<th>Cartridge Guide</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank - General</td>
<td>I - 316 Stainless Steel Insert DIF - DI Flush</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pleat Support Materials</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PE - Polyester</td>
<td>PP - Polypropylene</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>End Cap Configurations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C1-DOE flat open ends</td>
<td>C7</td>
</tr>
<tr>
<td>C2-SOE recessed cup, internal 213 O-ring</td>
<td></td>
</tr>
<tr>
<td>C3-SOE flat closed ends, external 222 O-ring</td>
<td></td>
</tr>
<tr>
<td>C4-SOE flat closed end</td>
<td></td>
</tr>
<tr>
<td>C5-SOE recessed cup, external 222 O-ring</td>
<td></td>
</tr>
<tr>
<td>C6-SOE flat closed end, external 222 O-ring</td>
<td></td>
</tr>
<tr>
<td>C7-SOE fin end, external 226 O-ring</td>
<td></td>
</tr>
<tr>
<td>C8-SOE fin end, external 222 O-ring</td>
<td></td>
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<table>
<thead>
<tr>
<th>Gasket/O-ring Materials</th>
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<tbody>
<tr>
<td>S - Silicone (standard O-rings)</td>
<td>S</td>
</tr>
<tr>
<td>B - Buna N (standard gaskets)</td>
<td></td>
</tr>
<tr>
<td>V - Fluorocarbon</td>
<td></td>
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<tr>
<td>E - EPDM</td>
<td></td>
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<tr>
<td>T - PTFE</td>
<td></td>
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<tr>
<td>TV - FEP Encapsulated Fluorocarbon</td>
<td></td>
</tr>
<tr>
<td>TS - FEP Encapsulated Silicone</td>
<td></td>
</tr>
</tbody>
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#### Ordering Information

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<tr>
<td>MPN</td>
<td>0.10, 0.20, 0.45, 0.65, 0.80, 1.20</td>
<td>10, 20, 30, 40</td>
<td>PE - Polyester PP - Polypropylene</td>
<td>C7</td>
<td>S</td>
<td>Blank - General</td>
<td>I DIF</td>
</tr>
</tbody>
</table>

#### Product Specifications

### Dimensions

- **Outside Diameter:** 2.55" (6.48cm)
- **Lengths:** 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
- **Surface Area:** 6.8ft² per 10" equivalent

### Performance Specifications

**Absolute Rated Retention:**
0.10, 0.20, 0.45, 0.65, 0.80, 1.20

- **Maximum Forward Differential Pressure**
  - Forward: 75 psid (5.5 bar) @ 75°F (24°C)
  - Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty Polypropylene Hardware
  - 275°F (135°C) Continuous Duty Polyester Hardware

### Toxicity
Cartridge materials meet CFR 21 for food and beverage contact

### Sterilization
Cartridge can be sterilized via steam or Autoclave.
Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

### Packaging Economy

Bulk packaging in case quantities to reduce material disposal:

- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton
Mem-Pleat CN pleated cartridges are manufactured with highly retentive, naturally hydrophilic, Nylon membranes that have an added cationic, positively charged, functional group. The positive surface charge or positive zeta potential, provides enhanced retention of smaller negatively charged particles such as endotoxins by electrokinetic mechanisms. Therefore The Mem-Pleat CN provides absolute particle retention by size exclusion while having the added benefit of removing significantly smaller, negatively charged particles.

The Charged Nylon 6,6 membrane in an all-polypropylene construction provides excellent wet-out characteristics and superior flow performance per surface area as compared to other membrane cartridges.

Mem-Pleat CN cartridges are perfectly suited for critical applications where superior flow and particle removal efficiency between 0.04 and 1.2 micron is required.

Features and Benefits

- Meets USP Biological Tests for USP Class VI – 121°C Plastics, in vivo and Cytotoxicity tests in vitro
- 100% Hydrophilic materials of construction that are FDA listed as suitable for contact with food and beverage
- Positive zeta potential for removal of particles smaller than absolute rating of filter
- Absolute-rated media provides reliable, consistent and repeatable filtrate quality
- High surface area yielding lower pressure drops and longer filter life
- Lower filter extractables than other hydrophilic membranes
- Non-fiber shedding polyester and polypropylene support materials eliminates fiber migration
- IPA pre-wetting not required
- Manufactured in an ISO 9001:2008 Certified Quality System
- Integrity Testable

Typical Applications

- Endotoxin removal
- Reagent Grade Chemicals
- Silica removal
- API Chemicals
- Fine Chemicals
- Biological Fluids
### Specifications

#### Materials of Construction
- **Filter Media**: Charged Nylon 6,6 cast on polyester
- **Pleat Support Material**: Polypropylene, Polyester
- **End Caps**: Polypropylene
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

#### Ordering Information

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<td>MPCN</td>
<td>0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20</td>
<td>10, 20, 30, 40</td>
<td>PE - Polyester PP - Polypropylene</td>
<td>C1-DOE flat open ends C2-SOE recessed cup, internal 213 O-ring C3-SOE flat closed ends, external 222 O-ring C4-SOE flat closed end C5-SOE recessed cup, external 222 O-ring C6-SOE flat closed end, external 226 O-ring C7-SOE fin end, external 226 O-ring C8-SOE fin end, external 222 O-ring</td>
<td>S - Silicone (standard O-rings) B - Buna N (standard gaskets) V - Fluorocarbon E - EPDM T - PTFE TV - FEP Encapsulated Fluorocarbon TS - FEP Encapsulated Silicone</td>
<td>Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water</td>
<td>I - 316 Stainless Steel Insert DIF - DI Flush</td>
</tr>
</tbody>
</table>

#### Product Specifications
- **Dimensions**
  - **Outside Diameter**: 2.55” (6.48cm)
  - **Lengths**: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
  - **Surface Area**: 6.8ft² per 10” equivalent
- **Micron Rating**: 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- **Maximum Forward Differential Pressure**
  - **Forward**: 75 psid (5.5 bar) @ 75°F (24°C)
  - **Reverse**: 50 psid (3.4 bar) @ 75°F (24°C)
- **Maximum Operating Temperature**: 180°F (82°C) Continuous Duty Polypropylene Hardware
- **Toxicity**: Cartridge materials meet CFR 21 for food and beverage contact
- **Sterilization**: Cartridge can be sterilized via steam or Autoclave; 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility
- **Packaging Economy**: Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

#### MPCN Pressure Drop vs. Flow Rate

**Differential Pressure (psid)** vs. **Water Flow Rate (gpm)**

**Example**: Cartridge Series: MPCN; Micron Rating: 0.1; Length: 10; Pleat Support Materials: PE - Polyester PP - Polypropylene; End Cap Configurations: C7; Gasket/O-ring Materials: S - Silicone; Cartridge Guide: Blank - General; Options: I - 316 Stainless Steel Insert DIF - DI Flush

---

**MPCN0.1-10PPC7S1DIF**
The **Mem-Pleat T** PTFE membrane filter was developed for critical filtration applications where PTFE and Polypropylene materials are compatible. Utilizing a proprietary PTFE membrane casting method we are able to achieve a pore configuration that optimizes cartridge flow rates with absolute and reliable particle and microorganism retention. This unique combination of features positions **Mem-Pleat T** as one of the most reliable and economical PTFE membranes in the market.

**Mem-Pleat T** pleated membrane cartridges are manufactured and tested in 3rd party certified clean rooms with components that meet USP Class VI Biological Reactivity Test resulting in extremely low extractables. These high purity elements are perfect for biopharmaceutical, microelectronics and high purity chemical applications.

### Features and Benefits

- PTFE membranes
- Pharmaceutical Grade elements are 100% integrity tested
- High flow rates
- Low extractables
- Thermally bonded construction
- FDA listed materials per CFR 21
- Manufactured in a ISO 9001:2008 certified facility
- Quality control certificate packaged with every filter
- Manufactured in 3rd party certified clean rooms
Filtration Membrane: Polytetrafluoroethylene (PTFE)
Pleat Support Material: Polypropylene
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond

Integrity Test Data
All cartridges are integrity tested prior to shipment using pressure decay test method. Values below are for cartridges wetted with 50/50 IPA/DI Water.

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>Test Pressure</th>
<th>Diffusional Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>10&quot;</td>
<td>12psi</td>
<td>13mL/min</td>
</tr>
<tr>
<td>20&quot;</td>
<td>12psi</td>
<td>26mL/min</td>
</tr>
<tr>
<td>30&quot;</td>
<td>12psi</td>
<td>39mL/min</td>
</tr>
<tr>
<td>40&quot;</td>
<td>12psi</td>
<td>52mL/min</td>
</tr>
</tbody>
</table>

Example:
Cartridge Series: MPT: Mem-PLEAT T
Micron Rating: 0.10, 0.20
Lengths: 10, 20, 30, 40
Pleat Support Materials: PP - Polypropylene
End Cap Configurations:
C1-DOE flat open ends
C2-SOE recessed cup, internal 213 O-ring
C3-SOE flat closed ends, external 222 O-ring
C4-SOE flat closed end
C5-SOE recessed cup, external 222 O-ring
C6-SOE flat closed end, external 226 O-ring
C7-SOE fin end, external 226 O-ring
C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials:
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Cartidge Guide:
Blank - General
2 - Pharmaceutical

Options:
I - 316 Stainless Steel Insert
DIF - Di Flush

Product Specifications
Dimensions
Outside Diameter: 2.55" (6.48cm)
Lengths:
10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
Nominal Surface Area: 6.8ft² per 10" equivalent

Performance Specifications
Absolute Rated Retention: 0.10, 0.20
Maximum Forward Differential Pressure
Forward: 75 psid (5.5 bar) @ 75°F (24°C)
        40 psid (2.8 bar) @ 180°F (82°C)
Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature
203°F (95°C) Continuous Duty

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch 24 per carton
20 inch 12 per carton
30 inch 12 per carton
40 inch 12 per carton

MPT0.2-10PPC7SDIF
Duo-PLEAT

Maxx protection for Membrane Filters

Designed as a “Pre-Final” filter the Duo-Pleat was created to protect final filters saving money and extending the life of your final filters. Duo Pleat incorporates a synchronized media design. Duo-Pleat design utilizes a prefiltration layer up-stream or over our final membrane layer in the same cartridge. Duo-Pleat is a pre-filter and a final filter in one.

Duo-Pleat is available in multiple micron ranges and combinations to meet the requirements of your process. Duo Pleat is available in two prefiltration materials; Polypropylene microfiber and Borosilicate microglass. The final filtration layer is available in Nylon, Polysulfone, Cellulose Acetate, and Strainrites’ asymmetric Polyethersulfone membrane.

Features and Benefits

- Reliable non fiber releasing media
- Synchronized media
- Thermally bonded construction
- No additives or glue
- All materials of construction are FDA compliant with CFR Title 21
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- High strength design allowing for extended use and multi-autoclave cycles

Typical Applications

- Pre-final Ultra pure water
- Pre-final high purity chemicals
- Bio-pharmaceutical
- Bio-Burden reduction
- Viscous fluids and polymers
Specifications

Pre-Filter Media
- Borosilicate Microglass (GF), Polypropylene (MF)

Membrane Media
- Polyethersulfone, Nylon, Polysulfone

Pleat Support Material
- Polypropylene, Polyester

End Caps
- Polypropylene

Cage/Core
- Polypropylene

Sealing
- Thermal Bond

Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
- Cartridge Series: DP: Duo-PLEAT
- Pre-Filter Materials: GF- Borosilicate Microglass
- Membrane: E- Polyethersulfone
- Micron Rating: 0.03, 0.04, 0.05, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- Length: 10, 20, 30, 40
- End Caps Configurations: C1-DOE flat open ends
- Gasket/O-ring Materials: S- Silicone (standard O-rings)
- Cartridge Guide: Blank - Industrial

Ordering Information: DPGF04E10C7SDIF

Product Specifications

Dimensions
- Outside Diameter: 2.55” (6.48cm)
- Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- Surface Area GF: 5ft² per 10” equivalent
- Surface Area MF: 6.3ft² per 10” equivalent

Performance Specifications

Absolute Rated Retention:
- Polyethersulfone: 0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- Polysulfone: 0.03, 0.05, 0.10, 0.20, 0.45, 0.65
- Nylon: 0.10, 0.20, 0.45, 0.65, 0.80, 1.20

Maximum Forward Differential Pressure
- Forward: 50 psid (5.5 bar) @ 75°F (24°C)
- Reverse: 50 psid (2.8 bar) @ 180°F (82°C)

Maximum Operating Temperature
- 180°F (82°C) Continuous Duty

Toxicity
- Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization
- Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C)
- Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

*Duo-Pleat MF with Polyethersulfone membrane

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* Refer to Absolute Rated Retention for membrane micron availability
The Mem-Pleat C was developed for the filtration of fluids that require a high degree of particle retention and/or constant bacterial barrier for effective sterilization. Our CA membrane is manufactured under a proprietary manufacturing process that meets rigorous quality standards throughout every step of production. This process generates consistent lot-to-lot filtration properties among the membranes to ensure product uniformity.

Our Mem-Pleat C filter cartridges use highly asymmetric cellulose acetate supported membrane that is hydrophilic, which ensures excellent flow rates, quick wet out and rinse up characteristics. Mem-Pleat C is naturally low binding, which is excellent for application where maximum recovery of protein is critical.

**Features and Benefits**

- High surface area elements offers excellent life and flux rates while providing absolute filtration
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- Non-fiber shedding Polyester and Polypropylene support materials eliminate potential for fiber migration
- All materials of construction are FDA compliant with CFR Title 21, Pharmaceutical grades are bio-safe in accordance with USP Class VI and Gamma Irradiation stable
- 100% Thermally bonded construction
- Integrity tested
- Low extractables, which ensures filtrate will be clean with consistent results
- Low protein binding
- High strength design allowing for extended use and multi-autoclave cycles.

