

CAPSULES AND CARTRIDGES

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Capsules – Introduction

- All-polypropylene housing is 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 a standard 78 mm
- Selected media available pre-sterilized by ethylene oxide (EtO)

APPLICATIONS

- Filter tissue culture media, fermentation broth, and 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 the cartridge format
- Cannot be used for gas filtration

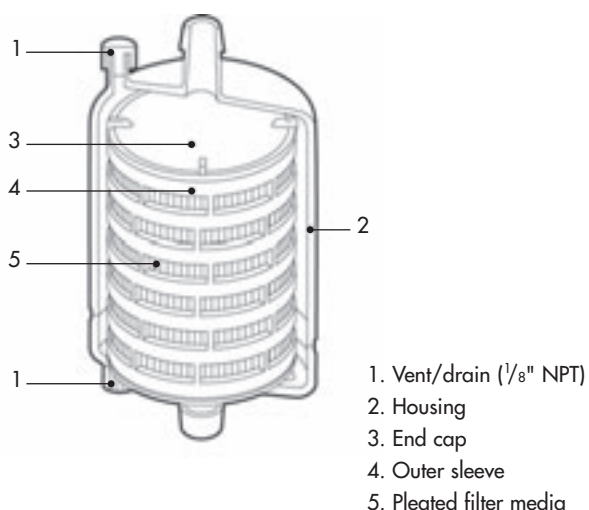


Five different filter media are available in the capsule format.

Model	Media	Characteristic	Media Type	Pore Size or Nominal Rating (μm)	Membrane Layers	Filtration Area per Capsule (cm^2)
CCS	PES	Hydrophilic	Membrane	0.20 – 0.45	Double	Up to 1,800
CCF	PTFE	Hydrophobic	Membrane	0.05 – 1.0	Single/Double	Up to 3,600
CCFH	PTFE	Hydrophilic	Membrane	0.20	Single	Up to 3,600
CCP	Polypropylene	Hydrophobic	Depth-type	0.8 – 30	N/A	Up to 2,600
CCG	Glass	-	Depth-type	0.45 – 1.0	N/A	Up to 1,200

For detailed chemical compatibility information, see page 116.

When ordering length code "C", end fixture code "D" is not available.



B
1/4" NPTM



D
1/2" NPTM



H
3/8" hose barb
(O.D.13mm)



N
1-1/2" sanitary fitting

PES Capsule Filter (CCS)

- Can be sterilized by autoclaving (121°C, 30 min) or treatment with ethylene oxide (EtO)
- Available pre-sterilized (EtO) or pre-rinsed (recommended when filtering high purity water)

APPLICATIONS

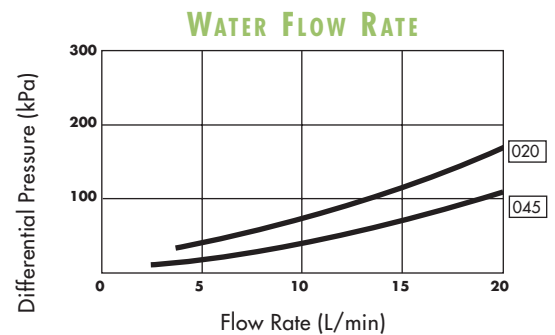
- Filter pure water, high purity chemicals, pharmaceuticals, cosmetics, and tissue culture media
- Remove bacteria or sub-micron particulates
- Cannot be used for gas filtration

SPECIFICATIONS

Maximum Inlet Pressure	0.39 MPa (57 psi)
Maximum Operating Temperature	60°C (140°F)

		CCS-020	CCS-045
Layers		Double	Double
Pore Size (µm)		0.20	0.45
Bubble Point (water)		≥0.39 MPa (57 psi)	≥0.29 MPa (43 psi)
LRV / Organism		≥7 B. diminuta	≥7 S. marcescens
Length Code	Length (mm)*	Filtration Area (cm ²)	
C	102	450	
D	129	900	
E	201	1,800	

*Length given is for capsule with end fixture H.



Typical water flow rate for CCS-____-D1B at 25°C

ORDERING INFORMATION



Pore Size (µm)	Pore Size Code	Length (mm)	Length Code	End Fixture (Inlet and Outlet)	End Fixture Code
0.20	020	102	C	1/4" NPTM	B
0.45	045	129	D	1/2" NPTM	D^{*3}
		201	E	3/8" hose barb	H
				1 1/2" sanitary fitting	N

*1. When ordering sterile units, specify "S" in the last position of the catalog number.

*2. When ordering Pre-rinsed units, specify "R" in the last position of the catalog number.

*3. When ordering length code "C", end fixture code "D" is not available.

PTFE Capsule Filters – Hydrophobic (CCF) and Hydrophilic (CCFH)

- 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
 - 0.2 µm pore size

Note: Autoclaving or allowing membrane to dry will render it hydrophobic.

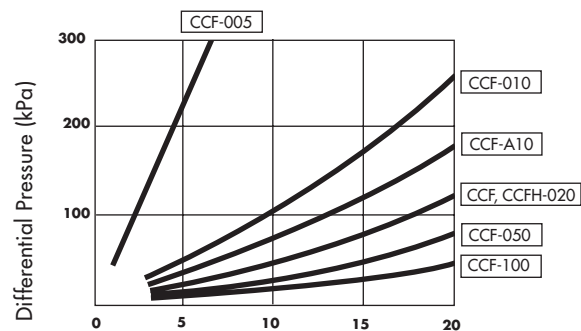
APPLICATIONS

- Use serially as prefilter and final filter
- Corrosive fluids and gases, photoresists, and both alkalis and acids
- Hydrophobic:
 - Solvent filtration
- Hydrophilic:
 - Solvents with higher surface tension
 - Heterogeneous fluid mixtures
- Cannot be used for gas filtration

SPECIFICATIONS

Maximum Inlet Pressure	0.39 MPa (57 psi)
Maximum Operating Temperature	60°C (140°F)

WATER FLOW RATE

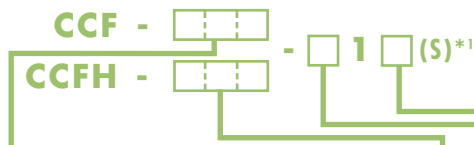


Typical water flow rate for CCF/CCFH-___-D1B at 25°C

	CCF-005	CCF-A10	CCF-010	CCF-020	CCF-050	CCF-100	CCFH-020	
	Hydrophobic						Hydrophilic	
Layers	Double	Double	Single	Single	Single	Single	Single	
Pore Size (µm)	0.05	0.10	0.10	0.20	0.50	1.0	0.20	
Bubble Point (IPA) MPa (psi)	≥0.16 (23)	≥0.15 (22)	≥0.13 (20)	≥0.09 (13)	≥0.05 (7)	≥0.03 (4)	-	
Length Code	Length* (mm)	Filtration Area (cm ²)						
C	102	900	900	570	570	570	570	900
D	129	1,800	1,800	1,150	1,150	1,150	1,150	1,800
E	201	3,600	3,600	2,300	2,300	2,300	2,300	3,600

*Length given is for capsule with end fixture H.

ORDERING INFORMATION



Pore Size (µm)	Pore Size Code
0.05	005
0.10	A10
0.10	010
0.20	020
0.50	050
1.00	100

Pore Size (µm)	Pore Size Code
0.2	020

Length (mm)	Length Code
102	C
129	D
201	E

End Fixtures (Inlet and Outlet)	End Fixture Code
1/4" NPTM	B
1/2" NPTM	D*2
3/8" hose barb	H
1 1/2" sanitary fitting	N

*1. When ordering sterile units, specify "S" in the last position of the catalog number.

*2. When ordering length code "C", end fixture code "D" is not available.

Polypropylene Capsule Filter (CCP)

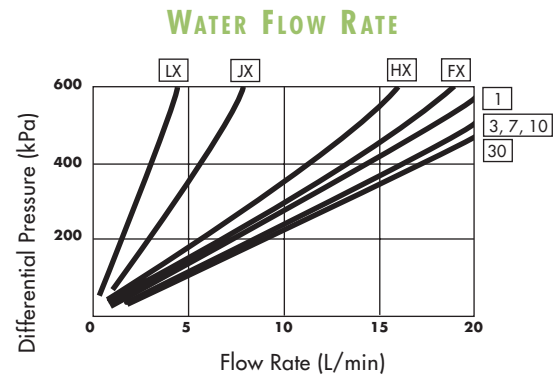
- Depth-type matrix: high dirt holding capacity, superior retention
- Compatible with aqueous solutions and solvents
- Thermally welded to prevent fiber slough-off and minimize changes in pore size during filtration
- Wide range of particle size cut-offs
- Can be sterilized by autoclaving (121°C, 30 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
- Cannot be used for gas filtration

SPECIFICATIONS

Maximum Inlet Pressure	0.39 MPa (57 psi)
Maximum Operating Temperature	60°C (140°F)



		CCP-								
		LX	JX	HX	FX	1	3	7	10	30
Particle Retention	Particle Size (µm)	0.8	1.0	2.0	3.0	2 – 5	5 – 10	10 – 20	10 – 20	20 – 30
	(%)	>99	>99	>99	>99	94	98	98	92	97
Length Code	Length* (mm)	Filtration Area (cm ²)								
C	102	400	500	500	550	500	600	500	550	650
D	129	800	1,000	1,000	1,100	1,000	1,200	1,000	1,100	1,300
E	201	1,600	2,000	2,000	2,200	2,000	2,400	2,000	2,200	2,600

*Length given is for capsule with end fixture H.

ORDERING INFORMATION



Retention Characteristic Code	Length (mm)	Length Code	End Fixtures (Inlet and Outlet)	End Fixture Code
LX	102	C	1/4" NPTM	B
JX	129	D	1/2" NPTM	D
HX	201	E	3/8" hose barb	H
FX			1 1/2" sanitary fitting	N
1				
3				
7				
10				
30				

*. When ordering length code "C", end fixture code "D" is not available.

