



# **BEHRINGER**<sup>®</sup>

## **Water-Guard™ MB**

### All Polypropylene Melt Blown Depth Filter Cartridges

#### Nominal Filtration Efficiencies Commercial (water) Grade

#### Performance:

Max Temperature:	160° F (70° C)*
Max Differential Pressure:	60 psid (4 bar) (Ambient temp)
Recommended Change Out:	25 psid (1.75 bar)
Nominal Filtration: (Micron sizes)	1, 3, 5, 10, 25 50, 75, 100, 150

#### Media

Behringer® PolyTherm™ Melt Blown filter cartridges are manufactured using 100% polypropylene resin in an extrusion process that meets FDA regulation 21CFR177.1520 for contact with food and beverages. They are an economical and disposable element. No binders, lubricants, surfactants, or antistatic agents are used in the manufacturing process. All PolyTherm™ cartridges are tested and certified under ANSI/NSF standard 42 for material requirements only. The media is manufactured using a computer-controlled process, where molten polymer is deposited into a circular cross-sectional matrix, which gradually becomes tighter towards the inner diameter of the cartridge. This creates a strictly regimented, rigid element, with open surfaces on the outer diameter and gradually becomes tighter towards the internal diameter. Because of this graded density media, Behringer PolyTherm™ cartridges have higher dirt-holding capacities than competitor brands, resulting in higher flow rates with minimal resistance. The all polypropylene media's non-leaching construction ensures that there will be no media migration. This is essential in high-purity applications where a strictly regulated cleanliness is required. Behringer's Water-Guard™ series of PolyTherm™ elements are nominally rated water-grade cartridges.

#### Features and Benefits

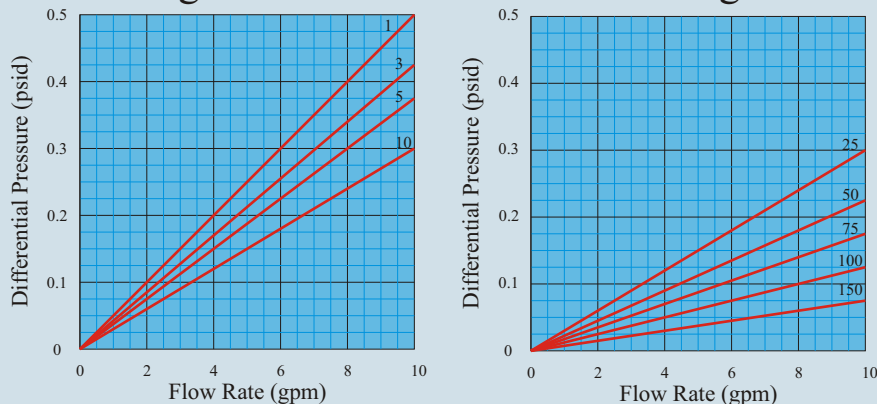
- All materials meet FDA regulation 177.1520 for food and beverage use
- Meets ANSI/NSF standard 42 for material requirements
- 100% Polypropylene Construction provides a broad chemical compatibility
- Graduated Density provides twice the life of competitors filters
- Continuous fiber matrix prevents media migration and provides dimensionally stable construction
- Fixed Pore Structure provides optimum particle retention rates
- Finish free construction provides optimum fluid purity and eliminates foaming conditions (No binders, lubricants, surfactants, or antistatic agents)
- Economical and disposable
- High dirt-holding capacity

#### Typical Applications

- Chemicals
- Detergents
- Beverages
- DI Pre Filters
- Photography Chemicals
- Plating Solutions
- Waste Effluent
- Coolants
- Aerosol Products
- Juices
- Ro Prefilters
- Pharmaceuticals
- Process Water
- Water

# Flow vs. Pressure Information

## Single 10-inch Melt Blown Cartridge



### Pressure drop calculation:

Pressure drop curves are based on fluid with viscosity similar to water, and element length of 10 inches. P across the media is proportionally related to viscosity and element length. The formula for calculating different pressure drops is as follows: **New P = P curve x viscosity(cP) / # of 10" lengths**

### Notes:

1.) Max recommended flow rate of 5 gpm per 10 inch length. For best efficiencies, do not exceed 10 gpm per 10 inch length. All applications differ, and actual flow rates should be determined on an individual basis.

2.) Initial pressure drop should be kept as low as possible. Initial pressure drops over 5 psid may considerably decrease cartridge life.

### Operating Conditions

**Max Operating Temperature:**  
160° F (70° C)

**Max Permissible p:**  
60 psid (4 bar) @ ambient temp.

**Recommended Change-Out p:**  
25 psid (1.75 bar)

**Max Recommended Flow Rate:**  
5 gpm (19 lpm) per 10 in. Length<sup>1</sup>

### Construction

**Media:**  
Polytherm™ Water-Guard™ Melt-Blown  
FDA- Approved Polypropylene

**End Caps:**  
222 O-rings, 226 O-rings, Fins, DOE Caps,  
Spears, Flat Gaskets, Springs, Core Extenders

**Gasket / O-ring Materials:**  
Polyfoam, Buna-N, Viton, Silicone, EPR,  
Neoprene

**Outside Diameter:**  
2.5 in. (63.5 mm)

**Inside Diameter:**  
1.06 in. (27 mm)

**Nominal Lengths (in):**  
4¾, 9¾, 10, 19½, 20, 29½, 30, 39, 40, 50, 60

# WMB N - - -

Table 1

Table 2

Table 3

Table 4

### Length

Table 1

4.9	4.875 in. (half)
9.8	9.75 Inch
10	10 Inch (single)
19.5	19.5 Inch
20	20 Inch (double)
29.75	29.75 Inch
30	30 Inch (triple)
39	39 Inch
40	40 Inch (quad)
50	50 Inch

### Filtration Rating

Table 2

0.5 micron	25 micron
1 micron	30 micron
3 micron	50 micron
5 micron	75 micron
10 micron	100 micron
20 micron	150 micron

### Adders

Table 3

Omit	None
C	Closed End Cap (1 end)
222	222 O-ring / Closed
222F	222 O-ring / Fin End
226	226 O-ring / Closed
226F	226 O-ring / Fin End
FG	Flat Gasket / DOE Caps
CS	Compression Seal
PS	Polypropylene Spring
PCE	PP Core Extender
TCE	304 S/S Core Extender
SCE	316 S/S Core Extender

### Seals

Table 4

omit	None
E	EPR
N	Neoprene
V	Viton
S	Silicone
B	Buna-N (Nitrile)
PF	Polyfoam

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