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 maximizes 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.


**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 in (62 mm) in OD
- 10, 20, 30, 40, and 50 in continuous nominal lengths.

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

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>β = 10 90%</th>
<th>β = 20 95%</th>
<th>β = 100 99%</th>
<th>β = 1000 99.9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DBC3</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>DBC5</td>
<td>5</td>
<td>10</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>DBC10</td>
<td>10</td>
<td>15</td>
<td>25</td>
<td>30</td>
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<tr>
<td>DBC25</td>
<td>25</td>
<td>30</td>
<td>50</td>
<td>55</td>
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<tr>
<td>DBC50</td>
<td>50</td>
<td>70</td>
<td>80</td>
<td>90</td>
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<td>DBC75</td>
<td>75</td>
<td>100</td>
<td>&gt;100</td>
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<tr>
<td>DBC100</td>
<td>100</td>
<td>&gt;100</td>
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</tbody>
</table>

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

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

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**

<table>
<thead>
<tr>
<th>DBC</th>
<th>10</th>
<th>M</th>
<th>10</th>
<th>TC</th>
<th>N</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nominal Length</td>
<td>End Cap Options</td>
<td>Seal Options (o-ring only)</td>
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<td>None = No Gasket (DOE Only)</td>
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<td></td>
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<td>E = EPR</td>
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<td>N = Buna</td>
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<td></td>
<td></td>
<td></td>
<td>S = Silicone</td>
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<td></td>
<td></td>
<td>T = Teflon Encapsulated Viton* (222, 226 o-ring only)</td>
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<td>V = Viton*</td>
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</tbody>
</table>

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

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**Flow Rate and Pressure Drop Formulas:**

Flow Rate (gpm) = Clean ΔP x Length Factor

\[ \text{Viscosity} \times \text{Flow Factor} \]

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