

Model HFC-1000 Plus

High Flow 1.5 gpm + High Performance + Microbial Retention



Point of Use Drinking Water Filtration PLUS

Chemical Filtration Plus Microbiological Protection

- Dual Treatment Train
- Fully Assembled
- Certified Performance

Cartridge 1: HFC-1000 Chemical Reduction Cartridge

- Certified NSF/ANSI Std 42 & 53
- 5 Stage Patented Exclusive High Flow Design
- Filter Protection by Agion, Fine Filtration 1/2 micron
- Adsorption - specially formulated high capacity powder activated carbon block with over 1,000,000 square meters of adsorptive surface area
- Built in 5 micron pre filter and scale control media

Cartridge 2: CMF Charged Membrane Filter Microbial Retention

- Performance testing, evaluation & verification completed at US EPA testing & evaluation facility Cincinnati, OH & BCS laboratory 3rd party accredited Lab.
- CMF microbial media - NSF/ANSI Std 42 & 61, USP Class VI
- CMF microbial cartridge- Tested to USEPA/NSF Std P231

Filter Protection

- Antimicrobial agent is blend throughout the filter media that is only activated when micro-organisms are present to protect. This FDA/EPA registered product prevent odors/fouling of media. **Also allows for spend cartridges to be disposed of as normal waste.**

FDA Standards

- All materials are FDA listed as acceptable for potable and edible liquid contact per CFR Title 21 section 177-1520

Material of Construction

- Filter medium: CMF microbial media & polypropylene spunbonded support
- Support components: Polypropylene

Health Safety and the Environment - CMF media is based on the naturally occurring element boehmite which has no known HSE issues. Boehmite has long been used as an additive to food products, digestive analgesics, industrial applications and as an adjuvant for human vaccines. The media has passed testing to NSF/ANSI standard 42 & 61 for potable water contact, USP Class VI testing and endotoxin testing.

Electroadsorptive technology for water purification and filtration - The 0.8mm thick pleated media construction offers a torturous flow path and far more surface area than competitive charged membrane products, for unmatched micro-organism retention capacity and filter life. The positive surface charge around each alumina fiber resists dumping or shedding of captured micro-organisms, even if the media becomes compromised. This solves a potential problem seen by other membranes, including those used in nanofiltration, ultrafiltration or microfiltration

Flow rate: 1.5 gpm

Dual Filter Head Assembly

- Completely assembled with 304 Polished Stainless steel bracket
- No tools required for cartridge replacement - 1/4 turn quick change
- Built in Quick release 3/8" fittings

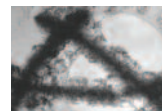
NSF Std 61 complaint component materials



CMF™ Charged Membrane Filtration *the inside story*

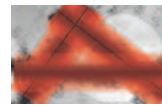
Mechanical Filtration

A Mean pore size of 1.5 micron is provided via glass structures which have Alumina fibers grafted to material. There are 400 such structure layers within the 0.8 mm thick material which creates a torturous flow path.



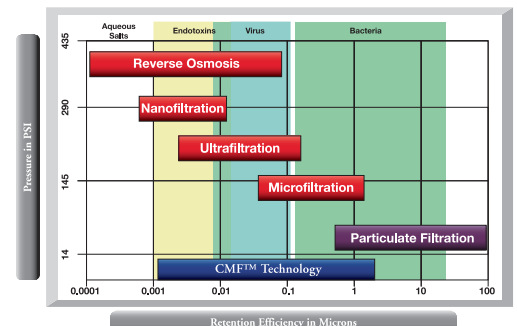
Adsorption / Retention of Organisms

The Nano Alumina Fibers have a Zeta potential of 51 millivolts. This charge extends >1 micron along each structure to create a nearly total capture of the pore openings.



This provides a retention efficiency that approaches nano filtration with very low pressure requirements. Agion provides antimicrobial filter protection for life of cartridge.

Strong Positive Zeta potential provides Electro adsorptive retention



Product recommendations are based on known application requirements and product technical data. They are offered for further consideration only.

The user is responsible for testing and verifying that the product is suitable for the application.