**Typical Applications**

- Protein and enzyme filtration
- Biological fluid sterilization
- Tissue culture media sterilization
### Materials of Construction

- **Filter Media**: Cellulose Acetate
- **Pleat Support Material**: Polypropylene, Polyester
- **End Caps**: Polypropylene
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Ordering Information

#### Example:

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<tbody>
<tr>
<td>MPC</td>
<td>0.10, 0.20, 0.45, 0.65, 0.80, 1.20</td>
<td>PE - Polyester, PP - Polypropylene</td>
<td>C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring</td>
<td>S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone</td>
<td>Blank, FDA Grade, Pharmaceutical</td>
<td>I - 316 Stainless Steel Insert, DIF - DI Flush</td>
</tr>
</tbody>
</table>

| MPC Pressure Drop vs. Flow Rate |

![Graph showing MPC Pressure Drop vs. Flow Rate](image)

### Product Specifications

#### Dimensions
- **Outside Diameter**: 2.55” (6.48cm)
- **Lengths**: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- **Surface Area**: 6.8ft² per 10” equivalent

#### Performance Specifications
- **Absolute Rated Retention**: 0.10, 0.20, 0.45, 0.65, 0.80, 1.20
- **Maximum Forward Differential Pressure**
  - Forward: 50 psid (5.5 bar) @ 75°F (24°C), 40 psid (2.8 bar) @ 180°F (82°C)
  - Reverse: 50 psid (3.4 bar) @ 75°F (24°C)
- **Maximum Operating Temperature**: 180°F (82°C) Continuous Duty
- **Toxicity**: Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact
- **Sterilization**: Cartridge can be sterilized via steam or Autoclave; Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility
- **Packaging Economy**: Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

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**The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136**
Strainrite’s Poly-MAXX, all-Polypropylene, filter cartridges are designed to optimize throughput while achieving absolute and repeatable effluent quality. Our filter media is constructed on the latest continuous Micro-Fiber blowing equipment that accurately controls fiber diameter and integrity. Utilizing state-of-the-art on-line monitoring equipment, Strainrite delivers the industry’s most uniform and consistent media, ensuring unparalleled product consistency.

Our 100% Polypropylene construction provides an expansive chemical compatibility range for your most demanding applications. All materials of construction meet the requirements of USP Class VI and CFR 21 for food and beverage contact.

**Features and Benefits**

- Absolute-rated media provides reliable, consistent and repeatable filtration
- Low pressure drop yields higher flow rates and reduced processing time
- MAXX-imum pleat design for greater surface area, ensuring longer service life, less downtime and reduced operating costs per cartridge
- 100% Polypropylene, FDA compliant with CFR 21 and USP Class VI
- Thermally bonded construction minimizes extractables, eliminating particle bypass

**Typical Applications**

- Reagent Grade Chemicals
- General Water Filtration
- Recirculating Liquids
- Waste Water
- DI/RO Prefiltration
Specifications

Filter Media
- Polypropylene Microfiber

Pleat Support Material
- Polypropylene

End Caps
- Polypropylene

Cage/Core
- Polypropylene

Sealing
- Thermal Bond

Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
- Cartridge Series: PMX
- Micron Rating: 1, 1.5, 2.5, 5, 10, 15, 20, 40, 70
- Length: 10, 20, 30, 40
- Pleat Support Materials: PE - Polyester, PP - Polypropylene
- End Cap Configurations: C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring
- Gasket/O-ring Materials: S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone
- Cartridge Guide: Blank - General, 1 - FDA Grade, 2 - Pharmaceutical
- Options: I - 316 Stainless Steel Insert, DIF - DI Flush

Product Specifications

Dimensions
- Outside Diameter: 2.7” (6.87cm)
- Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)

Performance Specifications
- Retention Rating:
  - 1.0, 1.5, 2.5, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0

Maximum Operating Temperature
- 180°F (82°C) Continuous Duty

Toxicity
- All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

Packaging Economy
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

Product Efficiency
- Poly-MAXX: 99.98% Efficiency
  - PMX 1: 1.0µm
  - PMX 1.5: 1.5µm
  - PMX 2.5: 2.5µm
  - PMX 5: 5.0µm
  - PMX 10: 10.0µm
  - PMX 15: 15.0µm
  - PMX 20: 20.0µm
  - PMX 40: 40.0µm
  - PMX 70: 70.0µm

Ordering Information

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<tr>
<th>Cartridge Series</th>
<th>PMX: Poly-MAXX</th>
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</tr>
<tr>
<td>Length</td>
<td>10, 20, 30, 40</td>
</tr>
<tr>
<td>Pleat Support Materials</td>
<td>PE - Polyester, PP - Polypropylene</td>
</tr>
<tr>
<td>End Cap Configurations</td>
<td>C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, etc.</td>
</tr>
<tr>
<td>Gasket/O-ring Materials</td>
<td>S - Silicone, B - Buna N, V - Fluorocarbon, E - EPDM, etc.</td>
</tr>
<tr>
<td>Cartridge Guide</td>
<td>Blank - General, 1 - FDA Grade, 2 - Pharmaceutical</td>
</tr>
<tr>
<td>Options</td>
<td>I - 316 Stainless Steel Insert, DIF - DI Flush</td>
</tr>
</tbody>
</table>

Example: PMX1-10PPC7S1DIF

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
The Poly-Maxx G, all-Polypropylene, nominally rated filter cartridge is designed to reduce overall filtration costs when compared to spunbonded, stringwound and nominally-rated pleated cartridges. The Poly-Maxx G media is designed and manufactured on state-of-the-art meltblowing equipment under Strainrite’s strict specifications for high solids loading requirements in a variety of prefiltration applications.

Poly-Maxx G is constructed using the latest high-speed thermal bonding equipment in a clean environment to ensure superior product cleanliness and thermal and chemical compatibility. All of these depth cartridges are manufactured using 100% virgin Polypropylene materials that comply with FDA Title 21 of The Code of Federal Regulations for food and beverage contact.

Features and Benefits

- MAXX-imum pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- FDA Title 21 compliant for food and beverage contact
- Lower pressure drops, which yield higher flow rates and reduced processing time
- 100% Polypropylene construction offers a wide range of chemical compatibility
- Thermally bonded construction to ensure a cleaner filtrate

Typical Applications

- Wine clarification
- Water filtration
- Solvent filtration
- RO/DI prefiltration
- Liquefied sugar
- Waste Water
Specifications

Filter Media: Polypropylene Microfiber
Pleat Support Material: Polypropylene
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond
Seals: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

Cartridge Series: PMXG: Poly-MAXX G
Micron Rating: 0.25, 0.50, 1, 2.5, 5, 8, 12, 20, 30, 50
Length: 10, 20, 30, 40
Pleat Support Materials: PE - Polyester, PP - Polypropylene
End Cap Configurations: C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials: S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone

Cartridge Guide: Blank - General, 1 - FDA Grade, 2 - Pharmaceutical
Options: I - 316 Stainless Steel Insert, DIF - DI Flush

Product Specifications

Dimensions
Outside Diameter: 2.7” (6.87cm)
Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)

Performance Specifications
Retention Rating: 0.25, 0.50, 1.0, 2.5, 5.0, 8.0, 12.0, 20.0, 30.0, 50.0

Maximum Forward Differential Pressure
75 psid (5.1 bar) @ 68°F (20°C)
40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty

Toxicity
All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21 CFR 177.1520

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch: 24 per carton
20 inch: 12 per carton
30 inch: 12 per carton
40 inch: 9 per carton

Product Efficiency

Poly-MAXX G: 99% Efficiency
PMXG 0.25: 0.25µm
PMXG 0.50: 0.50µm
PMXG 1: 1.0µm
PMXG 2.5: 2.5µm
PMXG 5: 5.0µm
PMXG 8: 8.0µm
PMXG 12: 12.0µm
PMXG 20: 20.0µm
PMXG 30: 30.0µm
PMXG 50: 50.0µm

PMXG1-10PPC7S1DIF

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
The Poly-Maxx Select is another example of Strainrite's continued tradition of providing industry leading filtration solutions. Poly-Maxx Select is an absolute rated gradient density pleated polypropylene depth cartridge. It utilizes our revolutionary HSL (High Solids Loading) technology in combination with our high efficiency micro-fiber meltblown, creating one of the longest lasting high efficiency pleated filters on the market.

The Poly-Maxx Select filters are manufactured without binders or resins, resulting in an extremely clean non-fiber shedding filter. Due to our utilization of the HSL technology this element is outstanding for removing gels, compared to traditional pleated polypropylene filters.

Features and Benefits

- Absolute-rated media provides reliable, consistent and repeatable filtration results
- MAXXimum pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- FDA Title 21 compliant for food and beverage contact
- Lower pressure drops, which yield higher flow rates and reduced processing time
- 100% Polypropylene construction offers a wide range of chemical compatibility
- Thermally bonded construction ensures a cleaner filtrate while minimizing extractables

All materials of construction comply with FDA Title 21 of The Code of Federal Regulations for food and beverage contact.

Typical Applications

- Bleach
- Water filtration
- Solvent filtration
- RO/DI prefiltration
- Liquefied sugar
- Waste Water
- Wine clarification

Specifications

**Filter Media**: Polypropylene Microfiber Composite

**Pleat Support Material**: Polypropylene

**End Caps**: Polypropylene

**Cage/Core**: Polypropylene

**Sealing**: Thermal Bond

**Seals**: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

**Example**: Cartridge Series

<table>
<thead>
<tr>
<th>Micron Rating</th>
<th>Length</th>
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<tbody>
<tr>
<td>1, 1.5, 3.0, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0, 90.0</td>
<td>10&quot;, 20&quot;, 30&quot;, 40&quot;</td>
</tr>
</tbody>
</table>

**End Cap Configurations**

- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

**Gasket/O-ring Materials**

- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
- E - EPDM
- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS - FEP Encapsulated Silicone

**Cartridge Guide**

- Blank - General
- 1 - FDA Grade
- 2 - Pharmaceutical

**Options**

- I - 316 Stainless Steel Insert
- DIF - DI Flush

### Product Specifications

**Dimensions**

- **Outside Diameter**: 2.7" (6.87cm)
- **Lengths**: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

**Performance Specifications**

- **Retention Rating**: 1.0, 1.5, 3.0, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0, 90.0
- **Maximum Forward Differential Pressure**: 75 psid (5.1 bar) @ 68°F (20°C)
- **Maximum Operating Temperature**: 180°F (82°C) Continuous Duty

**Toxicity**

All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:

- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

**Product Efficiency**

**Poly-MAXX Select** 99.98% Efficiency

- SPMX 1: 1.0µm
- SPMX 1.5: 1.5µm
- SPMX 3: 3.0µm
- SPMX 5: 5.0µm
- SPMX 10: 10.0µm
- SPMX 15: 15.0µm
- SPMX 20: 20.0µm
- SPMX 40: 40.0µm
- SPMX 70: 70.0µm
- SPMX 90: 90.0µm

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Strainrite’s Fiber-MAXX Pleated Filter Cartridges utilize a high surface area and high void volume media, incorporating Micro-Glass fibers in a uniform matrix that optimizes element flow rate and service life unattainable by other Micro-Fiber technologies. This revolutionary Micro-Fiber matrix optimizes pore size geometry required to offer absolute-rated filtration performance. Strainrite’s non-calendared Micro-Glass, Fiber-MAXX, cartridges exhibit significantly reduced resistance to flow when compared to similarly rated Micro-Fiber technologies.

Fiber-MAXX cartridges are an excellent choice for filtering beverages such as beer and wine, as they do not remove flavor enhancing proteins. Our materials of construction meet or exceed the requirements of the CFR 21 for Food and Beverage contact. Strainrite offers elements that utilize an epoxy binder providing the Fiber-MAXX with an increased range of applications where chemical compatibility is critical.

Features and Benefits

- Absolute-rated media provide reliable pore size control resulting in repeatable filtration performance
- Non-fiber releasing materials with minimal extractables provide high purity filtrate
- Low pressure drops yield higher flow rates and reduced processing time
- Maxx-imum pleat design coupled with non-calendared Micro-Glass matrix offers greater surface area, ensuring longer service life, less downtime and reduced operating costs per cartridge
- Industrial grade utilizes an epoxy binder, FDA grade utilizes an acrylic binder
- Thermally bonded construction eliminates particle bypass

Typical Applications

- Inks and Coatings
- Oil and Gas Production
- Chemical Processing
- Plating Solutions
- Photographic Films
- Waste Water
- Solvent Filtration
Specifications

**Filter Media**  
Borosilicate Microfiber glass

**Pleat Support Material**  
Polypropylene, Polyester

**End Caps**  
Polypropylene

**Cage/Core**  
Polypropylene

**Sealing**  
Thermal Bond Seals  
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

**Example:**  
Cartridge Series  
FMX: Fiber-MAXX

**Micron Rating**  
0.8, 0.9, 1.0, 2.0, 3.0, 5.0, 10.0, 15.0

**Length**  
10, 20, 30, 40

**Pleat Support Materials**  
PE - Polyester  
PP - Polypropylene

**End Cap Configurations**  
C1-DOE flat open ends  
C2-SOE recessed cup, internal 213 O-ring  
C3-SOE flat closed ends, external 222 O-ring  
C4-SOE flat closed end  
C5-SOE recessed cup, external 222 O-ring  
C6-SOE flat closed end, external 226 O-ring  
C7-SOE fin end, external 226 O-ring  
C8-SOE fin end, external 222 O-ring

**Gasket/O-ring Materials**  
S - Silicone (standard O-rings)  
B - Buna N (standard gaskets)  
V - Fluorocarbon  
E - EPDM  
T - PTFE  
TV - FEP Encapsulated Fluorocarbon  
TS - FEP Encapsulated Silicone

**Cartridge Guide**  
Blank - General  
1 - FDA Grade  
5 - Water

**Options**  
I - 316 Stainless Steel Insert  
DIF - Di Flush

---

**Materials of Construction**

**Ordering Information**

**Product Specifications**

**Dimensions**

**Outside Diameter:** 2.7" (6.87cm)

**Lengths:**
- 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

**Performance Specifications**

**Retention Rating:**
- 0.8, 0.9, 1.0, 2.0, 3.0, 5.0, 10.0, 15.0

**Maximum Forward Differential Pressure**
- 75 psid (5.1 bar) @ 68°F (20°C)
- 40 psid (2.8 bar) @ 150°F (65°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty Polypropylene Hardware  
- 275°F (135°C) Continuous Duty Polyester Hardware

**Toxicity**

All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton  
- 20 inch: 12 per carton  
- 30 inch: 12 per carton  
- 40 inch: 9 per carton

**Product Efficiency**

Fiber-MAXX  
99.98% Efficiency  
90.00% Efficiency

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<th>Micron Rating</th>
<th>Fiber-MAXX Efficiency</th>
<th>90.00% Efficiency</th>
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<td>FMX 15</td>
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</table>
Strainrite’s Fiber-MAXX G pleated filter cartridges utilize a high surface area and high void volume media, incorporating Micro-Glass fibers in a uniform matrix that optimizes element flow rate and service life unattainable by other traditional Micro-Fiber technologies. This revolutionary Micro-Fiber matrix optimizes pore size geometry required to offer beta rated filtration performance. Strainrite’s non-calendared Micro-Glass, Fiber-MAXX G cartridges exhibit significantly reduced resistance to flow when compared to similarly rated Micro-Fiber technologies.

