



High Purity Pleated Depth & Membrane Cartridges

# SCIENCE, SERVICE, STRAINRITE



# 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<sup>™</sup> 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



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*<sup>™</sup> *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<sup>™</sup> pleated products offer the Clear Solution.



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# Pur-MAXX E

#### Pleated Polyethersulfone Membrane Cartridge

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.



#### **Typical Applications**

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

#### **Features and Benefits**

• High surface area membrane offers excellent life and flux rates while providing absolute filtration

1.1

- 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

#### **PRMXE Pressure Drop vs. Flow Rate**



#### **Materials of Construction**

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

#### Ordering Information

		Ехс	ample:
Cartridge Series	PRMXE: Pur-MAXX E	P	PRMXE
Micron Rating	0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20	•	04
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush	•	DIF



#### **Product Specifications**

Dimensions		
Outside Diameter:	2.7″ (6.87cm)	
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)	
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent	
Performance S	pecifications	
Absolute Rated Ret	ention:	
0.04, 0.10, 0.20, 0.45,	0.65, 0.80, 1.20	
Maximum For	ward 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 Ope	erating Temperature	
180°F (82°C) Continuous Duty		
Toxicity		
Toxicity Cartridge materials r for food and beverage	meet USP Class VI and CFR 21 ge contact	

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

PRMXE04-10PPC7S1DIF

# Pur-MAXX S

#### Pleated Polysulfone Membrane Cartridge

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

PRMXS Pressure Drop vs. Flow Rate



	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

#### Ordering Information

		Exa	imple:
Cartridge Series	PRMXS: Pur-MAXX S	P	RMXS
Micron Rating	0.03, 0.05, 0.10, 0.20, 0.45, 0.65	•	03
Length	10, 20, 30, 40	•	-10
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 3 - Electronics 5 - Water		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush	•	DIF



Product Spe	cifica	ations
Dimensions		
Outside Diameter:	2.7″ (6.8	37cm)
Lengths:	10″ (25. 30″ (76.	4cm), 20″ (50.8cm), .2cm), 40″ (102cm)
Surface Area:	6.8ft <sup>2</sup> p	er 10" equivalent
Performance S	pecifi	cations
Absolute Rated Ret	ention:	
0.03, 0.05, 0.10, 0.20,	, 0.45, 0.6	5
Maximum For	ward [	Differential Pressure
Forward:	75 psid 40 psid	(5.5 bar) @ 75°F (24°C) (2.8 bar) @ 180°F (82°C)
Reverse:	50 psid	(3.4 bar) @ 75°F (24°C)
Maximum Ope 180°F (82°C) Continu	erating Jous Dut	g Temperature y
Toxicity		
Cartridge materials i for food and beverage	meet USI ge conta	P Class VI and CFR 21 ct
Sterilization		
Cartridge can be ster 20 times at 275°F (13: in place with commo for chemical compati	ilized via 5°C) Cartı n sanitizi bility	steam or Autoclave: ridge may be sanitized ng agents, contact factory
Packaging Eco	nomy	
Bulk packaging in ca to reduce material d	ise quant isposal:	tities
	•	24 por carton
10 incl	1	24 per carton
10 incl 20 incl	י ר ר	12 per carton

PRMXS03-10C7S1DIF

# Pur-MAXX N

High Performance Nylon 6,6

#### Membrane Pleated Cartridges

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

#### **PRMXN** Pressure Drop vs. Flow Rate



	Materials of Construction
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

#### **Ordering Information**

	E	xai	mple:
Cartridge Series	PRMXS: Pur-MAXX N	F	PRMXN
Micron Rating	0.10, 0.20, 0.45, 0.65, 0.80, 1.20	•	01
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water	• • • •	1
Options	l - 316 Stainless Steel Insert DIF - DI Flush	•	DIF



Product Spe	cifications
Dimensions	
Outside Diameter:	2.7″ (6.87cm)
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent
Performance S	pecifications
Absolute Rated Rete	ention:
0.10, 0.20, 0.45, 0.65,	0.80, 1.20
Maximum Forv	ward 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 Ope	erating Temperature
180°F (82°C) Continu	ous Duty Polypropylene Hardware
Toxicity	
Cartridge materials n for food and beverag	neet CFR 21 je contact
Sterilization	
Cartridge can be steril Cartridge may be sani agents, contact factor	lized via steam or Autoclave. itized in place with common sanitizing y 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

PRMXN01-10PPC7S1DIF

# **Pur-MAXX CN**

High Performance Cationic Nylon 6,6 Membrane Pleated Cartridges

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.



- Meets USP Biological Tests for USP Class VI – 121oC 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 repeat able 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

#### **PRMXCN** Pressure Drop vs. Flow Rate



	Materials of Construction
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

#### **Ordering Information**

		Exc	ample:
Cartridge Series	PRMXCN: Pur-MAXX CN	P	RMXCN
Micron Rating	0.04, 0.05, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20		0.1
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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	· · · · · · · · · · · · · · · · · · ·	С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water	• • • •	1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



Product Spe	cification	າຣ
Dimensions		
Outside Diameter:	2.7" (6.87cm)	
Lengths:	10″ (25.4cm),	20″ (50.8cm),
	30" (76.2cm),	40" (102cm)
Surface Area:	6.8ft <sup>2</sup> per 10"	equivalent
Performance S	pecificatio	ons
Absolute Rated Ret	ention:	
0.04, 0.05, 0.10, 0.20,	0.45, 0.65, 0.80	), 1.20
Maximum For	ward Diffe	rential Pressure
Forward:	75 psid (5.5 b	ar) @ 75°F (24°C)
40 psid (2.8 bar) @ 180°F (82°C)		ar) @ 180°F (82°C)
Reverse:	50 psid (3.4 b	ar) @ 75°F (24°C)
Maximum Ope	erating Ten	nperature
180°F (82°C) Continu	ous Duty Poly	propylene Hardware
Toxicity		
Cartridge materials	neet 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		
for chemical compati	oility	nts, contact factory
Packaging Eco	nomy	
Bulk packaging in ca to reduce material d	se quantities sposal:	
10 incl	24 pe	er carton
20 incl	12 pe	er carton

PRMXCN0.1-10PPC7S1DIF

30 inch

40 inch

12 per carton

9 per carton

# Pur-MAXX T

#### **Pleated PTFE Membrane Cartridge**

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

#### **PRMXT** Pressure Drop vs. Flow Rate



#### **Materials of Construction**

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

#### Ordering Information

		Example:
Cartridge Series	PRMXT: Pur-MAXX T	PRMXT
Micron Rating	0.10, 0.20	0.2
Length	10, 20, 30, 40	-10
Pleat Support Materials	PP - Polypropylene	PP
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	C7
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	5
Cartridge Guide	Blank - General 2 - Pharmaceutical	•
Options	l - 316 Stainless Steel Insert DIF - DI Flush	DIF

#### **Product Specifications**

Dimensions	
Outside Diameter:	2.7″ (6.87cm)
Lengths:	10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
Nominal Surface Area:	6.8ft <sup>2</sup> per 10" equivalent
Performance Specifications	