Glass Fiber Capsule Filter (CCG)

- Depth-type matrix of borosilicate glass fiber
- Large dirt holding capacity
- Resistant to most fluids except strong acids
- Contains a small amount of acrylic resin binder to enhance wet strength
- 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)
- Cannot be used for gas filtration

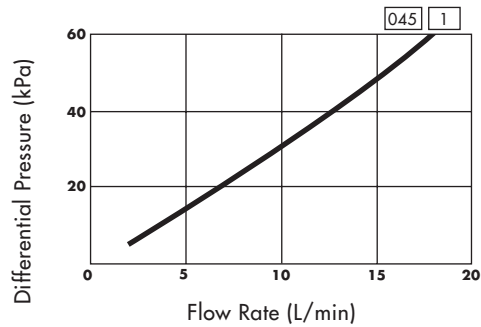
SPECIFICATIONS

Maximum Inlet Pressure	0.29 MPa (43 psi)
Maximum Operating Temperature	60°C (140°F)

		CCG-045	CCG-1
Particle Retention	Particle Size (µm)	1 – 1.5	1.5 – 2.0
	(%)	99.9	
Length Code	Length* (mm)	Filtration Area (cm ²)	
C	102	300	
D	129	600	
E	201	1,200	

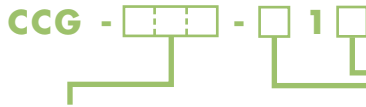
*Length given is for capsule with end fixture H.

WATER FLOW RATE



Typical water flow rate for CCG-____-D1B at 25°C.

ORDERING INFORMATION



Nominal Rating (µm)	Nominal Rating Code	Length (mm)	Length Code	End Fixtures (Inlet and Outlet)	End Fixture Code
0.45	045	102	C	1/4" NPTM	B
1.0	1	129	D	1/2" NPTM	D
		201	E	3/8" hose barb	H
				1 1/2" sanitary fitting	N

*. When ordering length code "C", end fixture code "D" is not available.

Cartridges – Introduction

- Available in a wide variety of media and end fixture configurations
- Media can be mixed and configured in serial format to maximize throughput volumes, flow rates, and cartridge life
- Fit many commercially available filter housings

APPLICATIONS

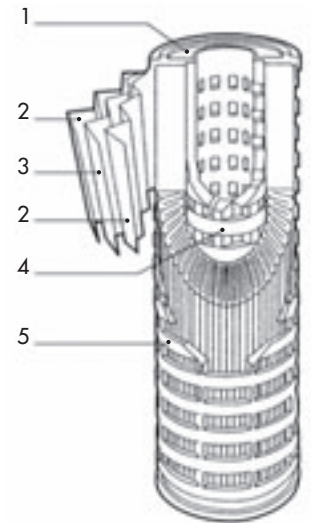
- Large surface area permits large throughput volumes and higher flow rates
- Suitable for both prefiltration and final filtration of fluids in chemical, food, beverage, and electronics industries
- Wide choice of media and core enables use in many chemical and thermal conditions



Eleven different filter media are available in cartridge format.

SPECIFICATIONS

Model	Material	Media type	Format	Absolute/ Nominal	Pore Size or Rating (µm)
TCR	Cellulose Acetate	Membrane	Pleated, Internal Prefilter	Absolute	0.20 – 0.80
TCS	Polyethersulfone (PES)	Membrane	Pleated, Internal Prefilter	Absolute	0.20 – 0.45
TCS-G	Polyethersulfone (PES)	Membrane	Pleated, Internal Prefilter	Absolute	0.20 – 0.65
TCS-E	Polyethersulfone (PES)	Membrane	Pleated, Internal Prefilter	Absolute	0.20 – 0.45
TCF	Hydrophobic PTFE	Membrane	Pleated	Absolute	0.05 – 1.0
TCFH	Hydrophilic PTFE	Membrane	Pleated	Absolute	0.10 – 1.0
TCY	Coated Cellulose Acetate	Membrane	Pleated, Dual Layer	Nominal	0.21 – 2.0
TCYE	Coated Cellulose Acetate	Membrane	Pleated, Single Layer	Nominal	0.21 – 10
TCP	Polypropylene	Non-woven	Pleated, Multiple Layers	Nominal	0.8 – 3.0
TCP/TCPE	Polypropylene	Non-woven	Pleated, Single Layer	Nominal	1 – 30
TCPD	Polypropylene, Multigrade	Non-woven	Spirally Wound	Nominal	1 – 70
TC	Cellulose with Epoxy Resin	Filter Paper	Pleated	Nominal	1 – 30
TCG	Glass Fiber	Glass Fiber Filter	Pleated	Nominal	0.45 – 1
TCW	Polypropylene, Cotton	Yarn	Wound	Nominal	0.5 – 150



1. End cap
2. Support media
3. Final membrane
4. Core tube
5. Outer sleeve

Gasket/O-ring Polymer	Gasket/O-ring Code	Autoclavable	Max Temp. (°C)
EPR	E	○	150
EPDM	D	○	150
Chloroprene	N	X	120
NBR	B	X	130
Silicone	S	○	230
FPM	V	○	260
PTFE (Gasket only)	H	○	260
FEP Encapsulated (O-ring only)	F	○	260

○ – Recommended X – Not recommended

For detailed chemical compatibility information, see page 118.
Filter housings are available – call to discuss your particular needs.

End Fixture Configurations



H Size 222 Heat-Resistant O-ring,
Flat Closed
Standard O-ring: Silicone
Note: Autoclavable



M Size 222 O-ring, Flat Closed
Standard O-ring: EPR
Note: Non-Autoclavable



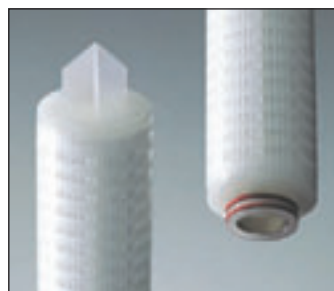
L Size 222 O-ring with Internal
Stainless Steel Support, Flat Closed
Available for TCR-type only
Note: Autoclavable



K Size 222 Heat-Resistant O-ring,
Spear Closed
Standard O-ring: Silicone
Note: Autoclavable



R Size 222 O-ring, Spear Closed
Standard O-ring: EPR
Note: Non-Autoclavable



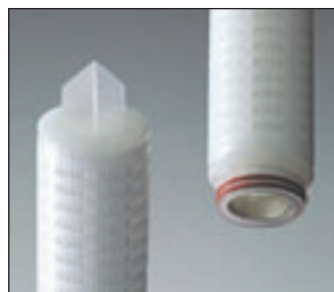
S Size 222 O-ring with Tabs and
Internal Stainless Steel Support,
Spear Closed
Available for TCR-type only
Note: Autoclavable



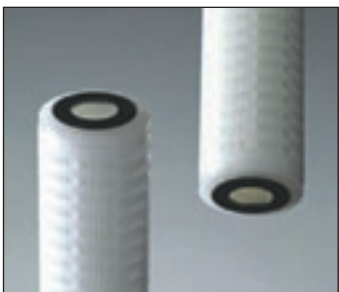
J Size 226 Heat-Resistant O-ring
with Tabs, Spear Closed
Standard O-ring: Silicone
Note: Autoclavable



P Size 226 O-ring with Tabs,
Spear Closed
Standard O-ring: EPR
Note: Non-Autoclavable



Q Size 226 O-ring with Tabs and
Internal Stainless Steel Support,
Spear Closed
Available TCR-type only
Note: Autoclavable



F Flat Gasket
Standard Gasket: EPR
Note: Non-Autoclavable



N Size 120 O-ring
Standard O-ring: Silicone
Note: Autoclavable



C Flat Gasket
Standard Gasket: Chloroprene
(for PP) or NBR (for SS)
Note: Non-Autoclavable

Cellulose Acetate Membrane (TCR)

- Dual cellulose acetate membranes provide internal prefiltration by placing a larger pore size membrane upstream of final rated pore size membrane
- Polyester membrane support is almost no fiber releasing
- Low protein binding

APPLICATIONS

- Filter ultra-pure water, rinse water, cosmetics, and beverages (beer and wine)

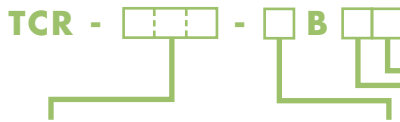
SPECIFICATIONS

	TCR-020	TCR-045	TCR-080
Pore Size (µm)	0.20	0.45	0.80
Dual Membranes:			
Upstream (µm)	0.80	0.80	5.0
Downstream (µm)	0.20	0.45	0.80
Challenge Organism	B. diminuta	S. marcescens	S. cerevisiae
LRV (Log Reduction Value)	≥7	≥7	≥7
Bubble Point (MPa)	≥0.294	≥0.235	≥0.088
Filtration Area per Single Length	4,200 cm ²		
Max. Differential Pressure (25°C)	0.39 MPa (57 psi)		
Max. Operating Temperature	80°C (176°F)		

Materials:

End Cap	Polybutyleneterephthalate (PBT)
Sealing Material	Medical Grade Polyurethane
Support Media	Polyester
Prefilter Membrane	Cellulose Acetate
Final Membrane	Cellulose Acetate
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

ORDERING INFORMATION



Pore Size (µm)	Pore Size Code
0.20	020
0.45	045
0.80	080

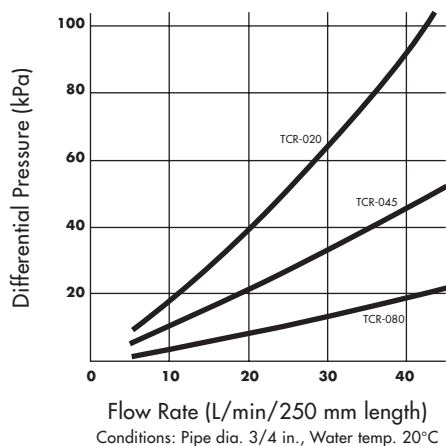
Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

