

# CAPSFLOW CATALOG



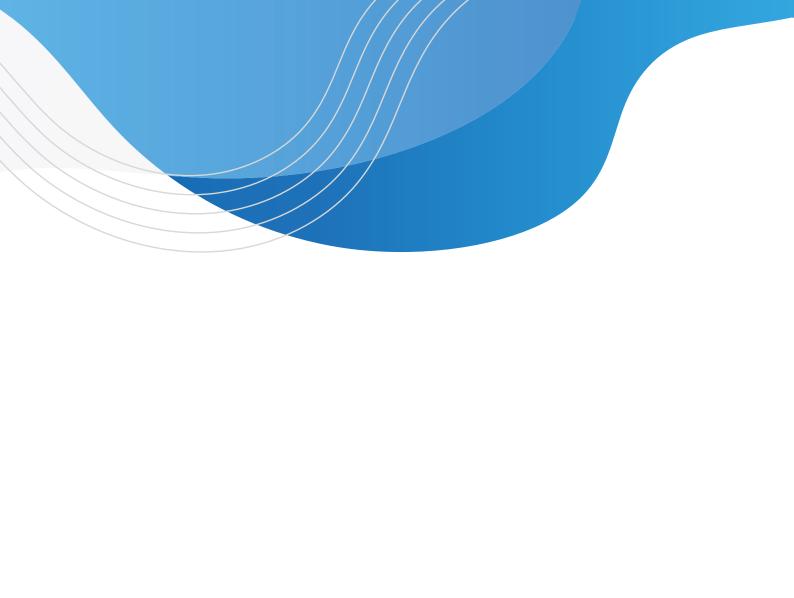


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# **CSK series** Capsule Filters



## CSK series - Asymmetrical PES membrane Capsule Filters

#### **Description and use**

The PES membrane capsule utilizes single layer hydrophilic polyethersulfone membrane. It offers broad chemical compatibility, high flow rate and low extractable.

Polyethersulfone is particularly suited for the filtration of products that contain substances that adsorb to the media. The lower binding characteristics of polyethersulfone make it a good choice for filtration of valuable protein solutions such as vaccines and biologicals.



## **Typical Applications**

- Cell Culture Media
- Large Volume Parenterals (LVP's)
- Pharmaceutical Bulk Chemical Solutions
- Diagnostics
- Blood and Serum Fractions
- Purified Water
- Beer, Wine and Spirits
- Juice & Soft Drinks
- Bottled Water

## **Fitting Option**

- NPT-Male
- NPT-F
- Swagelok
- CPCPLC-Male
- CPCPLC-Female
- Hose Barb
- Stepped Hose Barb
- Triclover

#### **Maximum Operating Conditions**

- Maximum operating pressure
  - ◊ Liquid: 5 bar (80psi) at 77°F/25°C
    ◊ Gas: 3.5 bar (60psi) at 77°F/25°C
- Maximum Operating Temperature: 80 °C
- Autoclave at 125 °C, 30 minutes and 25 cvcles
- Autoclave at 135 °C, 30 minutes and 15 cycles

#### **Toxicity**

All materials meet the specifications far biological safety per USP Class VI -121C° far plastics.

#### **Filter Area**

- 500 cm<sup>2</sup>
- 1000 cm<sup>2</sup>
- 1500 cm<sup>2</sup>
- 2100 cm<sup>2</sup>

## **Construction of Materials**

- Filter Media: Polyethersulfone
- Media Support: Polypropylene
- End Caps: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Sealing Method: Thermal Bonding

#### **Food Safety Compliance**

Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21CFR. Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011

