

Whole House Ultrafiltration For Municipal Water Systems



Stage 1

Stage 1 uses a multi faceted filter to filter out large particles greater than 5 micron and to condition the incoming water so it can no longer form calcium carbonate. This filtration process extends the life and reduces maintenance of the MicronGuard™ element in the next stage.

- Filters out sediment
- Conditions water so glasses and faucets remain spotless

Stage 2

Stage 2 uses our proprietary MicronGuard™ filter to filter out bacteria, viruses, cysts, spores, and other pathogens. It is engineered with an activated carbon high surface area paper to reduce pathogens, pesticides, pharmaceuticals, forever chemicals (PFOA/PFOS), and heavy metals (including lead). Incorporates Agion silver particles to keep filter from biofouling.

Stage 3

Stage 3 Final polishing of PFOA/PFOS, lead, chlorine, pesticides, and other contaminants with a high-capacity carbon filter. Improves taste and smell of water. This carbon will outperform similar carbons due to the purity of water at this step of the process.

Whole House Ultrafiltration For Well Water Systems



Stage 1

Stage 1 uses a multi faceted filter to filter out large particles greater than 5 micron and to condition the incoming water so it can no longer form calcium carbonate. This filtration process extends the life and reduces maintenance of the MicronGuard™ element in the next stage.

- Filters out sediment
- Conditions water so glasses and faucets remain spotless

Stage 2

Stage 2 uses our proprietary Hi Flow/Hi Capacity mechanical filters to remove some bacteria/viruses as well as further removing particulate to enhance Stage 3 filtration performance.

Stage 3

Stage 3 uses our proprietary MicronGuard™ filter to filter out bacteria, viruses, cysts, spores, and other pathogens. It is engineered with an activated carbon high surface area paper to reduce pathogens, pesticides, pharmaceuticals, forever chemicals (PFOA/PFOS), and heavy metals (including lead). Incorporates Agion silver particles to keep filter from biofouling.

CleanWaterCleanAir.com

Technology Performance - Extensive Pathogen Removal

Ultrafiltration+ Test Data on Biologicals

Unit	Flow Rate, L/min	Flow Velocity, LPM/cm2	P, psi	Removal efficacy of FIT, LTV	Removal efficacy of MS2, LTV
U1S 1	3.2	0.002b	2.0	>9	>7

Note: Influent CFU count = 15,000,000 CFU

Pesticide Contaminants

Contaminant	Influent Concentration in ug/l	Treated Concentration in ug/l	Reduction %
4,4 DDD	50.1	<0.1	99.9
4,4 DDE	50.2	<0.1	99.9
4,4 DDT	50.1	<0.1	99.9

Volatile Organic Contaminants

Contaminant	Influent Concentration in ug/l	Treated Concentration in ug/l	Reduction %
1,1,1,2-Tetrachloroethane	79.8	<0.5	99.9
1,1,1-Trichloroethane	81.2	<0.5	99.9
1,1,2,2-Tetrachloroethane	81	0.81	99
1,1,2-Trichloroethane	150.3	<0.5	99.9
1,1-Dichloroethane	80.2	<0.5	99.9
1,1-Dichloroethane	81	<0.5	99.9
1,1-Dichloropropane	81.2	<0.5	99.9
1,2,3-Trichloropropane	80.1	0.7	99.1
1,2,3-Trichloropropane	80.2	<0.5	99.9
1,2,4-Trichlorobenzene	160.1	<0.5	99.9
1,2,4-Trimethylbenzene	80.5	<0.5	99.9
1,2-Dichlorobenzene	80.3	<0.5	99.9

Volatile Organic Contaminants (continued)

1,2-Dichloroethane	80.4	<0.5	99.9
1,2-Dichloropropane	80.3	<0.5	99.9
1,3,5-Trimethylbenzene	80.3	<0.5	99.9
1,3-Dichlorobenzene	80.1	<0.5	99.9
1,3-Dichloropropane	79.1	<0.5	99.9
1,4-Dichlorobenzene	40.3	<0.5	99.9
2,2-Dichloropropane	81.1	<0.5	99.9
2-Chlorotoluene	80.2	<0.5	99.9
4-Chlorotoluene	80.2	<0.5	99.9
4-Isopropyltoluene	80.2	<0.5	99.9
Benzene	81.4	<0.5	99.9
Bromobenzene	80	<0.5	99.9
Bromochloromethane	80	<0.5	99.9
Bromodichloromethane	80.2	<0.5	99.9
Bromoforn	80.2	<0.5	99.9
Bromomethane	80.1	<0.5	99.9
Carbon Tetrachloride	81	<0.5	99.9
Chlorobenzene	79.5	<0.5	99.9
Chloroethane	80.2	<0.5	99.9
Chloroform	80.1	<0.5	99.9
Chloromethane	80.1	<0.5	99.9
cis-1,2-Dichloroethene	170.1	<0.5	99.9
cis-1,3-Dichloropropene	50.2	<0.5	99.9
Dibromomethane	80.1	<0.5	99.9
Dichlorodifluoromethane	80.0	<0.5	99.9
Ethylbenzene	82.0	<0.5	99.9
Hexachlorobutadiene	44	<0.5	99.9
Isopropylbenzene	80.3	<0.5	99.9

