



MEGABOND PLUS™

Fixed-pore structure depth cartridges with high dirt-holding capacity & absolute rated filtration efficiency



Parker's MegaBond Plus™ are absolute-rated depth cartridges. Using a new, innovative manufacturing process, the MBP has higher Dirt-holding capacities offering long service life and virtually no contaminant migration. The MBP has a fixed core inner structure of thermally-bonded, continuous microfine polypropylene fibers. The outer layer fixed pore structure has been modified to maximize the graded density surface area and enhance dirt-holding capacity.

BENEFITS

- Fixed pore structure provides absolute-rated filtration, consistent production yields and absolute particle retention
- Microfine, thermally-bonded fiber construction provides superior filtration and often eliminates the need for circulation to achieve product clarity
- Non-fiber-releasing, continuous fiber matrix prevents media migration and ensures consistent production yields and overall quality filtration performance
- No surfactants or binders are present to interrupt product quality or cause foaming
- DOE cartridges have polyolefin gaskets thermally bonded to both ends, eliminating fluid bypass between the cartridge and the vessel seal
- Superior inter-layer bonding eliminates contaminant unloading and channeling
- Unique outer graded density structure increases dirt-holding capacity
- Polypropylene fiber 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
- Pore size differentiation is achieved using fibers of differing diameters and maintaining uniform density throughout the cartridge
- Pore sizes do not change as ΔP increases during service, providing consistent particle retention

APPLICATIONS

- Membrane prefiltration
- DI water
- Food & Beverages
- Drinking water

SPECIFICATIONS

Materials of Construction:

Media	100% melt-blown Polypropylene
Center Support Core/End Caps	Polypropylene
Thermally Bonded Gaskets	Polyolefin closed cell foam

Maximum Recommended Operating Conditions:

Temperature	
@ 60 psid (4.1 bar)	80°F (27°C)
@ 35 psid (2.4 bar)	160°F (71°C)
@ 15 psid (1.0 bar)	200°F (93°C)
Flow Rate	10 gpm (38 lpm) per 10-in length
Changeout ΔP	35 psi (2.4 bar)
Operating Pressure	
@ Ambient Temperature	60 psid (4.1 bar)

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PERFORMANCE ATTRIBUTES

MBP Flow Factors

Aqueous Service Rating per 10 in PSI/GPM Cartridge (µm)	
1	2.17
3	1.60
5	0.90
10	0.32
15	0.16
20	0.12
30	0.10
40	0.05
70	<0.05
90	<0.04
120	<0.03

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 length.

ORDERING INFORMATION

MBP



M



Micron Rating	
CODE	(µm)
1	1
3	3
5	5
10	10
15	15
20	20
30	30
40	40
70	70
90	90
120	120

Nominal Length	
CODE	INCH (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)

Support Construction	
CODE	DESCRIPTION
N	FDA natural polypropylene Core and end caps
G	Stainless Steel (core only)

End Cap Configuration	
CODE	DESCRIPTION
None	Standard DOE/Polyfoam
AR	020 Flat
DO	DOE (gasket other than polyform)
DX	DOE with Polypro core extender
LL *	120/120 (Both Ends)*
LR*	120 O-ring/ Recessed*
OB	Std. Open End/Polypro Spring End Closed
PR	213 O-ring/ Recessed*
SC	226 O-ring/Closed
SF	226 O-ring/Fin
SSC	S.S. Insert 226/Flat cap
SSF	S.S. Inserted 226 O-ring/Fin
STC	S.S. Inserted 206/Fin
STF	O-ring/Fin 222/Closed 222/Fin
STX	S.S. inserted 222 O-ring/Flex Fin
TC	222 O-ring/Flat cap
TF	222/Fin
TX	222/Flex Fin
XA	DOE w/extended core
XB	Extended Core.Open End/polypro spring closed end

Seal Material	
CODE	DESCRIPTION
None	Polyfoam (DOE Only)
E	EPR
N	Buna N
S	Silicone (O-ring only)
T	PFA Encapsulated
V	Viton® (222,226 O-ring only)
V	Viton

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

TECHNICAL SUPPORT AND PRODUCT INFORMATION

Parker Hannifin Corporation provides our customers with unsurpassed product consistency and cost-efficiency. Our experienced professionals can help you select the right solution for your application. For more information or to place an order, contact your local distributor.

Parker Hannifin Corporation designs and manufactures an extensive line of innovative solutions for specific applications in the Microelectronics, Biopharmaceutical, Food and Beverage, Industrial and Chemical industries.

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