Fulflo® Durabond™ Filter Cartridges

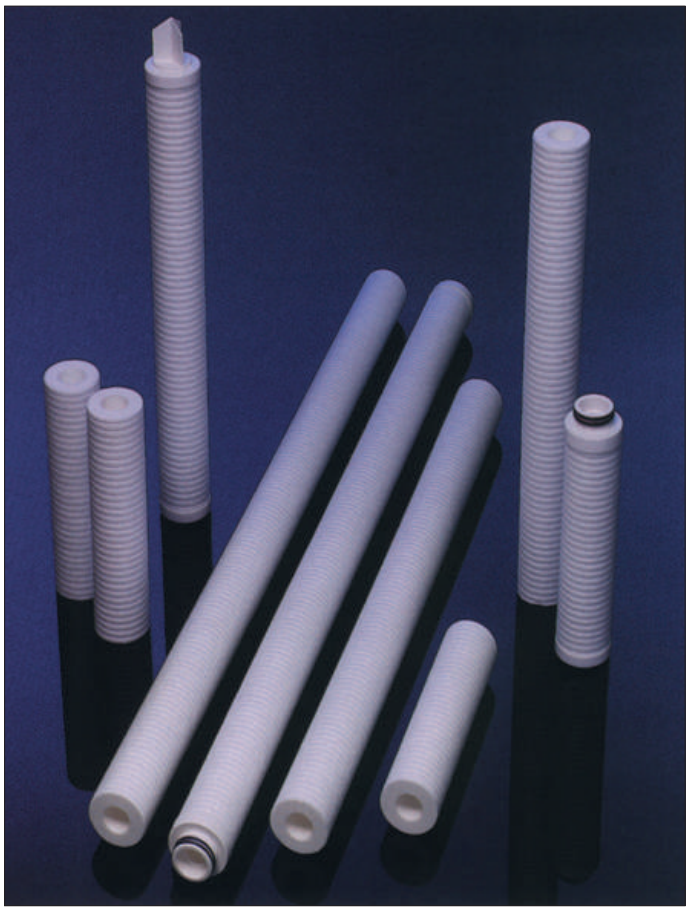
■ Polyolefin

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, 10 µm, 25 µm, 50 µm,75 µm and 100 µm



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
- Automotive 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 maximises dirt holding capacity.
- Silicone free construction will not change coating properties.
- 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 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

Parker Filtration

Bonded Depth Series

Specifications

Nominal Filtration Ratings: (90% efficiency)
- 1, 3, 5, 10, 25, 50, 75, 100 µm.

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 (62 mm) in OD
- 10, 20, 30, 40, and 50 in continuous nominal lengths.
- 254, 508, 762, 1016mm continuous nominal lengths.

Maximum Recommended Operating Conditions:
- Temperature: 175°F (80°C)
- Pressure:
  100 psid (5.5bar)@72°F (22°C)
  50 psid (3.4 bar)@175°F (80°C)
- Flow Rate: 5 gpm (19 lpm) per 10 in length.
- Changeout ΔP: 30 psi (2.1 bar)

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

Cartridge	ß = 10 90%	ß = 20 95%	ß = 100 99%	ß = 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 (ß) = $\frac{\text{Upstream Particle Count @ Specified Particle Size and Larger}}{\text{DownstreamParticle Count @ Specified Particle Size and Larger}}$

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

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).

DBC Flow Factors

Rating *(µm)*	Aqueous Service bar l/min per 254mm Cartridge
DBC1	1.96
DBC3	1.57
DBC5	1.31
DBC10	1.04
DBC25	0.56
DBC50	0.40
DBC 75	0.27
DBC100	0.22

DBC Length Factors

Length *(mm)*	Length Factor
248	1.0
254	1.0
495	2.0
508	2.0
743	3.0
762	3.0
990	4.0
1016	4.0
127	5.0

Flow Rate and Pressure Drop Formulas:

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

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

Notes:
1. **Clean ΔP** is m bar differential at start.
2. **Viscosity** is centistokes. Use Conversion Tables for other units.
3. **Flow Factor** is m bard – l/min at 1 cks for 254mm (or single).
4. **Length Factors** convert flow or ΔP from 25.4mm (single length) to required cartridge length.

Ordering Information

DBC — *Cartridge Code*
DuraBond Cartridge

10 — *Micrometer Rating (µm)*
1
3
5
10
25
50
75
100

M — *Filter Medium*
M = FDA Polyolefin

10 — *Nominal Length*

Code	in	mm
9-4	9-3/4	248
10	10	254
19-4	19-1/2	496
20	20	508
29-4	29-1/4	743
30	30	762
39-4	39	992
40	40	1016
50	50	1270

TC — *End Cap Options*
None = DOE
AR = 020 O-Ring/Recessed
LL = 120 O-Ring (Both Ends)
LR = 120 O-Ring/Recessed
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
XA = DOE w/Core Extender

N — *Seal Options (o-ring only)*
None = No Gasket (DOE Only)
E = EPR
N = Buna
S = Silicone
T = Teflon Encapsulated Viton*(222, 226 o-ring only)
V = Viton*

Process Filtration Division

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

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