#### **Cartridge Integrity Test Specifications**

Gen Purpose		Low Bio		Ster Grade	
Pore size	Min.Bubble point	Pore size	Min.Bubble point		
0.04 µm	2.3 barg@22°C/IPA	0.2 µm	3.5 barg@22°C	0.2/0.04µm	2.3 Barg@22°C (IPA)
0.1 µm	4.8 barg@22°C	0.45 µm	2.3 barg@22°C	0.45/0.04µm	2.3 Barg@22°C (IPA)
0.2 µm	3.1 barg@22°C	0.65 µm	1.5 barg@22°C	0.45/0.2um	3.5 barg@22°C
0.45 µm	1.7 barg@22°C			0.65/0.2µm	3.5 barg@22°C
0.65 µm	1.3 barg@22°C			0.65/0.45µm	2.3 Barg@22°C
0 .8 µm	1.2 barg@22°C			0.8/0.45um	2.3 Barg@22°C
1.2 µm	0.8 barg@22°C			0.2/0.1um	1.7 Barg@22°C (IPA)
				0.45/0.1um	1.7 Barg@22°C (IPA)

			ORDERIN	IG INFORMAT	ION			
Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings in / out	Vent/Drain	Revision
CSK = Capsule Filter	PS = PES	Application G	G = Gen Purpose	N = Not Sterile	05= 500 cm <sup>2</sup>	4NM=1/4"NPT-M	NN = None	0 = Bag label
		$0010 = 0.1 \mu m$	B = Low Bio		$10 = 1000 \text{ cm}^2$	8NM = 3/8" NPT-M		1 = Housing Label
		$0020 = 0.2 \mu m$	S = Ster Grade		$15 = 1500 \text{cm}^2$	2NM = 1/2" NPT-M		
		0045 = 0.45µm			$21 = 2100 \text{cm}^2$	8NF = 3/8" NPT-F		
		0065 = 0.65µm				4SL = 1/4" Swagelok		
		$0080=0.8\mu m$				5SL = 5/16" Swagelok		
		$0100 = 1.2 \mu m$				8SL = 3/8" Swagelok		
		Application B				4CM = 1/4" CPC-PLC-M		
		$0020 = 0.2 \mu m$				4HB = 3/4" HB		
		$0045 = 0.45 \mu m$				8HB = 3/8" HB		
		$0065 = 0.65 \mu m$				48B = 1/4"-3/8" HB		
		Application S				1TC = 1" TC		
		$02X4 = 0.2/0.04 \mu m$						
		$04X4 = 0.45/0.04 \mu m$						
$\langle \rangle$		$0402 = 0.45/0.2 \mu m$						
		$0602 = 0.65/0.2 \mu m$						
		$0604 = 0.65/0.45 \mu m$						
		$0804 = 0.8/0.45 \mu m$						
		0201 = 0.2/0.1µm						
		0401 = 0.45/0.1µm						

## CSK series - Hydrophobic ePTFE membrane Capsule Filters

## **Description and use**

Capsflow CSK series PTFE membrane capsule utilizes single layer hydrophobic PTFE membrane. It offers broad chemical compatibility, high flow rate and low extractables.



#### **Benefits**

- 100% integrity tested
- FDA food contact compliant
- Thermal bonding
- Non-fiber releasing

## **Typical Application**

- Sterile air feed
- Chemicals
- Pharmaceuticals
- Solvent

#### **Fitting Option**

- NPT-Male
- NPT-F
- Swagelok
- CPCPLC-Male
- CPCPLC-Female
- Hose Barb
- Stepped Hose Barb
- Triclover

#### **Toxicity**

All components meet the specifications for biological safety per USP Class VI -121 °C for plastics.

## **Capsule Integrity**

• Minimum burst pressure: 123.5 psi (8.5 barg)

## **Cartridge Integrity Test Specifications**

#### Low Bio

LOW BIO							
Pore size	0.2 mm						
Subbie Point	≥1. 4 barg (IPA/ Water)						
Water intrusion	≤0.17 ml/min@2500 mbar/2100cm2, 2°C22°C						
Gen Purpose							
Pore size	Bubble Point / IPA						
0010 = 0.1µm	1.7 barg						
0020 = 0.2µm	1.1 barg						
0045 = 0.45µm	0.6 barg						
0065 = 0.65µm	0.5 barg						
0100 = 1.0µm	0.4 barg						
0300 = 3.0µm	0.1 barg						
0500 = 5.0µm	0.07 barg						



