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**Information & Assistance**

To learn more about our products, contact your Crystal Quest® dealer.

- www.CrystalQuest.com
- Support@CrystalQuest.com
- Customer Support 1-800-934-0051
Water is one of the most immediate and essential ingredients of life. Without water, all life would end in a matter of days. To survive, we need 1.5 quarts of water daily. Did you know that water:

- makes up 70% of our bodies?
- is essential for every bodily process?
- carries nutrients to our cells?
- acts as a natural lubricant to joints and limbs?

Water naturally suppresses the appetite and helps the body metabolize stored fat. Studies have shown that a decrease in water intake will cause fat deposits to increase, while an increase in water intake can actually reduce fat deposits. Water is quite possibly the single most important catalyst in achieving or maintaining desired weight. Most health authorities agree that for healthy living, you should drink eight or more glasses of water every day.

THE IMPORTANCE OF CLEAN WATER

Less than 1% of earth’s water is drinkable, fresh water. Untreated, this 1% can contain unhealthy chemical substances. Harmful, contaminated water is often reported in the news.

WATER CONTAMINATION

There have been a half-million new chemicals derived since 1965 alone. Most of these organic pollutants are modern hydrocarbon chemicals such as plastic and pesticides. Some are non-biodegradable. Most are soluble in water and thousands are known to be toxic.

CONTAMINATION BY INDUSTRY

Water can become contaminated during its journey from treatment plants to home. Lead and asbestos-cement pipes, prevalent in municipal water distribution systems, can allow harmful substances to leach into the water.
**HARD WATER IS A $6 BILLION ANNUAL PROBLEM**

If your water has over two grains of hardness, you need a softener.

Annually, hard water causes:

- $2 billion wasted in cleaning supplies
- $1 billion in damages to our washables and linens
- More than $3 billion in damages to our plumbing
- Damages to our appliances 50-70% faster than soft water
- More than $800 million in increased fuel bills

**MUNICIPAL WATER**

Chlorine is used by local water treatment facilities to remove and prevent bacteria and other microbial presence in water supplies. It is a strong oxidizing agent and is highly effective in eliminating microbes but can also reach unbearable user levels in some homes. Since chlorine needs to reach some homes that are far away from the treatment facility, higher chlorine levels are used, and this becomes most noticeable and perhaps menacing in residences that are closer to the chlorinating source.

Chlorine is considered one of the more controversial contaminants which is deliberately added to water. Even at normal concentrations, chlorine can kill non-harmful “good” bacteria in our bodies that we all need to maintain proper immunity and digestive functions. Under common conditions, chlorine forms trihalomethanes (THMs), a known carcinogen, which is linked to colon, rectal, bladder, and prostate cancer. Chloroform, a powerful by-product of chlorination and a known carcinogen, causes excessive free radical formation (accelerated aging), normal cells to mutate, and cholesterol to oxidize. Two other chlorine by-products (also carcinogens) are dichloroacetic acid (DCA) and MX, which are linked to genetic mutations that can lead to cancer growth.

Once chlorinated water reaches the home, removal of the chlorine can be accomplished through very practical and effective methods. One should keep in mind, however, that not all bad smells, tastes, and chemical effects are limited to chlorine, and that all parameters of the water in question should be explored prior to installation of such equipment. This will assure the right equipment for the right contaminant(s) without “trial and error” methods.

**CONTAMINATION AT HOME**

Water can become contaminated right at home. Some older homes have lead pipes. Some have plumbing systems which use lead based solder to join copper pipes. Both can allow lead to leach into drinking water.

Water can become contaminated right at home. Some older homes have lead pipes. Some have plumbing systems which use lead based solder to join copper pipes. Both can allow lead to leach into drinking water.
• Soft water advantages include:

- Savings up to 29.5% on gas bills; and 21.7% on electric bills
- Dishes clean more easily and are spot free
- Laundry that is fresher, cleaner, brighter, whiter, brighter; and clothing, towels and linens are longer lasting
- Elimination of calcium and lime buildup in plumbing
- Use of less shampoo and conditioner; soaps and shampoos lather better, for more manageable hair and softer skin
- Stain-free sinks, tubs, and showers
- No soap scum; clean water helps unclog your pores and keeps your skin smooth and healthy

HARD WATER AND KIDNEY STONES
Kidney stones can be the result of drinking water saturated with inorganic minerals.