**Absolute Rated Retention:** 

0.10, 0.20

Maximum Forward Differential Pressure

Forward:

**Reverse:** 

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

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:

10 inch	24 per carton
20 inch	12 per carton
30 inch	12 per carton
40 inch	12 per carton

PRMXT0.2-10PPC7SDIF

# **Duo-MAXX**

#### Maxx protection for Membrane Filters

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

#### DMX Pressure Drop vs. Flow Rate



Water Flow Rate (gpm)

	Materials of Construction
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

#### **Ordering Information**

		Exar	mple:
Cartridge Series	DMX: Duo-MAXX	•	DMX
Pre-Filter Materials	GF- Borosilicate Microglass MF- Polypropylene Micro-Fiber	• • •	GF
Micron Rating*	0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20	•	04
Membrane	E- Polyethersulfone N - Nylon P - Polypropylene	• • • •	Ε
Length	10, 20, 30, 40	•	10
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	• • • • • •	С7
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	• • • • • • •	S
Cartridge Guide	Blank - Industrial		
Options	l - 316 Stainless Steel Insert DIF - DI Flush	•	DIF

# Specifications



#### **Product Specifications**

### Dimensions

Outside Diameter:	2.7" (6.87cm)
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)
Surface Area GF:	5ft <sup>2</sup> per 10" equivalent
Surface Area MF:	6.3ft <sup>2</sup> 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

50 psid (5.5 bar) @ 75°F (24°C) 40 psid (2.8 bar) @ 180°F (82°C) 50 psid (3.4 bar) @ 75°F (24°C)

#### Reverse:

Forward:

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

DMXGF04E10C7SDIF

\* Refer to Absolute Rated Retention for membrane micron availability

# Pur-MAXX C

#### Pleated Cellulose Acetate Membrane Cartridge

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

1.7

- 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

**PRMXC** Pressure Drop vs. Flow Rate



	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

		Exc	ample:
Cartridge Series	PRMXC: Pur-MAXX C	P	PRMXC
Micron Rating	0.10, 0.20, 0.45, 0.65, 0.80, 1.20		0.2
Length	10, 20, 30, 40		-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush	Ē	DIF



Product Spe	cifica	tions
Dimensions		
Outside Diameter:	2.7" (6.8	37cm)
Lengths:	10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)	
Surface Area:	6.8ft <sup>2</sup> pe	er 10″ equivalent
Performance S	pecifi	cations
Absolute Rated Ret	ention:	
0.10, 0.20, 0.45, 0.65,	0.80, 1.2	0
Maximum For	ward [	Differential Pressure
Forward:	50 psid 40 psid	(5.5 bar) @ 75°F (24°C) (2.8 bar) @ 180°F (82°C)
Reverse:	50 psid	(3.4 bar) @ 75°F (24°C)
Maximum Ope	erating	Temperature
180°F (82°C) Continu	ious Dut	y
Toxicity		
Cartridge materials r for food and beverage	meet USF ge contao	P Class VI and CFR 21 ct
Sterilization		
Cartridge can be steri	ilized via	steam or Autoclave:
20 times at 275°F (13	5°C) Cartr	idge may be sanitized
for chemical compati	n sanıtızıı bility	ng agents, contact factory
Packaging Eco	nomv	
Bulk packaging in ca	ise quant	ities
to reduce material d	isposal:	
10 incl	า	24 per carton
20 inch	ר ר	12 per carton
30 incl	1	12 per carton

PRMXC0.2-10PPC7S1DIF

# **Mem-PLEAT E**

### Pleated Polyethersulfone

#### Hydrophilic Membrane Cartridges

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

#### **MPE Pressure Drop vs. Flow Rate**



#### **Materials of Construction**

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

#### Ordering Information

		Exc	ample:
Cartridge Series	MPE: Mem-PLEAT E		MPE
Micron Rating	0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20		04
Length	10, 20, 30, 40		-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush	F	DIF



#### **Product Specifications**

Dimensions		
Outside Diameter:	2.55″ (6.48cm)	
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)	
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent	
Performance S	pecifications	
Absolute Rated Rete	ention:	
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)	
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

MPE04-10PPC7S1DIF

# **Mem-PLEAT S**

#### Pleated Polysulfone Membrane Cartridge

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

2.2

- 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

**MPS Pressure Drop vs. Flow Rate** 



	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

#### Ordering Information

		Exa	imple:
Cartridge Series	MPS: Mem-PLEAT S		MPS
Micron Rating	0.03, 0.05, 0.10, 0.20, 0.45, 0.65	•	03
Length	10, 20, 30, 40	•	-10
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 3 - Electronics 5 - Water		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



Dimensions	
Outside Diameter:	2.55″ (6.48cm)
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent
Performance S	pecifications
Absolute Rated Ret	ention:
0.03, 0.05, 0.10, 0.20,	, 0.45, 0.65
Maximum For	ward 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 Ope 180°F (82°C) Continu	erating Temperature lous Duty
Toxicity	
Toxicity Cartridge materials r for food and beverage	meet USP Class VI and CFR 21 ge contact
Toxicity Cartridge materials of for food and beverage Sterilization	meet USP Class VI and CFR 21 ge contact
Toxicity Cartridge materials of for food and beverage Sterilization Cartridge can be steri 20 times at 275°F (132 in place with commo for chemical compati	meet USP Class VI and CFR 21 ge contact ilized via steam or Autoclave: 5°C) Cartridge may be sanitized n sanitizing agents, contact factory bility
Toxicity Cartridge materials of for food and beverage Sterilization Cartridge can be steri 20 times at 275°F (13) in place with commo for chemical compati Packaging Eco	meet USP Class VI and CFR 21 ge contact ilized via steam or Autoclave: 5°C) Cartridge may be sanitized n sanitizing agents, contact factory bility
Toxicity Cartridge materials of for food and beverage Sterilization Cartridge can be steri 20 times at 275°F (13) in place with commo for chemical compati Packaging Eco Bulk packaging in ca to reduce material d	meet USP Class VI and CFR 21 ge contact ilized via steam or Autoclave: 5°C) Cartridge may be sanitized n sanitizing agents, contact factory bility DOMY ase quantities isposal:
Toxicity Cartridge materials of for food and beverage Sterilization Cartridge can be steri 20 times at 275°F (132 in place with commo for chemical compati Packaging Eco Bulk packaging in ca to reduce material d 10 inch	meet USP Class VI and CFR 21 ge contact ilized via steam or Autoclave: 5°C) Cartridge may be sanitized n sanitizing agents, contact factory bility <b>DOMY</b> ase quantities isposal: n 24 per carton
Toxicity Cartridge materials of for food and beverage Sterilization Cartridge can be stering 20 times at 275°F (132 in place with common for chemical compation Packaging Econo Bulk packaging in car to reduce material da 10 incle 20 incle	meet USP Class VI and CFR 21 ge contact ilized via steam or Autoclave: 5°C) Cartridge may be sanitized n sanitizing agents, contact factory bility DOOMY ase quantities isposal: n 24 per carton n 12 per carton

MPS03-10C7S1DIF

# **Mem-PLEAT N**

#### Nylon 6,6 Membrane Pleated Cartridges

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 allpolypropylene 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

#### **MPN Pressure Drop vs. Flow Rate**



Water Flow Rate (gpm)		
	Materials of Construction	
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,	

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

#### **Ordering Information**

		Exa	mple:
Cartridge Series	MPN: Mem-PLEAT N		MPN
Micron Rating	0.10, 0.20, 0.45, 0.65, 0.80, 1.20	•	01
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water	•	1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



Product Spec	cifications	
Dimensions		
Outside Diameter:	2.55″ (6.48cm)	
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)	
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent	
Performance S	pecifications	
Absolute Rated Rete	ntion:	
0.10, 0.20, 0.45, 0.65,	0.80, 1.20	
Maximum Forv	vard 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 Ope	rating 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.