#### **Construction Materials**

- Filter Membrane: ePTFE
- Membrane Media Support: Polypropylene
- Capsule: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Sealing Method: Thermal Bonding

#### Sanitization/Sterilization

• Autoclavable

**Filter Area** 

500 cm<sup>2</sup>

1000 cm<sup>2</sup>

1500 cm<sup>2</sup>

2100 cm<sup>2</sup>

#### **Food Safety Compliance**

Materials of construction comply with FDA regulations for food and

beverage contact use as detailed in the US Code of Federal Regulations, 21 CFR. Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011.

#### **Maximum Operating Conditions**

- Maximum operating pressure
  - ◊ Liquid: 5 bar (80psi) at 77°F/25°C
    ◊ Gas: 3.5 bar (60psi) at 77°F/25°C
- Maximum Operating Temperature: 80 °C
- Autoclave at 125 °C, 30 minutes and 25 cycles
- Autoclave at 135 °C, 30 minutes and 15 cycles

	ORDERING INFORMATION								
Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings in / out	Vent/Drain	Revision	
CSK = Capsule Filter	PT = PTFE phobic	Application G	G = Gen Purpose	N = Not Sterile	05= 500 cm <sup>2</sup>	4NM=1/4"NPT-M	NN = None	0 = Bag label	
		$0010 = 0.1 \mu m$	B = Low Bio		$10 = 1000 \text{cm}^2$	8NM = 3/8" NPT-M		1 = Housing Labe	
		$0020 = 0.2 \mu m$			$15 = 1500 \text{cm}^2$	2NM = 1/2" NPT-M			
		$0045 = 0.45 \mu m$			$21 = 2100 \text{cm}^2$	8NF = 3/8" NPT-F			
		0065 = 0.65µm				4SL = 1/4" Swagelok			
		$0100 = 1.0 \mu m$				5SL = 5/16" Swagelok			
		$0300 = 3.0 \mu m$				8SL = 3/8" Swagelok			
		$0500 = 5.0 \mu m$				4CM = 1/4" CPC-PLC-M			
		Application B				4HB = 3/4" HB			
		$0020 = 0.2 \mu m$				8HB = 3/8" HB			
						48B = 1/4"-3/8" HB			
						1TC = 1" TC			

# CSK series - Polypropylene membrane Capsule Filters

#### **Description and use**

CSKPP Capsule Filters with depth structure of polypropylene media. It offers broad chemical compatibility, higher dirt holding capacity with high flow rates at low pressure drop, and low extractables. They are available in nominal and absolute rating.



## **Benefits**

- Wide chemical compatibility
- High dirt hold capacity
- High retention
- Thermal bonding
- Non-fiber releasing

## **Typical Application**

- Process Water
- Vinegar
- Aqueous solutions
- Beer, Wine and Spirits
- Juice, Soft Drinks, Edible Oils
- Bulk Chemicals
- Pharmaceutical intermediates

#### **Construction Materials**

- Filter Media: Polypropylene
- Media Support: Polypropylene
- End Caps: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Sealing Method: Thermal Bonding

## Sanitization/Sterilization

- Autoclavable
- Hot water

#### **Toxicity**

All components meet the specifications for biological safety per USP Class VI -121 °C for plastics.

#### **Capsule Integrity**

Minimum burst pressure: 123.5 psi (8.5 barg)

#### **Filter Area**

- 500 cm<sup>2</sup>
- 1000 cm<sup>2</sup>
- 1500 cm<sup>2</sup>
- 2100 cm<sup>2</sup>



#### **Food Safety Compliance**

Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21CFR.

Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011.