End Fixture Code	
F	R
N	S
M	P
L	Q

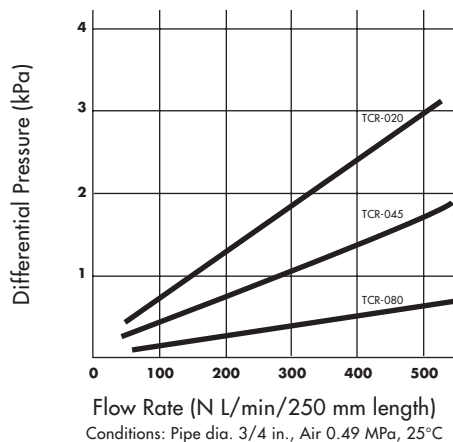
Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E (standard)
EPDM	D
Chloroprene	N
NBR	B
Silicone	S
FPM	V

Note: Codes N, L, Q, and S are autoclavable at 121°C, 30 min.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Polyethersulfone (PES) Membrane (TCS)

- Dual Polyethersulfone (PES) membranes provide internal prefiltration by placing a larger pore size membrane upstream of final rated pore size membrane
- Low extractables
- Enhanced chemical compatibility
- Quick rinse down
- Low protein binding
- 100% integrity tested during manufacturing

APPLICATIONS

- Filtration for electronics, cosmetics, and beverage industries

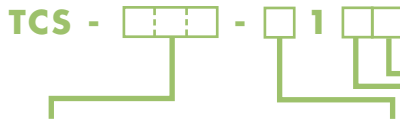
SPECIFICATIONS

	TCS-020	TCS-045
Pore Size	0.20 μm	0.45 μm
Dual Membranes:		
Upstream	0.45 μm	0.65 μm
Downstream	0.20 μm	0.45 μm
Challenge Organism	B. diminuta	S. marcescens
LRV (Log Reduction Value)	≥ 7	≥ 7
Filtration Area per Single Length	4,000 cm^2	
Max. Differential Pressure (25°C)	0.39 MPa (57 psi)	
Max. Operating Temperature	80°C (176°F)	

Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Prefilter Membrane	Polyethersulfone (PES)
Final Membrane	Polyethersulfone (PES)
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

ORDERING INFORMATION



Pore Size (μm)	Pore Size Code
0.20	020
0.45	045

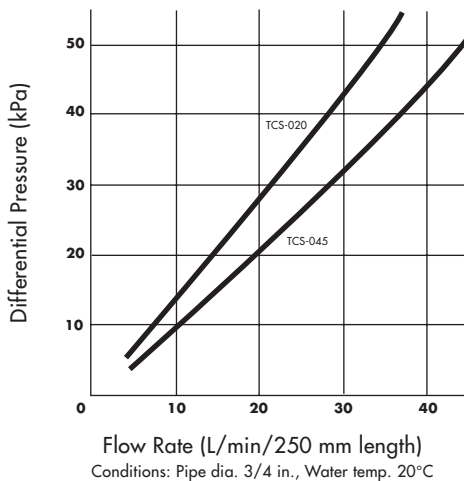
Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

End Fixture Code	
F	R
N	K
M	P
H	J

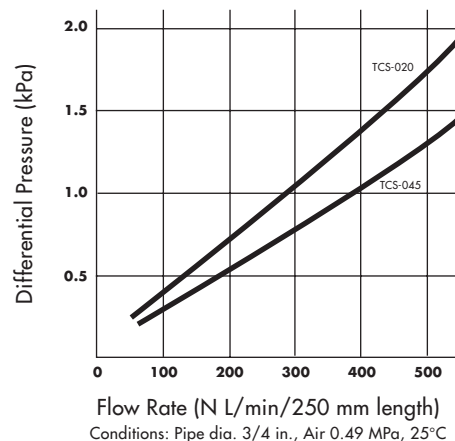
Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E (standard)
EPDM	D
Chloroprene	N
NBR	B
Silicone	S
FPM	V

Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Polyethersulfone (PES) Membrane for the Food and Beverage Industries (TCS-G)

- Dual Polyethersulfone (PES) membranes provide internal pre-filtration by placing a larger pore size membrane upstream of final rated pore size membrane
- Low extractables
- Enhanced chemical compatibility
- Quick rinse down
- Low protein binding
- 100% integrity tested during manufacturing
- Selected types can be hot water sanitized

APPLICATIONS

- Food and beverage industries

SPECIFICATIONS

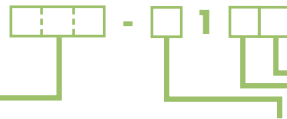
	TCS-G020	TCS-G045	TCS-G065
Pore Size	0.20 µm	0.45 µm	0.65 µm
Challenge Organism	B.diminuta	S.marcescens	S.cerevisiae
LRV (Log Reduction Value)	≥7	≥7	≥7
Max. Differential Pressure (25°C)	0.39 MPa [57 psi]		
Max. Operating Temperature	80°C (176°F)		
Filtration Area (with 250 mm)	6,600 cm ²		
Diffusion Rate (with 250 mm)	≤55 mL/min at 0.326 MPa	≤53 mL/min at 0.206 MPa	≤40 mL/min at 0.100 MPa

Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Pre-filter Membrane	Polyethersulfone (PES)
Final Membrane	Polyethersulfone (PES)
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

ORDERING INFORMATION

TCS-G



Pore Size (µm)	Pore Size Code
0.20	020
0.45	045
0.65	065

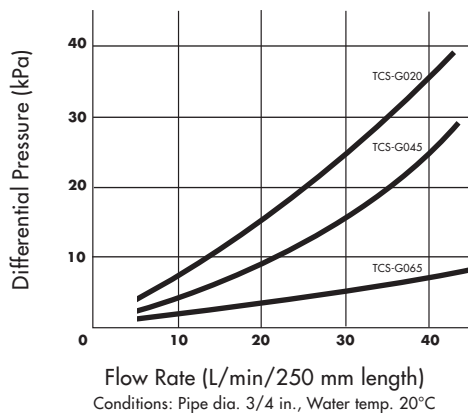
Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

End Fixture Code	
F	R
M	K
H	P
	J

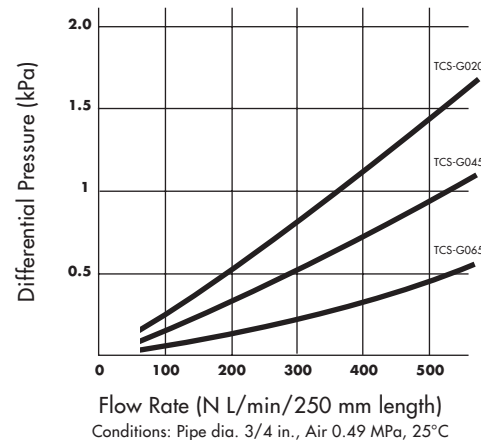
Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E
EPDM	D
Chloroprene	N
NBR	B
Silicone	S (standard)
FPM	V

Note: Codes H, K, and J can be hot water sanitized at 85°C for 30 min, up to 100 times.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Polyethersulfone (PES) Membrane for the Electronics Industry (TCS-E)

- Dual Polyethersulfone (PES) membranes provide internal prefiltration by placing a larger pore size membrane upstream of final rated pore size membrane
- Low extractables
- Enhanced chemical compatibility
- Quick rinse down
- 100% integrity tested during manufacturing
- Superior recovery of resistivity and TOC since cartridges are individually flushed with pure water in the manufacturing process

APPLICATIONS

- Filtration for electronics industry

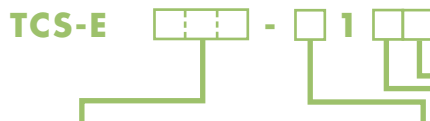
SPECIFICATIONS

	TCS-E020	TCS-E045	TCS-E045S
Pore Size	0.20 μm	0.45 μm	0.45 μm
Filtration Area (with 250 mm)	6,700 cm^2		8,800 cm^2
Max. Differential Pressure (25°C)	0.39 MPa [57 psi]		
Max. Operating Temperature	80°C (176°F)		

Materials:

	TCS-E-020/045	TCS-E-045S
End Cap	Polypropylene	Polypropylene
Support Media	Polypropylene	Polypropylene
Prefilter Membrane	Polyethersulfone (PES)	-
Final Membrane	Polyethersulfone (PES)	Polyethersulfone (PES)
Core Tube	Polypropylene	Polypropylene
Outer Sleeve	Polypropylene	Polypropylene

ORDERING INFORMATION



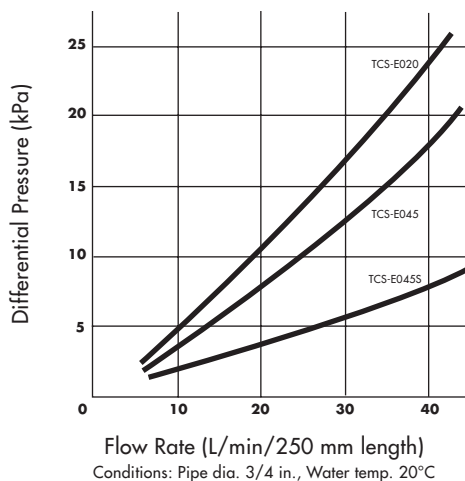
Pore Size (μm)	Pore Size Code
0.20	020
0.45	045
0.45	045S

Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

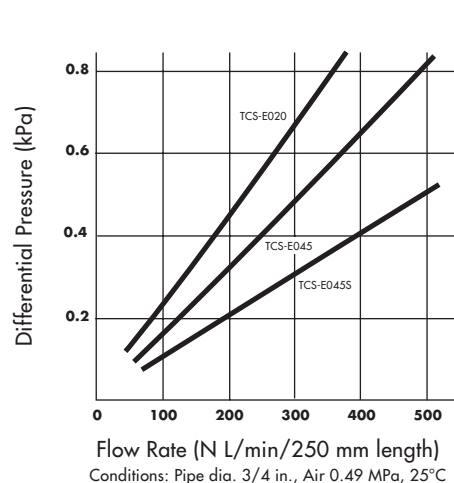
End Fixture Code	
F	R
M	P

Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E (standard)
EPDM	D
Chloroprene	N
NBR	B
Silicone	S
FPM	V

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Hydrophobic PTFE Membrane (TCF)

