



## Fulflo® DuraBond Filter Cartridges

■ Polyolefin

### Bonded Depth Series

## Economical Filtration With High Strength Thermally Bonded Depth Cartridges

Parker's Fulflo® DuraBond Cartridges are the most economical high strength filter cartridges available. Featuring an integral rigid thermally bonded construction, the DuraBond provides consistent filtration for a wide variety of fluids. Its fixed pore structure acts as a sieve-like particle "classification" filter for pigmented coatings allowing pigments to pass while stopping large agglomerates

Fulflo DuraBond Cartridges are available in nominal ratings of 1µm, 3µm, 5µm, 10µm, 25µm, 50µm, 75µm and 100µm.

### Applications

- Photographic Chemicals
- DI Water
- Plating Solutions
- R. O. Prefiltration
- Organic Solvents
- Oilfield Fluids
- Cosmetics
- Toiletries
- Food & Beverages
- Membrane Prefiltration
- Chemical Processing Fluids
- Potable Water
- Bleach
- Magnetic Coatings
- Industrial Coatings



### Features and Benefits

- Fixed pore structure provides efficiency, integrity and optimum particle retention.
- Thermally bonded bicomponent fiber matrix provides rigid dimensionally stable construction without fiber migration.
- Rigid construction eliminates contaminant unloading and channeling.
- Corrugated porous surface maximizes dirt holding capacity
- Silicone free construction will not change coating properties.
- FDA grade polypropylene (DOE only) certified to ANSI/NSF61 standard for contact with drinking water components
- Polyolefin construction provides broad chemical compatibility for a variety of applications.
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
- DuraBond cartridges can be easily disposed of by shredding, incinerating or crushing.
- DuraBond construction provides particle "classification" effect with pigmented coatings.
- Double-open-end style is self sealing without separate gasket material.

### Process Filtration Division



# Bonded Depth Series

## Specifications

**Nominal Filtration Ratings:** (90% efficiency)

- 1, 3, 5, 10, 25, 50, 75, 100  $\mu\text{m}$ .

### Materials of Construction

- Filter Medium: Thermal Bonded bicomponent matrix of polypropylene/polyethylene
- End Caps/Adapters (optional): polyolefin copolymer
- Seal Options: Various; refer to Ordering Information

### Dimensions;

- 1-1/16 in (27mm) ID x 2-7/16 (62mm) in OD
- 10, 20, 30, 40, and 50 in continuous nominal lengths.

### Maximum Recommended Operating Conditions:

- Temperature: 175°F (80°C)
- Pressure:
  - 100 psid (6.8bar)@72°F (27°C)
  - 50 psid (3.4bar)@175°F (80°C)
- Flow rate: 10gpm (38 lpm) per 10 in length.
- Changeout  $\Delta\text{P}$ : 30 psi (2.1 bar)

### DBC Flow Factors

Rating ( $\mu\text{m}$ )	Aqueous Service PSID/ GPM per 10 in Cartridge
DBC1	0.109
DBC3	0.087
DBC5	0.073
DBC10	0.058
DBC25	0.031
DBC50	0.022
DBC75	0.015
DBC100	0.012

### DBC Length Factors

Length (in)	Length Factor
9.75	1.0
10.00	1.0
19.50	2.0
20.00	2.0
29.25	3.0
30.00	3.0
39.00	4.0
40.00	4.0
50.00	5.0

### Liquid Particle Retention Ratings ( $\mu\text{m}$ ) @ Removal Efficiency of:

Cartridge	$\beta = 10$ 90%	$\beta = 20$ 95%	$\beta = 100$ 99%	$\beta = 1000$ 99.9%
DBC1	1	2	4	5
DBC3	3	4	8	10
DBC5	5	10	16	20
DBC10	10	15	25	30
DBC25	25	30	50	55
DBC50	50	70	80	90
DBC75	75	100	>100	>100
DBC100	100	>100	>100	>100

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

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).

## Ordering Information

DBC	10	M	10	TC	N
Cartridge Code	Micrometer Rating ( $\mu\text{m}$ )	Filter Medium	Nominal Length	End Cap Configuration	Seal Material
DBC = DuraBond Cartridge	1 3 5 10 25 50 75 100	M = FDA Grade Polypropylene	Code in mm 9-4 = 9-3/4 248 10 = 10 254 19-4 = 19-1/2 495 20 = 20 508 29-4 = 29-1/4 743 30 = 30 762 39-4 = 39 991 40 = 40 1016 50 = 50 1270	None AR = 020 O-Ring (Recessed) DO = DOE with gaskets LL = 120 O-Ring (Both Ends)** LR = 120 O-Ring/Recessed** OB = Std. Open End/Polypro Spring Closed End PR = 213 O-Ring/Recessed** SC = 226 O-Ring/FLat Cap SF = 226 O-Ring/Fin TC = 222 O-Ring/Flat Cap TF = 222 O-Ring/Fin TX = 222 O-Ring/Flex Fin XA = DOE w/Core Extender XB = Ext. Core Open End/Polypro Spring Closed End	None = No Seal Material (Std. DOE) A = Poly Foam Gasket (DO only) E = EPR N = Buna N S = Silicone (O-Ring only) T = PFA Encapsulated Viton* (222,2226 O-Ring only) V = Viton*

\*\* Available only in 9-3/4" (9-4) and 19-1/2" (19-4) lengths.

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

## Process Filtration Division

Parker Hannifin Corporation  
Process Filtration Division  
6640 Intech Boulevard  
Indianapolis, Indiana 46278  
Toll Free 1-888-C-FULFLO (238-5356)  
Telephone (317) 275-8300  
Fax (317) 275-8410  
<http://www.parker.com>