Fiber-MAXX G cartridges are an excellent choice for filtering beverages such as beer and wine, as they do not remove flavor enhancing proteins. Our FDA grade Cartridges meet or exceed the requirements of the 21 CFR 177 for Food and Beverage contact. Strainrite also offers elements that utilize an epoxy binder providing the Fiber-MAXX G with an increased range of applications where chemical compatibility is critical.

**Features and Benefits**

- Beta-rated media provide reliable pore size control resulting in repeatable filtration performance
- Non-fiber releasing materials with minimal extractables provide high purity filtrate
- Low pressure drops yield higher flow rates and reduced processing time
- Maxx-imum pleat design coupled with non-calendared Micro-Glass matrix offers greater surface area, ensuring longer service life, less downtime and reduced operating costs per cartridge
- Industrial grade utilizes an epoxy binder, FDA grade utilizes an acrylic binder
- Thermally bonded construction eliminates particle bypass

**Typical Applications**

- Inks and Coatings
- Oil and Gas Production
- Chemical Processing
- Plating Solutions
- Photographic Films
- Solvent Filtration
- Waste Water
Specifications

Filter Media: Borosilicate Microfiber glass
Pleat Support Material: Polypropylene, Polyester
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond
Seals: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

Cartridge Series: FMXG: Fiber-MAXX G
Micron Rating: 0.2, 0.45, 0.65, 1, 5, 10
Length: 10, 20, 30, 40
Pleat Support Materials: PE - Polyester, PP - Polypropylene
End Cap Configurations: C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring
Gasket/O-ring Materials: S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone
Cartridge Guide: Blank - General, 1 - FDA Grade, 2 - Pharmaceutical
Options: I - 316 Stainless Steel Insert, DIF - DI Flush

Product Specifications

Dimensions:
Outside Diameter: 2.7" (6.87cm)
Lengths: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

Performance Specifications
Retention Rating:
0.2, 0.45, 0.65, 1.0, 5.0, 10.0

Maximum Forward Differential Pressure
75 psid (5.1 bar) @ 68°F (20°C)
40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty Polypropylene Hardware
275°F (135°C) Continuous Duty Polyester Hardware

Toxicity
All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

Product Efficiency
Fiber-MAXX G Beta 5000
- FMXG 0.2: 0.2µm
- FMXG 0.45: 0.45µm
- FMXG 0.65: 0.65µm
- FMXG 1: 1µm
- FMXG 5: 5µm
- FMXG 10: 10µm

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
Strainrite’s Pur-PLEAT all Polypropylene Filter cartridges are designed to optimize throughput, while achieving absolute and repeatable effluent quality. Our filter media is constructed on the latest continuous Micro-Fiber blowing equipment that accurately controls fiber diameter and integrity.

Utilizing state-of-the-art, on-line monitoring equipment, Strainrite delivers the industry’s most uniform and consistent media, ensuring unparalleled product consistency. Our 100% Polypropylene construction provides an expansive chemical compatibility range for your most demanding applications. All materials of construction meet USP Class VI and CFR 21 requirements for food and beverage contact.

**Features and Benefits**

- Absolute-rated media provides reliable, consistent and repeatable filtration
- Low pressure drops yield higher flow rates and reduced processing time
- Maximized pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- 100% Polypropylene, FDA-compliant and CFR 21 and USP Class VI compliant
- Thermally bonded construction eliminates particle bypass

**Typical Applications**

- Reagent Grade Chemicals
- General Water Filtration
- Recirculating Liquids
- Waste Water
- DI/RO Prefiltration
Specifications

Filter Media
- Polypropylene Microfiber

Pleat Support Material
- Polypropylene

End Caps
- Polypropylene

Cage/Core
- Polypropylene

Sealing
- Thermal Bond

Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

Cartridge Series
- PP: Pur-PLEAT

Micron Rating
- 1, 1.5, 2.5, 5, 10, 15, 20, 40, 70

Length
- 10, 20, 30, 40

End Cap Configurations
- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials
- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
- E - EPDM
- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS - FEP Encapsulated Silicone

Cartridge Guide
- Blank - General
- 1 - FDA Grade
- 2 - Pharmaceutical

Options
- I - 316 Stainless Steel Insert
- DIF - DI Flush

Product Specifications

Dimensions
- Outside Diameter: 2.55” (6.48cm)
- Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)

Performance Specifications

ASTM F795-88 Retention Rating:
- 1.0, 1.5, 2.5, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0

Maximum Forward Differential Pressure
- 75 psid (5.1 bar) @ 68°F (20°C)
- 40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
- 180°F (82°C) Continuous Duty Polypropylene Hardware

Toxicity
- All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

Packaging Economy
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

ASTM F795-88 Product Efficiency

<table>
<thead>
<tr>
<th>Micron Rating</th>
<th>Pur-PLEAT Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0µm</td>
<td>99.98%</td>
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<tr>
<td>70.0µm</td>
<td>99.98%</td>
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</tbody>
</table>

Example Cartridge Order: PP1-10C7SDIF
Pur-PLEAT G
All Polypropylene Pleated Depth Cartridges

The Pur-Pleat G, all-Polypropylene, nominally rated filter cartridge is designed to reduce overall filtration costs when compared to spunbonded, stringwound, and nominally-rated pleated cartridges. The Pur-Pleat G media is designed and manufactured on state-of-the-art meltblowing equipment to Strainrite’s strict specifications for high solids loading requirements for a variety of prefiltration applications.

Pur-Pleat G is constructed using the latest high-speed thermal bonding equipment in a clean environment to ensure superior product cleanliness and thermal and chemical compatibility. All of these depth cartridges are manufactured using 100% virgin polypropylene materials that comply with FDA Title 21 of The Code of Federal Regulations for food and beverage contact.

Features and Benefits

- MAXXimum pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- FDA Title 21 compliant for food and beverage contact
- Lower pressure drops, which yield higher flow rates and reduced processing time
- 100% Polypropylene construction offers a wide range of chemical compatibility
- Thermally bonded construction ensures a cleaner filtrate

Typical Applications

- Wine clarification
- Water filtration
- Solvent filtration
- RO/DI prefiltration
- Liquefied sugar
- Waste Water

## Specifications

### Filter Media
- Polypropylene Microfiber

### Pleat Support Material
- Polypropylene

### End Caps
- Polypropylene

### Cage/Core
- Polypropylene

### Sealing
- Thermal Bond

### Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Example:
- **Cartridge Series**: PPG: Pur-PLEAT G
- **Micron Rating**: 0.25, 0.5, 1, 2.5, 5, 8, 12, 20, 30, 50
- **Length**: 10, 20, 30, 40

### End Cap Configurations
- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

### Gasket/O-ring Materials
- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
- E - EPDM
- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS - FEP Encapsulated Silicone

### Cartridge Guide
- Blank - General
- 1 - FDA Grade
- 2 - Pharmaceutical

### Options
- I - 316 Stainless Steel Insert
- DIF - DI Flush

### Product Specifications

#### Dimensions
- **Outside Diameter**: 2.55" (6.48cm)
- **Lengths**: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

#### Performance Specifications

##### Retention Rating:
- 0.25, 0.5, 1.0, 2.5, 5.0, 8.0, 12.0, 20.0, 30.0, 50.0

##### Maximum Forward Differential Pressure
- 75 psid (5.1 bar) @ 68°F (20°C)
- 40 psid (2.8 bar) @ 150°F (65°C)

##### Maximum Operating Temperature
- 180°F (82°C) Continuous Duty Polypropylene Hardware

### Toxicity
- All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

### Packaging Economy
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

### Product Efficiency

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<thead>
<tr>
<th>Cartridge</th>
<th>Micron Rating</th>
<th>Efficiency</th>
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<td>PPG 50.0µm</td>
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**PPG1-10C7SDIF**
Strainrite continues its tradition of state-of-the-art advanced filtration innovation with the Pur-PLEAT Select, a unique, absolute rated, gradient density, polypropylene depth filter that utilizes the revolutionary HSL technology in combination with our high efficiency micro-fiber meltblown media. This "Select" filter combines high solids loading with absolute filtration to create one of the longest lasting, absolute-rated, pleated polypropylene filters on the market.

All "Select" filters are manufactured without binders or resins, resulting in an extremely clean non-media migration filter. Pur-PLEAT Select gradient density depth media is outstanding for removing gels as compared to other pleated polypropylene filters.

Our 100% polypropylene construction provides an excellent range of chemical compatibility for your most demanding applications. All polypropylene construction materials are CFR 21 listed for direct food contact, which makes this filter ideal for a broad range of applications.

**Features and Benefits**

- Absolute-rated media provides reliable, consistent and repeatable filtration
- Low pressure drops yield higher flow rates and reduced processing time
- Maximized pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- 100% Polypropylene, FDA compliant with CFR 21
- Thermally bonded construction eliminates particle bypass while minimizing extractables

**Typical Applications**

- Bleach
- Water filtration
- Solvent filtration
- RO/DI prefiltration
- Liquefied sugar
- Waste Water
- Wine clarification
Specifications

Filter Media
- Polypropylene Microfiber Composite

Pleat Support Material
- Polypropylene

End Caps
- Polypropylene

Cage/Core
- Polypropylene

Sealing
- Thermal Bond

Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
Cartridge Series
- SPP: Pur-PLEAT Select

Micron Rating
- 1, 1.5, 3, 5, 10, 15, 20, 40, 70, 90

Length
- 10", 20", 30", 40"

End Cap Configurations
- C1-DOE flat open ends
- C2-SOE recessed cup, internal 213 O-ring
- C3-SOE flat closed ends, external 222 O-ring
- C4-SOE flat closed end
- C5-SOE recessed cup, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials
- S - Silicone (standard O-rings)
- B - Buna N (standard gaskets)
- V - Fluorocarbon
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- T - PTFE
- TV - FEP Encapsulated Fluorocarbon
- TS- FEP Encapsulated Silicone

Cartridge Guide
- Blank - General
- 1 - FDA Grade
- 2 - Pharmaceutical

Options
- I - 316 Stainless Steel Insert
- DIF - DI Flush

Product Specifications

Dimensions
- Outside Diameter: 2.55" (6.48cm)
- Lengths: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

Performance Specifications
- ASTFM F795-88 Retention Rating:
  - 1.0, 1.5, 3.0, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0, 90.0

Maximum Forward Differential Pressure
- 75 psid (5.1 bar) @ 68°F (20°C)
- 40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
- 180°F (82°C) Continuous Duty Polypropylene Hardware

Toxicity
- All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

Packaging Economy
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

ASTFM F795-88 Product Efficiency

Pure-Pleat Select
- 99.98% Efficiency

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<thead>
<tr>
<th>Micron Rating</th>
<th>Efficiency</th>
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</tr>
<tr>
<td>SPP 3</td>
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</tr>
<tr>
<td>SPP 5</td>
<td>5.0μm</td>
</tr>
<tr>
<td>SPP 10</td>
<td>10.0μm</td>
</tr>
<tr>
<td>SPP 15</td>
<td>15.0μm</td>
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<td>SPP 70</td>
<td>70.0μm</td>
</tr>
<tr>
<td>SPP 90</td>
<td>90.0μm</td>
</tr>
</tbody>
</table>

SPP Pressure Drop vs. Flow Rate

Differential Pressure (psid) vs. Water Flow Rate (gpm)

Ordering Information

Example:

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>Micron Rating</th>
<th>Length</th>
<th>End Cap Configurations</th>
<th>Gasket/O-ring Materials</th>
<th>Cartridge Guide</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPP</td>
<td>1</td>
<td>10</td>
<td>C7</td>
<td>S</td>
<td>1</td>
<td>DIF</td>
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<tr>
<td>SPP1-10C7S1DIF</td>
<td></td>
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<td></td>
<td></td>
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</table>
Strainrite's Glass-PLEAT Pleated Filter cartridges utilize both a high surface area and void volume media, incorporating Micro-Glass fibers in a uniform matrix, optimizing element flow rate and service life unattainable by other Micro-Fiber technologies. This revolutionary Micro-Fiber matrix optimizes the pore size geometry required to offer absolute-rated filtration performance. Strainrite's non-calendared Micro-Glass Glass-PLEAT cartridges exhibit significantly reduced resistance to flow when compared to similarly rated Micro-Fiber technologies.

Glass-PLEAT cartridges are an outstanding choice for filtering beverages such as beer and wine as they do not remove flavor enhancing proteins. Our construction materials meet or exceed the requirements of CFR 21 for food and beverage contact. Strainrite offers elements that utilize an epoxy binder, providing the Glass-PLEAT with an increased range of applications where chemical compatibility is critical.