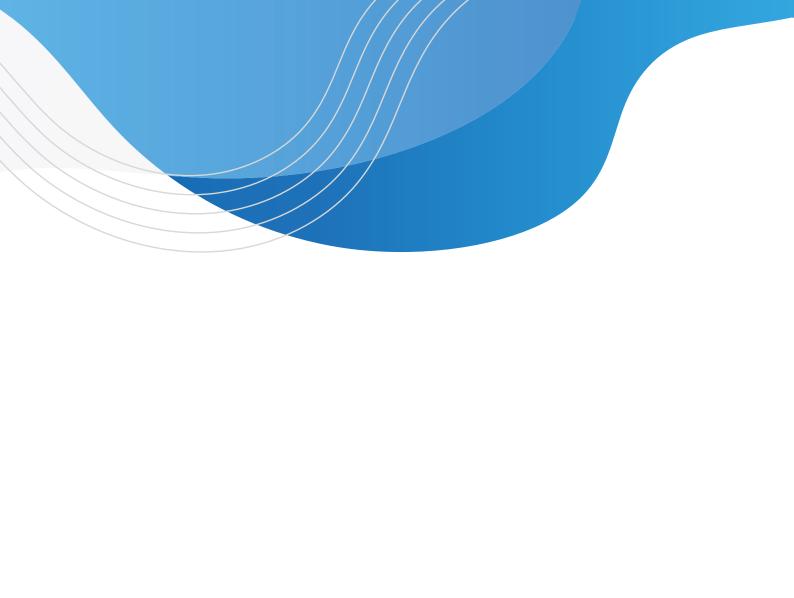
#### **Maximum Operating Conditions**

- Maximum operating pressure
  - $\diamond$  Liquid: 5 bar (80psi) at 77°F/25°C
  - ◊ Gas: 3.5 bar (60psi) at 77°F/25°C
- Maximum Operating Temperature: 80 °C
- Autoclave at 125 °C, 30 minutes and 25 cycles
- Autoclave at 135 °C, 30 minutes and 15 cycles



ORDERING INFORMATION									
Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings in / out	Vent/Drain	Revision	
CSK = Capsule Filter	PP = Polypropylene	Application G	G = Gen Purpose	N = Not Sterile	05= 500 cm <sup>2</sup>	4NM=1/4"NPT-M	NN = None	0 = Bag label	
		0030 = 0.3µm	P= Premier		$10 = 1000 \text{cm}^2$	8NM = 3/8" NPT-M		1 = Housing Label	
		$0060 = 0.6 \mu m$			$15 = 1500 \text{ cm}^2$	2NM = 1/2" NPT-M			
		$0100 = 1.0 \mu m$			$21 = 2100 \text{cm}^2$	8NF = 3/8" NPT-F			
		$0300 = 3.0 \mu m$				4SL = 1/4" Swagelok			
		$0500 = 5.0 \mu m$				5SL = 5/16" Swagelok			
		$0700=7.0\mu m$				8SL = 3/8" Swagelok			
		$1000=10.0\mu m$				4CM = 1/4" CPC-PLC-M			
		$2000=20.0\mu m$				4HB = 3/4" HB			
		$3000 = 30.0 \mu m$				8HB = 3/8" HB			
		$5000=50.0\mu m$				48B = 1/4"-3/8" HB			
		Application P				1TC = 1" TC			
		$0100 = 1.0 \mu m$							
		$0300 = 3.0 \mu m$							
		$0500 = 5.0 \mu m$							
		$0700 = 7.0 \mu m$							
		$1000=10.0\mu m$							
		$2000=20.0\mu m$							
		$3000 = 30.0 \mu m$							
		$5000=50.0\mu m$							

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# **CIK series** In Line Integrity Test Capsule Filter

# CIK series - Asymmetrical PES membrane Bio-burden Reduction Capsule Filters

Capsflow CIK series is family of full size capsule filters with Staubli connection at the vent, which enables in-line integrity test.

The PES membrane capsule utilizes single layer hydrophilic polyethersulfone membrane. It offers broad chemica compatibility, high flow rate and low extractable.

