



# Fulflo® PCC Filter Cartridge

■ Cellulosic/Phenolic

## Pleated Series

### 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, 10µm, 30µm and 60µm pore sizes (99%+ removal:  $\beta = 100$ ).

### Applications

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



### 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 vessels.
- Phenolic resin impregnated to provide strength, integrity and high contaminant capacity.
- High flow rates permit the use of smaller vessels 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



# Pleated Series

## Specifications

### Filtration Ratings:

- 99%+ at 2µm, 3µm, 10µm, 30µm, and 60µm pore sizes

### Materials of Construction:

- Phenolic impregnated cellulosic media (PCC)
- Polypropylene support
- Stainless steel support (optional)
- PCG is glass-modified cellulose

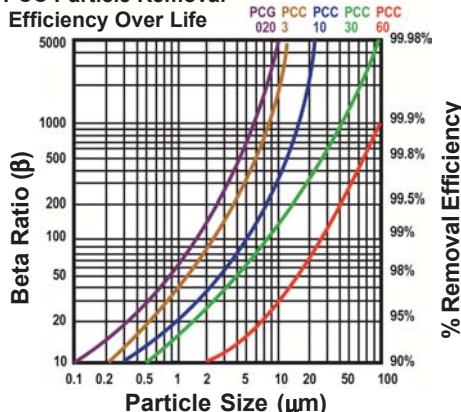
### Recommended Operating Conditions:

- Maximum 10 gpm per 10 in length (38 lpm/254 mm)

### Liquid Particle Retention Ratings (µm) @ Removal Efficiency of:

Cartridge	β=5000	β=1000	β=100	β=50	β=20	β=10
	Absolute	99.9%	99%	98%	95%	90%
PCG 020	10	7.0	1.8	0.9	0.3	0.1
PCC 3	12	9.5	3.0	1.7	0.6	0.2
PCC 10	22	17.0	5.5	3.0	1.0	0.3
PCC 30	100	50.0	11.0	5.5	1.5	0.5
PCC 60	150	100.0	30.0	15.0	5.0	2.0

### PCC Particle Removal



## Ordering Information

PCG020	10	A	N	TC	
Cartridge Code (µm)	Nominal Length	Support Construction	Seal Material	End Cap Configurations	
PCG020 - 2	(code) (in) (mm)	A = Polypropylene (DOE/SOE)	A = Polyethylene Foam (DOE Gasket Only)	AR = 020 O-Ring/Recessed (Gelman)	OB = Std. Open End/Polypro Spring Closed End
PCC3 - 3	9 = 9-5/8 244	G = 304 Stainless Steel (DOE)	E = EPR	DO = Double-Open-End (DOE)	PR = 213 O-Ring/Recessed (Ametek and Parker LT Polymeric Vessels)**
PCC10 - 10	10 = 9-13/16 249		N = Buna-N	DX = DOE With Core Extender	SC = 226 O-Ring/Cap
PCC30 - 30	19 = 19-5/8 498		S = Silicone	LL = 120/120 (Filterite LMO and Nuclepore Polymeric Vessels)**	SF = 226 O-Ring/Fin
PCC60 - 60	20 = 19-15/16 506		V = Viton*	LR = 120 O-Ring/Recessed (Nuclepore)**	TC = 222 O-Ring/Cap
	29 = 29-1/4 743				TF = 222 O-Ring/Fin
	30 = 30-1/16 764				XB = Ex. Core Open End/Polypro Spring Closed End
	40 = 40 1016				

\*\*Available only in 9-5/8" (-9) and 19-5/8" (-19) lengths

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

For pleated cartridge configurations and dimensions, see Bulletin A-700 in the Appendix.

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

Rating (µm)	Flow Factor
2	0.026
3	0.017
10	0.002
30	0.001
60	0.0005

### PCC / PCG Length Factors

Length (in)	Length Factor
9	1.0
10	1.0
19	2.0
20	2.0
29	3.0
30	3.0
40	4.0

### Flow Rate and Pressure Drop Formulas:

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

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

### 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.

$$\text{Beta Ratio } (\beta) = \frac{\text{Upstream Particle Count @ Specified Particle Size and Larger}}{\text{Downstream Particle Count @ Specified Particle Size and Larger}}$$

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

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).

## Process Filtration Division

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