- Enhanced chemical resistance
- Selected types can be in-line steam sterilized (126°C, 30 min) or autoclaved (121°C, 30 min)

APPLICATIONS

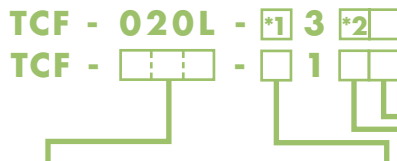
- Filtration of photo resists and organic solvents
- Uses in the electronics industry and in chemical manufacturing
- Filtering gases and venting tanks

Note: Process fluids must have a surface tension of <math><32 \text{ mN/m}</math> (dyne/cm) to properly wet the filter and to achieve optimized flow rates and performance characteristics. For fluids with a surface tension $\geq 32 \text{ mN/m}</math> (dyne/cm), use hydrophilic PTFE (TCFH-type cartridges).$

SPECIFICATIONS

	TCF-005	TCF-010	TCF-020	TCF-050	TCF-100	TCF-050L	TCF-020L
Pore Size	0.05 μm	0.10 μm	0.20 μm	0.50 μm	1.00 μm	0.50 μm	0.20 μm
Filtration Area per Single Length	9,200 cm^2	9,200 cm^2	7,000 cm^2	7,000 cm^2	7,000 cm^2	17,600 cm^2	16,400 cm^2
Max. Differential Pressure (25°C)	0.39 MPa (57 psi)						0.25 MPa (36 psi)
Max. Operating Temperature	80°C (176°F)						40°C (104°F)

ORDERING INFORMATION



Pore Size (μm)	Pore Size Code
0.05	005
0.10	010
0.20	020
0.50	050
1.00	100
0.50	050L

Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

*1 Available with length codes S, D, and T.

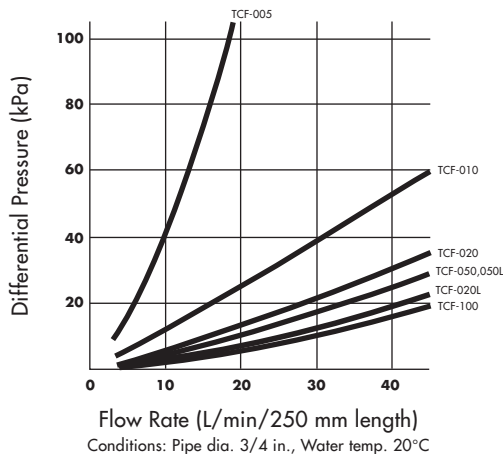
End Fixture Code	
F	R
N	K
M	P
H	J

Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min., or can be steam sterilized at 126°C for 30 min.

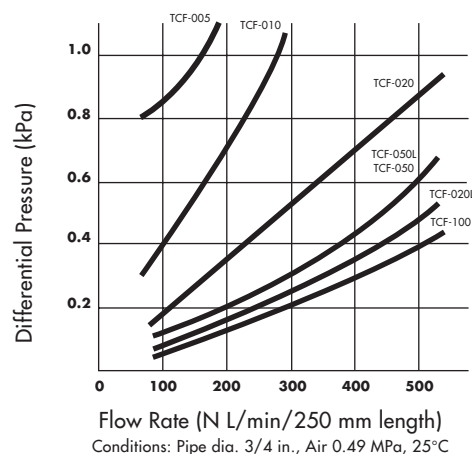
*2 Available with end fixture codes F, M, R, and P.

Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E (standard)
EPDM	D
Chloroprene	N
NBR	B
Silicone	S
FPM	V
PTFE	H (Gasket only)
FEP Encapsulated	F (O-ring only)

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Membrane	PTFE
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

Hydrophilic PTFE Membrane (TCFH)

- Unsupported PTFE membrane has been treated to render the matrix hydrophilic

Note: This cartridge is not autoclavable.

APPLICATIONS

- Strong acid and strong alkali solutions
- Photo resists
- Chemically aggressive liquids with a surface tension ≥ 32 mN/m (dyne/cm)

SPECIFICATIONS

	TCFH-010	TCFH-020	TCFH-050	TCFH-100	TCFH-020L
Pore Size	0.10 μm	0.20 μm	0.50 μm	1.00 μm	0.20 μm
Filtration Area per Single Length	9,800 cm^2				21,600 cm^2
Max. Differential Pressure (25°C)	0.39 MPa (57 psi)				0.39 MPa (57 psi)
Max. Operating Temperature	80°C (176°F)				60°C (140°F)

Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Membrane	Hydrophilic PTFE
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

ORDERING INFORMATION

TCFH - [] - [] 1 [] []

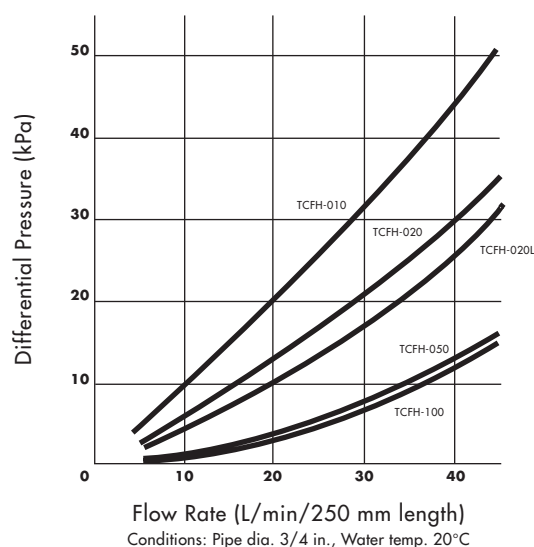
Pore Size (μm)	Pore Size Code
0.10	010
0.20	020/020L
0.50	050
1.00	100

Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

End Fixture Code	
F	R
N	P
M	

Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E (standard)
EPDM	D
Chloroprene	N
NBR	B
Silicone	S
FPM	V
PTFE	H (Gasket only)
FEP Encapsulated	F (O-ring only)

TYPICAL WATER FLOW RATE



Coated Cellulose Acetate Membrane (TCY)

- Dual layer of coated cellulose acetate membrane
- Low protein binding
- Excellent dirt holding characteristics, superior particle retention
- Excellent water and air flow rates

APPLICATIONS

- Use as a prefilter to a final membrane cartridge
- Filter protein-containing solutions for the food, cosmetic and pharmaceutical industries
- Purify process waters

SPECIFICATIONS

	TCY-ND, -LD, -HD
Filtration Area per Single Length	5,500 cm ²
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)
Max. Operating Temperature	80°C (176°F)

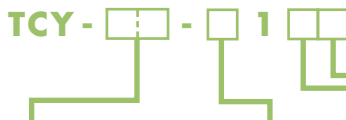
Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Prefilter Membrane	Coated Cellulose Acetate
Final Membrane	Coated Cellulose Acetate
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

Model	Particle Size						
	0.21 µm	0.3 µm	0.48 µm	0.65 µm	0.8 µm	1.0 µm	2.0 µm
	Particle Retention (%)						
TCY-ND	99.9	99.9	99.9	>99.9			
TCY-LD		99	99.9	99.9	>99.9		
TCY-HD			99	99.9	99.9	99.9	>99.9

Test Criteria: Single length (250 mm) cartridge, flow rate 10 L/min.

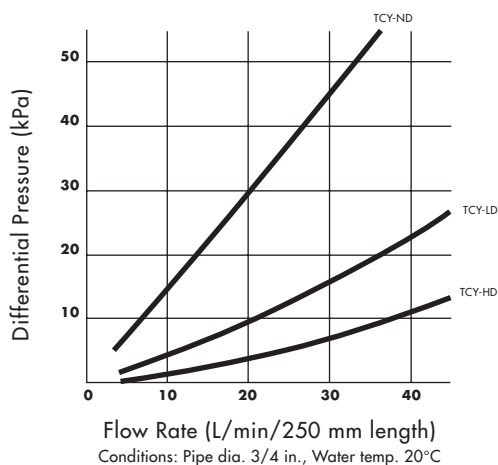
ORDERING INFORMATION



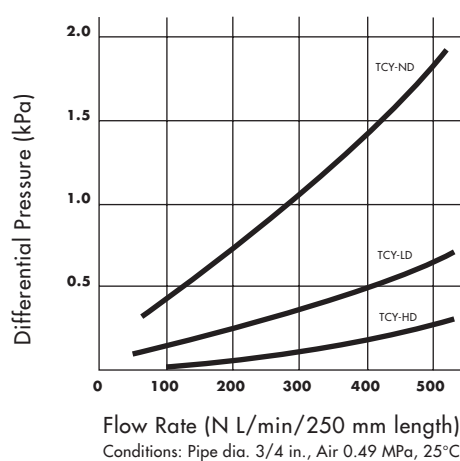
Retention Characteristic Code	Length (mm)	Length Code	End Fixture Code		Gasket/O-ring Polymer	Gasket/O-ring Code
ND	250 (single)	S	F	R	EPR	E (standard)
LD	500 (double)	D	N	K	EPDM	D
HD	750 (triple)	T	M	P	Chloroprene	N
	1,000 (quad)	Q	H	J	NBR	B
					Silicone	S
					FPM	V

Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Single Layer Coated Cellulose Acetate Membrane (TCYE)

- High efficiency single layer of coated cellulose acetate
- Economical
- Excellent particle retention
- Low protein binding
- Excellent water and air flow rates

APPLICATIONS

- Filter process waters for the food, cosmetic and pharmaceutical industries

SPECIFICATIONS

	TCYE-NS, -LS, -HS, -BS
Filtration Area per Single Length	6,200 cm ²
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)
Max. Operating Temperature	80°C (176°F)

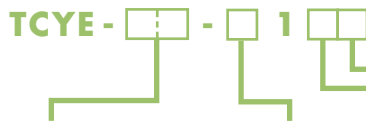
Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Membrane	Coated Cellulose Acetate
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

Model	Particle Size									
	0.21 µm	0.3 µm	0.48 µm	0.65 µm	0.8 µm	1.0 µm	2.0 µm	3.0 µm	5.0 µm	10 µm
	Particle Retention (%)									
TCYE-NS	99	99.9	99.9	>99.9						
TCYE-LS		98	99	99	>99.9					
TCYE-HS			96	99	99	99	>99.9			
TCYE-BS							98	99.9	99.9	>99.9

Test Criteria: Single length (250 mm) cartridge, flow rate 10 L/min.