**Features and Benefits**

- Absolute-rated media provides reliable pore size control, resulting in repeatable filtration performance
- Non fiber-releasing materials with minimal extractables, providing high purity filtrate
- Low pressure drops yield higher flow rates and reduced processing time
- Maxx-imized pleat design, coupled with non-calendared Micro-Glass matrix, offers greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- Industrial grade utilizes an epoxy binder, FDA grade utilizes an acrylic binder
- Thermally bonded construction eliminates particle bypass

**Typical Applications**

- Inks and Coatings
- Oil and Gas Production
- Chemical Processing
- Plating Solutions
- Photographic Films
- Waste Water
- Solvent Filtration
Specifications

Filter Media
Borosilicate Microfiber glass

Pleat Support Material
Polypropylene, Polyester

End Caps
Polypropylene

Cage/Core
Polypropylene

Sealing
Thermal Bond

Seals
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
Cartridge Series
GP: Glass PLEAT

Micron Rating
0.8, 0.9, 1, 2, 3, 5, 10, 15

Length
10, 20, 30, 40

Pleat Support Materials
PE - Polyester
PP - Polypropylene

End Cap Configurations
C1-DOE flat open ends
C2-SEO recessed cup, internal 213 O-ring
C3-SEO flat closed ends, external 222 O-ring
C4-SEO flat closed end
C5-SEO recessed cup, external 222 O-ring
C6-SEO flat closed end, external 226 O-ring
C7-SEO fin end, external 226 O-ring
C8-SEO fin end, external 222 O-ring

Gasket/O-ring Materials
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Cartridge Guide
Blank - General
1 - FDA Grade
2 - Pharmaceutical

Options
I - 316 Stainless Steel Insert
DIF - DI Flush

Product Specifications

Dimensions
Outside Diameter: 2.55" (6.48cm)
Lengths: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

Performance Specifications
ASTM F795-88 Retention Rating:
0.8, 0.9, 1.0, 2.0, 3.0, 5.0, 10.0, 15.0

Maximum Forward Differential Pressure
75 psid (5.1 bar) @ 68°F (20°C)
40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty Polypropylene Hardware
275°F (135°C) Continuous Duty Polyester Hardware

Toxicity
All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch 24 per carton
20 inch 12 per carton
30 inch 12 per carton
40 inch 9 per carton

ASTM F795-88 Product Efficiency

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>Micron Rating</th>
<th>Glass-Pleat Efficiency</th>
<th>PTFE Efficiency</th>
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</thead>
<tbody>
<tr>
<td>GP 0.80</td>
<td>0.8µm</td>
<td>99.98%</td>
<td>90.00%</td>
</tr>
<tr>
<td>GP 0.90</td>
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<td>90.00%</td>
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<tr>
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<td>90.00%</td>
</tr>
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<td>GP 3</td>
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<td>90.00%</td>
</tr>
<tr>
<td>GP 5</td>
<td>5.0µm</td>
<td>99.98%</td>
<td>90.00%</td>
</tr>
<tr>
<td>GP 10</td>
<td>10.0µm</td>
<td>99.98%</td>
<td>90.00%</td>
</tr>
<tr>
<td>GP 15</td>
<td>15.0µm</td>
<td>99.98%</td>
<td>90.00%</td>
</tr>
</tbody>
</table>

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
Strainrite's Glass-Pleat G pleated filter cartridges utilize a high surface area and high void volume media, incorporating Micro-Glass fibers in a uniform matrix that optimizes element flow rate and service life unattainable by other traditional Micro-Fiber technologies. This revolutionary Micro-Fiber matrix optimizes pore size geometry required to offer beta rated filtration performance. Strainrite's non-calendared Micro-Glass, Glass-Pleat G cartridges exhibit significantly reduced resistance to flow when compared to similarly rated Micro-Fiber technologies.

Glass-Pleat G cartridges are an excellent choice for filtering beverages such as beer and wine, as they do not remove flavor enhancing proteins. Our FDA grade Cartridges meet or exceed the requirements of the 21 CFR 177 for Food and Beverage contact. Strainrite also offers elements that utilize an epoxy binder providing the Glass-Pleat G with an increased range of applications where chemical compatibility is critical.

Features and Benefits

- Beta rated media provide reliable pore size control resulting in repeatable filtration performance
- Non-fiber releasing materials with minimal extractables provide high purity filtrate
- Low pressure drops yield higher flow rates and reduced processing time
- Maxx-imum pleat design coupled with non-calendared Micro-Glass matrix offers greater surface area, ensuring longer service life, less downtime and reduced operating costs per cartridge
- Industrial grade utilizes an epoxy binder, FDA grade utilizes an acrylic binder
- Thermally bonded construction eliminates particle bypass

Typical Applications

Inks and Coatings
Plating Solutions
Solvent Filtration
Oil and Gas Production
Photographic Films
Chemical Processing
Waste Water
**Specifications**

### Materials of Construction

- **Filter Media**: Borosilicate Microfiber glass
- **Pleat Support Material**: Polypropylene, Polyester
- **End Caps**: Polypropylene
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Ordering Information

**Cartridge Series** | GPG: Glass PLEAT G | **Micron Rating** | 0.2, 0.45, 0.65, 1.0, 5.0, 10.0 | **Length** | 10, 20, 30, 40 |
**Pleat Support Materials** | PE - Polyester | **Pleat Support Materials** | PP - Polypropylene | **End Cap Configurations** | C1-DOE flat open ends | C2-SOE recessed cup, internal 213 O-ring | C3-SOE flat closed ends, external 222 O-ring | C4-SOE flat closed end | C5-SOE recessed cup, external 222 O-ring | C6-SOE flat closed end, external 226 O-ring | C7-SOE fin end, external 226 O-ring | C8-SOE fin end, external 222 O-ring |
**Gasket/O-ring Materials** | S - Silicone (standard O-rings) | **Gasket/O-ring Materials** | B - Buna N (standard gaskets) | V - Fluorocarbon | E - EPDM | T - PTFE | TV - FEP Encapsulated Fluorocarbon | TS - FEP Encapsulated Silicone |
**Cartridge Guide** | Blank - General | **Options** | I - 316 Stainless Steel Insert | DIF - DI Flush |

### Product Specifications

**Dimensions**
- **Outside Diameter**: 2.55" (6.48cm)
- **Lengths**: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

**Performance Specifications**

- **Retention Rating**: 0.2, 0.45, 0.65, 1.0, 5.0, 10.0

**Maximum Forward Differential Pressure**
- 75 psid (5.1 bar) @ 68°F (20°C)
- 40 psid (2.8 bar) @ 150°F (65°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty Polypropylene Hardware
- 275°F (135°C) Continuous Duty Polyester Hardware

**Toxicity**

All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

**Product Efficiency**

- **Glass-PLEAT G**: 99.98% Efficiency
- GPG 0.1: 0.1µm
- GPG 0.2: 0.2µm
- GPG 0.45: 0.45µm
- GPG 0.65: 0.65µm
- GPG 1.2: 1.2µm
- GPG 5: 5µm
- GPG 10: 10µm
- GPG 15: 15µm

**Example:**

GPG Pressure Drop vs. Flow Rate

Differential Pressure (psid) vs. Water Flow Rate (gpm)

Product Efficiency Graph: Glass-PLEAT G

GPG0.2-10PPC7SDIF

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
Capitalizing on more than 30 years of filter media conversion expertise, The Strainrite Companies deliver the industry’s first Pleated Resin Bonded filter cartridge technology. CRB filter cartridges are manufactured using long staple polyester fibers, in a specific blend of fiber diameters, and offer the broadest range of micron rated cartridges, while virtually eliminating fiber migration. Utilizing our proprietary resin coating process, we are able to take well defined micron rated depth media and treat the material, converting it from a soft, compressible fabric, to a highly advanced rigid fiber technology.

This unique rigid fiber depth filter cartridge is engineered to take advantage of targeted depth media in an optimized pleated configuration, to maximize solids loading, gel removal capacity, and filter life. CRB cartridges contain more than 3ft² of surface area per 10” segment, as compared to approximately .6ft² of surface area per 10” segment in a typical molded or wound resin bonded cartridge. Increased surface area reduces flow velocity, which increases filter life exponentially due to a reduction in particle penetration, promoting increased dirt holding capacity and filter life.

These exceptional pleated cartridges are perfect for both aqueous and non-aqueous liquids. CRB fibers are already fully impregnated, diminishing problematic swelling caused by fluid absorption. This prevents the CRB from prematurely blinding off, making it superior to common untreated filters.

Features and Benefits

- Virtually no fiber migration, due to the utilization of long polyester heat set fibers
- Higher surface area compared to industry standard resin bonded cartridges, which provides longer filter life, reduced disposal cost and lower cost per gallon to filter.
- Longer filter life also reduces labor time associated with change-outs.
- No epoxies, glues or adhesives
- Extremely high flow rates, due to a substantial increase in surface area
- High integrity one piece construction

Typical Applications

- Adhesives
- Coatings
- Ink
- Machine Tool Coolants
- Hydraulic fluids
- Oils
- Resins
- Oil Well Completion Fluids
- Heavy Brine Solutions
- Highly Viscous Fluids
Specifications

Materials of Construction

Filter Media
Phenolic resin-impregnated polyester material

End Caps
Polypropylene

Cage/Core
Polypropylene

Sealing
Thermal Bond Seals

Seals
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
Cartridge Series
CRB: CRB-PLEAT
Micron Rating
1, 5, 10, 25, 50, 75, 100, 200
Length
9.75, 10, 19.5, 20, 29.25, 29.5, 30, 39, 40

End Cap Configurations
C1-DOE flat open ends
C2-DOE recessed cup, internal 213 O-ring
C3-DOE flat closed ends, external 222 O-ring
C4-DOE flat closed end
C5-DOE recessed cup, external 222 O-ring
C6-DOE flat closed end, external 226 O-ring
C7-DOE fin end, external 226 O-ring
C8-DOE fin end, external 222 O-ring

Gasket/O-ring Materials
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Cartridge Guide
Blank - Industrial

Options
MC - Molded Cage

Product Specifications

Dimensions
Outside Diameter:
Extruded Cage: 2.55" (6.48 cm)
Molded Cage (MC): 2.68" (6.81 cm)

Lengths:
9.75" (24.8 cm), 10" (25.4 cm), 19.5" (49.6 cm), 20" (50.8 cm), 29.25" (74.4 cm), 29.5" (75 cm), 30" (76.2 cm), 39" (99.4 cm), 40" (102 cm)

Surface Area: 3 ft² per 10"

Performance Specifications
Nominal Rated Retention:
1, 5, 10, 25, 50, 75, 100, 200

Maximum Forward Differential Pressure
70 psid (5.1 bar) @ 68°F (20°C)
40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
180°F (82°C) continuous duty on standard designed CRB elements. Higher temperature components are available by special request.

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
10 inch  24 per carton
20 inch  12 per carton
30 inch  12 per carton
40 inch  9 per carton
Strainrite’s CPP and CPW all-Polypropylene filter cartridges optimize throughput while achieving consistent and repeatable effluent quality. Our filter media is constructed on the latest continuous Micro-fiber blowing equipment that precisely control fiber diameter and integrity across the entire web. Utilizing state-of-the-art on-line monitoring equipment, we are able to deliver the industry’s most uniform and consistent media ensuring unparalleled product consistency.

The CPP and CPW filters are manufactured in continuous lengths without binders or resins resulting in an extremely clean non-fiber releasing filter. All construction materials comply with FDA Title 21 of The Code of Federal Regulations for food and beverage contact.

**Features and Benefits**

- CPP elements have over 6 ft² of surface area per 10” equivalent
- CPW elements have 4.5 ft² of surface area per 10” equivalent
- High efficiency media provides reliable, consistent and repeatable filtration results
- High surface area pleat design for greater surface area ensures longer service life, fewer change outs and reduced operating costs per cartridge
- FDA Title 21 compliant for food and beverage contact
- 100% Polypropylene construction offers a wide range of chemical compatibility
- Thermally bonded construction to ensure a cleaner filtrate

**Typical Applications**

- Bleach
- General Chemical
- Water filtration
- Solvent filtration
- RO/DI prefiltration
- Liquefied sugar
- Waste Water
## Specifications

### Filter Media
Polypropylene Microfiber

### Pleat Support Material
Polypropylene

### End Caps
Polypropylene

### Cage/Core
Polypropylene

### Sealing
Thermal Bond, Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Example:
- **Cartridge Series**: CPP: Continuous Pur-PLEAT, CPW: Continuous Pur-PLEAT
- **Micron Rating**: 0.2, 0.5, 1.0, 2.5, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0
- **Length**: 10", 20", 30", 40"
- **End Cap Configurations**: C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring
- **Gasket/O-ring Materials**: S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone
- **Options**: I - 316 Stainless Steel Insert, MC - Molded Cage
- **Materials of Construction**

### Product Specifications
- **Dimensions**
  - **Outside Diameter**:
    - Extruded Cage: 2.55" (6.48cm)
    - Molded Cage (MC): 2.68" (6.81cm)
  - **Lengths**: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
  - **CPP Surface Area**: 6ft² per 10"
  - **CPW Surface Area**: 4.5ft² per 10"

### Performance Specifications
- **Retention Rating**:
  - 0.2, 0.5, 1.0, 2.5, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0
- **Maximum Forward Differential Pressure**:
  - 70 psid (5.1 bar) @ 68°F (20°C)
  - 40 psid (2.8 bar) @ 150°F (65°C)

### Toxicity
All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

### Packaging Economy
Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

### Product Efficiency
- **Continuous Poly-Pleat**: 99% Efficiency
  - CPP/CPW 0.1: 0.1µm
  - CPP/CPW 0.2: 0.2µm
  - CPP/CPW 0.5: 0.5µm
  - CPP/CPW 1: 1.0µm
  - CPP/CPW 2.5: 2.5µm
  - CPP/CPW 5: 5µm
  - CPP/CPW 10: 10µm
  - CPP/CPW 15: 15µm
  - CPP/CPW 20: 20µm
  - CPP/CPW 40: 40µm
  - CPP/CPW 70: 70µm
Strainrite's Continuous Fiber Pleat (CFP) filter cartridges utilize a high surface area of small denier fibers to create more void volume in a highly uniform matrix, optimizing flow rate and service life without sacrificing particle efficiency. This revolutionary Micro-fiber optimizes pore size geometry required to offer absolute rated filtration performance. Our high efficiency media is non-calendared at the lower micron ratings resulting in significantly reduced resistance to flow or pressure drop when compared to similarly rated polypropylene micro-fiber technologies.

The Continuous Fiber Pleat products are available in industrial grades that utilize epoxy binders or in FDA compliant grades, which utilize acrylic binders. Strainrite's CFP products are perfect for a wide range of applications where chemical compatibility is critical.

