

## Introduction

- All polypropylene housings are sturdy and chemically compatible
- Three membrane type media and two depth type media
- Wide range of retentive pore sizes
- All types available in three different lengths
- Diameter is standard 78 mm
- Selected media available presterilized

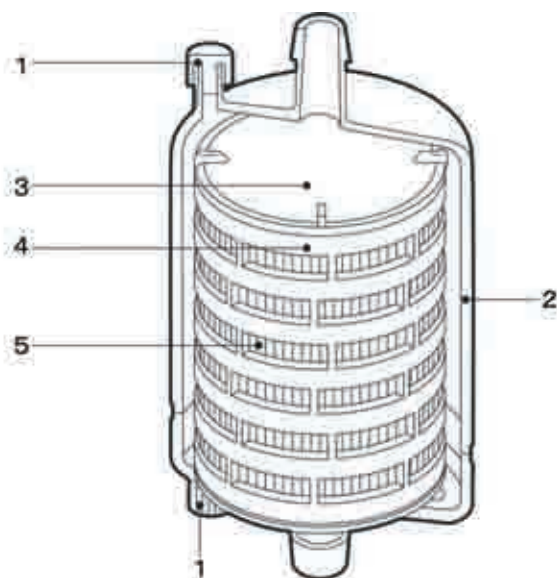
## Applications

- Filter tissue culture media, fermentation broths, ground water
- Can be set in serial mode to maximize throughput volumes
- Point-of-use sterile filtration
- Use capsules for pilot/prototype studies, scale up to the same media in cartridge format
- Cannot be used for gas filtration



## Product Overview

Media	Code	Characteristics	Media type	Pore size or Nominal Rating [µm]	Membrane layers	Filtration area per capsule [cm <sup>2</sup> ]
PES	CCS	Hydrophilic	Membrane	0.20 - 0.45	Double	Up to 1800
PTFE	CCF	Hydrophobic	Membrane	0.05 - 1.0	Single/double	Up to 3600
PTFE	CCFH	Hydrophilic	Membrane	0.20	Single	Up to 3600
Polypropylene	CCP	Hydrophobic	Depth-type	0.8 - 30	-	Up to 2600
Glass	CCG	-	Depth-type	0.45 - 1.0	-	Up to 1200



- 1: Vent/drain  
 2: Housing  
 3: End cap  
 4: Outer sleeve  
 5: Pleated filter media



End Fixture B  
1/4" NPTM



End Fixture D  
1/2" NPTM



End Fixture H  
3/8" hose barb



End Fixture N  
1 1/2" sanitary fitting

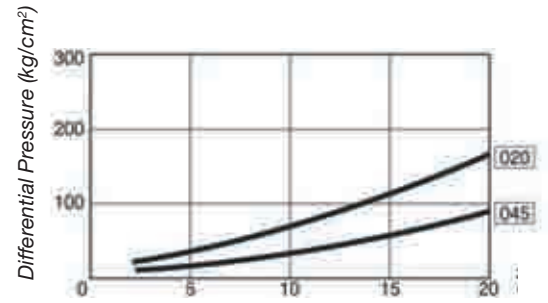
# Capsule Filters

## ▶ PES Capsule Filters – Code CCS

- **Can be sterilized** by autoclaving (121°C) or treatment with ethylene oxide (EtO)
- **Available presterilized (EtO) or rinsed** (recommended when filtering high purity water)

## ▶ Applications

- Filter pure water, high purity chemicals, pharmaceuticals, tissue culture media
- Remove bacteria or sub-micron particulates