#### 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

MPN01-10PPC7S1DIF



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Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

# **Mem-PLEAT CN**

High Performance Cationic Nylon 6,6 Membrane Pleated Cartridges

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 – 121oC 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 2.4

**MPCN Pressure Drop vs. Flow Rate** 



	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**

		Exc	ample:
Cartridge Series	MPCN: Mem-PLEAT CN	•	MPCN
Micron Rating	0.04, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20		0.1
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical 5 - Water	• • • • •	1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



Product Spe	cifications
Dimensions	
Outside Diameter:	2.55″ (6.48cm)
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent
Performance S	pecifications
Absolute Rated Ret	ention:
0.04, 0.10, 0.20, 0.45	, 0.65, 0.80, 1.20
Maximum For	ward 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 Ope	erating Temperature
180°F (82°C) Continu	uous Duty Polypropylene Hardware
Toxicity	
Cartridge materials	meet CFR 21
for food and bevera	ge contact
Sterilization	
Cartridge can be ster	ilized via steam or Autoclave:
20 times at 275°F (13	5°C) Cartridge may be sanitized
for chemical compati	n sanitizing agents, contact factory bility
Packaging Ecc	nomy
Bulk packaging in ca	ase quantities
to reduce material d	isposal:

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

MPCN0.1-10PPC7S1DIF

# **Mem-PLEAT T**

#### Pleated PTFE Membrane Cartridge

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

#### MPT Pressure Drop vs. Flow Rate



#### **Materials of Construction**

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

#### Ordering Information

		Example:
Cartridge Series	MPT: Mem-PLEAT T	MPT
Micron Rating	0.10, 0.20	0.2
Length	10, 20, 30, 40	-10
Pleat Support Materials	PP - Polypropylene	PP
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	C7
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	5
Cartridge Guide	Blank - General 2 - Pharmaceutical	
Options	l - 316 Stainless Steel Insert DIF - DI Flush	DIF

#### **Pharmaceutical Grade**

#### **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

Test Pressure	Diffusional Flow
12psi	13mL/min
12psi	26mL/min
12psi	39mL/min
12psi	52mL/min
	<b>Test Pressure</b> 12psi 12psi 12psi 12psi

#### **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

Forward:

**Reverse:** 

Maximum Forward Differential Pressure

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

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

2.6

- 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

**DPMF-E\*** Pressure Drop vs. Flow Rate



\*Duo-Pleat MF with Polyethersulfone membrane

	Materials of Construction
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

#### **Ordering Information**

	Exan	nple:
Cartridge Series	DP: Duo-PLEAT	DP
Pre-Filter Materials	GF- Borosilicate Microglass MF- Polypropylene Micro-Fiber	GF
Micron Rating*	0.03, 0.04, 0.05, 0.10, 0.20, 0.45, 0.65, 0.80, 1.20	04
Membrane	E- Polyethersulfone N - Nylon P - Polypropylene	E
Length	10, 20, 30, 40	10
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	C7
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	5
Cartridge Guide	Blank - Industrial	•
Options	l - 316 Stainless Steel Insert DIF - DI Flush	DIF



#### **Product Specifications**

# Dimensions Outside Diameter: 2.55" (6.48cm) Lengths: 10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm) Surface Area GF: 5ft<sup>2</sup> per 10" equivalent Surface Area MF: 6.3ft<sup>2</sup> 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)
	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

DPGF04E10C7SDIF

# Mem PLEAT C

#### Pleated Cellulose Acetate Membrane Cartridge

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

2.7

- 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

MPC Pressure Drop vs. Flow Rate



	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

		Ехс	ample:
Cartridge Series	MPC: Mem-PLEAT C		МРС
Micron Rating	0.10, 0.20, 0.45, 0.65, 0.80, 1.20	0	0.2
Length	10, 20, 30, 40		-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush	F	DIF



Product Spe	cifica	ations
Dimensions		
Outside Diameter:	2.55″ (6	5.48cm)
Lengths:	10″ (25 30″ (76	.4cm), 20″ (50.8cm), .2cm), 40″ (102cm)
Surface Area:	6.8ft <sup>2</sup> p	er 10" equivalent
Performance Specifications		
Absolute Rated Ret	ention:	
0.10, 0.20, 0.45, 0.65,	0.80, 1.2	20
Maximum Forward Differential Pressure		
Forward:	50 psic 40 psic	l (5.5 bar) @ 75°F (24°C) l (2.8 bar) @ 180°F (82°C)
Reverse:	50 psic	l (3.4 bar) @ 75°F (24°C)
Maximum Ope 180°F (82°C) Continu	erating	g Temperature y
Toxicity		
Cartridge materials r for food and beverage	meet US ge conta	P Class VI and CFR 21 ct
Sterilization		
Cartridge can be steri Cartridge may be san agents, contact facto	ilized via itized in ry for che	steam or Autoclave: place with common sanitizing emical compatibility
Packaging Eco	nomy	,
Bulk packaging in ca to reduce material d	ise quan isposal:	tities
10 incl 20 incl 30 incl 40 incl	ר ו ו ו	24 per carton 12 per carton 12 per carton 9 per carton

MPC0.2-10PPC7S1DIF

# Poly-MAXX

#### Polypropylene Pleated Depth Cartridges

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

3.1

- 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

#### PMX Pressure Drop vs. Flow Rate



#### **Materials of Construction**

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

#### Ordering Information

		Ехс	ample:
Cartridge Series	PMX: Poly-MAXX		РМХ
Micron Rating	1, 1.5, 2.5, 5, 10, 15, 20, 40, 70	0	1
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



#### **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 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 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

PMX1-10PPC7S1DIF

## Specifications

# Poly-MAXX G

#### Polypropylene Pleated Depth Cartridges

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.