**Features and Benefits**

- High efficiency media provides reliable, consistent and repeatable filtration results
- High surface area pleat design for greater surface area ensures longer service life, fewer change outs and reduced operating costs per cartridge
- FDA Title 21 compliant for food and beverage contact
- Thermally bonded construction to ensure a cleaner filtrate

**Typical Applications**

- General Chemical
- Water filtration
- Solvent filtration
- RO/DI prefiltration
- Waste Water
- Oil and Gas Production
- Plating Solutions
Specifications

### Materials of Construction

- **Filter Media:** Borosilicate Microfiber glass
- **Pleat Support Material:** Polyester
- **End Caps:** Polypropylene
- **Cage/Core:** Polypropylene
- **Sealing:** Thermal Bond
- **Seals:** Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

### Ordering Information

#### Example:

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>CFP: Continuous Fiber-PLEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micron Rating</td>
<td>0.25, 0.45, 0.65, 1, 1.5, 2.5, 5, 10</td>
</tr>
<tr>
<td>Length</td>
<td>10, 20, 30, 40</td>
</tr>
<tr>
<td>End Cap Configurations</td>
<td>C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring</td>
</tr>
<tr>
<td>Gasket/O-ring Materials</td>
<td>S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone</td>
</tr>
<tr>
<td>Cartridge Guide</td>
<td>Blank - General, MC - Molded Cage</td>
</tr>
<tr>
<td>Options</td>
<td>I - 316 Stainless Steel Insert</td>
</tr>
</tbody>
</table>

#### CFP Pressure Drop vs. Flow Rate

**Product Specifications**

**Dimensions**

- **Extruded Cage:** 2.55” (6.48cm)
- **Molded Cage (MC):** 2.68” (6.81cm)
- **Lengths:** 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- **Surface Area:** 3ft² per 10”

**Performance Specifications**

- **Retention Rating:** 0.25, 0.45, 0.65, 1.0, 1.5, 2.5, 5.0, 10.0

- **Maximum Forward Differential Pressure**
  - 70 psid (5.1 bar) @ 68°F (20°C)
  - 40 psid (2.8 bar) @ 150°F (65°C)

- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty

**Toxicity**

All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:

<table>
<thead>
<tr>
<th>Length</th>
<th>10 inch</th>
<th>20 inch</th>
<th>30 inch</th>
<th>40 inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carton</td>
<td>24 per carton</td>
<td>12 per carton</td>
<td>12 per carton</td>
<td>9 per carton</td>
</tr>
</tbody>
</table>

**Product Efficiency**

- **CFP-Pleat-rite** 99.98% Efficiency 90.00% Efficiency
- **CFP 0.25** 0.8µm 0.25µm
- **CFP 0.45** 0.9µm 0.45µm
- **CFP 0.65** 1µm 0.65µm
- **CFP 1** 2µm 1.0µm
- **CFP 1.5** 3µm 1.5µm
- **CFP 2.5** 5µm 2.5µm
- **CFP 5** 10µm 5.0µm
- **CFP 10** 15µm 10.0µm
Strainrite continues its tradition of state-of-the-art advanced filtration innovation with the HSLP, a unique polypropylene depth filter that utilizes long strand small and large diameter fibers to provide a high solids loading, absolute-rated, pleated depth filter. This binder-free depth media is excellent for removing gels and offers more than twice the surface area compared with industry standard non-pleated depth filters. The increased surface area provides higher flow rates at reduced pressure, resulting in increased filter life.

Our 100% polypropylene construction provides an excellent range of chemical compatibility for your most demanding applications. All polypropylene construction materials are CFR 21 listed for direct food contact, which makes this filter ideal for a broad range of applications.

Features and Benefits

- **Absolute-rated media provides reliable, consistent and repeatable filtration**
- **Low pressure drops yield higher flow rates and reduced processing time**
- **Maximized pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge**
- **100% Polypropylene, FDA compliant with CFR 21**
- **Thermally bonded construction, eliminating particle bypass**

Typical Applications

- Cosmetics
- Electroplating
- Fermentation processes
- Food and Beverage
- High purity water
- Pharmaceutical
- Photochemical
- RO pre-filtration
### Product Specifications

**Dimensions**

- **Outside Diameter:**
  - Extruded Cage: 2.55" (6.48cm)
  - Molded Cage (MC): 2.68" (6.81cm)

- **Lengths:**
  - 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

**Performance Specifications**

- **Retention Rating:**
  - 1.0, 2.5, 5.0, 10.0, 15.0, 20.0, 25.0, 35.0, 70.0, 90.0, 120.0

- **Maximum Forward Differential Pressure**
  - 75 psid (5.1 bar) @ 68°F (20°C)
  - 40 psid (2.8 bar) @ 150°F (65°C)

- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty Polypropylene Hardware

**Toxicity**

All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:

<table>
<thead>
<tr>
<th>Length</th>
<th>10 inch</th>
<th>20 inch</th>
<th>30 inch</th>
<th>40 inch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24 per carton</td>
<td>12 per carton</td>
<td>12 per carton</td>
<td>9 per carton</td>
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</tbody>
</table>

**Product Efficiency**

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>HSLP</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSLP 1.0</td>
<td>1µm</td>
<td>99.98%</td>
</tr>
<tr>
<td>HSLP 2.5</td>
<td>2.5µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 5</td>
<td>5µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 10</td>
<td>10µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 15</td>
<td>15µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 20</td>
<td>20µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 25</td>
<td>25µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 35</td>
<td>35µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 70</td>
<td>70µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 90</td>
<td>90µm</td>
<td></td>
</tr>
<tr>
<td>HSLP 120</td>
<td>120µm</td>
<td></td>
</tr>
</tbody>
</table>

**Materials of Construction**

- **Filter Media:** Polypropylene Microfiber Composite
- **Pleat Support Material:** Polypropylene
- **End Caps:** Polypropylene
- **Cage/Core:** Polypropylene
- **Sealing:** Thermal Bond
- **Seals:** Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

**Ordering Information**

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>Micron Rating</th>
<th>Length</th>
<th>End Cap Configurations</th>
<th>Gasket/O-ring Materials</th>
<th>Cartridge Guide</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSLP</td>
<td>1, 2.5, 5, 10, 15, 20, 25, 35, 70, 90, 120</td>
<td>10, 20, 30, 40</td>
<td>C1-DOE flat open ends</td>
<td>S - Silicone (standard O-rings)</td>
<td>Blank - General</td>
<td>I - 316 Stainless Steel Insert</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C2-SOE recessed cup, internal 213 O-ring</td>
<td>B - Buna N (standard gaskets)</td>
<td>1 - FDA Grade</td>
<td>MC - Molded Cage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C3-SOE flat closed ends, external 222 O-ring</td>
<td>V - Fluorocarbon</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C4-SOE flat closed end</td>
<td>E - EPDM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C5-SOE recessed cup, external 222 O-ring</td>
<td>T - PTFE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C6-SOE flat closed end, external 226 O-ring</td>
<td>TV - FEP Encapsulated Fluorocarbon</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C7-SOE fin end, external 226 O-ring</td>
<td>TS - FEP Encapsulated Silicone</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C8-SOE fin end, external 222 O-ring</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example:

- HSLP1-10C7SMC
The Vino-Maxx E pleated membrane filters are specifically engineered to provide an absolute barrier to wine spoiling micro-organisms. The Vino-Maxx E incorporates a highly asymmetric polyethersulfone membrane within our exclusive pleat support configuration creating one of the industry’s most rugged yeast removal filters. This exceptionally robust filter design means filter performance will remain effective after multiple steam sterilization cycles.

Every Vino-Maxx E filter is integrity tested and flushed with high purity water to assure product performance and purity. Integrity test parameters have been correlated to microbiological retention for both of our 0.45µm and 0.65µm membrane filters (refer to Microbiological Performance chart).

Features and Benefits

- Absolute-rated and integrity tested membrane provides reliable, consistent and repeatable filtrate to ensure microbiological stability
- Low pressure drops yield higher flow rates and reduced processing time
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- 100% Thermally bonded construction
- Low hold-up volumes
- High strength design allowing for extended use and multi autoclave and hot water sanitization cycles
- 316 Stainless steel insert standard

Quality Compliance

- All materials are listed in Title 21 of the US Code of Federal Regulations 177-182
- Component materials meet the biosafety criteria of the USP Reactivity Test for Class VI Plastics
- Component materials meet the “non-fiber releasing” criteria as defined in 21 CFR 210.3 (b) (6)
- Vino-Maxx cartridges are manufactured in a facility whose Quality Management System is approved by an accredited registering body to the ISO 9001:2008 standard
- Vino-Maxx cartridges are 100% integrity tested and DI flushed
### Specifications

#### VNXE Integrity Test Values

<table>
<thead>
<tr>
<th>Pore Size</th>
<th>Bubble Point</th>
<th>Test Pressure</th>
<th>Air Diffusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNXE0.45</td>
<td>38 psig in water</td>
<td>28 psig</td>
<td>≤13.5mL/min</td>
</tr>
<tr>
<td>VNXE0.65</td>
<td>26 psig in water</td>
<td>20 psig</td>
<td>≤14mL/min</td>
</tr>
</tbody>
</table>

#### Microbiological Performance

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>VNXE0.45</th>
<th>VNXE0.65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oenococcus Oeni</td>
<td>≥10⁷</td>
<td></td>
</tr>
<tr>
<td>Lactobacillus Hilgardii</td>
<td>≥10⁷</td>
<td></td>
</tr>
<tr>
<td>Saccharomyces Cerevisiae</td>
<td>≥10⁹</td>
<td>≥10⁹</td>
</tr>
</tbody>
</table>

#### Materials of Construction

- **Filter Media**: Polyethersulfone
- **Pleat Support Material**: Polypropylene
- **End Caps**: Polypropylene
- **Reinforcing Ring**: 316 Stainless Steel
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Silicone, EPDM

#### Ordering Information

**Cartridge Series**
- VNXE: Vino-MAXX E

**Micron Rating**
- 0.45, 0.65

**Length**
- 10, 20, 30, 40

**Pleat Support Materials**
- PP - Polypropylene

**End Cap Configurations**
- C3-SOE flat closed ends, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring

**O-ring Materials**
- S - Silicone (standard O-rings)
- E - EPDM

---

**Example:**

- VNXE: Vino-MAXX E
- Micron Rating: 0.45, 0.65
- Length: 10, 20, 30, 40
- Pleat Support Materials: PP - Polypropylene
- End Cap Configurations: C3-SOE flat closed ends, external 222 O-ring
- O-ring Materials: S - Silicone (standard O-rings)

---

**Dimensions**
- **Outside Diameter**: 2.7" (6.87cm)
- **Lengths**: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

**Effective Filtration Area**: 7ft² (.65m²)

**Performance Specifications**

**Absolute Rated Retention:**
- 0.45µm, 0.65 µm

**Maximum Forward Differential Pressure**
- **Forward**: 75 psid (5.5 bar) @ 75°F (24°C)
- 40 psid (2.8 bar) @ 180°F (82°C)
- **Reverse**: 50 psid (3.4 bar) @ 75°F (24°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty

**Sterilization**
- Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

**Packaging Economy**
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton

---

**Example Cartridge Code**: VNXE0.45-10PPC7S
The Pur-MAXX E-SG is engineered to meet the highest standards of microorganism control for sterile fluids. Pur-MAXX E-SG filter element is validated for complete removal of Brevundimonas diminuta (ATCC 19146) at test concentrations of 107 CFU/cm² (Colony Forming Units). This product is ideally suited for applications where microorganism contamination causes product defects or extra processing time due to increased fluid instability.

Pur-MAXX E-SG is produced utilizing a unique multi-pleated configuration integrating highly asymmetric and hydrophilic polyethersulfone membrane with exceptional pleat support materials. This novel multi-pleated approach increases cartridge life, strength and durability. This structural product enhancement allows our filter cartridges to withstand multiple sterilization cycles without sacrificing product integrity.

This Sterilizing Grade pleated cartridge complies with FDA CFR Title 21 and USP Biological Reactivity for Class VI Plastics. By combining these ultra pure components with the low protein binding features of highly asymmetric hydrophilic polyethersulfone membrane makes Pur-MAXX E-SG perfect for applications in the biopharmaceutical, and bottled water industries.

**Features and Benefits**

- **Validated 0.2 µm absolute rated membrane configuration**
- **High surface area membrane offers excellent life and flux rates while providing absolute filtration**
- **Absolute-rated dual layer membrane provides reliable, consistent and repeatable filtrate quality**
- **Low pressure drops yield higher flow rates and reduced processing time**
- **Non-fiber shedding Polypropylene support materials eliminate fiber migration**
- **MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element**
- **All materials of construction are FDA compliant with CFR Title 21 and are bio-safe in accordance with USP Class VI**
- **100% Thermally bonded construction**
- **Low hold-up volumes**
- **Integrity tested**
- **High strength design allowing for extended use and multi autoclave and hot water sanitization cycles**
- **316 SS reinforced end treatments**

**Typical Applications**

- Final filtration of WFI & CIP Water, Cell Culture Purification, Buffer Solutions, Vaccines, Diagnostics, LVP (Large Volume Parenterals)
Specifications

Pore Size | Bubble Point | Test Pressure | Air Diffusion |
---|---|---|---|
PRMXE0.2-SG | 22psig | 17psig* | <10mL/min |

*50/50 IPA/DI water solution

Materials of Construction

Filter Media | Polyethersulfone
Pleat Support Material | Polypropylene
End Caps | Polypropylene
Reinforcing Ring | 316 Stainless Steel
Cage/Core | Polypropylene
Sealing | Thermal Bond
Seals | Buna N, Fluorocarbon, EPDM, Silicone

Ordering Information

| Cartridge Series | PRMXE: Pur-MAXX E | PRMXE
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Micron Rating</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>10, 20, 30, 40</td>
<td></td>
</tr>
<tr>
<td>Pleat Support Materials</td>
<td>PP - Polypropylene</td>
<td></td>
</tr>
<tr>
<td>End Cap Configurations</td>
<td>C3-SOE flat closed ends, external 222 O-ring</td>
<td></td>
</tr>
<tr>
<td>Gasket/O-ring Materials</td>
<td>S - Silicone (standard O-rings)</td>
<td></td>
</tr>
<tr>
<td>Cartridge Guide</td>
<td>SG - Sterilizing Grade</td>
<td></td>
</tr>
</tbody>
</table>

Example: PRMXE0.2-10PPC7SSG

USP Physiochemical Tests for Plastics

Ultrapure water extracts from multiple lots of PUR-Maxx E-SG cartridges were tested and shown to have values that comply with USP limits.