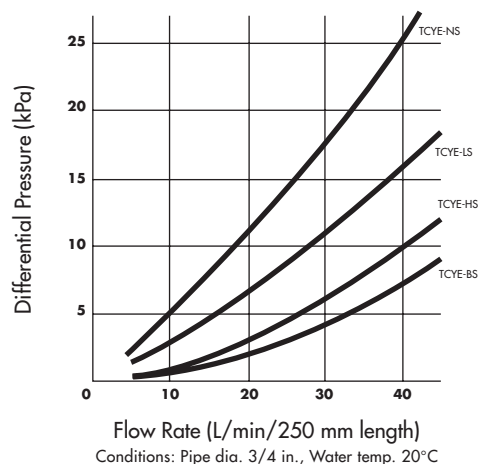
ORDERING INFORMATION



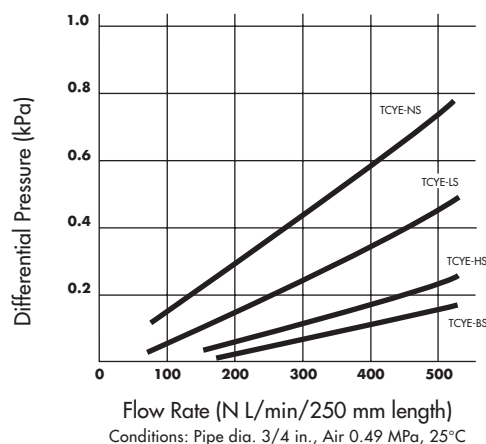
Retention Characteristic Code	Length (mm)	Length Code	End Fixture Code		Gasket/O-ring Polymer	Gasket/O-ring Code
NS	250 (single)	S	F	R	EPR	E (standard)
LS	500 (double)	D	N	K	EPDM	D
HS	750 (triple)	T	M	P	Chloroprene	N
BS	1,000 (quad)	Q	H	J	NBR	B
					Silicone	S
					FPM	V

Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Polypropylene (TCP)

- Multiple layers of nonwoven polypropylene maximize filtration efficiency
- Maximal throughput volumes and retention ratings
- Thermally bonded to minimize fiber releasing
- Minimize extractables
- Supported both upstream and downstream (TCP-HX, FX only)

APPLICATIONS

- Filter process waters for the food, cosmetic and pharmaceutical industries

SPECIFICATIONS

	TCP-LX	TCP-JX	TCP-HX	TCP-FX	TCP-O2AM
Filtration Area per Single Length	3,300 cm ²	4,500 cm ²	4,200 cm ²	5,100 cm ²	2,900 cm ²
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)				
Max. Operating Temperature	80°C (176°F)				

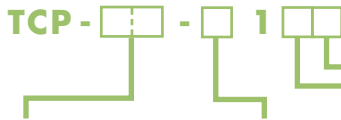
Materials:

End Cap	Polypropylene
Support Media	Polypropylene
Membrane	Polypropylene
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

Model	Particle Size							% Retention (0.3 µm DOP)
	0.2 µm	0.48 µm	0.65 µm	0.8 µm	1.0 µm	2.0 µm	3.0 µm	
	Particle Retention (%)							
TCP-LX	45	90	98	>99				99.9999
TCP-JX		60	80	94	>99			99.999
TCP-HX				70	93	>99		99.99
TCP-FX				30	60	95	>99	99.84
TCP-O2AM				43	77	>99		-

Test Criteria: Single length (250 mm) cartridge, flow rate 10 L/min.

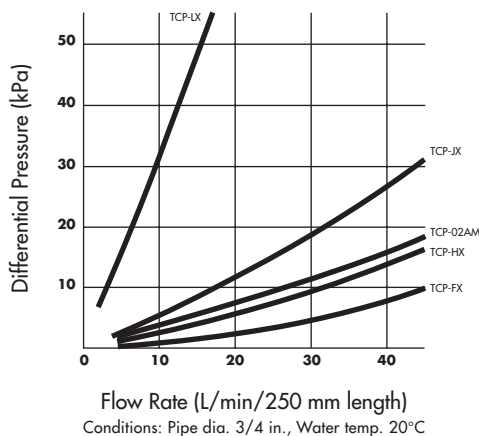
ORDERING INFORMATION



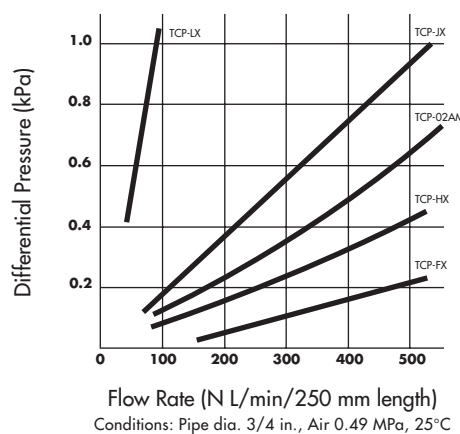
Retention Characteristic Code	Length (mm)	Length Code	End Fixture Code		Gasket/O-ring Polymer	Gasket/O-ring Code
			F	R		
LX	250 (single)	S	F	R	EPR	E (standard)
JX	500 (double)	D	N	K	EPDM	D
HX	750 (triple)	T	M	P	Chloroprene	N
FX	1,000 (quad)	Q	H	J	NBR	B
O2AM					Silicone	S
					FPM	V
					PTFE	H (Gasket only)
					FEP Encapsulated	F (O-ring only)

Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min., or can be steam sterilized at 126°C for 30 min.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Single Layer Polypropylene (TCP/TCPE)

- All-polypropylene construction, medium is single layer of thermally bonded polypropylene
- Pore size range 1 – 30 μm
- TCP
 - Upstream and downstream support
 - Larger effective filtration area
- TCPE
 - Thicker grade of polypropylene is stronger and does not require support
 - Less effective filtration area

APPLICATIONS

- Filter process waters for the food, cosmetic and pharmaceutical industries
- Use as a prefilter in series upstream of a final membrane to clarify solutions
- Applications that require chemical resistance

SPECIFICATIONS

	TCP-1	TCP-3	TCP-7	TCP-10	TCP-30	TCPE-3	TCPE-10	TCPE-30
Nominal Rating	1 μm	3 μm	7 μm	10 μm	30 μm	3 μm	10 μm	30 μm
Filtration Area per Single Length	4,200 cm^2	5,600 cm^2	4,200 cm^2	5,000 cm^2	6,200 cm^2	3,700 cm^2		
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)							
Max. Operating Temperature	80°C (176°F)							

ORDERING INFORMATION

TCP - [] - [] 1 [] []

TCPE - [] - [] 1 [] []

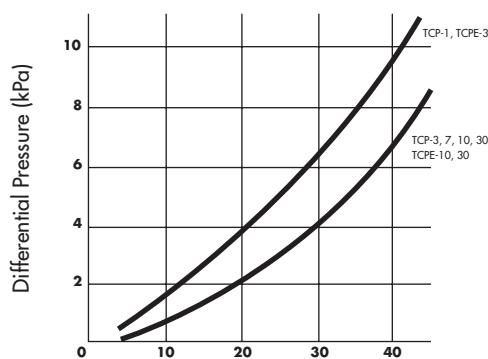
Materials:

End Cap	Polypropylene
Support Media (TCP)	Polypropylene
Membrane	Polypropylene
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

Nominal Rating Code (TCP)	Nominal Rating Code (TCPE)	Length (mm)	Length Code	End Fixture Code		Gasket/O-ring Polymer	Gasket/O-ring Code
1	3	250 (single)	S	F	R	EPR	E (standard)
3	10	500 (double)	D	N	K	EPDM	D
7	30	750 (triple)	T	M	P	Chloroprene	N
10		1,000 (quad)	Q	H	J	NBR	B
30						Silicone	S
						FPM	V
						PTFE	H (Gasket only)
						FEP Encapsulated	F (O-ring only)

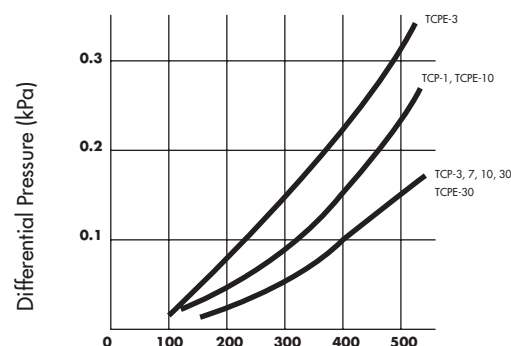
Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min., or can be steam sterilized at 126°C for 30 min.

