# LENNTECH

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## **Unique Cartridge Construction Improves Particle Retention. Service Life and Flow Rates**

Parker Fulflo® Pleated Cellulosic Cartridges meet a broad range of critical filtration applications. Each cartridge in the Fulflo Pleated Cellulosic series is manufactured with premium grade, phenolic impregnated, cellulosic filter media. Phenolic resin locks the cellulosic fibers into a rigid, porous matrix. This structure provides superior particle removal and particle retention performance under the most severe conditions.

Fulflo Pleated Cartridges are available in 2µm, 3µm,  $10\mu m$  and  $30\mu m$  pore sizes (99%<sup>+</sup> removal; ß = 100).

## **Applications**

- Chemical
- Oil Field
- Photographic
- Film & Paper
- Metal Treatment
- Process Water
- Synthetic Fibers
- Recording Media
- Coatings, Paint, Ink & Resins
- Petroleum
- Process Gas

## **Fulflo® Filter Cartridges**

Phenolic Resin Bonded **Cellulosic Media** 

## **Pleated Series**



### **Features and Benefits**

- Premium pleated cellulosic media allow high flow capacity at low pressure drop.
- Available in a variety of cartridge lengths and end cap configurations to fit most industrial housings.
- Phenolic resin impregnated to provide strength, integrity and high contaminant capacity.
- High flow rates permit the use of smaller housings and fewer cartridges.
- Lower  $\Delta P$  reduces power requirements and pump wear and tear.
- Longer cartridge life reduces frequency of filter change out resulting in less disposal costs, reduced inventory and less process interruptions.

## **Process Filtration Division**

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## **Specifications**

#### **Filtration Ratings:**

PCC/PCG

Length

(in) 9

10 19

20 29

30

40

Length Factors

99%+ at 2μm, 3μm, 10μm and 30µm pore sizes

#### Materials of Construction:

- Phenolic impregnated cellulosic media
- Polypropylene support
- Stainless steel support (optional)

#### **Recommended Operating Conditions:**

Maximum 7 gpm per 10 in length (23 lpm/254 mm)

> Length Factor

1.0 1.0

2.0 2.0

3.0

3.0

4.0

- Stainless Steel Support: Maximum Temperature: 250°F (121°C) Maximum △P: 50 psi (3.5 kg/cm<sup>2</sup>) Optimum Change Out △P: 35 psi (2.5 km/cm<sup>2</sup>)
- Polypropylene Support: Maximum Temperature @ 10 psid (0.7 km/cm<sup>2</sup>): 200°F (93°C) Maximum Temperature @ 35 psid (2.5 km/cm<sup>2</sup>): 125°F (52°C) Maximum ∆P @ 75°F (24°C): 60 psi (4.2 kg/cm<sup>2</sup>) Change Out ∆P: 35 psi (2.5 km/cm<sup>2</sup>)

#### **Dimensions:**

- Overall Length: See catalog sheet C-2090. SOE fits standard housings with O-ring seals.
- Outside Diameter: 2-1/2 in (63.5 mm)
- Inside Diameter: DOE 1-1/16 in (27 mm); SOE 1 in (25.4 mm)

#### PCC / PCG Flow Factors (psid/gpm @ 1 cks)

Rating (µm)	Flow Factor
2	0.026
3	0.017
10	0.002
30	0.001

#### Beta Ratio (ß) = Upstream Particle Count @ Specified Particle Size and Larger Downstream Particle Count @ Specified Particle Size and Larger

Percent Removal Efficiency =  $\left(\frac{\beta - 1}{\beta}\right) \times 100$ 

Performance determined per ASTM F-795-88. Single-Pass Test using AC test dust in water at a flow rate of 2.5 gpm per 10 in (9.5 lpm per 254 mm).

(mm)

244

249

498

## **Ordering Information**

PCG020	10 		
Cartridge Code (µm)	Nomina	l Length	
PCG020 - 2 PCC3 - 3 PCC10 - 10 PCC30 - 30	(code) 9 10 19 20 29 30 40	( <i>in</i> ) 9-5/8 10 19-5/8 20 29-1/4 30 40	

\* A trademark of E. I. du Pont de Nemours & Co.

Α
Support Construction
A = Polypropylene

(DOE/SOE) G = 304 Stainless Steel (D0E)

#### Liquid Particle Retention Ratings (µm) at Removal Efficiencies of:

Cartridge	ß=5000 Absolute	ß=1000 99.9%	ß=100 99%	ß=50 98%
PCG 020	10	8.6	1.8	0.9
PCC 3	12	10	3	1.7
PCC 10	22	18	6	3.2
PCC 30	100	85	11	4.5

#### Flow Rate and Pressure Drop Formulas:

Flow Rate (gpm) = Clean  $\Delta P \times Length$  Factor Viscosity x Flow Factor

**Clean**  $\Delta P$  = Flow Rate x Viscosity x Flow Factor Length Factor

#### Notes:

Ν

- 1. Clean  $\Delta P$  is <u>PSI</u> differential at start.
- 2. Viscosity is centistokes. Use Conversion Tables for other units.
- 3. Flow Factor is △P/GPM at 1 cks for 10 in (or single).
- 4. Length Factors convert flow or △P from 10 in (single length) to required cartridge length.

TC

Seal Options	End Cap Options
E = EPR O-Ring N = Buna-N O-Ring S = Silicone O-Ring V = Viton* O-Ring A = Polyethylene Foam Gasket (DO, DX Only)	D0 = Double Open End (DOE) DX = DOE With Core Extender SC = 226 O-Ring/Cap SF = 226 O-Ring/Fin TC = 222 O-Ring/Cap TF = 222 O-Ring/Fin

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