<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
<th>USP Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non volatile residue</td>
<td>&lt;2mg</td>
<td>&lt;15mg</td>
</tr>
<tr>
<td>Heavy Metals</td>
<td>&lt;1ppm</td>
<td>&lt;1ppm</td>
</tr>
<tr>
<td>Residue on Ignition</td>
<td>&lt;2mg</td>
<td>&lt;5mg</td>
</tr>
<tr>
<td>Buffering Capacity</td>
<td>&lt;1mL</td>
<td>&lt;10mL</td>
</tr>
</tbody>
</table>

Product Specifications

Dimensions
<table>
<thead>
<tr>
<th>Outside Diameter</th>
<th>2.7” (6.87cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lengths</td>
<td>10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)</td>
</tr>
<tr>
<td>Effective Filtration Area</td>
<td>6.5ft² (0.62m²)</td>
</tr>
</tbody>
</table>

Performance Specifications

Absolute Rated Retention: 0.20µm

Maximum Forward Differential Pressure
Forward: 75 psid (5.5 bar) @ 75°F (24°C)
40 psid (2.8 bar) @ 180°F (82°C)

Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty

Toxicity
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization
Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:

- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
The Mem-PLEAT SG is engineered to meet the highest standards of microorganism control for sterile fluids. Mem-PLEAT SG filter element is validated for complete removal of Brevundimonas diminuta (ATCC 19146) at test concentrations of 10^7 CFU/cm^2 (Colony Forming Units). This product is ideally suited for applications where microorganism contamination causes product defects or extra processing time due to increased fluid instability.

Mem-PLEAT SG is produced utilizing a unique multi-pleated configuration integrating asymmetric and hydrophilic polyethersulfone membrane with exceptional pleat support materials. This novel multi-pleated approach increases cartridge life, strength and durability. This structural product enhancement allows our filter cartridges to withstand multiple sterilization cycles without sacrificing product integrity.

This Sterilizing Grade pleated cartridge complies with FDA CFR Title 21 and USP Biological Reactivity for Class VI Plastics. By combining these ultra pure components with the low protein binding features of highly asymmetric hydrophilic polyethersulfone membrane makes Mem-PLEAT SG perfect for applications in the biopharmaceutical, and bottled water industries.

**Features and Benefits**

- Validated 0.2 µm absolute rated membrane configuration High surface area membrane offers excellent life and flux rates while providing absolute filtration
- Absolute-rated dual layer membrane provides reliable, consistent and repeatable filtrate quality
- Low pressure drops yield higher flow rates and reduced processing time
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- All materials of construction are FDA compliant with CFR Title 21 and are bio-safe in accordance with USP Class VI
- 100% Thermally bonded construction
- Low hold-up volumes
- Integrity tested
- High strength design allowing for extended use and multi autoclave and hot water sanitization cycles
- 316 SS reinforced end treatments

**Typical Applications**

Final filtration of WFI & CIP Water, Cell Culture Purification, Buffer Solutions, Vaccines, Diagnostics, LVP (Large Volume Parenterals)
### Specifications

#### MPE-SG Pressure Drop vs. Flow Rate

<table>
<thead>
<tr>
<th>Water Flow Rate (gpm)</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential Pressure (psid)</td>
<td>0.0</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
</tr>
</tbody>
</table>

#### MPE-SG Integrity Test Values*

<table>
<thead>
<tr>
<th>Pore Size</th>
<th>Bubble Point</th>
<th>Test Pressure</th>
<th>Air Diffusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2-SG</td>
<td>22psig</td>
<td>17psig*</td>
<td>&lt;10mL/min</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*50/50 IPA/DI water solution</td>
</tr>
</tbody>
</table>

#### Materials of Construction

- **Filter Media**: Polyethersulfone
- **Pleat Support Material**: Polypropylene
- **End Caps**: Polypropylene
- **Reinforcing Ring**: 316 Stainless Steel
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Buna N, Fluorocarbon, EPDM, Silicone

#### Ordering Information

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>MPE: Mem-PLEAT SG</th>
<th>MPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micron Rating</td>
<td>0.20</td>
<td>0.2</td>
</tr>
<tr>
<td>Length</td>
<td>10, 20, 30, 40</td>
<td>-10</td>
</tr>
<tr>
<td>Pleat Support Materials</td>
<td>PP - Polypropylene</td>
<td>PP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>End Cap Configurations</th>
<th>C3-SOE flat closed ends, external 222 O-ring</th>
<th>C6-SOE flat closed end, external 226 O-ring</th>
<th>C7-SOE fin end, external 226 O-ring</th>
<th>C8-SOE fin end, external 222 O-ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasket/O-ring Materials</td>
<td>S - Silicone (standard O-rings)</td>
<td>B - Buna N (standard gaskets)</td>
<td>V - Fluorocarbon</td>
<td>E - EPDM</td>
</tr>
<tr>
<td>Cartridge Guide</td>
<td>SG - Sterilizing Grade</td>
<td>SG - Sterilizing Grade</td>
<td>SG - Sterilizing Grade</td>
<td>SG - Sterilizing Grade</td>
</tr>
</tbody>
</table>

---

### USP Physiochemical Tests for Plastics

Ultrapure water extracts from multiple lots of Mem-Pleat E-SG cartridges were tested and shown to have values that comply with USP limits.

<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
<th>USP Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non volatile residue</td>
<td>&lt;2mg</td>
<td>&lt;15mg</td>
</tr>
<tr>
<td>Heavy Metals</td>
<td>&lt;1ppm</td>
<td>&lt;1ppm</td>
</tr>
<tr>
<td>Residue on Ignition</td>
<td>&lt;2mg</td>
<td>&lt;5mg</td>
</tr>
<tr>
<td>Buffering Capacity</td>
<td>&lt;1mL</td>
<td>&lt;10mL</td>
</tr>
</tbody>
</table>

### Product Specifications

#### Dimensions

- **Outside Diameter**: 2.55" (6.48cm)
- **Lengths**: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
- **Effective Filtration Area**: 6.5ft² (.62m²)

#### Performance Specifications

- **Absolute Rated Retention**: 0.20µm
- **Maximum Forward Differential Pressure**: 75 psid (5.5 bar) @ 75°F (24°C), 40 psid (2.8 bar) @ 180°F (82°C)
- **Maximum Operating Temperature**: 180°F (82°C) Continuous Duty

#### Toxicity

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact.

#### Sterilization

Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility.

#### Packaging Economy

Bulk packaging in case quantities to reduce material disposal:

- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

---

*Example: MPE0.2-10PPC7SSG*
The Bev-Maxx pleated membrane filters are specifically engineered to provide an absolute barrier to beverage spoiling micro-organisms. The Bev-Maxx incorporates a highly asymmetric polyethersulfone membrane within our exclusive pleat support configuration creating one of the industry’s most rugged yeast removal filters. This exceptionally robust filter design means filter performance will remain effective after multiple steam sterilization cycles.

Every Bev-Maxx filter is integrity tested and flushed with high purity water to assure product performance and purity. Integrity test parameters have been correlated to microbiological retention for all of our membrane filters (refer to Microbiological Performance chart).

Features and Benefits

- Absolute-rated and integrity tested membrane provides reliable, consistent and repeatable filtrate to ensure microbiological stability
- Low pressure drops yield higher flow rates and reduced processing time
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- 100% Thermally bonded construction
- Low hold-up volumes
- High strength design allowing for extended use and multi autoclave and hot water sanitization cycles
- 316 Stainless steel insert standard

Quality Compliance

- All materials are listed in Title 21 of the US Code of Federal Regulations 177-182
- Component materials meet the biosafety criteria of the USP Reactivity Test for Class VI Plastics
- Component materials meet the “non-fiber releasing” criteria as defined in 21 CFR 210.3 (b) (6)
- Bev-Maxx cartridges are manufactured in a facility whose Quality Management System is approved by an accredited registering body to the ISO 9001:2008 standard
- Bev-Maxx cartridges are 100% integrity tested and DI flushed
**Specifications**

### BVM Integrity Test Values

<table>
<thead>
<tr>
<th>Pore Size</th>
<th>Bubble Point</th>
<th>Test Pressure</th>
<th>Air Diffusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>BVM0.20</td>
<td>22 psig IPA/Water</td>
<td>17 psig*</td>
<td>≤10mL/min</td>
</tr>
<tr>
<td>BVM0.45</td>
<td>38 psig in water</td>
<td>28 psig</td>
<td>≤13.5mL/min</td>
</tr>
<tr>
<td>BVM0.65</td>
<td>26 psig in water</td>
<td>20 psig</td>
<td>≤14mL/min</td>
</tr>
</tbody>
</table>

*50/50 IPA/DI water solution

### Microbiological Performance

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>BVM0.20</th>
<th>BVM0.45</th>
<th>BVM0.65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oenococcus Oeni</td>
<td>≥10’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lactobacillus Hilgardii</td>
<td>≥10’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saccharomyces Cerevisiae</td>
<td>≥10’</td>
<td>≥10’</td>
<td></td>
</tr>
<tr>
<td>Brevundimonas Diminuta</td>
<td>≥10’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Materials of Construction

- **Filter Media**: Polyethersulfone
- **Pleat Support Material**: Polypropylene
- **End Caps**: Polypropylene
- **Reinforcing Ring**: 316 Stainless Steel
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Silicone, EPDM

### Ordering Information

**Example:**

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>BVM: Bev-MAXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micron Rating</td>
<td>0.20, 0.45, 0.65</td>
</tr>
<tr>
<td>Length</td>
<td>10, 20, 30, 40</td>
</tr>
<tr>
<td>Pleat Support Materials</td>
<td>PP - Polypropylene</td>
</tr>
<tr>
<td>End Cap Configurations</td>
<td>C3-5OE flat closed ends, external 222 O-ring</td>
</tr>
<tr>
<td></td>
<td>C6-5OE flat closed end, external 226 O-ring</td>
</tr>
<tr>
<td></td>
<td>C7-5OE fin end, external 226 O-ring</td>
</tr>
<tr>
<td></td>
<td>C8-5OE fin end, external 222 O-ring</td>
</tr>
<tr>
<td>O-ring Materials</td>
<td>S - Silicone (standard O-rings)</td>
</tr>
<tr>
<td></td>
<td>E - EPDM</td>
</tr>
</tbody>
</table>

**BVM0.45-10PPC7S**

### Dimensions

- **Outside Diameter**: 2.7” (6.87cm)
- **Lengths**: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)

### Performance Specifications

- **Absolute Rated Retention**: 0.20µm, 0.45µm, 0.65 µm

### Maximum Forward Differential Pressure

- **Forward**: 75 psid (5.5 bar) @ 75°F (24°C)
- **Reverse**: 50 psid (3.4 bar) @ 75°F (24°C)

### Maximum Operating Temperature

- **180°F (82°C) Continuous Duty**

### Sterilization

Cartridge can be sterilized via steam or Autoclave:
20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

### Packaging Economy

Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton
The Bev-Rite pleated membrane filters are specifically engineered to provide a barrier to beverage spoiling micro-organisms. The Bev-Rite bio-reduction filter incorporates a highly asymmetric polyethersulfone membrane within our exclusive pleat support configuration, creating one of the industry’s most rugged bacteria removal filters.

This exceptionally robust filter design means filter performance will remain effective after multiple steam sterilization cycles. Every Bev-Rite filter is integrity tested and flushed with high purity water to assure product performance and purity.

Features and Benefits

- Absolute-rated and integrity tested membrane provides reliable, consistent and repeatable filtrate to ensure microbiological stability
- Low pressure drops yield higher flow rates and reduced processing time
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- 100% Thermally bonded construction
- Low hold-up volumes
- High strength design allowing for extended use and multi autoclave and hot water sanitation cycles
- 316 Stainless steel insert standard

Quality Compliance

- All materials are listed in Title 21 of the US Code of Federal Regulations 177-182
- Component materials meet the biosafety criteria of the USP Reactivity Test for Class VI Plastics
- Component materials meet the “non-fiber releasing” criteria as defined in 21 CFR 210.3 (b) (6)
- Bev-Rite cartridges are manufactured in a facility whose Quality Management System is approved by an accredited registering body to the ISO 9001:2008 standard
- Bev-Rite cartridges are 100% integrity tested and DI flushed
## Specifications

### BVM Integrity Test Values

<table>
<thead>
<tr>
<th>Pore Size</th>
<th>Bubble Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>BVR0.20</td>
<td>22 psig IPA/water</td>
</tr>
<tr>
<td>BVR0.45</td>
<td>38 psig in water</td>
</tr>
<tr>
<td>BVR0.65</td>
<td>26 psig in water</td>
</tr>
<tr>
<td>BVR0.80</td>
<td>16 psig in water</td>
</tr>
</tbody>
</table>

*50/50 IPA/DI water solution

### Filter Media

- Polyethersulfone

### Pleat Support Material

- Polypropylene

### End Caps

- Polypropylene

### Reinforcing Ring

- 316 Stainless Steel

### Cage/Core

- Polypropylene

### Sealing

- Thermal Bond

### Seals

- Silicone, EPDM

### Product Specifications

#### Dimensions

- **Outside Diameter:** 2.7" (6.87cm)
- **Lengths:** 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
- **Effective Filtration Area:** 7ft² (0.65m²)

#### Performance Specifications

- **Absolute Rated Retention:** 0.20µm, 0.45µm, 0.65 µm, 0.80µm

#### Maximum Forward Differential Pressure

- **Forward:** 75 psid (5.5 bar) @ 75°F (24°C)
- **Reverse:** 50 psid (3.4 bar) @ 75°F (24°C)

#### Maximum Operating Temperature

- 180°F (82°C) Continuous Duty

#### Sterilization

Cartridge can be sterilized via steam or Autoclave:
- 20 times at 275°F (135°C)
Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

#### Packaging Economy

Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

### Ordering Information

#### Example:

- **Cartridge Series**
  - BVE: Bev-Rite
- **Micron Rating**
  - 0.20, 0.45, 0.65, 0.80
- **Length**
  - 10, 20, 30, 40
- **Pleat Support Materials**
  - PP - Polypropylene
- **End Cap Configurations**
  - C1-DOE flat open ends
  - C3-SOE flat closed ends, external 222 O-ring
  - C6-SOE flat closed end, external 226 O-ring
  - C7-SOE fin end, external 226 O-ring
  - C8-SOE fin end, external 222 O-ring
- **O-ring Materials**
  - S - Silicone (standard O-rings)
  - E - EPDM

**BVE0.45-10PPC7S**
The **Vent-Maxx** gas sterilizing filters set a new standard for PTFE membrane elements. These filters utilize a technologically advanced membrane in our unique pleat construction to deliver unrivaled efficiency, superior strength, and high flow rates.

**Vent-Maxx** double layer PTFE membrane filters are designed to remove microorganisms, particulate, and moisture in your most demanding air and gas applications. These liquid validated sterilizing grade filters are designed to meet the highest levels of security required in the pharmaceutical, food and beverage, and biopharmaceutical industries.