Polyethersulfone is particularly suited for the filtration of products that contain substances that adsorb to the media. The lower binding characteristics of polyethersulfone make it a good choice for filtration of valuable protein solutions such as vaccines and biologicals.



#### **Typical Applications**

- Cell Culture Media
- Large Volume Parenterals (LVP's)
- Pharmaceutical Bulk Chemical Solutions
- Diagnostics
- Blood and Serum Fractions
- Purified Water
- Beer, Wine and Spirits
- Juice & Soft Drinks
- Bottled Water

## **Vent/Drain Option**

Staubli Stepped hose barb

## **Fitting Option**

- 1.5"TC
- 1/2" Hose Barb
- 3/4" Hose Barb

#### **Maximum Operating Conditions**

- Maximum opereting pressure
  - ◊ Liquid: 5 bar (80psi) at 77°F/25°C
    ◊ Gas: 3.5 bar (60psi) at 77°F/25°C
  - vinum Operating Tomporature: 90 °C
- Maximum Operating Temperature: 80 °C
- Autoclave at 125 °C, 30 minutes and 25 cycles
- Autoclave at 135 °C, 30 minutes and 15 cycles

#### **Toxicity**

All materials meet the specifications far biologica! safety per USP Class VI -121"C far plastics

## **Filter Area**

Size Filtration Area

- 2.5" =  $1400 \text{ cm}^2$
- 5" =  $2500 \text{ cm}^2$
- 10" =  $6000 \text{ cm}^2$
- 20" =  $12000 \text{ cm}^2$
- 30" =  $18000 \text{ cm}^2$
- 40" =  $24000 \text{ cm}^2$

#### **Construction of Materials**

- Filter Media:Polyethersulfone
- Media Support: Polypropylene
- End Caps: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Sealing Method: Thermal Bonding

#### **Food Safety Compliance**

Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21CFR. Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011.

## **Cartridge Integrity Test Specifications**

#### Water wetted membrane

Pore size	Min.Bubble point	Diffusive Flow/10"
0.04 µm	2.3 barg@22°C/IPA	$\leq$ 25 ml/ 1.7 barg
0.1 µm	1.7 barg@22°C/IPA	$\leq\!25$ ml/ 1.3 barg
0.2 µm	3.5 barg@22°C	$\leq\!25$ ml/ 2.8 barg
0.45 µm	2.3 barg@22°C	$\leq\!25$ ml/ 1.7 barg
0.65 µm	1.6 barg@22°C	$\leq\!25$ ml/ 1.0 barg
0 .8 µm	1.3 barg@22°C	$\leq$ 25 ml / 0.8 barg
1.2 µm	0.9 barg@22°C	$\leq\!25$ ml/ 0.6 barg

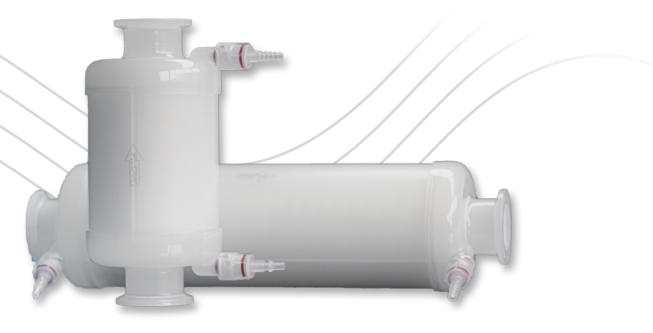
	ORDERING INFORMATION								
Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings In/Out	Vent/Drain	Revision	
CIK = Capsule InT Filter	PS = PES	0010 = 0.1 µm	B =Low Bio	N = Not Sterile	SS = 2.5"	5TC = 1.5" TC	SS = St/St	0 = Bag label	
		$0020 = 0.2 \ \mu m$			LL = 5"	2HB = 1/2" HB	HH = HB/HB	1 = Housing label	
		0045 = 0.45 μm			TE = 10"	4HB = 3/4" HB	SH = St/HB		
		0065 = 0.65 μm			TW = 20"	T2B = 1.5" TC/ 1/2" HB	HS = HB/St		
		0080 = 0.80 μm			TH = 30"	T4B = 1.5" TC/ 3/4" HB			
		0120 = 1.2 μm			FO = 40"	2BT = 1/2"HB/ 1.5 TC			
						2B4 = 1/2"HB/ 3/4"HB			
						4BT = 3/4"HB/ 1.5"TC			
						4B2 = 3/4"HB/ 1/2"HB			