HARD WATER AND INTESTINAL PROBLEMS
“Hardness in water is actually a public enemy for it is the underlying cause of many, if not all, the diseases resulting from poisons in the intestinal tract … ” Dr. Charles Mayo, Mayo Clinic

ECONOMICAL, EFFECTIVE SOLUTION
With a Crystal Quest® water filter system, water travels through several stages. The end result is to totally eliminate or greatly reduce a wide variety of contaminants such as:

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Chlorine</th>
<th>Unpleasant tastes</th>
<th>Unpleasant odors</th>
<th>Lead</th>
<th>Iron (II, III)</th>
<th>Toxic chemicals</th>
<th>Hydrogen sulfide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>Trihalomethanes</td>
<td>Asbestos (volatile and synthetic)</td>
<td>Pesticides</td>
<td>Cadmium</td>
<td>Chromium VI</td>
<td>Magnesium</td>
<td></td>
</tr>
<tr>
<td>Chromium III</td>
<td>Selenium</td>
<td>Mercury</td>
<td>Calcium</td>
<td>Carbonate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, it completely or partially removes microorganisms such as bacteria, algae and fungi by the reaction of an oxidation reduction process.

- No chlorine or chlorine by-products
- No more bottled water or heavy cooler bottles to lift
- No more inhaling and absorbing chlorine and other chemicals in shower and bath

CRYSTAL, SPARKLING, CLEAN WATER
With the most advanced and effective water filtration and conditioning system in the market, you can get great tasting, healthier water for drinking, flavorful beverages, crystal clear ice cubes, cooking and tasty food.

HOW GUARANTEED PERFORMANCE WORKS
Crystal Quest® guarantees the performance of filtration systems identified as “Guaranteed Performance” units. The guarantee offers assurance of the removal of contaminants and also assures that the filtered water is free of the leaching of toxicities. This guarantee provides a refund of the purchase price under the following conditions:

1. System recommendations will be provided to the customer by Crystal Quest® based on lab tests or a detailed description of the existing water conditions as provided or described by the customer.
2. Filtration system is installed as recommended and is in operation between 1 and 3 months prior to performance water test.
3. An independent third party laboratory test report is requested and provided at customer’s expense and chosen by Crystal Quest®. If results indicate lack of performance, Crystal Quest® will research results of report, installation procedures, and other relevant details. Recommendations will be discussed and implemented at customer’s expense based on researched cause of results. If subsequent testing shows satisfactory performance, Crystal Quest® will reimburse the customer with replacement cartridges up to the cost of testing to have these results posted on the Crystal Quest® website. All details on the report except city, state, zip code, and specific system description would be excluded. If Crystal Quest® exhausts all attempts to increase the performance within a stated reasonable time period and is unable to correct the issue, the “Guaranteed Performance” refund policy will be honored.
4. All refunds will be issued per Crystal Quest® policies located at http://www.crystalquest.com.
Water travels through 14 stages of filtration

Stage 1, water flows through a 20" 5-micron sediment filter cartridge that removes sediment, sand, silt and dirt.

Stages 2 and 4, water flows through two beds of Eagle Redox Alloy® (oxidation/reduction process) media. Representing a new and unique way of water processing media by its natural process of electrochemical oxidation reduction and adsorption action, Eagle Redox Alloy® reduces and/or removes many unwanted contaminants from water.*

Stage 3, water flows through ion exchange resin, reducing heavy metals and water hardness.

Stage 5, water passes through coconut shell granulated activated carbon (Arsenic-Free GAC™), recognized and regularly used as an effective absorbent for removing a wide variety of organic contaminants, bad taste and odors from drinking water.