TYPICAL WATER FLOW RATE



Flow Rate (L/min/250 mm length)
Conditions: Pipe dia. 3/4 in., Water temp. 20°C

TYPICAL AIR FLOW RATE



Flow Rate (N L/min/250 mm length)
Conditions: Pipe dia. 3/4 in., Air 0.49 MPa, 25°C

Multigrade Polypropylene (TCPD)

- Spirally wound multigrade all-polypropylene construction
- Increasing depth retention gradient: as fluid flows through the cartridge, retention efficiency increases

APPLICATIONS

- Ideal for viscous fluids and fluids that have a heterogeneous particle population
- Prefilter or clarifying filter
- Filtration of pure or rinse waters, magnetized paint coatings, synthetic resins, high viscosity resins, plating solutions, etching solutions and strong alkali solutions

SPECIFICATIONS

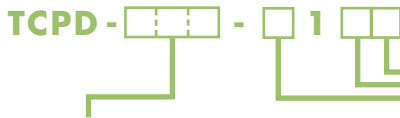
	TCPD-01A, -02A, -03A, -05A, -1, -3, -7, -10, -30
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)
Max. Operating Temperature	80°C (176°F)

Materials:

End Cap	Polypropylene
Support Media	Polypropylene Net
Filter	Polypropylene
Core Tube	Polypropylene

Model	Particle Size									
	0.6 µm	1.0 µm	2 µm	3 µm	5 µm	10 µm	20 µm	30 µm	40 µm	70 µm
	Particle Retention (%)									
TCPD-01A	90	>99.9								
TCPD-02A		>99	>99.9							
TCPD-03A		95	>99	>99.9						
TCPD-05A			95	>99	>99.9					
TCPD-1			90	95	>99					
TCPD-3				70	90	>99				
TCPD-7					40	80	>99			
TCPD-10						60	90	95	>99	
TCPD-30							60	90	95	>99

ORDERING INFORMATION



Nominal Rating Code	
01A	1
02A	3
03A	7
05A	10
	30

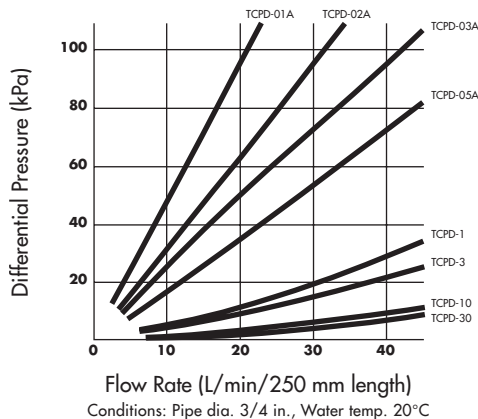
Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

End Fixture Code	
F	R
N	K
M	P
H	J

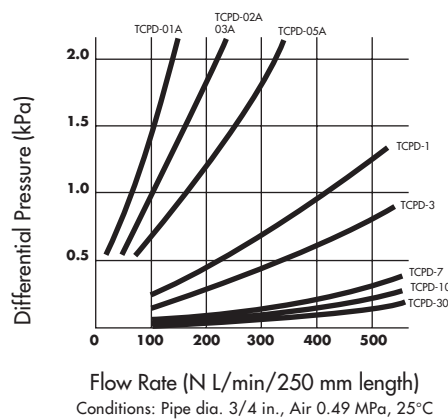
Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E (standard)
EPDM	D
Chloroprene	N
NBR	B
Silicone	S
FPM	V
PTFE	H (Gasket only)
FEP Encapsulated	F (O-ring only)

Note: Codes H, J, K, and N are autoclavable at 121°C, 30 min., or can be steam sterilized at 126°C for 30 min.

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Epoxy Cellulose (TC)

- Cellulose fiber filter paper saturated by epoxy resin to minimize fiber release
- Available with standard polypropylene core or with stainless steel core (type 304, single length only) for high temperature applications
- See Glass Fiber (TCG) for smaller nominal pore sizes

APPLICATIONS

- Filter high viscosity liquids such as syrups
- Filter fuels, oils, cutting oils and resins
- Purify industrial and rinse water

Note: TC-type are not autoclavable.

SPECIFICATIONS

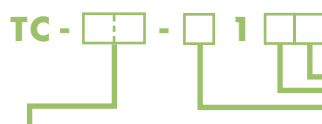
	TC type				TC- _ -S4C_			
Molded Material	Polypropylene				Stainless Steel			
	1	3	10	30	1	3	10	30
Nominal Rating	1 µm	3 µm	10 µm	30 µm	1 µm	3 µm	10 µm	30 µm
Filtration Area per Single Length	4,000 cm ²				3,400 cm ²			
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)				0.49 MPa (71 psi)			
Max Temperature	80°C (176°F)				150°C (302°F)			

Materials:

End Cap	Polypropylene Stainless Steel (Seal Material: Silicone)
Filter	Epoxy Cellulose
Core Tube	Polypropylene or Stainless Steel

ORDERING INFORMATION

Polypropylene molded material



Nominal Rating (µm)	Nominal Rating Code
1	1
3	3
10	10
30	30

Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q*

End Fixture Code	
F	R
N	P
M	C

Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E
Chloroprene	N (standard)
NBR	B
Silicone	S
FPM	V

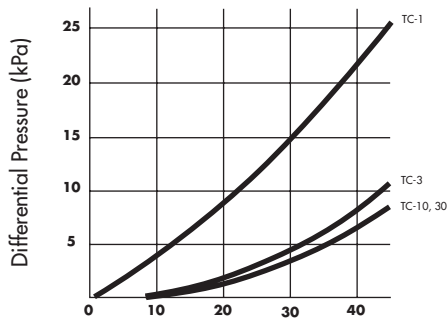
ORDERING INFORMATION

Stainless steel molded material



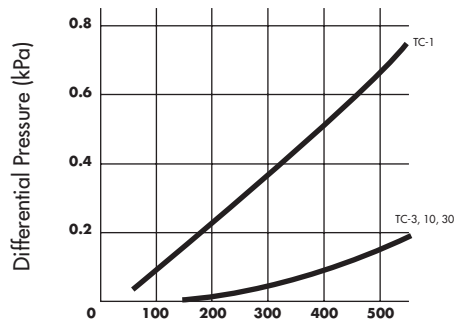
Nominal Rating (μm)	Nominal Rating Code	Gasket/O-ring Polymer	Gasket/O-ring Code
1	1	NBR	B (standard)
3	3	EPR	E
10	10	Silicone	S
30	30	FPM	V

TYPICAL WATER FLOW RATE



Flow Rate (L/min/250 mm length)
Conditions: Pipe dia. 3/4 in., Water temp. 20°C

TYPICAL AIR FLOW RATE



Flow Rate (N L/min/250 mm length)
Conditions: Pipe dia. 3/4 in., Air 0.49 MPa, 25°C

Glass Fiber (TCG)

- A glass fiber filter with acrylic resin supported by Polypropylene
- For larger pore size retention see Epoxy Cellulose (TC)

Note: TCG-type cartridges are not autoclavable.

APPLICATIONS

- Filter high viscosity liquids such as syrups
- Filter fuels, oils, cutting oils and resins
- Purify industrial and rinse water

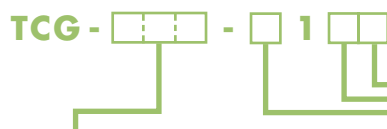
SPECIFICATIONS

	TCG-045	TCG-1
Nominal Rating	0.45 μm	1 μm
Filtration Area per Single Length	3,300 cm^2	
Max. Differential Pressure (25°C)	0.49 MPa (71 psi)	
Max. Operating Temperature	80°C (176°F)	

Materials:

End Cap	Polypropylene
Upstream Support	Polypropylene
Filter	Glass Fiber
Downstream Support	Polypropylene
Core Tube	Polypropylene
Outer Sleeve	Polypropylene

ORDERING INFORMATION



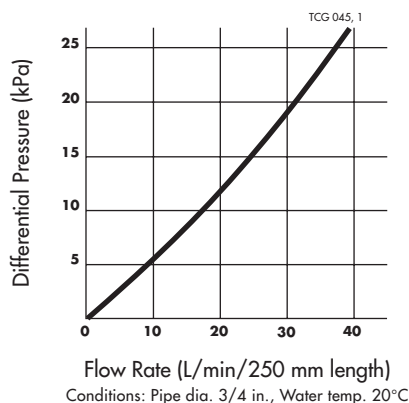
Nominal Rating (μm)	Nominal Rating Code
0.45	045
1	1

Length (mm)	Length Code
250 (single)	S
500 (double)	D
750 (triple)	T
1,000 (quad)	Q

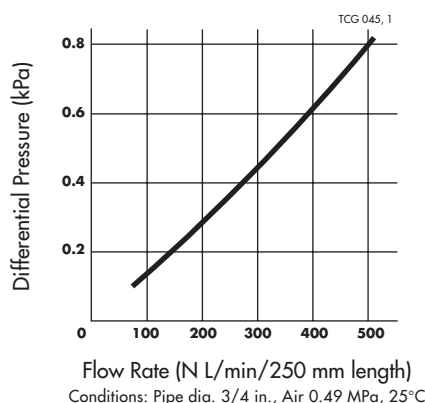
End Fixture Code	
F	R
N	P
M	

Gasket/O-ring Polymer	Gasket/O-ring Code
EPR	E
EPDM	D
Chloroprene	N (standard)
NBR	B
Silicone	S
FPM	V

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Wound-Polypropylene (TCW)

- All-polypropylene construction: melt blown polypropylene filaments are spun into a gradient density media, maximizing particle retention
- Excellent flow rates
- Double open end: Compression seal eliminates the need for O-rings or gaskets

APPLICATIONS

- Prefilter upstream of a final pleated cartridge
- Moderate differential pressures and temperatures

SPECIFICATIONS

		TCW- □N-PP	TCW- □N-PS
Nominal Rating (µm)		0.5, 0.8, 1, 3, 5, 10, 25, 50, 75, 100, 150	
Max. Operating Pressure (25°C)		0.49 MPa (71 psi)	
Max. Operating Temperature		80°C (176°F)	
Material	Media	Polypropylene	
	Core Tube	Polypropylene	SUS304

ORDERING INFORMATION



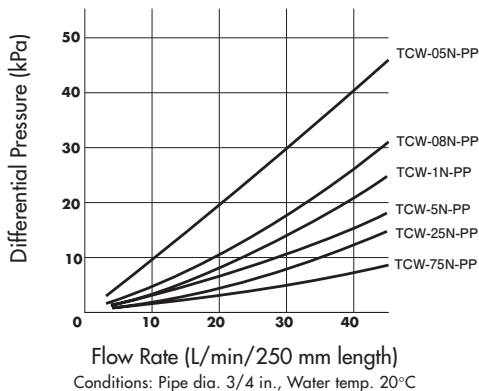
Nominal Rating (µm)	Nominal Rating Code
0.5	05
0.8	08
1	1
3	3
5	5
10	10
25	25
50	50
75	75
100	100
150	150