# **CIK series - Hydrophobic ePTFE membrane Bio-burden Reduction Capsule Filters**

Capsflow CIK series is family of full size capsule filters with Staubli connection at the vent, which enables in-line integrity test.

The PTFE membrane Bio-burden reduction capsule utilizes single layer hydrophobic PTFE membrane. It offers broad chemical compatibility, high flow rate and low extractables.



#### **Benefits**

- 100% integrity tested
- FDA food contact compliant
- Thermal bonding
- Non-fiber releasing

#### **Typical Application**

- Sterile air feed
- Chemicals
- Pharmaceuticals
- Solvent

#### **Capsule Integrity**

• Minimum burst pressure: 123.5 psi (8.5 barg)

## **Construction Materials**

- Filter Membrane: ePTFE
- Membrane Media Support: Polypropylene
- Capsule: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Sealing Method: Thermal Bonding

#### Sanitization/Sterilization

Autoclavable

## **Cartridge Integrity Test Specifications**

Pore size	0.2 mm
Subbie Point	≥1. 2 barg (IPA/ Water)
Water intrusion	≤0.37 ml/min @ 2500 mbar/10", 22°C
Diffusive Flow	10 ml/min @ 800 mbar/ 10", 22°C

#### **Filter Area**

- Size **Filtration Area** • 2.5" 1500 cm<sup>2</sup> =• 5" 2700 cm<sup>2</sup> =• 10" 6300 cm<sup>2</sup> = • 20" 12600 cm<sup>2</sup> = • 30" = 18900 cm<sup>2</sup>
- 40" =  $25200 \text{ cm}^2$

#### **Fitting Option**

- 1.5" TC
- 1" Hose Barb
- 3/4" Hose Barb

## **Vent/Drain Option**

- Staubli
- Stepped hose barb

#### **Toxicity**

All components meet the specifications for biological safety per USP Class VI -121 °C for plastics

#### **Food Safety Compliance**

Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21 CFR. Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011.

#### **Maximum Operating Conditions**

- Maximum operating pressure
  - ♦ Liquid: 5 bar (80psi) at 77°F/25°C
  - ◊ Gas: 3.5 bar (60psi) at 77°F/25°C
- Maximum Operating Temperature: 80 °C
- Autoclave at 125 °C, 30 minutes and 25 cycles
- Autoclave at 135 °C, 30 minutes and 15 cycles

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Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings In/Out	Vent/Drain	Revision
CIK = Capsule InT Filter	PT = PTFE phobic	0020 = 0.2 µm	B = Low Bio	N = Not Sterile	SS = 2.5"	5TC = 1.5" TC	SS = St/St	0 = Bag label
	priodio				LL = 5"	2HB = 1/2" HB	HH = HB/HB	1 = Housing labe
					TE = 10"	4HB = 3/4" HB	SH = St/HB	
					TW = 20"	T2B = 1.5" TC/ 1/2" HB	HS = HB/St	
					FO=40"	T4B = 1.5" TC/ 3/4" HB		
						2BT = 1/2"HB/ 1.5TC		
						2B4 = 1/2"HB/ 3/4"HB		
						4BT = 3/4"HB/ 1.5"TC		
						4B2 = 3/4"HB/ 1/2"HB		
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## **CIK series - Polypropylene media General Application Capsule Filters**

CIKPP Capsule Filters with depth structure of polypropylene media. It offers broad chemical compatibility, higher dirt holding capacity with high flow rates at low pressure drop, and low extractables. They are available in nominal and absolute rating.