Stages 6 and 7, water travels through a special blend of natural infrared and mineral balls.

Stages 8 and 9, water flows through a bed of a special blend of calcium carbonate media which will alkalize/ionize and remineralize the water as well as raise the pH level of your water.

Stage 10, water travels through a bed of gravel that provides backwash support and improves the taste of your water.

Stages 11 and 12, water passes by two powerful magnets (greater than 12,000 gauss) that create a magnetic field in the filter for magnetic resonance activation of the water. This process lowers surface tension and increases solubility and absorptivity.

Stage 13, water flows through a 20" solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

Stage 14, water passes through a 20" 0.2-micron ultrafiltration (UF) membrane.

* if present in the water
Water travels through 4 stages of filtration

Stage 1, water flows through a 20” sediment filter cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through a Crystal Quest® Eagle® Anti-Scale media tank.
Stage 3, water flows through a 20” solid carbon cartridge for removing volatile organic carbon compounds (VOCs), insecticides, pesticides and industrial solvents.*
Stage 4, water passes through a 20” 0.2 micron ultrafiltration (UF) membrane. Ultrafiltration (UF) is an important purification technology used for the production of high-purity water. UF is effective for the removal of colloids, proteins, bacteria, viruses, parasites, protozoa and pyrogens (e.g., gram-negative bacterial endotoxins), other organic molecules larger than 0.2 micron, and most other water contaminants known today.

Crystal Quest® Eagle Anti-Scale Systems/Saltless Water Conditioner is a new technology which transforms the calcium (hardness) of the water into mechanically stable and heat resistant calcite crystals (nanometer size) which no longer cause lime deposits. The calcium is simply rinsed away.

Calcium (hardness) creates scale in pipes, on appliances and other plumbing surfaces. This leads to higher heating and energy costs and expensive repairs to appliances. Scale can also be a source for bacteria to grow, which can be a health concern in drinking water applications. It also removes the already existing scale from pipes and heat exchanger surfaces (descaling effect) and further protects the system from future formation of scale (scale protection effect).

Removal of existing calcium deposits
The calcium crystals which are rinsed away by the water cannot attach to any surfaces but, due to the nanostructure of the crystals, they have a function similar to the Crystal Quest® Eagle® Anti-Scale media. It binds additional calcium to itself and therefore breaks the grid binding structure of the calcium deposits. The result is that even after a short time large pieces of deposits are removed. This process continues until the surface is free from deposits.

Formation of a corrosion-preventing layer
After the old calcium deposits are removed, a 30- to 80-micron thick corrosion-preventing layer is formed. This layer forms because of the reaction of the nano surface of the crystals and the metallic surface of the pipes. This is comparable to the green layer of verdigris on a copper roof. As soon as the protective layer is formed it can no longer grow bigger, but it creates complete protection.

* if present in the water
Water travels through 15 stages of filtration

**Stage 1**, water flows through a 20" 5-micron sediment filter cartridge that removes sediment, sand, silt and dirt.

**Stages 2 and 3**, water flows through a bed of a special blend of calcium carbonate media which will alkalize/ionize and remineralize the water as well as raise the pH level.

**Stages 4 and 5**, water travels through a special blend of natural mineral and infrared balls.

**Stage 6**, water passes through coconut shell granulated activated carbon (Arsenic-Free GAC™). GAC is universally recognized and regularly used as an effective adsorbent for removing a wide variety of organic contaminants, bad taste and odors from drinking water.

**Stages 7 and 9**, water flows through two beds of Eagle Redox Alloy® (Eagle Redox Alloy® 6500 and 9500) media. Representing a new and unique way of water processing media by its natural process of electrochemical oxidation reduction and adsorption action, Eagle Redox Alloy® reduces and/or removes many unwanted contaminants from water.