 MAXX-imum pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge

3.2

- 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 beve • Lowe hiah

#### PMXG Pressure Drop vs. Flow Rate



	Materials of Construction
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

#### Ordering Information

	Examp		mple:
Cartridge Series	PMXG: Poly-MAXX G		PMXG
Micron Rating	0.25, 0.50, 1, 2.5, 5, 8, 12, 20, 30, 50		1
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF

### Specifications



#### **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 21CFR177.1520

#### Packaging Economy

Bulk packaging in case quantities to reduce material disposal:

10 inch	24 per cartor
20 inch	12 per cartor
30 inch	12 per cartor
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
# **Poly-MAXX Select**

#### High Solids Loading All-Polypropylene Pleated Depth Cartridges

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 nonfiber shedding filter. Due to our utilization of the HSL technology this element is outstanding for removing gels, compared to traditional pleated polypropylene filters.



- Absolute-rated media provides reliable, consistent and repeatable filtration results
- 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 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

#### SPMX Pressure Drop vs. Flow Rate

#### Pressure (psid) 2.5 2 Differential 1.5 0 4 7 7.5 8 3 3.5 4 4.5 6 6.5 8.5 9 9.5 Water Flow Rate (gpm)

	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**

		Еха	mple:
Cartridge Series	SPMX: Poly-MAXX Select		ЅҎӍҲ
Micron Rating	1, 1.5, 3, 5, 10, 15, 20, 40, 70, 90	•	1
Length	10, 20, 30, 40		-10
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	· · · · · · · · · · · · · · · · · · ·	С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		1
Options	I - 316 Stainless Steel Insert DIF - DI Flush		DIF



#### **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) 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:

10 inch	24 per cartor
20 inch	12 per cartor
30 inch	12 per cartor
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

SPMX1-10C7S1DIF

## Specifications

# **Fiber-MAXX**

#### **Micro-Fiber Glass Pleated Depth Cartridges**

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

3.4

- 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

#### FMX Pressure Drop vs. Flow Rate

#### 

	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**

		Exa	imple:
Cartridge Series	FMX: Fiber-MAXX		FMX
Micron Rating	0.8, 0.9, 1, 2, 3, 5, 10, 15		0.9
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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		C7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 5 - Water		
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF

## Specifications



#### **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:

inch	24 per carton
inch	12 per carton
inch	12 per carton
inch	9 per carton

Product Efficiency				
Fiber-MAXX 99.98% Efficiency		90.00% Efficiency		
FMX 0.8	0.8µm	0.25µm		
FMX 0.9	0.9µm	0.45µm		
FMX 1	1.0µm	0.65µm		
FMX 2	2.0µm	1.0µm		
FMX 3	3.0µm	1.5µm		
FMX 5	5.0µm	2.5µm		
FMX 10	10.0µm	5.0µm		
FMX 15	15.0µm	10.0µm		

FMX0.9-10PPC7SDIF

# Fiber-MAXX G

#### **Micro-Fiber Glass Pleated Depth Cartridges**

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

3.5

- 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

#### **FMXG** Pressure Drop vs. Flow Rate

#### 0.8 (psid) 0.7 0.6 Pressure 0.5 Differential 0.4 0.3 0.2 0.1 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10 Water Flow Rate (gpm)

## 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**

		Exc	imple:
Cartridge Series	FMXG: Fiber-MAXX G		FMXG
Micron Rating	0.2, 0.45, 0.65, 1, 5, 10		0.2
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF

## Specifications



#### **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
-		0.2	_

FIVIXG 0.2	0.2µm
FMXG 0.45	0.45µm
FMXG 0.65	0.65µm
FMXG 1	1µm
FMXG 5	5µm
FMXG 10	10µm

FMXG0.2-10PPC7SDIF

# **Pur-PLEAT**

## High Performance 100% Polypropylene

```
Filter Cartridges
```

4.1

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

#### PP Pressure Drop vs. Flow Rate



	Materials of Construction
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

#### **Ordering Information**

		Ex	ample:
Cartridge Series	PP: Pur-PLEAT		PP
Micron Rating	1, 1.5, 2.5, 5, 10, 15, 20, 40, 70		1
Length	10, 20, 30, 40		-10
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		C7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



#### **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

Pur-PLEAT	99.98% Efficiency
PP 1	1.0um

PP 1.5	1.5µm
PP 2.5	2.5µm
PP 5	5.0µm
PP 10	10.0µm
PP 15	15.0µm
PP 20	20.0µm
PP 40	40.0µm
PP 70	70.0µm

PP1-10C7SDIF

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136

# 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.



• MAXX-imum pleat design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per cartridge

4.2

- 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

#### **PPG Pressure Drop vs. Flow Rate**



	Materials of Construction
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, PTEF

#### **Ordering Information**

		Exc	ample:
Cartridge Series	PPG: Pur-PLEAT G		PPG
Micron Rating	0.25, 0.5, 1, 2.5, 5, 8, 12, 20, 30, 50	0	1
Length	10, 20, 30, 40		-10
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF



#### **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 cartor
20 inch	12 per cartor
30 inch	12 per cartor
40 inch	9 per carton

#### **Product Efficiency**

Pur-PLEAT G	99% Efficiency
PPG 0.25	0.25µm
PPG 0.50	0.5µm
PPG 1	1.0µm
PPG 2.5	2.5µm
PPG 5	5.0µm
PPG 8	8.0µm
PPG 12	12.0µm
PPG 20	20.0µm
PPG 30	30.0µm
PPG 50	50.0µm

PPG1-10C7SDIF

# **Pur-PLEAT Select**

#### High Solids Loading All-Polypropylene Pleated Filter Cartridges

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 microfiber 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. Features



- 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

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.

#### **Typical Applications**

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

#### SPP Pressure Drop vs. Flow Rate



	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, PTEF

#### **Ordering Information**

		Exai	mple:
Cartridge Series	SPP: Pur-PLEAT Select		SPP
Micron Rating	1, 1.5, 3, 5, 10, 15, 20, 40, 70, 90		1
Length	10, 20, 30, 40		-10
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		1
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF





#### **Product Specifications**

#### **Dimensions**

0.7

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 cartor
20 inch	12 per cartor
30 inch	12 per cartor
40 inch	9 per carton

#### ASTFM F795-88 Product Efficiency

Pure-Pleat Select	99.98% Efficiency
SPP 1	1.0µm
SPP 1.5	1.5µm
SPP 3	3.0µm
SPP 5	5.0µm
SPP 10	10.0µm
SPP 15	15.0µm
SPP 20	20.0µm
SPP 40	40.0µm
SPP 70	70.0µm
SPP 90	90.0µm

SPP1-10C7S1DIF

# **Glass-PLEAT**

**High Performance Microfiberglass** 

#### **Filter Cartridges**

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 Plating Solutions Solvent Filtration Oil and Gas Production Photographic Films Chemical Processing Waste Water

#### **GP Pressure Drop vs. Flow Rate**



#### **Materials of Construction** Borosilicate Microfiber glass Polypropylene, Polyester **Pleat Support Material** Polypropylene

End Caps	Polypropylene
Cage/Core	Polypropylene
Sealing	Thermal Bond
Seals	Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

**Filter Media** 

#### **Ordering Information**

		Exan	nple:
Cartridge Series	GP: Glass PLEAT		GP
Micron Rating	0.8, 0.9, 1, 2, 3, 5, 10, 15		0.8
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	• • •	PE
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	• • • • • • • • • • •	С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade 2 - Pharmaceutical		
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF

## Specifications



#### **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 cartor
20 inch	12 per cartor
30 inch	12 per cartor
40 inch	9 per carton

#### ASTM F795-88 Product Efficiency

#### Glass-Pleat 99.98% Efficiency 90.00% Efficiency

GP 0.80	.8µm	0.25µm
GP 0.90	.9µm	0.45µm
GP 1	1.0µm	0.65µm
GP 2	2.0µm	1.0µm
GP 3	3.0µm	1.5µm
GP 5	5.0µm	2.5µm
GP 10	10.0µm	5.0µm
GP 15	15.0µm	10.0µm

GP0.8-10PEC7SDIF

# **Glass-PLEAT G**

#### **Micro-Fiber Glass Pleated Depth Cartridges**

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.



