

Patented Technology Creates the Ultimate Filter for Water Purification & Filtration

Using electroadsorptive technology, our filters remove a wide range of submicron particulates, pathogens, trace pharmaceuticals, cellular debris, and heavy metals.

We do this using a combination of 400 layers of mechanical filtration and a naturally occurring positive charge field that essentially puts a “force field” over the pores that will attract and capture negatively charged contaminants in water (and most contaminants are negatively charged). It is like a magnet that attracts, captures, and kills the pollutants in water. Unlike other submicron filters, Force Field™ Filters have very little pressure drop making them the perfect choice for most plumbing applications.

How powerful is it?

Force Field™ Filters provide water quality on par only with Reverse Osmosis at a fraction of the cost and with none of the drawbacks. Independent laboratory tests have proven its ability to provide 4 and 6 log reduction of bacteria, virus, and cysts! It can also remove better than 99% of heavy metals like lead and chromium VI. Force Field™ Filters are the ultimate choice for providing safe water to your customers.

How does it compare to other water remediation technologies:



Water Remediation Technologies - Residential, Commercial, Industrial, Municipal, Desal

| Contaminants | Force Field™ Pac Technology | RO | NF | UF | MF | Particulate Cartridges | Carbon Block | Ultra violet |
|-----------------------|-----------------------------|----|----|----|----|------------------------|--------------|--------------|
| Dissolved Salts | | ■ | | | | | | |
| Endotoxin | ■ | ■ | ■ | ■ | ■ | ■ | | |
| Virus | ■ | ■ | ■ | | | | | ■ |
| Bacteria | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Cysts | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Polysaccharides (TEP) | ■ | ■ | ■ | ■ | ■ | | | |
| Colloids | ■ | ■ | ■ | ■ | | | | |
| Particulates | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Chemical Reduction | ■ | ■ | | | | | ■ | ■ |
| Trace Pharmaceuticals | ■ | ■ | | | | | ■ | ■ |

Membrane definition: Reverse Osmosis=RO; Nanofiltration=NF; Ultrafiltration=UF; Microfiltration=MF.



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CERTIFIED PERFORMANCE BY THIRD PARTY TESTING

Microbiological Threats

Testing by BCS Labs (1/2/14), #1401002

| Challenge Species: ProtectX 2.5" Force Field™ Gravity Camp Filters | Filter Influent Average Concentration | Percent removal of the challenge species by the filter initially and following the passage of the indicated volume (liters) of laboratory grade reagent water | | | |
|---|--|---|------------|------------|------------|
| | | 1.0 liter | 10.0 liter | 25.0 liter | 50.0 liter |
| Bacteria: Raoultella terrigena | 3.45 x 10 ⁵ cfu/ml | >99.9999%* | >99.9999%* | >99.9999%* | >99.9999%* |
| Virus: MS-2 Bacteriophage | 3.45 x 10 ⁵ pfu/ml | >99.9999%* | >99.9999%* | >99.9999%* | >99.9999%* |
| e: 3.0 micron microspheres | 1.8 x 10 ⁴ spheres/ml | >99.998%* | >99.998%* | >99.998%* | >99.998%* |

* No species were detected in the filter effluent for the duplicate samples analyzed. Filter effluent samples were analyzed in duplicates at the minimum following collection.

Heavy Metals

| Metal Species | Influent Concentration (ppm) | Filter #1 Effluent following passage of 100 gallons water; BCS 1407065 | | Filter #2 Effluent following passage of 100 gallons water; BCS 1407066 | | Cumulative % Reduction |
|---------------|------------------------------|--|-------------|--|-------------|------------------------|
| | | Concentration (ppm) | % Reduction | Concentration (ppm) | % Reduction | |
| Arsenic (As) | .011 | 0.0052 | 95.3% | <0.0040** | >96.4%** | 95.9% |
| Barium (Ba) | .011 | 0.01 | 90.9% | 0.0054 | 95.1% | 93.0% |
| Cadmium (Cd) | .010 | <0.0010** | >99.0%** | <0.0010** | >99.0%** | >99.0%** |
| Chromium (Cr) | .015 | <0.0020** | >98.7%** | <0.0020** | >98.7%** | >98.7%** |
| Lead (Pb) | 0.084 | <0.0022** | 97.4%** | 0.0027 | 96.8% | 97.1% |
| Mercury (Hg) | 0.140 | 0.069 | 50.7% | 0.056 | 40.0% | 45.4% |
| Selenium (Se) | .011 | <0.0050** | >95.5%** | <0.0050*** | >95.5%** | >95.5%** |
| Silver (Ag) | 0.064 | 0.0049 | 92.3% | <0.0010** | >98.4%** | 95.4% |

** The species was not detected in the effluent.

Other Contaminants

- PCB's Remove to 99+%
- Antibiotics Remove to 99+%
- Bisphenol A (BPA) remove to 99+%
- TEP remove to 99+%
- Chlorophyll remove to 99+%
- Trace Hydrocarbons remove to 99+%

Specifications

- Max Operating Temp: 160F
- Max Flow Rates: 2gpm to 45gpm (per filter)
- Nominal Dimensions: 5", 10", 20", 30", 40" Length, 2"-7" diameter
- Micron: Effective micron rate .001
- Endcaps: 222, 226, DOE



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