**Stage 8**, water flows through ion exchange resin, reducing heavy metals and water hardness.

**Stage 10**, water travels through a bed of gravel that provides backwash support and improves the taste of your water.

**Stages 11 and 12**, water passes by two powerful magnets (greater than 12,000 gauss) that create a magnetic field in the filter for magnetic resonance activation of the water. This process lowers surface tension and increases solubility and absorptivity.

**Stage 13**, water flows through the Crystal Quest® Eagle® Anti-Scale media tank.

**Stage 14**, water flows through a 20" solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

**Stage 15**, water passes through a 20" 0.2-micron ultrafiltration (UF) membrane.

* if present in the water
Water travels through 11 stages of filtration

**Stage 1**, water flows through a 20” sediment filter cartridge that removes sediment, silt, sand and dirt. Also extends the life of the control valve and prevents damage.

**Stages 2 and 4**, water flows through two beds of Eagle Redox Alloy® (oxidation/reduction process) media made of a special high-purity alloy blend of two dissimilar metals - copper and zinc.

**Stage 3**, water flows through the ion exchange resin, reducing heavy metals such as lead, copper, aluminum, and water hardness.

**Stage 5**, water passes through coconut shell granulated activated carbon (Arsenic-Free GAC™). GAC is universally recognized and widely used as an effective adsorbent for a wide variety of organic contaminants, bad taste, and odors from your drinking water.

**In stages 6 and 7**, water travels through a special blend of natural calcium carbonate media which will alkalize/ionize and remineralize the water and raise the pH level of your water. This process reduces acidity in the body and will produce natural calcium, magnesium, sodium and potassium ions that can be absorbed 100% in the human body.

**Stage 8**, water travels through a bed of gravel. It provides backwashing support and improves the taste of your water.

**Stage 9**, water passes by two powerful magnets (greater than 12,000 gauss) that create a magnetic field in the filter for magnetic resonance activation of the water. This process lowers surface tension and increases solubility and absorptivity.

**Stage 10**, water flows through a 20” solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

**Stage 11**, water passes through a 20” 0.2 micron ultrafiltration (UF) membrane.

* if present in the water

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**Compact Filtration and Enhancement System with Ultrafiltration**

Suitable for descaling and contamination-free filtered water with alkalinity. Great for home, apartment or office use.

---

**Eagle® Mid-Size Whole House Water Filters with Ultrafiltration**

**EAGLE® 1000-FG FIBERGLASS**
- CQE-WH-02100
  - .75 cu. ft. resin
  - 350,000 gallon capacity
  - Service Flow: 6-8 GPM

**EAGLE® 1000A-FG FIBERGLASS**
- CQE-WH-02102
  - .75 cu. ft. resin
  - 350,000 gallon capacity
  - Service Flow: 6-8 GPM

**EAGLE® 1000-SS STAINLESS STEEL**
- CQE-WH-02101
  - .75 cu. ft. resin
  - 350,000 gallon capacity
  - Service Flow: 6-8 GPM

**EAGLE® 1000A-SS STAINLESS STEEL**
- CQE-WH-02103
  - .75 cu. ft. resin
  - 350,000 gallon capacity
  - Service Flow: 6-8 GPM
Acidity (Low pH)

Water with a low pH can be acidic, soft and corrosive. Signs of acid water are corrosion of fixtures, pinhole leaks in plumbing, and blue staining (from copper pipes) or rust staining (from iron pipes). This water can leach metals such as copper, iron, lead, manganese and zinc. It can cause damage and aesthetic problems such as a metallic or sour taste or laundry staining. Often these waters are great for drinking or household use, but are low in buffering calcium minerals, and contain dissolved carbon-dioxide gas, which can cause a low pH and acid condition. Acidic water is odorless and tasteless.

The pH level of your drinking water reflects how acidic it is. pH stands for “potential hydrogen,” referring to the amount of hydrogen mixed with the water. Acidity cannot be removed from water. However, it can be neutralized by raising the pH with alkalinity. Treat the problem of acidic, low pH drinking water with a neutralizer.