• Beta rated media provide reliable pore size control resulting in repeatable filtration performance

4.5

- 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

#### GPG Pressure Drop vs. Flow Rate



#### **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

		Exa	mple:
Cartridge Series	GPG: Glass PLEAT G		GPG
Micron Rating	0.2, 0.45, 0.65, 1, 5, 10		0.2
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade		
Options	l - 316 Stainless Steel Insert DIF - DI Flush		DIF

## Specifications



#### **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

GPG0.2-10PPC7SDIF

# **CRB PLEAT**

#### **Resin-Bonded Pleated Depth Cartridge**

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**

Molded Cage\*

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

## Specifications

#### **CRB Pressure Drop vs. Flow Rate**





	Materials of Construction
Filter Media	Phenolic resin-impregnated polyester material
End Caps	Polypropylene
Cage/Core	Polypropylene
Sealing	Thermal Bond
Seals	Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

#### Ordering Information

		Exa	mple:
Cartridge Series	CRB: CRB-PLEAT		CRB
Micron Rating	1, 5, 10, 25, 50, 75, 100, 200	•	03
Length	9.75, 10, 19.5, 20, 29.25, 29.5, 30, 39, 40		-10
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		С7
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		S
Cartridge Guide	Blank - Industrial		
Options	MC - Molded Cage		МС

#### **Product Specifications**

#### Dimensions

#### **Outside Diameter:**

**Extruded Cage:** 2.55" (6.48cm)

Molded Cage (MC): 2.68" (6.81cm)

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

Surface Area: 3ft<sup>2</sup> 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

CRB03-10C7SMC

# **CPP & CPW PLEAT-rite**

## **Continuous Polypropylene Pleated Cartridges**

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.



Molded Cage\*

#### **Features and Benefits**

- CPP elements have over 6  $ft^2$  of surface area per 10" equivalent
- CPW elements have 4.5 ft<sup>2</sup> 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**

**General Chemical** Water filtration Solvent filtration **RO/DI prefiltration** Liquefied sugar Waste Water

#### CPP & CPW Pressure Drop vs. Flow Rate

## Specifications



Water Flow Rate (gpm)

#### **Materials of Construction**

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

#### **Ordering Information**

		Exa	mple:
Cartridge Series	CPP: Continuous Pur-PLEAT CPW: Continuous Pur-PLEAT		СРР
Micron Rating	0.2, 0.5, 1, 2.5, 5, 10, 15, 20, 40, 70	•	0.5
Length	10, 20, 30, 40		-10
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	• • • • • • • • • • • • • • • • • • •	С7
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		S
Options	l - 316 Stainless Steel Insert MC - Molded Cage		МС

Dimensions           Dutside Diameter:           Extruded Cage:         2.55           Molded Cage (MC):         2.68           engths:         10" (25.4cm), 20           30" (76.2cm), 40	5″ (6.48cm)
Dutside Diameter:           Extruded Cage:         2.55           Molded Cage (MC):         2.68           engths:         10" (25.4cm), 20           30" (76.2cm), 40	5″ (6.48cm)
Extruded Cage: 2.55 Molded Cage (MC): 2.68 engths: 10" (25.4cm), 20 30" (76.2cm), 40	5″ (6.48cm)
Molded Cage (MC): 2.68 engths: 10" (25.4cm), 20 30" (76.2cm), 40	$\mathcal{O}''(\mathcal{C}, \mathcal{O}, 1, \mathbf{n}, \mathbf{n})$
engths: 10" (25.4cm), 20 30" (76.2cm), 40	3 (6.81CM)
	" (50.8cm), " (102cm)
<b>PP Surface Area:</b> 6ft <sup>2</sup>	per 10″
<b>PW Surface Area:</b> 4.5f	t² per 10″
Performance Specifi	cations
letention Rating:	
.2, 0.5, 1.0, 2.5, 5.0, 10.0, 15.	0, 20.0, 40.0, 70.0
Maximum Forward I	Differential Pressu
0 psid (5.1 bar) @ 68°F (20°C 0 psid (2.8 bar) @ 150°F (65°	C) °C)
Maximum Operating	gTemperature
80°F (82°C) Continuous Dut	y .
Toxicity	
Il components meet all rele est for biological safety and ontact with food and bever	want USP XXII Class VI FDA requirements for age per 21CFR177.1520
Packaging Economy	,
ulk packaging in case quan o reduce material disposal:	tities
10 inch	24 per carton
20 inch	12 per carton
30 inch	12 per carton
roduct Efficiency	
Continuous Poly-Pleat	99% Efficiency
CPP/CPW 0.1	0.1μm
CPP/CPW 0.2	0.2µm
CPP/CPW 1	1.0um
CPP/CPW 2.5	2.5µm
CPP/CPW 5	5μm
CPP/CPW 10	10µm
CPP/CPW 15	15µm
CPP/CPW 20	20µm
	40μm 70μm
	νομπ

→ CPP0.5-10C7SMC

# **CFP PLEAT-rite**

Molded Cage\*

#### **Continuous Fiber Pleated Cartridges**

5.2

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.



#### **CFP Pressure Drop vs. Flow Rate**



Water Flow Rate (gpm)

#### **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**

		Exc	ample:
Cartridge Series	CFP: Continuous Fiber-PLEAT		CFP
Micron Rating	0.25, 0.45, 0.65, 1, 1.5,2.5, 5, 10	0	0.65
Length	10, 20, 30, 40		-10
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		C7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade		
Options	l - 316 Stainless Steel Insert MC - Molded Cage		МС

## Specifications

Prod	luct S	Speci	ficatio	ons

<b>•••</b>					
1 1 1	600	00	C 14	$\sim \sim$	~
		$\omega_{11}$	S 11		<u> </u>
		$\sim 11$	יוכ	<u> </u>	2

#### **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)

3ft<sup>2</sup> per 10"

**Performance Specifications** 

**Retention Rating:** 

Surface Area:

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:

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

#### **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

CFP0.65-10C7SMC

# **HSLP**

Molded Cage\*

#### High Solids Loading All Polypropylene Pleated Filter Cartridges

5.3

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.