#### **Benefits**

- Wide chemical compatibility
- High dirt hold capacity
- High retention
- Thermal bonding
- Non-fiber releasing

## **Typical Applications**

- Process Water
- Vinegar
- Aqueous solutions
- Beer, Wine and Spirits
- Juice, Soft Drinks, Edible Oils
- Bulk Chemicals
- Pharmaceutical intermediates

#### **Construction Materials**

- Filter Media: Polypropylene
- Media Support: Polypropylene
- End Caps: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Sealing Method: Thermal Bonding

## Sanitization/Sterilization

- Autoclavable
- Hot water

## **Toxicity**

All plastic parts meet the specifications for biological safety per USP Class VI -121°C for plastics.

#### **Filter Area**

Size		Filtration Area
• 2.5"	=	1480 cm <sup>2</sup>
• 5"	=	2650 cm <sup>2</sup>
• 10"	=	5500 cm <sup>2</sup>
• 20"	=	11000 cm <sup>2</sup>
• 30"	=	16500 cm <sup>2</sup>
• 40"	=	22000 cm <sup>2</sup>

#### **Capsule Integrity**

 Minimum burst pressure: 123.5psi (8.5 barg) Food Safety Compliance

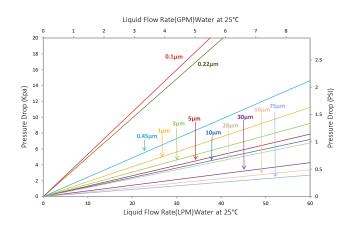
Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21CFR.

Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011

## **Maximum Operating ConditionS**

- Maximum opereting pressure
  - ◊ Liquid: 5 bar (80psi) at 77°F/25°C
  - ◊ Gas: 3.5 bar (60psi) at 77°F/25°C
- Maximum Operating Temperature: 80 °C
- Autoclave at 125 °C, 30 minutes and 25 cycles
- Autoclave at 135 °C, 30 minutes and 15 cycles





ORDERING INFORMATION											
Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings	Vent/Drain	Revision			
CIK = Capsule InT Filter	PP = Polypropylene	0060 = 0.6 µm	G = Gen Purpose	N = Not Sterile	SS = 2.5"	5TC = 1.5" TC	SS = St/St	0 = Bag label			
	PA =	0100 = 1.0 µm			LL = 5"	2HB = 1/2" HB	HH = HB/HB	1 = Housing label			
	PP absol. micr.	0300 = 3.0 µm			TE = 10"	4HB = 3/4" HB	SH = St/HB				
	(0060 only)	0500 = 5.0 μm			TW = 20"	T2B = 1.5" TC/ 1/2" HB	HS = HB/St				
		0700 = 7.0 µm			TH = 30"	T4B = 1.5" TC/ 3/4" HB					
		1000 = 10.0 µm			FO = 40"	2BT = 1/2"HB/ 1.5TC					
		2000 = 20.0 µm				2B4 = 1/2"HB/ 3/4"HB					
		3000 = 30.0 µm				4BT = 3/4"HB/ 1.5"TC					
		$5000 \pm 50.0  \mu m$				4B2 = 3/4"HB/ 1/2"HB					





# CXK series Steaming in Place Capsule Filter



# CXK series Steaming in Place Capsule Filters

#### **Description and use**

The GVS CXK Capsflow Steaming in Place Capsule filters have a standard filter sealed in a robust plastic housing, which remains high-strength and integral at a harsh applications.

Typically Steaming in Place (SIP) sterilization. Capsflow filters are manufactured under criteria of certified Quality management system ISO 9001. All filters are integrity tested during manufacture to meet the set requirements. Materials of construction comply with FDA regulations for food and beverage contact use.