Alkalinity (High pH)

Alkalinity is a measure of the capacity of water to neutralize acids. Alkalinity is primarily due to the presence of bicarbonate, carbonate, and hydroxide ions. Alkalinity acts as a pH buffer to deactivate acidity. Water with high alkalinity may have an offensive taste. These filters are tanks filled with a media blend of calcium and magnesium carbonates made from naturally occurring minerals. This media slowly dissolves into the water, raising the pH and making it less corrosive. One of the most important benefits of alkaline water (besides increasing the pH) is that it lowers Oxidation Reduction Potential (ORP).
Water travels through 5 stages of filtration

Stage 1, water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.

Stages 2, 3 and 4, water flows through a coconut shell granulated activated carbon (Arsenic-Free GAC™), Eagle Redox Alloy® 6500, and Eagle Redox Alloy® 9500 mineral tank which removes hundreds of contaminants.

Stage 5, water flows through a 20” solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

It is a well-known fact that people should drink eight glasses of water a day to help maintain a healthy lifestyle. With CRYSTAL QUEST® Smart Whole House Water Filters, you get delicious, refreshing, safe, top-quality drinking water.

CRYSTAL QUEST® Smart Whole House Water Filters are engineered for maximum filtration and maximum performance with minimum maintenance. Benefits of CRYSTAL QUEST® Smart Whole House Water Filters include:

- Great tasting, healthier water for drinking and cooking
- Crystal clear ice cubes
- Flavorful coffee, tea, mixes, and meals
- Ideal for baby formula, pasta, and soups
- Great for pet and plant water, aquariums
- Unlimited pure water supply to your kitchen and bath
- No heavy cooler bottles to lift
- Weight-loss and low-sodium diets
- Steam irons, humidifiers, and household cleaning, such as windows

* if present in the water
Water is hard when it contains minerals like calcium and magnesium. You may see staining on your sinks, tubs, showers, and clothing. You may also notice less lather from your shampoos and soaps and even a feeling of film on your skin. All these are symptoms of the need for softened water.

Hard water also causes a higher risk of lime scale deposits in household water systems. The negative effect of lime scale buildup is that pipes are blocked and the efficiency of hot boilers and tanks is reduced. This increases the cost of domestic water heating by about fifteen to twenty percent. Another negative effect of lime scale is that it has damaging effects on household machinery, such as laundry machines. Water softening means expanding the lifespan of household machines, and the lifespan of pipelines. It also contributes to the improved working and longer lifespan of solar heating systems, air conditioning units and many other water-based applications.

Water is softened or conditioned by replacing hard ions like calcium and magnesium with softer sodium or potassium ions. Water softeners must be regenerated** regularly, renewing their ability to remove hardness from water. Time-initiated or solid state softeners regenerate at a fixed time when their softening capacity is predicted to be low. Demand-initiated softeners regenerate automatically when they sense their capacity is low.

**Frequent regeneration with sodium chloride (salt) or potassium chloride required.

---

Water travels through 3 stages of filtration

**Stage 1**, water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.

**Stage 2**, water flows through an ion exchange mineral tank and brine water conditioner.

**Stage 3**, water flows through a 20” solid carbon cartridge for removing volatile organic carbon compounds (VOCs), insecticides, pesticides and industrial solvents.*

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Hard Water Levels Throughout the USA

*Source: USGS

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Water is hard when it contains minerals like calcium and magnesium. You may see staining on your sinks, tubs, showers, and clothing. You may also notice less lather from your shampoos and soaps and even a feeling of film on your skin. All these are symptoms of the need for softened water.

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**Frequent regeneration with sodium chloride (salt) or potassium chloride required.
What is hard water? Water described as "hard" is high in dissolved minerals, specifically calcium and magnesium. It is estimated that more than 80% of homes across the country are affected by hard water. What is more staggering, however, is that many homeowners do not know if they have hard water or how to detect it.

The "hardness" of water is determined by the combined number of calcium and magnesium grains present. The higher the number of grains per gallon, the "harder" your water is. These minerals are picked up by "soft" rain water as it travels down through the soil to the underground water table. Water that comes into contact with limestone (calcium and magnesium rock) has a much higher content of these hard minerals. Hard water has a negative impact on you, your household, and your pocketbook.