#### **HSLP Pressure Drop vs. Flow Rate**



Water Flow Rate (gpm)

#### **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**

		Exai	mple:
Cartridge Series	HSLP: Poly-PLEAT HSL	0	HSLP
Micron Rating	1, 2.5, 5, 10, 15, 20, 25, 35, 70, 90, 120	•	1
Length	10, 20, 30, 40		-10
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		С7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade		
Options	l - 316 Stainless Steel Insert MC - Molded Cage		МС

## Specifications

#### **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:

10 inch	
20 inch	
30 inch	
40 inch	

24 per carton 12 per carton 12 per carton 9 per carton

#### **Product Efficiency**

HSLP	99.98% Efficiency
HSLP 1.0	1µm
HSLP 2.5	2.5µm
HSLP 5	5µm
HSLP 10	10µm
HSLP 15	15µm
HSLP 20	20µm
HSLP 25	25µm
HSLP 35	35µm
HSLP 70	70µm
HSLP 90	90µm
HSLP 120	120µm

HSLP1-10C7SMC

# Vino-MAXX E

#### Pleated Polyethersulfone Membrane Cartridges

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).



# clear solutions

#### **Features and Benefits**

 Absolute-rated and integrity tested membrane provides reliable, consistent and repeatable filtrate to ensure microbiological stability

6.1

- 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**

Pore Size	Bubble Point	Test Pressure	Air Diffusion
VNXE0.45	38 psig in water	28 psig	<u>≤</u> 13.5mL/min
VNXE0.65	26 psig in water	20 psig	≤14mL/min

#### **Microbiological Performance**

Microorganism	VNXE0.45	VNXE0.65
Oenococcus Oeni	≥10 <sup>7</sup>	
Lactobacillus Hilgardii	<u>≥</u> 10 <sup>7</sup>	
Saccharomyces Cerevisiae	<u>≥</u> 10 <sup>9</sup>	≥10 <sup>9</sup>

#### **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

		Ехс	ample:
Cartridge Series	VNXE: Vino-MAXX E		VNXE
Micron Rating	0.45, 0.65	•	0.45
Length	10, 20, 30, 40		-10
Pleat Support Materials	PP - Polypropylene	•	PP
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		С7
O-ring Materials	S - Silicone (standard O-rings) E - EPDM		S

#### Product Specifications

#### Dimensions

Outside Diameter:	2.7" (6.87cm)
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)
Effective	7ft2 (.65m2)

Filtration Area:

/112 (.051112)

#### **Performance Specifications**

**Absolute Rated Retention:** 

0.45μm, 0.65 μm

Maximum Forward Differential Pressure

#### Forward:

Reverse:

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

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	

VNXE0.45-10PPC7S

# Pur-MAXX E-SG

## Dual Layer Pleated Polyethersulfone Membrane Sterilizing Grade Cartridge

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 increase fluid instability.

Pur-MAXX E-SG is produced utilizing a unique multi-pleated configuration integrating highly asymmetric and hydrophillic 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.

# clear solutions

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 hydrophillic polyethersulfone membrane makes Pur-MAXX E-SG perfect for applications in the biopharmaceutical, and bottled water industries.

#### Typical Applications

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

#### **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

6.2

- 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, ensuringlonger 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

## Specifications

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



PRMXE-SG Integrity Test Val	ues*
-----------------------------	------

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**

		Example:
Cartridge Series	PRMXE: Pur-MAXX E	PRMXE
Micron Rating	0.20	0.2
Length	10, 20, 30, 40	-10
Pleat Support Materials	PP - Polypropylene	PP
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	C7
Gasket/O-ring Materials	S - Silicone (standard O-rings) B - Buna N (standard gaskets) V - Fluorocarbon E - EPDM	S
Cartridge Guide	SG - Sterilizing Grade	SG

#### **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.

Test	Results	USP Limit
Non volatile residue	<2mg	<15mg
Heavy Metals	<1ppm	<1ppm
Residue on Ignition	<2mg	<5mg
Buffering Capacity	<1mL	<10ml

Product Spo		
Dimensions		
Outside Diameter:	2 7″ (6 87cm)	
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)	
Effective Filtration Area:	6.5ft2 (.62m2)	
Performance S	Specifications	
Absolute Rated Ret	<b>ention:</b> 0.20μm	
Maximum For	ward 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 Ope 180°F (82°C) Continu	erating Temperature	
Toxicity		
Cartridge materials m for food and beverag	neet USP Class VI and CFR 21 le contact	
Sterilization		
Cartridge can be ster 20 times at 275°F (13 in place with commo for chemical compati	ilized via steam or Autoclave: 5°C) Cartridge may be sanitized n sanitizing agents, contact factory ibility	
Packaging Ecc	onomy	
Bulk packaging in ca to reduce material d	ase quantities lisposal:	
10 incl 20 incl 30 incl 40 incl	h 24 per carton h 12 per carton h 12 per carton h 9 per carton	

PRMXE0.2-10PPC7SSG

# Mem PLEAT SG

## Dual Layer Pleated Polyethersulfone Membrane Sterilizing Grade Cartridge

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 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 increase fluid instability.

Mem-PLEAT SG is produced utilizing a unique multi-pleated configuration integrating asymmetric and hydrophillic 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 hydrophillic polyethersulfone membrane makes Mem-PLEAT SG perfect for applications in the biopharmaceutical, and bottled water industries.

#### **Typical Applications**

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

#### **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

6.3

- 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

## Specifications

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



MPE-SG Integrity Test Values*			
Pore Size	<b>Bubble Point</b>	Test Pressure	Air Diffusion
0.2-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**

		Example:
Cartridge Series	MPE: Mem-PLEAT SG	MPE
Micron Rating	0.20	0.2
Length	10, 20, 30, 40	-10
Pleat Support Materials	PP - Polypropylene	• PP
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	C7
Gasket/O-ring Materials	S - Silicone (standard O-rings) B - Buna N (standard gaskets) V - Fluorocarbon E - EPDM	S
Cartridge Guide	SG - Sterilizing Grade	SG

#### **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.

Test	Results	USP Limit
Non volatile residue	<2mg	<15mg
Heavy Metals	<1ppm	<1ppm
Residue on Ignition	<2mg	<5mg
Buffering Capacity	<1mL	<10ml

Product Spe	cifications	
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 S	Specifications	
Absolute Rated Ret	ention: 0.20µm	
Maximum For	ward 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 Ope	erating Temperature	
Toxicity	,	
Cartridge materials n for food and beverag	neet USP Class VI and CFR 21 ge contact	
Sterilization		
Cartridge can be ster 20 times at 275°F (13 in place with commo for chemical compati	ilized via steam or Autoclave: 5°C) Cartridge may be sanitized on sanitizing agents, contact factory ibility	
Packaging Economy		
Bulk packaging in case quantities to reduce material disposal:		
10 inc 20 inc 30 inc 40 inc	h 24 per carton h 12 per carton h 12 per carton h 9 per carton	

MPE0.2-10PPC7SSG

# **Bev-MAXX**

#### Pleated Polyethersulfone Membrane Cartridges

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).