Flow Rate (L/min)  
Typical water flow rate  
for CCS-\_\_\_-D1B at 25°C

## ▶ Specifications

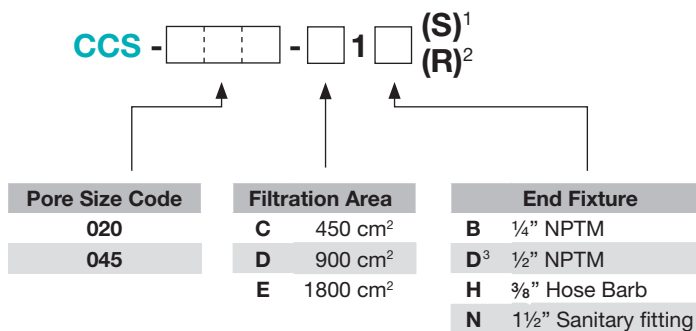
	CCS-020	CCS-045
Membrane layers	Double	Double
Pore Size [µm]	0.20	0.45
Max. inlet pressure	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>
Max. Operating Temperature	60°C	60°C
Bubble point [water]	≥4 kg/cm <sup>2</sup>	≥3 kg/cm <sup>2</sup>
LRV / Organism	≥7 / B. diminuta	≥7 / S. marcescens

Length Code	Length [mm]*	Filtration Area [cm <sup>2</sup> ]
C	102	450
D	129	900
E	201	1800

\*Length given is for capsules with end fixture H.

## ▶ Ordering Information



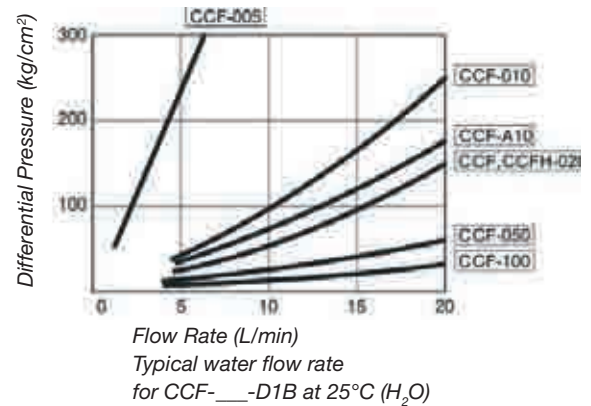
- 1) When ordering sterile units, specify "S" in the last position of the Cat. No.
- 2) When ordering pre-rinsed units, specify "R" in the last position of the Cat. No.
- 3) When ordering length code "C" (filtration area), end fixture code "D" is not available.

## PTFE Capsule Filters

### – Code CCF (Hydrophobic) and Code CCFH (Hydrophilic)

- **Compatible;** solvent and pH resistant
- **Hydrophobic:**
  - Supported membrane except CCF-A10 and CCF-005
  - Single layer except CCF-A10 and CCF-005 which has double layer
  - 5 pore sizes
  - Can be sterilized by autoclaving (121°C, 30 min.) or treatment with ethylene oxide (EtO)
- **Hydrophilic:**
  - Polyester membrane support
  - Single layer
  - 0.20 µm pore size

Note: Autoclaving or allowing membrane to dry will make it hydrophobic



## Applications

- Use serially as prefilter and final filter
- Corrosive fluids and gases, photoresists, and both alkalis and acids
- Hydrophobic:
  - Solvent filtration
  - Air venting
- Hydrophilic:
  - Solvents with higher surface tension
  - Heterogeneous fluid mixtures

## Specifications

Type Code	CCF-005	CCF-A10	CCF-010	CCF-020	CCF-050	CCF-100	CCFH-020	
	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophilic	
<b>Membrane layers</b>	Double	Double	Single	Single	Single	Single	Single	
<b>Pore size [µm]</b>	0.05	0.10	0.10	0.20	0.50	1.0	0.20	
<b>Bubble point (IPA) [kg/cm<sup>2</sup>]</b>	≥1.65	≥1.6	≥1.4	≥0.9	≥0.5	≥0.3	-	
<b>Max. Inlet Pressure</b>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	
<b>Max. Operating Temperature</b>	60°C	60°C	60°C	60°C	60°C	60°C	60°C	
<b>Length Code</b>	<b>Length [mm]*</b>		<b>Filtration Area [cm<sup>2</sup>]</b>					
<b>C</b>	102	900	900	570	570	570	570	900
<b>D</b>	129	1800	1800	1150	1150	1150	1150	1800
<b>E</b>	201	3600	3600	2300	2300	2300	2300	3600

\*Length given is for capsules with end fixture H.