Core	Core Code
Polypropylene	P
SUS304	S

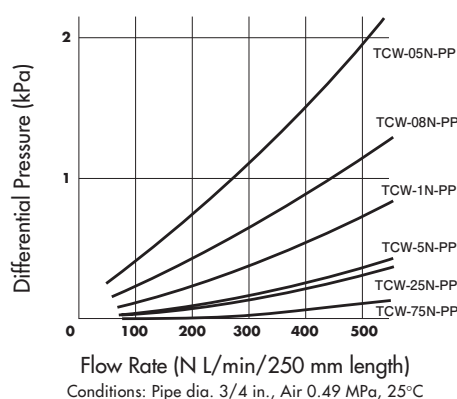
Length (mm)	Length Code
250(single)	S
500(double)	D*
750(triple)	T*

*500 (double) and 750 (triple) are not available in core code S

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Wound - Cotton (TCW)

- All-polypropylene construction: melt blown polypropylene filaments are spun into a gradient density media, maximizing particle retention
- Excellent flow rates
- Double open end: Compression seal eliminates the need for O-rings or gaskets

APPLICATIONS

- Prefilter upstream of a final pleated cartridge
- Moderate differential pressures and temperatures

SPECIFICATIONS

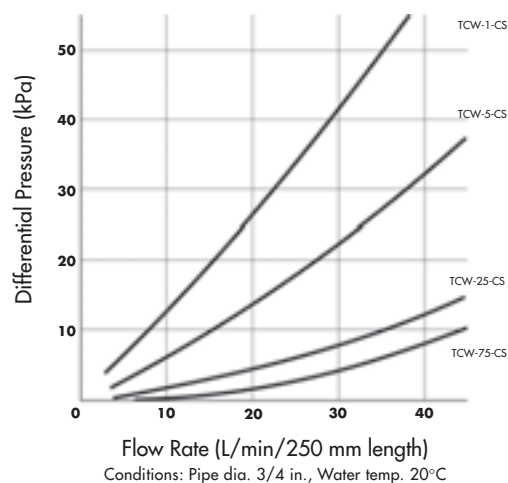
		TCW-□-CS
Nominal Pore Size (µm)		1,3,5,10,25,50,75,100,150
Max. Operating Pressure (25°C)		0.49 MPa (71 psi)
Max. Operating Temperature		150°C (Wet)
Material	Media	Cotton
	Core Tube	SUS304

ORDERING INFORMATION

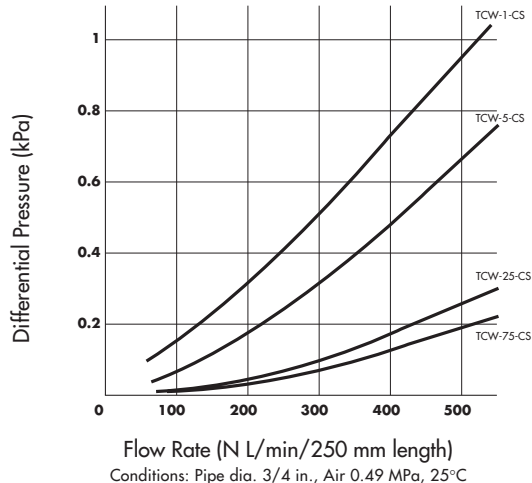
TCW - □□□ - CS□

Nominal Rating (µm)	Nominal Rating Code	Length (mm)	Length Code
1	1	250(single)	S
3	3	500(double)	D
5	5	750(triple)	T
10	10		
25	25		
50	50		
75	75		
100	100		
150	150		

TYPICAL WATER FLOW RATE



TYPICAL AIR FLOW RATE



Stainless Steel Cartridge Housing – ITS Type

- Stainless steel housing for 1 pc cartridge filter, consisting of body and head with center post
- Easily perform cartridge filter replacement by loosening the cap nut and removing the housing head
- Choose from 3/4" PT or 1" PT inlet/outlet
- Designed for use with end fixture codes F, C and TCW
- Mounting accessories available

SPECIFICATIONS

Model		ITS	ITS-2	ITS-B	ITS-2B
Cartridge Capacity		250 mm x 1	500 mm x 1	250 mm x 1	500 mm x 1
Cartridge Compatibility		End Fixture Codes: F, C and TCW			
Inlet/Outlet		3/4" PT		1" PT	
Dimensions (mm)	Height	366	619	369	622
	Diameter	121	121	123	123
Max. Operating Pressure		0.69 MPa (100 psi)			
Composition		Head: SCS14		Body: SUS316	
				Gasket: FPM, PTFE	
Weight (kg)		2.0	4.0	2.4	4.4

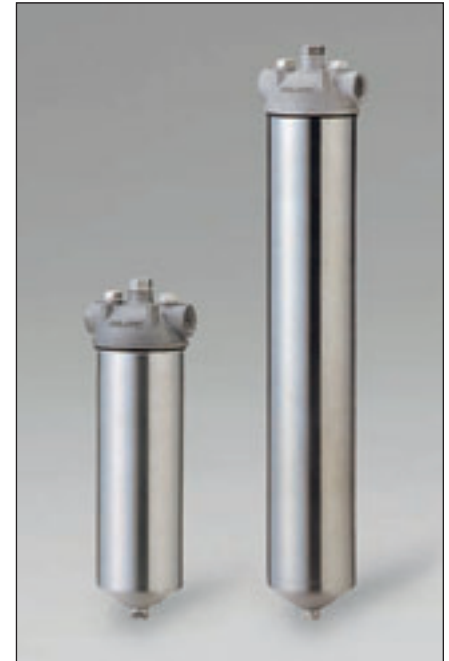
Note: Use thread-sealing tape on tapered inlet and outlet.

ORDERING INFORMATION

Model	ITS	ITS-2	ITS-B	ITS-2B
Catalog No.	26804010	26804020	26804040	26804030

OPTIONAL ACCESSORIES

Model	ITS, ITS-B Stand	Mounting Kit
Composition	SUS304	Galvanized Steel
Catalog No.	28804030	28804055



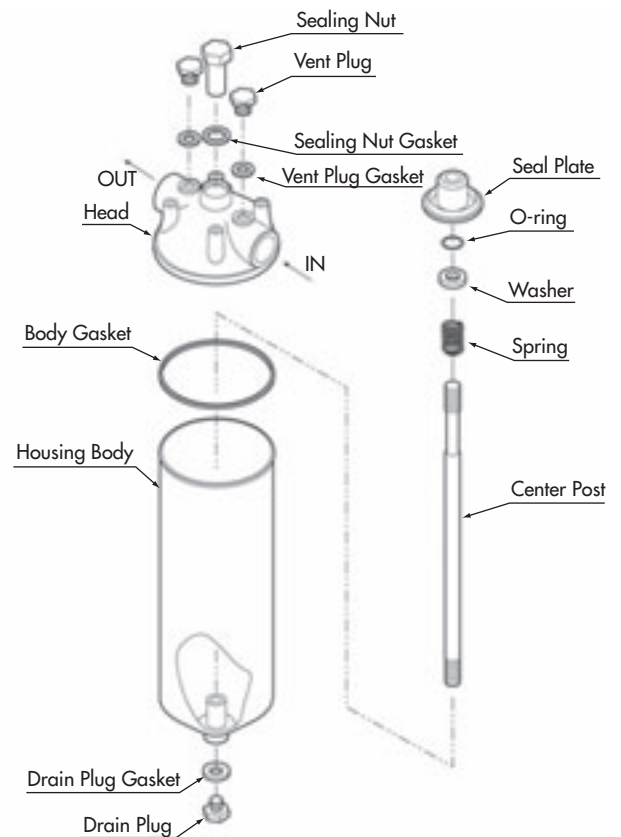
ITS, ITS-2



Stand



Unit with Mounting Kit



Stainless Steel Cartridge Housing – 1TM Type

- 2-part stainless steel housing for 1 pc cartridge filter, consisting of body and head with clamp
- Easily perform cartridge filter replacement by loosening the sealing clamp and removing the housing head
- Few components allows for simple maintenance, and easy operation
- Lightweight housing can be cleaned by a washing machine
- Designed for use with end fixture codes M, H, and L

SPECIFICATIONS

Model		1TM-1S-MV	1TM-2S-MV
Cartridge Capacity		250 mm x 1	500 mm x 1
Cartridge Compatibility		End Fixture Codes: M, H, L	
Inlet/Outlet		1" PT	
Dimensions (mm)	Height	451	704
	Diameter	181	
Max. Operating Pressure		0.49 MPa (71 psi)	
Composition		O-ring: FPM	Head, Body: SUS304
Weight (kg)		1.8	2.2

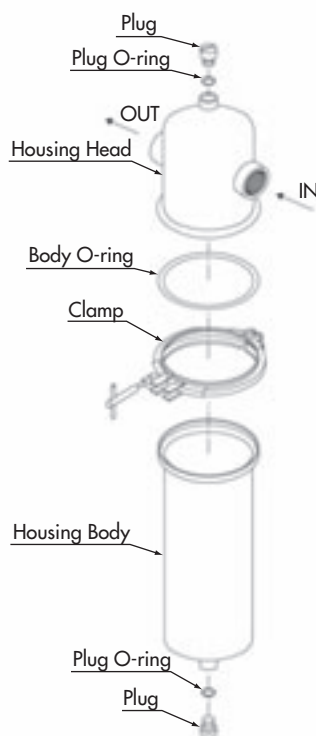
Note: Use thread-sealing tape on tapered inlet and outlet.

ORDERING INFORMATION

Model	1TM-1S-MV	1TM-2S-MV
Catalog No.	26805010	26805020



1TM-1S-MV, 1TM-2S-MV



Sanitary Stainless Steel Cartridge Housing – 1TVA Type

- Sanitary stainless steel housing for 1 pc cartridge filter, with sanitary ferrule type inlet, outlet, and seal for easy inspection and cleaning
- 3 1/2 S-clamp wraps around body and base sections, which can be easily removed for disassembly
- Designed for use with end fixture codes F, C and TCW
- 1TVA Type is compatible with applications that require vented housings

SPECIFICATIONS

Model		1TVA-1S-FS	1TVA-2S-FS	1TVA-3S-FS
Cartridge Capacity		250 mm x 1	500 mm x 1	750 mm x 1
Cartridge Compatibility		End Fixture Codes: F, C and TCW		
Inlet/Outlet		1S Sanitary Fitting		
Dimensions (mm)	Height	408	658	908
	Diameter	200		
Max. Operating Pressure		0.49 MPa (71 psi)		
Composition		Gasket: Silicone, PTFE Ball Valve: SUS316 Body, Base, Clamp: SUS304		
Weight (kg)		3.5	5.0	6.5

Note: Ball valve cannot be sterilized by autoclave.
Use thread-sealing tape on tapered inlet and outlet.

