HONEYCOMB™ FILTER CARTRIDGES

Multi-purpose filtration solutions

Parker has been a leader in filter media innovation and performance since we invented the Honeycomb™ Filter tube over 65 years ago. Parker has the world's largest manufacturing capacity for wound cartridges, offering superior quality with technical, engineering and marketing support.

Effective removal ratings at nominal 90% efficiency from 0.5 µm to 150 µm range.

BENEFITS

- Multiple-length cartridges minimize Changeout time, eliminate spacers and are available to fit competitive filter vessels
- FDA grade polypropylene (DOE only) cartridges certified to ANSI/NSF61 standard for contact with drinking water components
- Continuous strand-winding geometry provides performance consistency
- One-piece metal extended center core option eliminates need for cartridge guides in all competitive and Fulflo® multi-cartridge vessels
- A special snap-in extender is available for polypropylene cores
- Cotton, rayon, polypropylene, nylon and polyester materials are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21
- Various O-ring and end cap options are available

APPLICATIONS

- Photo solutions
- Potable liquids
- Vegetable oils
- Amines
- Organic acids & solvents
- Prefilter for membranes
- Water

SPECIFICATIONS

Nominal Removal Ratings:

@ 90% efficiency from 0.5 µm to 150 µm

Maximum Recommended Operating Conditions:

Changeout ΔP	35 psi (2.1 bar)
ΔP @ Ambient Temperature	60 psi (4.1 bar)
Flow Rate	10 gpm (38 lpm) per 10-in length
Temperature	(See table on next page)

Dimensions:

1 in ID x 2-7/16 OD
3 in to 50-in lengths

Wound Depth Cartridge Design and Function

Wound cartridges provide true depth filtration utilizing thousands of tapered filtering passages of controlled size and shape. Each layer of roving contributes to true depth filtration by trapping its share of particles. Wound cartridges offer a gradual pressure increase during cartridge life versus surface-type media that have an abrupt flow cutoff when loaded. In addition, the irregular outer layer reduces surface blinding, assuring longer cartridge life and full cartridge dirt-holding capacity utilization.

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Multi-purpose Filtration Solutions

PERFORMANCE ATTRIBUTES

Rating (um)	Polypropylene Flow Factors	Cotton Flow Factors
0.5	0.9924	2.6590
1	0.7463	2.0000
3	0.3330	0.6250
5	0.2381	0.3636
10	0.1429	0.1931
20	0.0898	0.1075
30	0.0704	0.0855
50	0.0595	0.0709
75	0.0538	0.0645
100	0.0500	0.0624

Wound Cartridge Nominal Micrometer Ratings

Density Rating	Rating (µm)	Compressed Air and Gas Micron Rating
8R	100	15
10R	75	13
11R	50	12
12R	40	11
13R	30	10
15R	20	7
17R	15	5
19R	10	3
21R	7	2.5
23R	5	2
27R	3	1
39R	1	<1
Ultrafine (C, E, M, T, WC)	0.5	<0.5

Flow Rate and Pressure Drop Formulae:

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

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

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 1cks for 10 inch (or single).
4. Length Factors convert flow or ΔP from 10 inch (single length) to required cartridge lenth.

ORDERING INFORMATION

Filter Medium

CODE	DESCRIPTION
No Symbol	Cotton (FDA)
E	FDA Grade Rayon
M	FDA Grade Polypropylene
N	Nylon (FDA)
S	Polyester (FDA)

Filter Rating

DENSITY	MICRON
6R	150
8R	100
10R	75
11R	50
12R	40
13R	30
14R	25
15R	20
17R	15
19R	10
21R	7
23R	5
27R	3
39R	1

Nominal Length

LENGTH	IN (mm)
3	3
4	4
5	5
6	6
7	7
8	8
9-4	9 7/8
10	10
19-4	19 1/2
20	20
29-4	29 1/4
30	30 3/16
39-4	39
40	40 3/16
50	50

Nominal Cartridge Diameter

CODE	MATERIAL
No Symbol	1 in ID x 2 7/16 in OD
2	1 in ID x 2 11/16 in OD
45	1 in ID x 4 1/2 in OD (9 7/8 and 20 in length only) for Fulflo LTG and Ametek Big Blue Vessels

Core Material

CODE	DESCRIPTION
No Symbol	Tinned Steel
A	Polypropylene
A3	Glass-Filled Polypropylene
G	304 Stainless Steel
S	316 Stainless Steel
SR	Passivated 316 SS (Special Order)

Core Cover Material

CODE	MATERIAL
No Symbol	No Cover
B	Nylon
V	Nonwoven Polyester
W	Cellulosic Paper
Y	Polypropylene

End Cap Configuration

CODE	MATERIAL
None	DOE (with out gaskets)
DO	DOE (with gaskets)
OB	Std. Open End Polypro Spring Closed End
TC	222/Flat Cap
TF	222/Fin
SC	226/Flat Cap
SF	226/Fin
XA	Polypro Extendar
XB	Ex. Core Open End/ Polypro Spring Closed End
XC	Extended Metal

Seal Material

CODE	MATERIAL
None	Standard DOE
A	Poly Foam
E	EPR
N	Buna N
S	Silicone
V	Viton®

Packaging Options

CODE	MATERIAL
Z	Individual Poly Bag
TIS	Tissue Wrap

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