**Vent-Maxx** filters conform to USP Class VI – 121oC and 21 CFR Part 177. Strainrite delivers clear solutions to your air and gas filtration applications.

### Features and Benefits
- **PTFE membranes**
- **Inherently hydrophobic media**
- **100% integrity tested**
- **High surface area**
- **Sterilizing Grade in liquids**
- **Virus retentive in gases**
- **Thermally bonded construction**
- **FDA listed materials per CFR 21**
- **Manufactured in a ISO 9001:2008 certified facility**
- **Water intrusion testable**
- **Quality control certificate with every filter**
- **Can be steam sterilized multiple times in situ for longer filter life**
- **Manufactured in a 3rd party certified clean room**

### Typical Applications
- **Fermenter inlet air and exhaust venting**
- **Sterile process air**
- **Sterile venting of tanks.**
Filtration Membrane: Double Layer Polytetrafluoroethylene (PTFE)

Pleat Support Material: Polypropylene

End Caps: Polypropylene

Cage/Core: Polypropylene

Sealing: Thermal Bond

End Cap Insert: 316 Stainless Steel

Example:

Cartridge Series: VM: Vent-MAXX

Length: 10", 20", 30"

End Cap Configurations: C3-SOE flat closed ends, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials: S - Silicone (standard O-rings), V - Fluorocarbon

Cartridge Guide: 2 - Pharmaceutical

Maximum Forward Differential Pressure:

Forward: 75 psid (5.5 bar) @ 75°F (24°C)
40 psid (2.8 bar) @ 180°F (82°C)

Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature:

180°F (82°C) Continuous Duty

Toxicity:
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization:
Vent-Maxx cartridges have been validated for bacterial removal in air at an aerosol bacterial challenge level of 10^7 brevundimonas diminuta per cm^2 per ASTM F 2101-07.
Liquid challenge validated as sterilizing grade filter at a challenge level of 10^7 brevundimonas diminuta per cm^2 per ASTM F 838-05.
Maximum before and after use Water Intrusion Test (WIT) value of > 60 psi with a WIT not to exceed 70 psi.

Packaging Economy:
Bulk packaging in case quantities to reduce material disposal:
10 inch 24 per carton
20 inch 12 per carton
30 inch 12 per carton
Vent-Rite hydrophobic filters are sterilizing PTFE membrane filters. Vent-Rite PTFE membrane provides the highest levels of security in demanding air and gas applications. Vent-Rite PTFE membrane filters are designed to remove microorganisms, particulate and moisture. Strainrite’s optimized design ensures exceptional gas flow rate and throughput for the Biopharmaceutical, food and beverage markets.

Vent-Rite filters are designed for applications that require particulate security to 0.003µm in gas and air and 0.2µm in liquids. Strainrite delivers value and security with these aerosol validated cartridges. Vent-Rite meets USP Biological Reactivity Test Criteria, is Non fiber releasing, and manufactured to withstand multiple sterilization cycles, when using industry recognized and accepted methods.

**Features and Benefits**

- PTFE membranes
- Inherently hydrophobic media
- 100% integrity tested
- High surface area
- Virus retentive in gasses
- Thermally bonded construction
- FDA listed materials per CFR 21
- Manufactured in a ISO 9001:2008 certified facility
- Water intrusion testable
- Quality control certificate packaged with every filter
- Can be steam sterilized multiple times in situ for longer filter life
- Manufactured in 3rd party certified clean rooms

**Typical Applications**

*Fermenter inlet air and exhaust venting*
*Sterile process air*
*Sterile venting of tanks.*
Specifications

Filtration Membrane: Polytetrafluoroethylene (PTFE)
Pleat Support Material: Polypropylene
End Caps: Polypropylene
Cage/Core: Polypropylene
Sealing: Thermal Bond
End Cap Insert: 316 Stainless Steel

Example:

Cartridge Series: VR: Vent-Rite
Length: 10, 20, 30, 40
End Cap Configurations:
- C3-SOE flat closed ends, external 222 O-ring
- C6-SOE flat closed end, external 226 O-ring
- C7-SOE fin end, external 226 O-ring
- C8-SOE fin end, external 222 O-ring
Gasket/O-ring Materials:
- S - Silicone (standard O-rings)
- V - Fluorocarbon
Cartridge Guide: 2 - Pharmaceutical

VR Integrity Test Data

All cartridges are integrity tested prior to shipment using pressure decay test method. Values below are for cartridges wetted with 100% IP.

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>Test Pressure</th>
<th>Diffusional Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>10”</td>
<td>14psi</td>
<td>50mL/min</td>
</tr>
<tr>
<td>20”</td>
<td>14psi</td>
<td>100mL/min</td>
</tr>
<tr>
<td>30”</td>
<td>14psi</td>
<td>150mL/min</td>
</tr>
</tbody>
</table>

Product Specifications

Dimensions:
- Outside Diameter: 2.7” (6.87cm)
- Lengths: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm)
- Effective Filtration Area: 8.5ft² per 10” equivalent

Maximum Forward Differential Pressure:
- Forward: 75 psid (5.5 bar) @ 75°F (24°C)
- 40 psid (2.8 bar) @ 180°F (82°C)
- Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature:
180°F (82°C) Continuous Duty

Toxicity:
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization:
Vent-Rite cartridges have been validated for bacterial removal in air at an aerosol bacterial challenge level of 10⁷ brevundimonas diminuta per cm².

Packaging Economy:
Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
The PES-E was developed for microelectronics industry where a high degree of particle retention and/or constant bacterial barrier for effective sterilization is required.

Hydrophilic asymmetric polyethersulfone membrane ensures excellent flow rates, broad chemical compatibility, low protein binding, low extractability, high mechanical strength, and temperature resistance in a variety of applications in the microelectronics industry. The PES-E is 100% integrity testable and utilizes Strainrite’s double rinse process to ensure extremely low extractables. Polyethersulfone offers a broad range of chemical compatibility and temperature performance.

The PES-E meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics. Sterilizable using industry recognized and accepted methods.

Features and Benefits

• High surface area membrane offers excellent life and flux rates while providing absolute filtration
• Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
• Low pressure drops yield higher flow rates and reduced processing time
• Non-fiber shedding Polypropylene support materials eliminate fiber migration
• MAXXimum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
• Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
• Integrity testable
• High strength design allowing for extended use

Typical Applications

Liquid Clarification
High Purity Chemical Filtration
General-Use Water Filtration
Deionized Water Systems
Specifications

Materials of Construction

- **Filter Media**: Polyethersulfone
- **Pleat Support Material**: Polypropylene
- **End Caps**: Polypropylene
- **Cage/Core**: Polypropylene
- **Sealing**: Thermal Bond
- **Seals**: Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

**Example:**

- **Cartridge Series**: PESE
- **Nanoeters**: PES E
- **Nanometers**: 50, 100, 200, 450, 650, 800, 1200
- **Lengths**: 10, 20, 30, 40
- **Pleat Support Materials**: PP - Polypropylene
- **End Cap Configurations**: C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 222 O-ring
- **Gasket/O-ring Materials**: S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone
- **Cartridge Guide**: E - Electronics
- **Options**: I - 316 Stainless Steel Insert, T - Integrity Tested

**Product Specifications**

- **Dimensions**
  - **Outside Diameter**: 2.7” (6.87cm)
  - **Lengths**: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
  - **Surface Area**: 6.8ft² per 10” equivalent
  - *All Cartridges are 18 meg ohm flushed

- **Performance Specifications**
  - **Absolute Rated Retention in Nanometers**: 50, 100, 200, 450, 650, 800, 1200
  - **Maximum Forward Differential Pressure**
    - **Forward**: 75 psid (5.5 bar) @ 75°F (24°C)
    - 40 psid (2.8 bar) @ 180°F (82°C)
  - **Maximum Reverse Differential Pressure**
    - **Reverse**: 50 psid (3.4 bar) @ 75°F (24°C)

- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty

- **Toxicity**
  - Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

- **Sterilization**
  - Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

- **Packaging Economy**
  - Bulk packaging in case quantities to reduce material disposal:
    - 10 inch: 24 per carton
    - 20 inch: 12 per carton
    - 30 inch: 12 per carton
    - 40 inch: 9 per carton

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**Ordering Information**

- **Cartridge Series**: PESE: PES E
- **Example**: PESE200-10PPC7SET

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**The Strainrite Companies** | [www.strainrite.com](http://www.strainrite.com) | Toll Free 800-487-3136
Created for Beverage Pre-final filtration. The Guard Rite is the pre final filter, to cost effectively reduce Bio-burden before final filtration and packaging. With a depth layer and synchronized final filtration layer optimized to extend final filter life with a stainless steel insert for steam or hot water sanitization.

Guard Rite is engineered to provide cost effective removal of Particles and reduction of Beverage spoiling Microorganisms. The superior flowing membrane ensures that flavor and color stay in your beverage. Every Guard Rite comes with a certificate of conformance and is manufactured to meet the highest cleanliness standards.

Features and Benefits

- Reliable non fiber releasing media
- Synchronized media
- Thermally bonded construction
- No additives or glue
- All materials of construction are FDA compliant with CFR Title 21
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- High strength design allowing for extended use and multi-autoclave cycles

Typical Applications

Prefiltration and clarification stages for final sterilizing grade filter protection

Pre filtration of wine
Pre filtration of Beer
Pre filtration of Juice
Specifications

Filter Media  
Microglass over Polyethersulfone

Pleat Support Material  
Polypropylene, Polyester

End Caps  
Polypropylene

Cage/Core  
Polypropylene

Sealing  
Thermal Bond

Seals  
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

Cartridge Series  
GR: Guard Rite

Grade  
561, 562, 563, 568

Length  
10, 20, 30, 40

Pleat Support Materials  
PE - Polyester
PP - Polypropylene

End Cap Configurations  
C1-DOE flat open ends
C2-SOE recessed cup, internal 213 O-ring
C3-SOE flat closed ends, external 222 O-ring
C4-SOE flat closed end
C5-SOE recessed cup, external 222 O-ring
C6-SOE flat closed end, external 226 O-ring
C7-SOE fin end, external 226 O-ring
C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials  
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Cartridge Guide  
1 - FDA Grade

Options  
DIF - DI Flush

Product Specifications

Dimensions  
Outside Diameter: 2.7" (6.87cm)
Lengths: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
Surface Area: 6.8ft² per 10” equivalent

Maximum Forward Differential Pressure  
Forward: 50 psid (5.5 bar) @ 75°F (24°C)
Reverse: 40 psid (2.8 bar) @ 180°F (82°C)

Maximum Operating Temperature  
180°F (82°C) Continuous Duty

Toxicity  
Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization  
Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy  
Bulk packaging in case quantities to reduce material disposal:

<table>
<thead>
<tr>
<th>Length</th>
<th>Carton Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 inch</td>
<td>24 per carton</td>
</tr>
<tr>
<td>20 inch</td>
<td>12 per carton</td>
</tr>
<tr>
<td>30 inch</td>
<td>12 per carton</td>
</tr>
<tr>
<td>40 inch</td>
<td>9 per carton</td>
</tr>
</tbody>
</table>

GR562-10PPC7S1DIF
Strainrite continues its tradition of state-of-the-art advanced filtration innovation with the **Trap-Rite**. A unique polypropylene depth filter, that utilizes long strand small and large diameter fibers to provide a high solids loading, absolute-rated, pleated depth filter. This binder-free depth media is excellent for removing filter aid particles from bright beer. **Trap-Rite** also offers more than twice the surface area compared with industry standard non-pleated depth filters. The increased surface area provides higher flow rates at reduced pressure, resulting in increased filter life.

All polypropylene construction materials are CFR 21 listed for direct food contact, which makes this filter ideal for a broad range of applications.

**Features and Benefits**
- Absolute-rated media provides reliable, consistent and repeatable filtration
- Low pressure drops yield higher flow rates and reduced processing time
- Maximized pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge
- 100% Polypropylene, FDA compliant with CFR 21
- Thermally bonded construction, eliminating particle bypass

**Typical Applications**
- Very high contaminant holding capacity
- Excellent resistance to typical brewery use chemicals
- Removes filter aid particles
**Specifications**

### Filter Media
- Polypropylene Microfiber Composite

### Pleat Support Material
- Polypropylene

### End Caps
- Polypropylene

### Cage/Core
- Polypropylene

### Sealing
- Thermal Bond

### Seals
- Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

#### Example:
- **Cartridge Series**: TR: Trap-Rite
- **Micron Rating**: 1, 5, 10
- **Length**: 10, 20, 30, 40
- **Pleat Support Materials**: PE - Polyester, PP - Polypropylene
- **End Cap Configurations**: C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 226 O-ring
- **Gasket/O-ring Materials**: S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone
- **Cartridge Guide**: Blank - General, I - FDA Grade
- **Options**: I - 316 Stainless Steel Insert, MC - Molded Cage

### TR Pressure Drop vs. Flow Rate

![Graph showing pressure drop vs. flow rate for TR cartridges]

### Materials of Construction

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TR: Trap-Rite</td>
<td>1, 5, 10</td>
<td>10, 20, 30, 40</td>
<td>PE - Polyester, PP - Polypropylene</td>
<td>C1-DOE flat open ends, C2-SOE recessed cup, internal 213 O-ring, C3-SOE flat closed ends, external 222 O-ring, C4-SOE flat closed end, C5-SOE recessed cup, external 222 O-ring, C6-SOE flat closed end, external 226 O-ring, C7-SOE fin end, external 226 O-ring, C8-SOE fin end, external 226 O-ring</td>
<td>S - Silicone (standard O-rings), B - Buna N (standard gaskets), V - Fluorocarbon, E - EPDM, T - PTFE, TV - FEP Encapsulated Fluorocarbon, TS - FEP Encapsulated Silicone</td>
<td>Blank - General, I - FDA Grade</td>
<td>I - 316 Stainless Steel Insert, MC - Molded Cage</td>
</tr>
</tbody>
</table>

### Product Specifications

**Dimensions**
- **Outside Diameter**: 2.55” (6.48cm)
- **Lengths**: 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)

**Maximum Forward Differential Pressure**
- 75 psid (5.1 bar) @ 68°F (20°C)
- 40 psid (2.8 bar) @ 150°F (65°C)

**Maximum Operating Temperature**
- 180°F (82°C) Continuous Duty Polypropylene Hardware

**Toxicity**
- All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21CFR177.1520

**Packaging Economy**
- Bulk packaging in case quantities to reduce material disposal:
  - 10 inch: 24 per carton
  - 20 inch: 12 per carton
  - 30 inch: 12 per carton
  - 40 inch: 9 per carton
The Endo-Maxx CN was developed for the filtration of fluids that require a high degree of particle and bacterial retention while achieving a two and a half log reduction of endotoxin.

