CMF4520 Triple Series Microbial System

High Log Reduction Value of Bacteria, virus & cysts retention

POE (Point of Entry) 20 gpm , COLD WATER ONLY

Dual Pass CMF™ Model POE-GF/CMF-Triple, Microbial Retention System with Pre Filter, 20 gpm max flow: (1" in/out Female NPT)

Stage 1 Pre Filter: RC-GF4520-02DOE

Stage 2: Microbial Filter: RC-CMF4520-20DOE

Stage 3: Microbial Filter: RC-CMF4520-20DOE

Field Install pressure gauges Inlet and Outlet for end of life indicator.
Do not exceed 25 PSID (pressure differential! Water must be flowing to measure PSID.

Targeted Application - Retention of Bacteria (including Legionella), Virus & protozoans for Home, business and industry for Point of Entry or Point of Use up to 20 gpm continuous flow with Stage 1 gradient pre filter for dirt/sediment reduction

System dimensions 9"d x 22 1/2" x 26 1/2"h
Cartridges 4.5" od x 20"h, leave 3-4" space below system for cartridge housing removal !

Flow is Left to Right

System Details:

CMF4520-20DOE - Microbial Filter

Tested to NSF P231 Microbiological Purifier Protocol*
CMF microbial media - NSF/ANSI Std 42 & 61, USP Class VI

CMF Filter Protecion

agion Nature's antimicrobial

• Antimicrobial Silver Zeolite Ions are blended throughout the CMF filter media. Only activated when micro-organisms are present.

AGion® is a FDA/EPA registered additive that prevents odors/fouling of media. Also allows for spend cartridges to be disposed of as normal waste.

CMF - FDA Standards

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

GF4520-20DOE- Dirt Filter

• Test to NSF Standard 42, material safety only
• GF dirt/sediment media is 100% polypropylene

Filter Vessel

Flow Pattern: Outside / In , 4.5" x 20" size cartridges only
Sealing: Double Open gasket -knive seal
Made in USA

Heavy Duty Wall Bracket | Powder Coated Steel

Market Applications

- Food & Beverage
- Drinking Water
- Bottled Water
- Process Water

Applications - Water Quality Issues
Microbial contaminants
Bacteria, Virus & Cysts
Legionella*

The Dual Pass CMF design can be used on potable water supplies, Public or Private requiring continuous purification, and for temporary use on non-potable water supplies suspected of being potable, excluding converting waste water to microbiologically potable water.

* Microbial Testing conducted by BCS Labratory & Aqua Diagnostics to NSF P231
**Cartridge life will varies due to load factors for these contaminants

form: POE/POU CMF4520 triple specs

Certified Performance

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

CMF system design has been performance tested, evaluated and verified by the USEPA T & E Facility & Independently tested by BCS Labs

	Multiple Pass
MS2 Bacteriophage Virus	>99.998%
Cryptosporidium	>99.9992%
RT Bacteria	>99.9999%
Legionella	>99.9999%
Edotoxins	>96.9%

Tested to NSF P231 Microbiological Purification Protocol

Operating Specifications

MaxTemperature: 100 F (38 C)
Change Out ΔP: 25 psi (1.7 bar)
Flow Rate: 20 gpm (75.7 Lpm)
Initial pressure drop : <5 psi (.34 bar)

Product performance is dependent upon incoming water quality conditions.

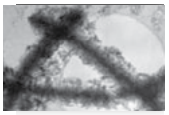
See cartridge performance test data sheets for individual contaminant's and reduction performance.

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

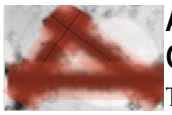
GF™ 1 Micron 4 Stage Gradient Filter for dirt/sediment Spun bonded polypropylene. Outside surface provides 25 micrp graduating down to 1 micon at center core!

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.

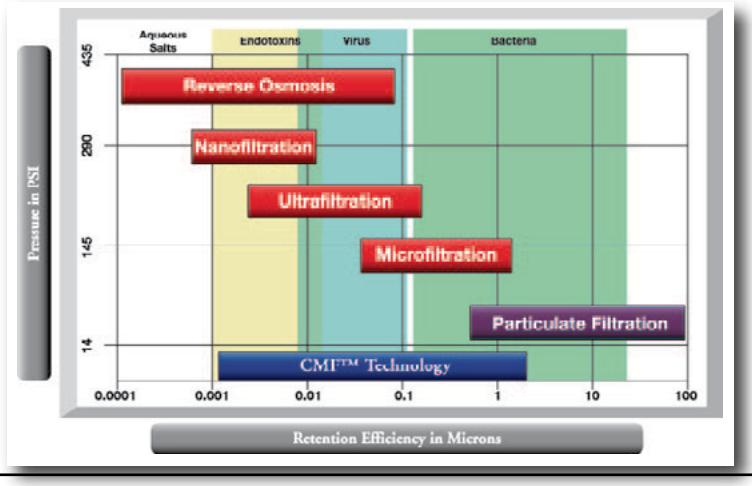


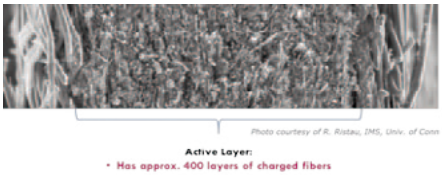
Adsorption / Retention of Organisms

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 approachs nano filtration with very low pressure requirements.

Performance Chart Below shows CMF design has lowest pressure and approaches Nanofiltration Performance!!

Strong Positive Zeta potential provides Electro-adsorptive retention >= .002 micron rating





Influent Water Quality Guidelines Required to Obtain Maximum Log Reduction Value

The CMF Series cartridges may require pretreatment for particulates, color, iron, manganese, & total organic carbon.

Treatment must be installed upstream to maintain the life of cartridge.

Pretreatment Guidelines for Microbial Efficiency and extended service life of cartridge(s).

TOC	**<50 mg/L**
pH	**5 to 9.5**
Iron	**<0.3 ppm**
Manganese	**<0.05 ppm**
TDS	**<30 g/L**
TSS	**Low as possible**

*Ordering Information**

Model Number Filter Vessel	Model Number CMF Replacement Cartridge	Cartridge OD Qty / size	Flow Rate** Max	End Cap Seal Std Configuration
POE-GF/CMF-Triple	RC-GF4520-20DOE	1- 4.5"x20"	20 gpm	Gasket
	RC-CMF4520-20DOE	2- 4.5"x20"	20 gpm	Gasket

* Includes first set of Cartridges

**Tested flow rate for microbial retention performance

Silcone Gaskets standard

Note: The CMF cartridge has sub micron filtration & stage 1 pre-filter to remove the dirt/sediment the capacity of the system should be 6-12 months depending on application.