

ALpHA® BW1 Filter

1 µm Absolute-Rated Filter Cartridge for Bottled Water



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Meissner's ALpHA® BW1 filter cartridge is optimized for maximum performance, safety and economics in protecting bottled water from *Cryptosporidium* and *Giardia* contamination.

The ALpHA® BW1 filter has been tested and approved per NSF Standard 53 as an absolute barrier to *Cryptosporidium* and *Giardia* in potable and drinking water applications. It also complies with the CDC/EPA recommendation for using absolute-rated 1 µm filters to control *Cryptosporidium* in drinking water.

In order to ensure consistent, reliable filtration performance, Meissner tests every ALpHA® BW1 filter during manufacture. Each ALpHA® BW1 filter shipment contains a Certificate of Conformance certifying the quality of that product lot.

The 1 µm absolute-rated, ALpHA® BW1 pleated filter cartridge provides unmatched filtration performance. It contains a self-bonded microfiber filter medium composed of multiple layers of successively finer fibers and smaller pores. The highly porous, tapered pore structure provides superior flow rates and high throughputs, while maintaining an extraordinary dirt holding capacity. The filter's rugged, all-polypropylene construction withstands everyday hydraulic challenges in bottling applications.

The ALpHA® BW1 filter can be repeatedly hot water sanitized or inline steam sterilized. It withstands common industrial cleaning chemicals, sanitizing agents, biocides, disinfectants and cleaning solutions.

The ALpHA® BW1 filter provides the industry's highest level of cleanliness and lowest extractables. Constructed of non-fiber-releasing, biologically inert materials, it is fabricated without use of binders, adhesives, plasticizers or surfactants. The ALpHA® BW1 filter is manufactured in a Class 1000 cleanroom.

The ALpHA® BW1 filter complies with FDA guidelines for food contact use. It also complies with USP Class VI Plastics Tests used for determining biocompatibility of materials.

Design Features

- Absolute Barrier to *Cryptosporidium* and *Giardia*
- Complies with NSF Standard 53 and EPA/CDC Guidelines
- Lot Certified Quality
- High Flow Rate – Low Pressure Drop
- High Throughput, Long Service Life
- Economical in Use



Product Specifications

Materials of Construction

Filter Media: Polypropylene
Upstream Support: Polypropylene
Downstream Support: Polypropylene
Core/Outerguard: Polypropylene
End Caps: Polypropylene
Sealing Method: Thermal Bonding
O-ring/Gasket Seal: Buna, EPR, Silicone, Viton® or Teflon®

All materials of construction are FDA approved for food contact use per CFR Title 21, 177.1520.

Cartridge Dimensions (Nominal)

Diameter: 2.75" (7 cm)
Lengths: 10", 20", 30", 40"
(25, 50, 75, 100 cm)

Operating Conditions

100 °F @ 80 psid (37 °C @ 5.6 kg/ cm²)
150 °F @ 60 psid (65 °C @ 4.2 kg/ cm²)
195 °F @ 30 psid (90 °C @ 2.1 kg/ cm²)

Typical Water Flow Rate

0.06 psid/gpm per 10" equivalent

Cyst Reduction

Exceeds National Sanitation Foundation (NSF) Standard 53 requirement for 99.95% cyst reduction.

Sterilization Method

Inline Steam: 121-135 °C for 30-60 minutes
Autoclave: 121-125 °C for 30-60 minutes

ALPHA® cartridges can withstand repeated sterilization cycles without loss of integrity. Chemical cleaners such as acidic and alkaline solutions within the pH range of 1-14, sanitizers and biocides can also be used. Commercial solutions, which may contain additional agents such as surfactants, enzymes or sequestering agents, are also acceptable.

Ordering Information

| Bottled Water Filter | Cartridge Length | End Cap Configuration | Reinforcement Ring Option | Gasket or O-Ring Material |
|----------------------|--|---|---|--|
| | 3 | F2 | F2 | S |
| BW1 | 1 = 10" 2 = 20" 3 = 30" 4 = 40" | GS = DOE; flat gaskets (9/75", 19.5", 29.25", 39" length filters) GL = DOE; flat gaskets (20", 30", 40" length filters) C2 = SOE; -222 O-rings, button cap end F2 = SOE; -222 O-rings, fin end C6 = SOE; -226 O-rings, button cap end F6 = SOE; -226 O-rings, fin end SG = SOE; smooth internal -020, button cap end DN = DOE; internal -120 O-rings DA = DOE; internal -213 O-rings | (Blank) = Standard - no reinforcement ring R = Silicone O-rings and stainless steel reinforcement ring | B = Buna E = EPR S = Silicone T = Teflon® over Silicone V = Viton® X = Teflon® over Viton® |