EMAIL: FILTRATION@JOHNBROOKS.CA

HPQC Series Filter Cartridges

High Efficiency Polypropylene Filter Cartridge

An innovative product manufactured with multiple layers of melt blown polypropylene media. This unique structure allows high flow rates while maintaining low differential pressure and ideal depth filtration characteristics.

Product Specifications

Media: Polypropylene

Gaskets/O-Rings:
Buna-N, EPDM, Silicone, Teflon Encapsulated Viton (O-Rings only), Viton

Micron rating:
0.1, 0.2, 0.4, 0.6, 1.0, 3.0, 5.0, 10.0 µm

Dimensions

Nominal lengths:

5"	9.75"	10"	20"	30"	40"
12.7	*24.8*	*25.4*	*50.8*	*76.2*	*101.6 cm*

Outside diameter: 2.7" (6.86 cm)

Inside diameter: 1.0" (2.54 cm)

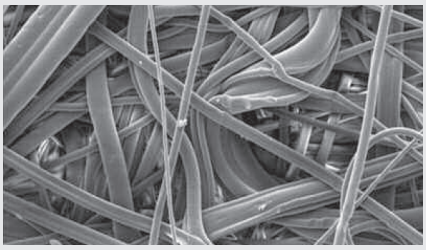
Operating Parameters

Maximum operating temperature:
176°F (80°C)

Maximum differential pressure:
75 psid @ 70°F (5.2 bar @ 21°C)
30 psid @ 176°F (2.0 bar @ 80°C)

Maximum reverse pressure:
40 psid @ 70°F (2.8 bar @ 21°C)

Recommended change-out pressure:
35 psid (2.4 bar)



FEATURES & BENEFITS

- Micron ratings from 0.1 to 10 µm — Broad application range
- High Filtration Efficiency — 95%
- Graded pore structure — Multilayer, media for high dirt holding capacity
- Fixed pore construction — Resists dirt unloading at maximum differential pressure
- Polypropylene construction — Inert to many process fluids
- Various Gasket/O-ring materials — Compatible with many fluids

CERTIFICATIONS

- USP Class VI: Meets USP Class VI Biological Test for Plastics
- FDA Listed Materials: All materials comply with FDA Title 21 of the Code of Federal Regulations Sections 174.5, and 177.1520, as applicable for food and beverage contact.

TYPICAL APPLICATIONS

- Food & beverage
- Aqueous solutions
- Chemicals
- Pharmaceuticals
- Cosmetics
- Ultrapure water
- RO Prefilters
- Ink
- DE Trap
- Photoresists

PERFORMANCE SPECIFICATIONS

- Cleaning/Sanitization:
  - Hot water at 176°F (80°C) at 5 psid (0.35 bar) for 30 min
  - In-line steam at 257°F (125°C) at 1psid (0.07 bar) for 30 min
  - Autoclavable at 257°F (125°C) for 30 min

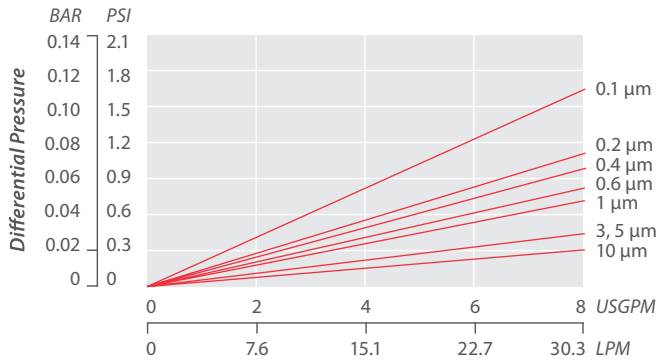
HPQC NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)	End Configuration	Gasket or O-Ring
HPQC Series	0.1 1 0.2 3 0.4 5 0.6 10	–5 –20 –9.75[1] –30 –10 –40	P Double Open End P2 226/Flat Single Open End P3 222/Flat Single Open End P7 226/Fin Single Open End P8 222/Fin Single Open End PX Extended Core AM Single Open End, Internal O-Ring NPC Double Open End, Internal O-Ring	B Buna-N[2] E EPDM S Silicone T Teflon encap. Viton (O-Rings only) T Teflon Gasket V Viton
Example: HPQC 1–20P3V				
HPQC	1	–20	P3	V

[1]Available only for DOE (P) configuration [2]Not available in AM

HPQC FLOW RATE

Typical Flow Rate Clean Water at Ambient Temperature
(per 10" cartridge)



For liquids other than water, multiply pressure drop by the fluid viscosity in centipoise

REMOVAL EFFICIENCY

Beta Ratio Efficiency	Beta 100 99%	Beta 20 95%
0.1 µm	0.8	0.1
0.2 µm	1.0	0.2
0.4 µm	2.0	0.4
0.6 µm	3.0	0.6
1 µm	6.0	1.0
3 µm	14.0	3.0
5 µm	17.0	5.0
10 µm	25.0	10.0

$$\text{Beta Ratio} = \frac{\text{Upstream particle counts}}{\text{Downstream particle counts}}$$

The micron ratings shown at various efficiency and beta ratio value levels were determined through laboratory testing, and can be used as a guide for selecting cartridges and estimating their performance. Under actual field conditions, results may vary somewhat from the values shown due to the variability of filtration parameters.

Testing was conducted using the single-pass test method, water at 3 gpm/10" cartridge. Contaminants included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.

BROOKS BROOKS SPRAYING PUMPING FILTERING AND VALVES

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