Volatile Organic Contaminants (continued)

Atachlor	40.2	<0.1	99.9
Aldrin	50.2	<0.1	99.9
Alpha-BHC	50.8	<0.1	99.9
Ametryn	50.8	<0.1	99.9
Atraton	50.2	<0.1	99.9
Atrazine	10.0	<0.1	99.9
Beta-BHC	50.9	<0.1	99.9
Bromacil	51.2	<0.1	99.9
Carbofuran	80.2	<0.1	99.9
Chlorlone	40.2	<0.1	99.9
Chlorobenz	51.0	<0.1	99.9
Chlorobenzilate	49.9	<0.1	99.9
Chlorothalonil	50.2	<0.1	99.9
Chlorprophane	50.2	<0.1	99.9
Chlorpyrifos	50.3	<0.1	99.9
Cyflazene	50.1	<0.1	99.9
Delta-BHC	50.7	<0.1	99.9
Dichlorvos	50.2	<0.1	99.9
Diphenamid	50.2	<0.1	99.9
Disulfoton	50.2	<0.1	99.9
Endosulfan Sulfate	50.0	<0.1	99.9
Endrin	6.0	<0.1	99.9
Endrin Aldohide	50.5	<0.1	99.9
Endrin Ketone	50.0	<0.1	99.9
Endosulfan I	49.8	<0.1	99.9
Endosulfan II	50.3	<0.1	99.9
Etheprop	50.4	<0.1	99.9
Fenamiphos	50.2	<0.1	99.9

Metal and Chemical Element Contaminants

Water Contaminant	Influent Concentration in ug/l	Treated Concentration in ug/l	Reduction %
Antimony	5.1	<0.5	99.9
Arsenic	50.0	<0.5	99.9
Beryllium	50.0	<0.5	99.9
Bismuth	50.0	<0.5	99.9
Cadmium	50.0	<0.5	99.9
Chromium	50.0	2.6	99.1
Copper	50.0	5.2	99.8
Iron	50.0	101	96.7
Lead	50.0	4.14	97.2
Manganese	50.0	150	85.8
Mercury	50.0	<0.5	99.9
Nickel	50.0	<0.5	99.9
Selenium	50.0	<0.5	99.9
Zinc	50.0	21.1	80.8

Metal and Chemical Element Contaminants (continued)

Methylene Chloride	81.2	1.04	98.8
MTBE	81.5	1.83	97.8
m-Xylene	70.1	<0.5	99.9
Naphthalene	80.4	1.4	98.3
n-Butylbenzene	80.2	<0.5	99.9
n-Propylbenzene	80.2	<0.5	99.9
o-Xylene	70.1	<0.5	99.9
sec-Butylbenzene	80.3	<0.5	99.9
Styrene	80	<0.5	99.9
tert-Butylbenzene	80.2	<0.5	99.9
Tetrachloroethene	80.1	<0.5	99.9
Toluene	80.2	<0.5	99.9
trans-1,2-Dichloroethene	80.5	<0.5	99.9
trans-1,3-Dichloropropene	81	<0.5	99.9
Trichloroethene	100.3	<0.5	99.9
Trichlorofluoromethane	80.1	<0.5	99.9
Vinyl chloride	80.3	<0.5	99.9

Metal and Chemical Element Contaminants (continued)

Fenarimol	50.2	<0.1	99.9
Fluoridone	50.4	<0.1	99.9
Gamma-BHC	2.0	<0.1	99.9
Glyphosate	800	<0.1	99.9
Heptachlor	80.0	<0.1	99.9
Heptachlor Epoxide	4	<0.1	99.9
Methoxychlor	120	<0.1	99.9
Molinate	50.4	<0.1	99.9
PCB'S	10.1	<0.1	99.9
Prometon	50.9	<0.1	99.9
Simazine	12.0	<0.1	99.9
Toxaphene	15.1	<0.1	99.9

Critical Claims: Bacteria (ignore boil orders), viruses, cysts, spores, lead, PFOS/PFOA, pharmaceuticals, pesticides, chlorine, suspended solids

Filters can be customized to specific source.