#### **Benefits**

- Purpose-designed for SIP
- Cost-saving
- · Easy connection with sanitary flange
- On-line connection to automatic integrity tester Available in multiple choice of media and ratings

## **Typical Application**

- Sterile filtration of air and liquid in pharmaceutical and biological products
- Sterile air feed

#### **Construction Materials**

- Hydrophobic Filter membrane: PTFE,
- Hydrophilic Filter membrane: PES, NYLON
- Media Support: Polypropylene
- End Caps: Polypropylene
- Inner Core: Polypropylene
- Outer Cage: Polypropylene
- Filter sealing without glue in housing

#### **Traceability**

Each capsule is marked with a unique part number, batch number and serial number to enable full traceability

#### Size

- 2.5" (84 mm)
- 5" (159 mm)

#### **Toxicity**

All components meet the specifications for biological safety per USP class VI 121°C for plastic

#### **Food Safety Compliance**

Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21 CFR. Materials used to produce filter media and hardware are safe for use in contact with foodstuffs in accordance with EU Directives 10/2011. Rohs 2011/65/EU compliance.

#### Filtration Area CXKPT (PTFE), CXKPS (PES)

• 2.5" : 600 cm<sup>2</sup>

#### **CXKNY (NYLON)**

- 2.5" : 700 cm<sup>2</sup>
- 5" : 2100 cm<sup>2</sup>
- 5" : 1700 cm<sup>2</sup>

## **Performance data**

	СХКРТ				CXK	PS	СХКNY				
Filter membrane	PTFE (Hydrophobic)			PES (Hydrophilic)				NYLON (Hydrophilic)			
Membrane pore size	0.05 µm	0.1 µm	0.2 µm	0.45 µm	0.1 µm	0.21 µm	0.45 µm	0.1 µm	0.21 µm	0.45 µm	
Flow rate 2,5" Liquid 1 cP *		2lpm@6psid	3.1lpm@6psid	5.9lpm@6psid	7.5lpm@5psid	5lpm@5psid	5lpm@2.6psid	4lpm@8.5psid	5lpm@5.5psid	5lpm@3.5psid	
Flow rate 5" Liquid 1 cP *		5lpm@6.5psid	5lpm@4psid	5lpm@1.9psid	5lpm@4psid	5lpm@2.2psid	5lpm@1.3psid	5lpm@4.6psid	5lpm@3.4psid	5lpm@2.8psid	
Maximum Operating Parameter Pressures Forward/Reverse (bar)	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	6.5/3.5	
Integrity Test specification Bubble point (bar)	2.7 (IPA)	1.6 (IPA)	1.6 (IPA)	0.5 (IPA)	1.8 (IPA)	3.6 (WATER)	2.6 (WATER)	4.5 (WATER)	3.3 (WATER)	1.9 (WATER)	
N. SiP sterilization cycles	100 cycles @126 °C				50 cycles @126 °C				50 cycles @126 °C		

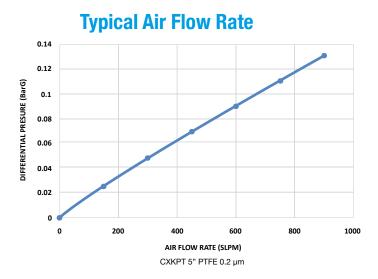
\* CXKPT (PTFE - Hydrophobic) IPA Wetted membrane

ORDERING INFORMATION											
Product Type	Membrane Type	Membrane pore size	Application	Sterilization	Size	Fittings in / out	Vent/Drain	Revision			
CXK = Capsule SIP Filter	PT = PTFE phobic	0005 = 0.05 μm (PT only)	X = Steaming in place	N = Not Sterile	SS = 2.5"	5TC = 1.5" TC	SS = St/St	0 = Bag label			
	PT = PES	0010 = 0.1 µm			LL = 5"		HH = HB/HB				
	NY = NYLON	$0020 = 0.2 \ \mu m$					SH = St/HB				
							HS = HB/St				

#### **Maximum Operating Conditions**

CXKPT (PTFE) 0.2 µm:

- Maximum Pressure: 5.8 barg @ 40°C
- Maximum Differential Pressure: 5barg @ 40°C







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