## Ordering Information

CCF - [ ] - [ ] 1 [ ] (S) <sup>1</sup>			CCFH - [ ] - [ ] 1 [ ] (S) <sup>1</sup>		
Pore Size Code	Filtration Area	End Fixture	Pore Size Code	Filtration Area	End Fixture
005	C 570 cm <sup>2</sup>	B ¼" NPTM	020	C 900 cm <sup>2</sup>	B ¼" NPTM
010	D 1150 cm <sup>2</sup>	D <sup>2</sup> ½" NPTM		D 1800 cm <sup>2</sup>	D <sup>2</sup> ½" NPTM
020	E 2300 cm <sup>2</sup>	H ⅜" Hose Barb		E 3600 cm <sup>2</sup>	H ⅜" Hose Barb
050		N 1½" Sanitary fitting			N 1½" Sanitary fitting
100					

1) When ordering sterile units, specify "S" in the last position of the Cat. No.

2) When ordering length code "C" (filtration area), end fixture code "D" is not available.

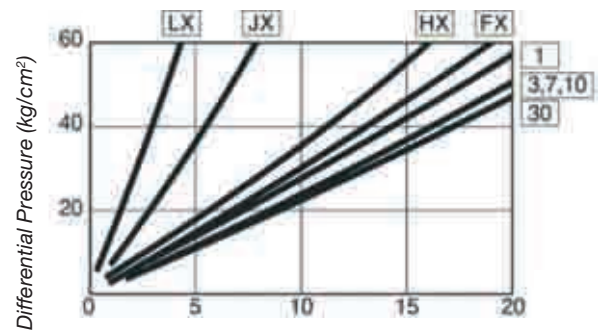
# Capsule Filters

## ▶ Polypropylene Capsule Filters – Code CCP

- **Depth type matrix:** High dirt holding capacity, superior retention
- **Compatible** with aqueous solutions and solvents
- **Thermally welded** to prevent fiber slough-off and minimize changes in pore size during filtration
- **Wide range** of particle size cut-offs
- **Can be sterilized** by autoclaving (121°C, 30 min.) or treatment with ethylene oxide (EtO)

## ▶ Applications

- High purity water filtration
- Prefiltration to a final membrane filter such as PES or PTFE (CCS, CCF or CCFH)
- Ultracleaning
- Filtration of process chemicals



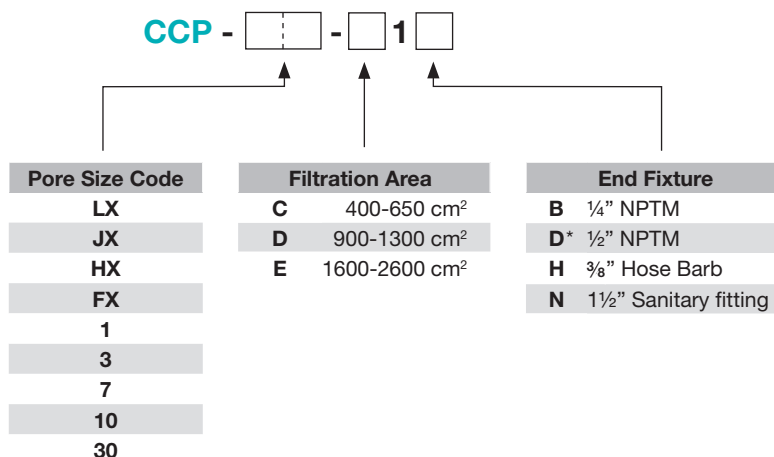
Flow Rate (L/min)  
Typical water flow rate for  
CCP-\_\_\_-D1B at 25°C

