

C-9000

## Fulflo® Metallic Filter Cartridges

### Optimize Process Filtration with High Integrity Metallic Cartridges

Parker's Fulflo® stainless steel cartridges provide the optimum filtration solution for fluids and gases in high temperature and high flow rate applications.

Available in a cylindrical or pleated design, cleanable stainless steel cartridges are the logical choice when natural and synthetic media cartridges cannot meet aggressive process conditions.

Fulflo® reusable 304 and 316 grade stainless steel cartridges offer versatility of choice with fourteen nominal particle removal ratings, six standard lengths and a variety of end configurations and seal materials.

### Benefits

- Temperature capability up to 500° F with synthetic seals; up to 1500° F with NPT connections
- Available in 304 and 316 stainless steel for compatibility choice with aggressive chemicals
- Available in fourteen nominal ratings from 2 to 840 microns for a wide range of particle size removal
- Dimensional integrity of stainless steel media accommodates high flow rate and high temperature systems
- Cartridges may be cleaned and reused
- Available with a wide range of grommet and O-ring materials to optimize fluid and temperature compatibility
- Variety of seal configurations allow retrofit in many filter vessel designs



- Welded and crimped construction eliminates the need for adhesives which can be a contaminant source and limit temperature range
- Pleated surface maximizes filtration area for longer service life
- Plain (cylindrical) surface provides ease of cleaning
- Optional perforated stainless steel pleat protectors minimize handling damage
- Meets FDA guidelines for use with potable and edible liquids

### Applications

- Heat Transfer
- Hot Melt Processes
- Viscous Fluids
- Hot Wax
- Aggressive Gases
- Polymer Filtration
- High Temperature Processes
- Process Fluids Steam
- Corrosive Fluids
- Catalyst Recovery
- Caustic Cleaning Solutions



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# Fulflo® Metallic Filter Cartridges

## Specifications

### Materials of Construction:

Filter Medium:

Stainless steel wire cloth

Structural Components:

100% stainless steel

Seal Materials:

Grommets: Buna N, Viton, PTFE, EPDM

O-Rings:

Buna N, EPDM, Viton, PFA encapsulated Viton

Construction Method:

Welded and crimped (no adhesives)

Meets FDA guidelines with optional seal materials (\*F\* Code)

### Maximum Recommended Operating Conditions:

Temperature:

1500°F (816°C)

NPTF and NPTM styles only

500°F (260°C)

Any cartridge style with PTFE grommet

400°F (204°C)

Any cartridge style with Viton or PFA encapsulated Viton seal material

300°F (149°C)

Any cartridge style with EPDM seal material

250°F (121°C)

Any cartridge style with Buna N seal material

Differential Pressure:

Standard core: 60 psi (4.1 bar)

High pressure core: 300 psi (20.7 bar)

Flow Rate:

10 gpm (38 lpm) per 10 in cartridge

Changeout ΔP: 35 psi (2.4 bar)

### Particle Removal Ratings (Nominal):

Effective Filtration Area:

Cylindrical

0.5 ft<sup>2</sup>/10 in length (465 cm<sup>2</sup>/254mm)

Pleated

1.7 ft<sup>2</sup>/10 in length (1580 cm<sup>2</sup>/254 mm)

### Dimensions

Outside Diameter

Cylindrical: 2-1/2 in (64 mm)

Pleated: 2-5/8 in (67 mm)

Inside Diameter

1-1/16 in (27 mm)

Lengths (nominal)

10, 20 and 30 in

Grommet

1-1/16 in (27 mm) ID X 1-7/8 in

(48 mm) OD

### Flow Rate and Pressure Drop Formulas

$$\text{Flow Rate (gpm)} = \frac{\text{Clean } \Delta P \times \text{Length Factor}}{\text{Viscosity} \times \text{Flow Factor}}$$

$$\text{Clean DP} = \frac{\text{Flow Rate} \times \text{Viscosity} \times \text{Flow Factor}}{\text{Length Factor}}$$

### Removal Rating/Mesh Count/Open Area

Micrometer Rating		Mesh Count (per inch)	Percent Open Area
Nominal	(Absolute)		
2	(9)	325 x 2300	NA
5	(14)	200 x 1400	NA
10	(18)	165 x 1400	NA
20	(32)	200 x 600	NA
40	(55)	120 x 400	NA
75		190 x 200	35
100		30 x 150	31
150		90 x 100	33
190		70 x 80	35
230		50 x 60	41
280		40 x 50	35
370		40 x 40	36
540		30 x 30	45
840		20 x 20	52

Ratings From 2 - 40 micrometers are twill dutch weave pattern

Ratings From 75 - 840 micrometers are open square weave pattern

### Flow Factors

Length (in)	Flow Factor
9 3/4, 10	0.00036
19 1/2, 20	0.00076
29 1/4, 30	0.00116

Note: Flow factors are the same for all ratings.

Center core ID and length are primary flow restrictions.

### Notes:

- Clean ΔP is PSI differential at start.
- Viscosity is centistokes. Use Conversion Tables for other units.
- Flow Factor is ΔP/GPM at 1 cks for 10 in (or single).
- Length Factors convert flow or ΔP from 10 in (single length) to required cartridge length.

## Ordering Information

Cartridge Code	Nominal Micrometer Rating (μm)	Nominal Length (in)		Media/Support Construction	Seal Material	End Cap Configuration	Special Options
CSS = Cylindrical Stainless Steel		Code	in mm	G = 304 Stainless Steel	E = EPDM	DO = Double open end (DOE)	F = FDA Grade Seal Material
PSS = Pleated Stainless Steel		4 =	4 102	S = 316 Stainless Steel	F = PTFE (Grommet only)	DX = Double Open end with extended Core	H = High Pressure Core (316 SS)
	2	9.75 =	9.75 248		N = Buna-N	FC = Single open end w/1" NPTF female connection	P = Pleat Protector sleeve (316 SS)
	5	10 =	10 254		T = PFA/Viton* (O-Ring Only)	MC = Single open end w/1" NPTM male	
	10	19.5 =	19.5 495		V = Viton*	SC = 226 O-Ring/Flat	
	20	20 =	20 508		X = No Seal Material (FC, MC style)	TC = 222 O-Ring/Flat	
	40	29.25 =	29.25 743				
	75	30 =	30 762				
	100	40 =	40 1016				
	150						
	190						
	230						
	280						
	370						
	540						
	840						

Specifications are subject to change without notification.

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