 Absolute-rated and integrity tested membrane provides reliable, consistent and repeatable filtrate to ensure microbiological stability

6.4

- 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**

Pore Size	Bubble Point	Test Pressure	Air Diffusion
BVM0.20	22 psig IPA/Water	17 psig*	≤10mL/min
BVM0.45	38 psig in water	28 psig	≤13.5mL/min
BVM0.65	26 psig in water	20 psig	≤14mL/min

\*50/50 IPA/DI water solution

#### **Microbiological Performance**

Microorganism	BVM0.20	BVM0.45	BVM0.65
Oenococcus Oeni		≥10 <sup>7</sup>	
Lactobacillus Hilgardii		<u>≥</u> 10 <sup>7</sup>	
Saccharomyces Cerevisiae		<u>≥</u> 10 <sup>7</sup>	≥10 <sup>7</sup>
Brevundimonas Diminuta	≥10 <sup>7</sup>		

#### 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

		Ехс	imple:
Cartridge Series	BVM: Bev-MAXX		BVM
Micron Rating	0.20, 0.45, 0.65	•	0.45
Length	10, 20, 30, 40		-10
Pleat Support Materials	PP - Polypropylene	•	PP
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		С7
O-ring Materials	S - Silicone (standard O-rings) E - EPDM		S

#### Product Specifications

#### Dimensions

Outside Diameter:	2.7" (6.87cm)
Lengths:	10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
Effective	7ft2 (.65m2)

Filtration Area:

#### **Performance Specifications**

Absolute Rated Retention:

0.20μm, 0.45μm, 0.65 μm

Maximum Forward Differential Pressure

#### Forward:

Reverse:

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

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	

BVM0.45-10PPC7S

# **Bev-Rite**

#### Pleated Polyethersulfone Membrane Cartridges

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

6.5

- 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-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**

Pore Size	Bubble Point	Test Pressure
BVR0.20	22 psig IPA/water	17 psig*
BVR0.45	38 psig in water	28 psig
BVR0.65	26 psig in water	20 psig
BVR0.80	16 psig in water	11 psig
* CO / CO / DA / DI	realistics	

\*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	Silicone, EPDM

		Exa	mple:
Cartridge Series	BVE: Bev-Rite		BVE
Micron Rating	0.20, 0.45, 0.65, 0.80	•	0.45
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PP - Polypropylene	•	PP
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		С7
O-ring Materials	S - Silicone (standard O-rings) E - EPDM		S
			~

#### Ordering Information

#### Product Specifications

#### Dimensions

 Outside Diameter:
 2.7" (6.87cm)

 Lengths:
 10" (25.4cm),

10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)

Effective Filtration Area: 7ft2 (.65m2)

**Performance Specifications** 

**Absolute Rated Retention:** 

 $0.20 \mu m, 0.45 \mu m, 0.65 \ \mu m, 0.80 \mu m$ 

Maximum Forward Differential Pressure

Forward:

Reverse:

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

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	

BVE0.45-10PPC7S

# Vent-MAXX

#### Sterilizing PTFE Membrane Vent Filter

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 unrivalled 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.

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136

## Specifications

#### VM Pressure Drop vs. Air Flow Rate



|--|

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

#### VM 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.

Cartridge	Test Pressure	Diffusional Flow
10″	14psi	25mL/min
20″	14psi	50mL/min
30″	14psi	75mL/min

#### **Ordering Information**

		Examp	ole:
Cartridge Series	VM: Vent-MAXX		VM
Length	10, 20, 30	•	-10
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	• • • •	С7
Gasket/O-ring Materials	S - Silicone (standard O-rings) V - Fluorocarbon	• • •	S
Cartridge Guide	2 - Pharmaceutical		2

#### **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

75 psid (5.5 bar) @ 75°F (24°C) 40 psid (2.8 bar) @ 180°F (82°C) 50 psid (3.4 bar) @ 75°F (24°C)

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

#### Toxicity

Forward:

**Reverse:** 

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<sup>7</sup> brevundimonas diminuta per cm<sup>2</sup> per ASTM F 2101-07.

Liquid challenge validated as sterilizing grade filter at a challenge level of 10<sup>7</sup> brevundimonas diminuta per cm<sup>2</sup>. 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

VM-10C72
# Vent-Rite

#### Pleated PTFE Membrane Vent Filter

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.

#### VR Pressure Drop vs. Air Flow Rate



#### **Materials of Construction**

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

#### **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.

Cartridge	Test Pressure	Diffusional Flow
10″	14psi	50mL/min
20″	14psi	100mL/min
30″	14psi	150mL/min

#### **Ordering Information**

		Exam	ple:
Cartridge Series	VR: Vent-Rite		VR
Length	10, 20, 30, 40	•	-10
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	• • • •	С7
Gasket/O-ring Materials	S - Silicone (standard O-rings) V - Fluorocarbon	•	S
Cartridge Guide	2 - Pharmaceutical		2

#### **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

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

50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature

180°F (82°C) Continuous Duty

#### Toxicity

Forward:

**Reverse:** 

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 10<sup>7</sup> brevundimonas diminuta per cm<sup>2</sup>.

#### 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

VR-10C72

## PES-E

## Electronics Grade Pleated Polyethersulfone Membrane Cartridges

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
- MAXX-imum 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

#### **PES E Pressure Drop vs. Flow Rate**



	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

#### **Ordering Information**

		Exc	ample:
Cartridge Series	PESE: PES E		PESE
Nanometers	50,100, 200, 450, 650, 800,1200		200
Length	10, 20, 30, 40		-10
Pleat Support Materials	PP - Polypropylene		PP
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		С7
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		S
Cartridge Guide	E - Electronics	ŀ	E
Options	l - 316 Stainless Steel Insert T - Integrity Tested		Т



#### **Product Specifications**

Dimensions		
Outside Diameter:	2.7" (6.87cm)	
Lengths:	10″ (25.4cm), 20″ (50.8cm), 30″ (76.2cm), 40″ (102cm)	
Surface Area:	6.8ft <sup>2</sup> 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

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

**Reverse:** 

Forward:

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

PESE200-10PPC7SET

# **Guard-Rite**

## Pleated Microglass Depth over Polyethersulfone Membrane Cartridges

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

6.9

- 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

#### GR Pressure Drop vs. Flow Rate



#### **Materials of Construction**

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

#### **Ordering Information**

		Ехс	imple:
Cartridge Series	GR: Guard Rite		GR
Grade	561, 562, 563, 568	•	562
Length	10, 20, 30, 40	•	-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	•	PP
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		С7
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		S
Cartridge Guide	1 - FDA Grade	:	1
Options	DIF - DI Flush		DIF

#### **Product Specifications**

Dimensions		
Outside Diameter:	2.7" (6.87cm)	
Lengths:	10" (25.4cm), 20" (50.8cm),	
	30" (76.2cm), 40" (102cm)	
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent	
Maximum For	ward 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 Ope	erating 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		

#### 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

#### GR562-10PPC7S1DIF

# **Trap-Rite**

Molded Cage\*

#### High Solids Loading All Polypropylene **Pleated Filter Cartridges**

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** 

Rev. Jan. 2016

#### TR Pressure Drop vs. Flow Rate



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

torials of Construction

		Exa	mple:
Cartridge Series	TR: Trap-Rite	0	TR
Micron Rating	1, 5, 10	•	03
Length	10, 20, 30, 40		-10
Pleat Support Materials	PE - Polyester PP - Polypropylene	• • •	PP
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		C7
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		S
Cartridge Guide	Blank - General 1 - FDA Grade		1
Options	l - 316 Stainless Steel Insert MC - Molded Cage		1

#### **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	

#### TR03-10PPC7S1I

# Endo-MAXX CN

## **Charged Nylon Pleated Membrane Cartridges**

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.