## ▶ Specifications

Type Code	CCP-LX	CCP-JX	CCP-HX	CCP-FX	CCP-1	CCP-3	CCP-7	CCP-10	CCP-30	
<b>Nominal rating [µm]</b>	0.8	1.0	2.0	3.0	2-5	5-10	10-20	10-20	20-30	
<b>% Particle retention</b>	>99	>99	>99	>99	94	98	98	92	97	
<b>Max. Inlet Pressure</b>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	
<b>Max. Operating Temp.</b>	60°C	60°C	60°C	60°C	60°C	60°C	60°C	60°C	60°C	
<b>Length Code</b>	<b>Length [mm]*</b>		<b>Filtration Area [cm<sup>2</sup>]</b>							
<b>C</b>	102	400	500	500	550	500	600	500	550	650
<b>D</b>	129	800	1000	1000	1100	1000	1200	1000	1100	1300
<b>E</b>	201	1600	2000	2000	2200	2000	2400	2000	2200	2600

\*Length given is for capsules with end fixture H.

## ▶ Ordering Information



\*) When ordering length code "C" (filtration area), end fixture code "D" is not available.

## › Glass Microfiber Capsule Filters – Code CCG

- **Depth type matrix** of borosilicate glass microfiber
- **Large dirt holding** capacity
- **Resistant** to most fluids except strong acids
- **Contains a small amount of acrylic resin binder** to enhance wet strenght
- **Can be sterilized** by autoclaving (121°C, 30 min.) or treatment with ethylene oxide (EtO)

## › Applications

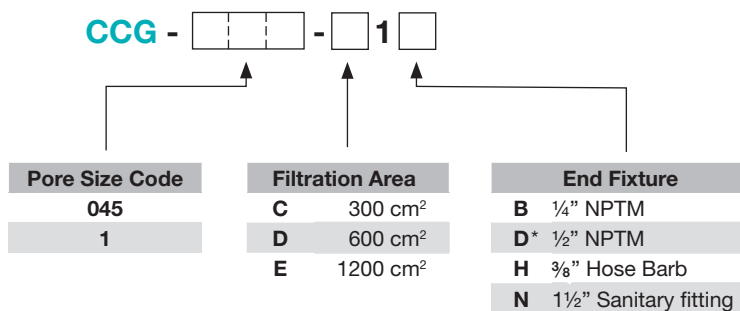
- Sea water filtration
- Aquaculture
- Prefiltration to a final membrane filter such as PES or PTFE (CCS, CCF or CCFH)

## › Specifications

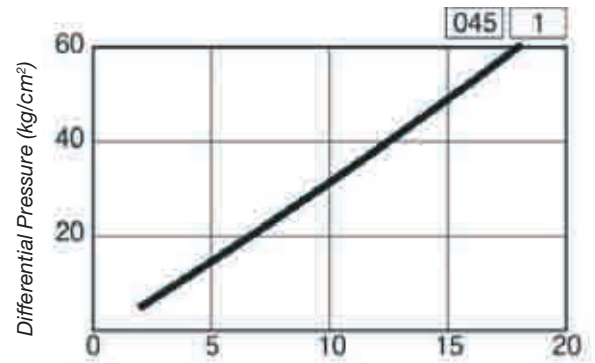
Type Code	045	1
<b>Nominal rating [µm]</b>	1-1.5	1.5-2
<b>Particle retention</b>	99,9%	99,9%
<b>Max. Inlet Pressure</b>	3 kg/cm <sup>2</sup>	3 kg/cm <sup>2</sup>
<b>Max. Operating Temperature</b>	60°C	60°C
<b>Length Code</b>	<b>Length [mm]*</b>	<b>Filtration Area (cm<sup>2</sup>)</b>
<b>C</b>	102	300
<b>D</b>	129	600
<b>E</b>	201	1200

\*Length given is for capsules with end fixture H.

## › Ordering Information



\*) When ordering length code "C" (filtration area), end fixture code "D" is not available.



Flow Rate (L/min)  
Typical water flow rate for  
CCG-045-1 at 25°C