© 2013-2019 Waterline Technology®

Protected under patents: 6,695,891, 6,926,826, 6,977,006, 7,172,693, 7,476,314 and other Patents Pending

form: 2019 HFC-1000 Plus Data Sheet

Model HFC-1000 Plus

High Flow 1.5 gpm + High Performance + Microbial Retention



Certified Performance

This system certified by WQA to CSA B483.1, NSF/ANSI 42 & 53



This system certified by IAPMO R&T to CSA B483.1, NSF/ANSI 42 & 53 & NSF P473



For Specific performance claims as verified and substantiated by test data

NSF/ANSI Standard 42: Aesthetic Effects

Chemical Unit

Taste and Odor
Aesthetic Chlorine

Mechanical Filtration Unit

Particulate Reduction Class I, 0.5 micron and larger

NSF/ANSI Standard 53: Health Effects

Chemical Reduction Unit

MTBE
VOCs
TTHMs
Lead

Mechanical Reduction Unit

Turbidity
Cyst

NSF Standard P473*

Perfluorooctanoic acid (PFOA)
Perfluorooctane sulfonic acid (PFOS)

WQA/ASPE/ANSI S-803

Sustainability

* Claim not certified by WQA



Product performance is dependent upon incoming water conditions. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

Conforms to NSF/ANSI 53 for VOC reductions. See performance data sheet for individual contaminant's and reduction performance.

The contaminant's or other substances removed or reduced by this water filter device are not necessarily in your water.



Certified Performance

Cartridge 2: CMF Media is Certified to NSF/ANSI Std 42 & 61 by WQA Gold Seal Program all other materials conform to NSF/ANSI Std 42 requirements.

CMF system design has been performance tested, evaluated and verified by the USEPA T & E Facility & 3rd Party Independently tested:

MS2 Bacteriophage Virus	>99.9%
Adenovirus	92%
Cryptosporidium	99.9992%
RT Bacteria	>99.99%
Bacillus globigii	99.8%
Endotoxins	96.0%
Legionella	>99.9%

Operating Specifications

Max Temperature: 100 F
Flow Rate: 2.5 gpm
Max Pressure 125 psi
Initial pressure drop : <1 psi

*Product performance based upon pre treatment to remove the dirt/particles which can compete for the absorption sites for microbial retention!

Tested to USEPA Public Drinking Water Guidance Manuals & US EPA/ NSF P-231

See performance test data sheets for individual contaminant's and reduction performance.

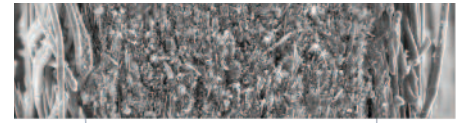


Photo courtesy of R. Rietz, DMS, Univ. of Coon

Active Layer:

• Has approx. 400 layers of charged fibers

Influent Water Quality Guidelines for Maximum LRV Efficiency

Performance Efficiency:

All CMF series cartridges require pretreatment for particulates, color, iron, manganese, & total organic carbon. Treatment must be installed upstream to maintain the life of cartridge.

Pretreatment Guidelines:

Turbidity	<=1 NTU
Color	10 units
TOC	<50 mg/L
pH	5-9.5
Iron	<0.3 ppm
Manganese	<0.05 ppm
TDS	<30 g/L
TSS	Low as possible to extend CMF life

The HFC-1000 stage 1 filter cartridge provides the pre treatment requirements with the exception of pH, Iron, & manganese.

Capacity Retention of bacteria, Virus, Cysts

Exceeds 1 million organisms per gpm of design flow rate.
Challenged > 250 million organisms per gpm of design flow rate during testing!

Warranty:

12 months from date of purchase or 24 months from date of manufacture.

Market Applications



With the CMF Charged Membrane Filter included in your treatment train it provides a Final Barrier of Protection from the Microbiological organisms that may be in your source water supply.



Home, Office Business & Industrial Applications for Superior Drinking Water filtration and a safe guard from the unknown issues facing our water supplies.

Use on potable water supplies, Public or Private water supplies requiring continuous purification, excluding converting waste water to microbiologically potable water.



Designed, Manufactured & Performance tested in the U.S.A. by Waterline Technology
All rights reserved Manufactured at EPA Est. # 070932-1D-001 Protected under patents 6,695,891, 6,926,826, 6,977,006, 7,172,693, 7,476,314 and other patents pending Copyright 2017



Waterline Technology®
961 N. Main St., Ste 102 • P.O. Box 396
Mansfield, OH 44903

Phone: 419-529-3949 • Sales/Technical Service: 1-800-522-3949
Fax: 419-529-8484 • www.waterlinetechnology.com