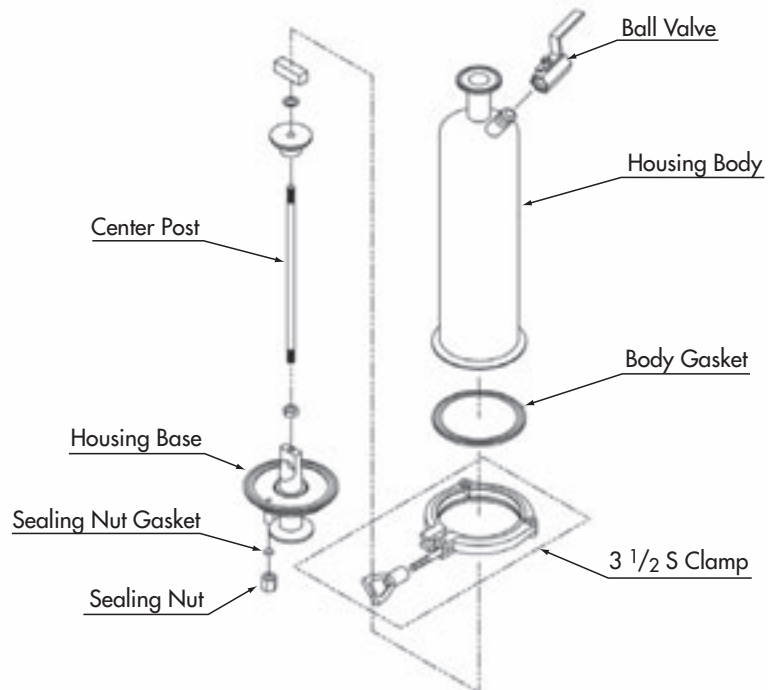
* Please contact us for information on sanitary housings compatible with other filter cartridge end fixture codes.

ORDERING INFORMATION

Model	1TVA-1S-FS	1TVA-2S-FS	1TVA-3S-FS
Catalog No.	26980101	26980102	26980103



1TVA-1S-FS



Sanitary Stainless Steel Cartridge Housing – 1TWA Type

- Sanitary stainless steel housing for 1 pc cartridge filter, with sanitary ferrule type inlet, outlet, and seal for easy inspection and cleaning
- 4S-clamp wraps around body and base sections; 3¹/₂S-nut seals the top plate and body
- Designed for use with end fixture codes F, C and TCW
- Inlet/outlet base of 1TWA Type allows unit be placed on short, straight sections of piping

SPECIFICATIONS

Model		1TWA-1S-FS	1TWA-2S-FS	1TWA-3S-FS
Cartridge Capacity		250 mm x 1	500 mm x 1	750 mm x 1
Cartridge Compatibility		End Fixture Codes: F, C and TCW		
Inlet/Outlet		1S Sanitary Fitting		
Dimensions (mm)	Height	412	667	917
	Diameter	183		
Max. Operating Pressure		0.49 MPa (71 psi)		
Composition		Gasket: Silicone Top Plate, Body, Base, Clamp: SUS304		
Weight (kg)		5.4	6.9	9.2

Note: Ball valve cannot be sterilized by autoclave.
Use thread-sealing tape on tapered inlet and outlet.

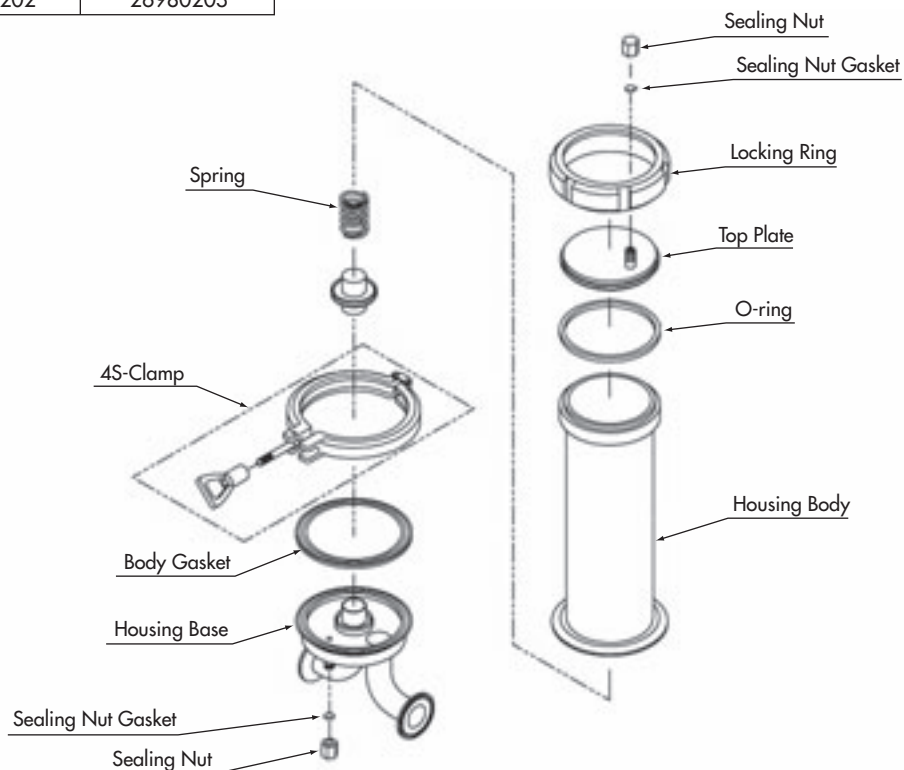
* Please contact us for information on sanitary housings compatible with other filter cartridge end fixture codes.

ORDERING INFORMATION

Model	1TWA-1S-FS	1TWA-2S-FS	1TWA-3S-FS
Catalog No.	26980201	26980202	26980203



1TWA-1S-FS



Polypropylene Cartridge Housing – 1PP Type

- Polypropylene housing for 1 pc cartridge filter, with 3/4" PTF (PT nipple) type inlet and outlet; high quality and economical
- Suitable for sanitary applications, such as pharmaceutical or high purity water filtration; smooth inner walls of housing deter adhesion and accumulation of microbes and minute particles
- Designed for use with end fixture codes F, C and TCW
- Several accessories for mounting the unit are available
- Unit head available with push-button vent

SPECIFICATIONS

Model		1PP-1-FS	1PP-2-FS
Cartridge Capacity		250 mm x 1	500 mm x 1
Cartridge Compatibility			
End Fixture Codes: F, C and TCW			
Inlet/Outlet			
3/4" PTF (PT nipple)			
Dimensions (mm)	Height	340	594
	Width	200	
Max. Operating Temperature		60°C	
Max. Operating Pressure		0.49 MPa (71 psi) at 25°C, 0.19 MPa (28 psi) at 60°C	
Composition		Head, Body, Adapter, Drain Cap, Nipple: Polypropylene O-ring: Silicone, FPM, Ethylene-propylene Vent, Adapter Spring: SUS304	
Weight (kg)		0.84	1.3

Note: 1PP Type units are made for liquid filtration only and are not suitable for air filtration.
1PP Type units cannot be sterilized by autoclave.
Use thread-sealing tape on tapered inlet and outlet.

* Please contact us for information on polypropylene housings compatible with other filter cartridge end fixture codes.

ORDERING INFORMATION

Model	1PP-1-FS	1PP-2-FS
Catalog No.	43011000	43021000

OPTIONAL ACCESSORIES

Description		Catalog No.
Housing Stand (SUS304)	1PP-1K (for 1PP-1)	44801010
	1PP-2K (for 1PP-2)	44801020
Mounting Kit (SUS304)		44801030
Tightening Tools (PVC)	1PP-H (for head)	44801040
	1PP-B (for body)	44801050

Customize the unit with:

- Silicone, FPM, or Ethylene-propylene O-rings
- Inlet/outlet pressure gauges
- SUS304, PE-coated SUS304, or titanium adapter springs
- Housing available with SUS304 push-button vent or polypropylene vent (with O-ring seal).

Contact us for more information on these options.



1PP-1, 1PP-2

Acrylic Cartridge Housing – 1PA Type

- Acrylic housing for a single cartridge filter, with $\frac{3}{4}$ " PF type inlet and outlet; high quality and economical
- Transparent housing permits observation of filtration process
- Lightweight yet strong construction; can be assembled by hand
- Designed for use with end fixture codes F, C and TCW

SPECIFICATIONS

Model		1PA
Cartridge Capacity		250 mm x 1
Cartridge Compatibility		End Fixture Codes: F, C and TCW
Inlet/Outlet		$\frac{3}{4}$ " PF ($\frac{3}{4}$ " PFM x $\frac{3}{4}$ " PTM Changeable)
Dimensions (mm)	Height	345
	Width	170
Max. Operating Temperature		38°C
Max. Operating Pressure		0.5 MPa (73 psi) at 38°C
Composition		Head: Polypropylene Body: Acrylonitrile Styrene Resin (acrylic) Body O-ring: Silicone Connector O-ring: NBR
Weight (kg)		1.0

Note: - 1PA Type units are made for aqueous filtration only and are not suitable for air or organic solvent filtration.
- 1PA Type units cannot be sterilized by autoclave.
- Units include hand-tightening tool as standard accessory.
- Use thread-sealing tape on tapered inlet and outlet.

ORDERING INFORMATION

Model	1PA
Catalog No.	26807000

OPTIONAL ACCESSORIES



Model	15mm Hose Adapter	L-shape Mounting Kit	Housing Stand
Composition	Polypropylene	SUS304	SUS304
Catalog No.	28801011	28801022	28801012



1PA