Hydrophilic charged nylon membrane provides excellent flow rates, broad chemical compatibility, low extractability, high mechanical strength, and temperature resistance in a variety of applications for the biopharmaceutical and dialysis processes.

The Endo-Maxx CN meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics. Sterilizable using industry recognized and accepted methods.

**Features and Benefits**

- Integrity tested Endotoxin removal filter.
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- All materials of construction are FDA compliant with CFR Title 21, Pharmaceutical grades are bio-safe in accordance with USP Class VI
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- Low hold-up volumes
- Positive zeta potential for removal of charged particles smaller than the absolute retention rating of the filter
- Manufactured in an ISO 9001:2008 Certified Quality System

**Typical Applications**

- Endotoxin Removal
- High Purity Water
Specifications

**Filter Media**
Nylon 6,6

**Pleat Support Material**
Nylon

**End Caps**
Polypropylene

**Cage/Core**
Polypropylene

**Sealing**
Thermal Bond

**Seals**
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>EDXCN: Endo-MAXX CN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Micron Rating</strong></td>
<td>0.1, 0.2</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>10, 20, 30, 40</td>
</tr>
<tr>
<td><strong>End Cap Configurations</strong></td>
<td>C3-SOE flat closed ends, external 222 O-ring</td>
</tr>
<tr>
<td></td>
<td>C6-SOE flat closed end, external 226 O-ring</td>
</tr>
<tr>
<td></td>
<td>C7-SOE fin end, external 226 O-ring</td>
</tr>
<tr>
<td></td>
<td>C8-SOE fin end, external 222 O-ring</td>
</tr>
<tr>
<td><strong>Gasket/O-ring Materials</strong></td>
<td>S - Silicone (standard O-rings)</td>
</tr>
<tr>
<td></td>
<td>B - Buna N (standard gaskets)</td>
</tr>
<tr>
<td></td>
<td>V - Fluorocarbon</td>
</tr>
<tr>
<td></td>
<td>E - EPDM</td>
</tr>
<tr>
<td></td>
<td>T - PTFE</td>
</tr>
<tr>
<td></td>
<td>TV - FEP Encapsulated Fluorocarbon</td>
</tr>
<tr>
<td></td>
<td>TS - FEP Encapsulated Silicone</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Outside Diameter:** 2.7” (6.87cm)
- **Lengths:** 10” (25.4cm), 20” (50.8cm), 30” (76.2cm), 40” (102cm)
- **Surface Area:** 6.8ft² per 10” equivalent

**Performance Specifications**

- **Absolute Rated Retention:**
  - 0.10, 0.20
- **Maximum Forward Differential Pressure**
  - Forward: 75 psid (5.5 bar) @ 75°F (24°C)
  - Reverse: 50 psid (3.4 bar) @ 75°F (24°C)

- **Maximum Operating Temperature**
  - 180°F (82°C) Continuous Duty

**Toxicity**

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

**Sterilization**

Cartridge can be sterilized via steam or Autoclave:
- 20 times at 275°F (135°C)
- Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

**Packaging Economy**

Bulk packaging in case quantities to reduce material disposal:
- 10 inch: 24 per carton
- 20 inch: 12 per carton
- 30 inch: 12 per carton
- 40 inch: 9 per carton

**Endotoxin Reduction**

The Endo-MAXX CN cartridge media has been third party verified to deliver a >2 log reduction of bacterial endotoxin using the gel-clot characterization method.

**EDXCN Pressure Drop vs. Flow Rate**

---

The Endo-MAXX CN cartridge media has been third party verified to deliver a >2 log reduction of bacterial endotoxin using the gel-clot characterization method.
The Inkjet Select filter is another example of Strainrite’s continued tradition of providing industry leading filtration solutions. Inkjet Select (IKS) filters feature a graded pore density to maximize filter life and performance. IKS filters incorporate our proprietary melt blown, Micro and Nano fiber technology to achieve industry leading performance for both pigment and dye based inkjet inks.

The Inkjet Select filters are manufactured without binders or resins, in a class 10,000 clean room resulting in an extremely clean non-fiber shedding filter. Due to our utilization of the unique graded pore density depth media this element is outstanding for removing gels, compared to traditional pleated polypropylene filters.

Features and Benefits

- **Absolute-rated media provides reliable, consistent and repeatable filtration results**
- **Graded pore density pleat design to optimize service life, fewer change outs and reduced operating costs per cartridge**
- **Lower pressure drops, which yield higher flow rates and reduced processing time**
- **100% Polypropylene construction offers a wide range of chemical compatibility**
- **Thermally bonded construction ensures a cleaner filtrate while minimizing extractables**

Typical Applications

- **Dye Based Inkjet Inks**
- **Pigment Based Inkjet Inks**
- **High Viscosity Inkjet Inks**
Specifications

Filter Media
Polypropylene Micro/Nano-fiber Composite

Pleat Support Material
Polypropylene

End Caps
Polypropylene

Cage/Core
Polypropylene

Sealing
Thermal Bond

Seals
Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

Example:
Cartridge Series
IKS, IKP, IKG: Ink-Jet Select

Micron Rating
For IKS, IKP: 0.3, 0.5, 1.0, 3.0, 5.0, 10.0, 20.0, 40.0, 70.0, 90.0
For IKG: 0.5, 1.0, 3.0, 6.0, 10.0, 20.0, 40.0

Length
10, 20, 30, 40

End Cap Configurations
C1-DOE flat open ends
C2-SOE recessed cup, internal 213 O-ring
C3-SOE flat closed ends, external 222 O-ring
C4-SOE flat closed end
C5-SOE recessed cup, external 222 O-ring
C6-SOE flat closed end, external 222 O-ring
C7-SOE fin end, external 226 O-ring
C8-SOE fin end, external 222 O-ring

Gasket/O-ring Materials
S - Silicone (standard O-rings)
B - Buna N (standard gaskets)
V - Fluorocarbon
E - EPDM
T - PTFE
TV - FEP Encapsulated Fluorocarbon
TS - FEP Encapsulated Silicone

Options
I - 316 Stainless Steel Insert
APH - Polyester Hardware

Product Specifications

Dimensions
Outside Diameter: 2.68" (6.81 cm)
Lengths: 10" (25.4 cm), 20" (50.8 cm), 30" (76.2 cm), 40" (102 cm)

CPP Surface Area: 6 ft² per 10"
CPW Surface Area: 4.5 ft² per 10"

Performance Specifications
Retention Rating:
0.3, 0.5, 1.0, 3.0, 5.0, 10.0, 15.0, 20.0, 40.0, 70.0, 90.0

Maximum Forward Differential Pressure
70 psid (5.1 bar) @ 68°F (20°C)
40 psid (2.8 bar) @ 150°F (65°C)

Maximum Operating Temperature
180°F (82°C) Continuous Duty

Toxicity
All components meet all relevant USP XXII Class VI test for biological safety and FDA requirements for contact with food and beverage per 21 CFR 177.1520

Packaging Economy
Bulk packaging in case quantities to reduce material disposal:

<table>
<thead>
<tr>
<th>Length</th>
<th>Per Carton</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 inch</td>
<td>24 per carton</td>
</tr>
<tr>
<td>20 inch</td>
<td>12 per carton</td>
</tr>
<tr>
<td>30 inch</td>
<td>12 per carton</td>
</tr>
<tr>
<td>40 inch</td>
<td>9 per carton</td>
</tr>
</tbody>
</table>

Product Efficiency

Inkjet Select 99% Efficiency

<table>
<thead>
<tr>
<th>Micron Rating</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>IKS 0.3</td>
<td>0.3µm</td>
</tr>
<tr>
<td>IKS 0.5</td>
<td>0.5µm</td>
</tr>
<tr>
<td>IKS 1.0</td>
<td>1.0µm</td>
</tr>
<tr>
<td>IKS 3</td>
<td>3.0µm</td>
</tr>
<tr>
<td>IKS 5</td>
<td>5.0µm</td>
</tr>
<tr>
<td>IKS 10</td>
<td>10.0µm</td>
</tr>
<tr>
<td>IKS 15</td>
<td>15.0µm</td>
</tr>
<tr>
<td>IKS 20</td>
<td>20.0µm</td>
</tr>
<tr>
<td>IKS 40</td>
<td>40.0µm</td>
</tr>
<tr>
<td>IKS 70</td>
<td>70.0µm</td>
</tr>
<tr>
<td>IKS 90</td>
<td>90.0µm</td>
</tr>
</tbody>
</table>
The Strainrite Capsule is made of Ultrapure polypropylene using FDA compliant materials. The Maxx Cap was designed for Single use and multi use applications. Strainrite’s depth filters and our complete line of membranes can be installed in our proprietary capsule design. Our proprietary design utilizes an inlet and outlet vent for confident start up and safe efficient processing. From the innovative SG to our charged modified CN as well as absolute and nominal media like Polypropylene and Micro Glass. Strainrite capsules will also accept our sterile air and vent product line, the Vent Maxx and Vent Rite.

The capsule is available in sizes from 5 inches to 30 inches. Strainrite offers the advantages of a capsule with low internal void space, that reduces valuable product loss by reducing your process costs. All Strainrite capsules are adaptable for use with sanitary fittings that can be autoclaved. Strainrite capsules may be integrated into existing capsule applications.

Features and Benefits

- Reliable non-fiber releasing materials
- No additives or glue
- All materials of construction are FDA compliant with CFR Title 21
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- High strength design allowing for extended use and multi-autoclave cycles

Typical Applications

- All Ophthalmics
- Bio-pharmaceutical and Bio-technology
- Food and beverage processing
- Ink
- Ultrapure chemical
- High Value products

Made of 100% Polypropylene, Strainrite’s capsule design incorporates thermal bonding. Thermal bonding provides an integral fit that requires no glues, binders, surfactants or adhesives. This design ensures low extractable filtrate when incorporated with our low extractable 100% clean room manufactured cartridges.
## Specifications

### Materials of Construction

<table>
<thead>
<tr>
<th>Membrane Media</th>
<th>Polyethersulfone, Polysulfone, Nylon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleated Depth Media</td>
<td>Borosilicate Microglass, Polypropylene</td>
</tr>
<tr>
<td>Pleat Support Material</td>
<td>Polypropylene, Polyester</td>
</tr>
<tr>
<td>End Caps</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Cage/Core</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Capsule Hardware</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Sealing</td>
<td>Thermal Bond</td>
</tr>
<tr>
<td>Seals</td>
<td>Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE</td>
</tr>
</tbody>
</table>

### Inlet/Outlet Designs

<table>
<thead>
<tr>
<th>Inlet Design</th>
<th>D2/O2 - 0.5&quot; Female NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>O2</td>
<td>D1/O1 - Sanitary</td>
</tr>
<tr>
<td>O3</td>
<td>D3/O3 - 0.25&quot; Hose Barb</td>
</tr>
<tr>
<td>O4</td>
<td>D4/O4 - 0.5&quot; Hose Barb</td>
</tr>
<tr>
<td>O5</td>
<td>D5/O5 - Graduated Hose Barb</td>
</tr>
</tbody>
</table>

### Ordering Information

**Example:**

<table>
<thead>
<tr>
<th>Cartridge Series</th>
<th>MC: Maxx Capsule</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capsule Construction</td>
<td>P - Polypro</td>
<td>P</td>
</tr>
<tr>
<td>Length</td>
<td>5, 10, 20, 30, 40</td>
<td>-10</td>
</tr>
<tr>
<td>Inlet Design</td>
<td>D1 - 1&quot;, 1.5&quot; sanitary</td>
<td>D1</td>
</tr>
<tr>
<td></td>
<td>D2 - 0.5&quot; female NPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D3 - 0.25&quot; hose barb</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D4 - 0.5&quot; hose barb</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D5 - Graduated 0.25 - 0.5&quot; hose barb</td>
<td></td>
</tr>
<tr>
<td>Outlet Design</td>
<td>O1 - 1&quot;, 1.5&quot; sanitary</td>
<td>O2</td>
</tr>
<tr>
<td></td>
<td>O2 - 0.5&quot; female NPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O3 - 0.25&quot; hose barb</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O4 - 0.5&quot; hose barb</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O5 - Graduated 0.25 - 0.5&quot; hose barb</td>
<td></td>
</tr>
<tr>
<td>Cartridge Style*</td>
<td>CPP - Continuous Polypleat</td>
<td>CPP</td>
</tr>
<tr>
<td></td>
<td>MPE - Mem-Pleat E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP - Pur-Pleat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PPG - Pur-Pleat G</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GP - Glass Pleat G</td>
<td></td>
</tr>
<tr>
<td>Micron*</td>
<td>0.2, 0.5, 1.0, 5.0, 10.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Cartridge Guide</td>
<td>1 - FDA Grade</td>
<td>-2</td>
</tr>
<tr>
<td></td>
<td>2 - Pharmaceutical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 - Water</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SG - Sterilizing</td>
<td></td>
</tr>
<tr>
<td>Cartridge O-ring</td>
<td>S - Silicone (standard O-rings)</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>B - Buna N (standard gaskets)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V - Fluorocarbon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T - PTFE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV - FEP Encapsulated Fluorocarbon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS - FEP Encapsulated Silicone</td>
<td></td>
</tr>
</tbody>
</table>

* Refer to Cartridge product literature for micron availability

### Product Specifications

**Dimensions**

- **Outside Diameter:** 3.5" (6.87cm)
- **Lengths:** 5" (12.7cm), 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)

**Maximum Forward Differential Pressure**

5.5 Bar/80 PSI @ 23C/74 F

**Maximum Operating Temperature**

180°F (82°C) Continuous Duty

**Toxicity**

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

**Sterilization**

- **Autoclave:** May be autoclaved 3 times for 60 minutes. Not in line steam sterilizable.

**Packaging Economy**

- 5 inch, 10 inch, 20 inch, 30 inch: Individually Boxed - 6 case quantity
- 40 inch: Individually Boxed

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The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136
Offering superior technical sales and live customer support.