6.11

- 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

#### EDXCN Pressure Drop vs. Flow Rate



#### **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.

	Materials of Construction
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

#### Ordering Information

		Exc	ample:
Cartridge Series	EDXCN: Endo-MAXX CN	8	EDXCN
Micron Rating	0.1, 0.2	•	0.1
Length	10, 20, 30, 40	•	-10
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	• • • •	С7
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		5

#### Product Specifications

#### Dimensions

Outside Diameter:	2.7" (6.87cm)
Lengths:	10″ (25.4cm), 20″ (50.8cm) 30″ (76.2cm), 40″ (102cm)
Surface Area:	6.8ft <sup>2</sup> per 10" equivalent

liace Alea. 0.610 per 10 equit

Performance Specifications

Absolute Rated Retention:

0.10, 0.20

Forward:

Maximum Forward Differential Pressure

## Reverse:

40 psid (2.8 bar) @ 180°F (82°C) 50 psid (3.4 bar) @ 75°F (24°C)

75 psid (5.5 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

EDXCN0.1-10C7S

# **Inkjet Ink Pleated Cartridges**

## Dual Density Polypropylene Micro-Fiber

```
Depth Cartridges
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6.12

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

#### **IKS Pressure Drop vs. Flow Rate**

# Pitue-pitue Water Flow Rate (gpm) Water Flow Rate (gpm) Water Flow Rate (gpm)

Materials of Construction

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

#### **Ordering Information**

	Exe	ample:
Cartridge Series	IKS, IKP, IKG: Ink-Jet Select	IKS
Micron Rating	For IKS, IKP: 0.3,0.5,1, 3, 5, 10, 15, 20, 40, 70, 90 For IKG: 0.5, 1, 3, 6, 10, 20, 40	1
Length	10, 20, 30, 40	-10
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	С7
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	5
Options	l - 316 Stainless Steel Insert APH - Polyester Hardware	APH

## Specifications

#### **Product Specifications**

#### Dimensions

Outside Diameter:		2.68″ (6.81cm)
Lengths:	10″ (25.4c	m), 20″ (50.8cm),
	30″ (76.2c	m), 40″ (102cm)

**CPP Surface Area:** 6ft<sup>2</sup> per 10"

CPW Surface Area: 4.5ft<sup>2</sup> 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 21CFR177.1520

#### Packaging Economy

Bulk packaging in case quantities to reduce material disposal:

10 inch	
20 inch	
30 inch	
40 inch	

24 per carton 12 per carton 12 per carton 9 per carton

#### **Product Efficiency**

Inkjet Select	99% Efficiency
IKS 0.3	0.3µm
IKS 0.5	0.5µm
IKS 1.0	1.0µm
IKS 3	3.0µm
IKS 5	5.0µm
IKS 10	10.0µm
IKS 15	15.0µm
IKS 20	20.0µm
IKS 40	40.0µm
IKS 70	70.0µm
IKS 90	90.0um

IKS1-10C7SAPH

# MAXX-CAP

#### Pleated Polyethersulfone Membrane Cartridge

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.

#### 7.1

Polyethersulfone, Polysulfone, Nylon Membrane Media Borosilicate Microglass, Polypropylene Pleated Depth Media **Pleat Support Material** Polypropylene , Polyester Polypropylene **End Caps** Cage/Core Polypropylene Polypropylene Capsule Hardware Thermal Bond Sealing Seals Buna N, Fluorocarbon, EPDM, Silicone, FEP Encapsulated Fluorocarbon, PTFE

#### Inlet/Outlet Designs



D2/O2- 0.5" Female NPT





D1/O1-Sanitary

D3/O3- 0.25" Hose Barb



D4/O4- 0.5" Hose Barb

D5/O5- Graduated Hose Barb

Produc	t Specificatio	ons	
Dimensi	ons		
Outside Diameter: 3.5" (6.87cm)			
Lengths:	5"( 12.7cm),10" (25.4 30" (76.2cm), 40" (10	lcm), 20″ (50.8cm), l2cm)	
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			
Sterilizat	ion		
<b>Autoclave:</b> May be autoclaved 3 times for 60 minutes. Not in line steam sterilizable.			
Packagir	ng Economy		
	5 inch,10 inch,	Individually Boxed -	
	20 inch, 30 inch	6 case quantity	
	40 inch	Individually Boxed	

MCP-10D102CPP0.2-2S

Ordering Information

	Example:		mple:
Cartridge Series	MC: Maxx Capsule		МС
Capsule	P - Polypro		Ρ
Construction			
Length	5, 10, 20, 30, 40	•	-10
Inlet Design	D1 - 1", 1.5" sanitary D2 - 0.5" female NPT D3 - 0.25" hose barb D4 - 0.5" hose barb D5 - Graduated 0.25 - 0.5" hose barb	• • • • •	D1
Outlet Design	O1 - 1", 1.5" sanitary O2 - 0.5" female NPT O3 - 0.25" hose barb O4 - 0.5" hose barb O5 - Graduated 0.25 - 0.5" hose barb		02
Cartrige Style*	CPP - Continuous Polypleat MPE - Mem-Pleat E PP - Pur-Pleat PPG - Pur-Pleat G GP - Glass Pleat G		CPP
Micron*	0.2, 0.5, 1.0, 5.0, 10.0	•	0.2
Cartridge Guide	1 - FDA Grade 2 - Pharmaceutical 5 - Water SG - Sterilizing	0 0 0 0	-2
Cartrige O-ring	S - Silicone (standard O-rings) B - Buna N (standard gaskets) V - Fluorocarbon T - PTFE TV - FEP Encapsulated Fluorocarbon TS- FEP Encapsulated Silicone		S

The Strainrite Companies | www.strainrite.com | Toll Free 800-487-3136

Service and Warehouse Locations



Offering superior technical sales and live customer support.



#### Northeast Filter & Equipment Co.

135 Parker Court Chardon, OH 44024 PH: 800-333-6332 FX: 440-285-0730 www.nefilter.com