You probably have hard water. If left untreated, here is what can happen:

- The minerals in hard water will cause yellow stains on plumbing fixtures and be deposited as scale, eventually clogging plumbing and shortening the life of appliances like washing machines, water heaters, and dishwashers by up to 30%. Scale deposits not only cut down on the efficiency of these appliances, they cost you money, increasing both energy and maintenance bills.
- Hard water dulls your hair and dries your skin. Shaving is more difficult in hard water.
- Hard water can leave unsightly film buildup on glasses and dishes.
- Hard water leaves a filmy soap ring around bath and kitchen faucets, which makes cleanup more difficult.

There are numerous benefits of Water Softener Systems. They eliminate the effects of hard water. They "soften" the water by removing the calcium and magnesium.

- Water heater efficiency is increased up to 29%
- Save up to 70% on household detergents and soaps
- Soap and shampoo will lather better, resulting in softer skin and more manageable hair
- Save up to 25% on personal care items such as hair products and shaving cream
- Up to 30% longer life for washing machines, dishwashers, coffeemakers, humidifiers, water heaters, and household plumbing systems
- Fabrics will be whiter, brighter, and last up to 33% longer
- Dishes come clean more easily, without spots
- Bath and kitchen fixtures will have less soap scum buildup
- Sinks, tubs, and showers will be stain-free

### Water travels through 6 stages of filtration

1. **Stage 1,** water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.
2. **Stage 2,** water flows through an ion exchange media tank and brine water conditioner.
3. **Stage 3, 4 and 5,** water flows through a coconut shell granulated activated carbon (Arsenic-Free GAC™), Eagle Redox Alloy® 6500 and Eagle Redox Alloy® 9500 mineral tank which removes hundreds of contaminants.
4. **Stage 6,** water flows through a 20” solid carbon filter cartridge to remove volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

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### Recommended to achieve soft water and contamination-free, balanced pH water.

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### Softener and Water Filtration Combo Systems

**Smart Water Softener and Whole House Water Filters**

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<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01127</td>
<td>FiberGlass</td>
<td>1.5 cu. ft. resin 48,000 grain capacity 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01128</td>
<td>FiberGlass</td>
<td>2.0 cu. ft. resin 60,000 grain capacity 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-02130</td>
<td>Stainless Steel</td>
<td>2.0 cu. ft. resin 60,000 grain capacity 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01129</td>
<td>Stainless Steel</td>
<td>1.5 cu. ft. resin 48,000 grain capacity 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
</tbody>
</table>

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* if present in the water

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**Automatic Valve**

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See Page 5 for Details

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Fluoride Filtration Systems

Water travels through 3 stages of filtration

Stage 1, water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through a fluoride-reducing mineral tank.
Stage 3, water flows through a 20” solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.

Fluoride found in ground water happens naturally from the breakdown of rocks and soils or weathering and deposition of atmospheric volcanic particles. Fluoride can also come from runoff and infiltration of chemical fertilizers in agricultural areas, septics and sewage treatment system discharges in communities with fluoridated water supplies, and liquid waste from industrial sources. It is voluntarily added to some drinking water systems as a public health measure for reducing the incidence of cavities. Although helpful for dental health in low dosages, chronic exposure to fluoride in large amounts interferes with bone formation.

* if present in the water

See Page 5 for Details

**FLUORIDE WHOLE HOUSE FIBERGLASS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-11630</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11640</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**FLUORIDE WHOLE HOUSE STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-11650</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11660</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**FLUORIDE / MULTISTAGE WHOLE HOUSE (6 Stages) FIBERGLASS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
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<tbody>
<tr>
<td>CQE-WH-11670</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11680</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**FLUORIDE / MULTISTAGE WHOLE HOUSE (6 Stages) STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Model</th>
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</thead>
<tbody>
<tr>
<td>CQE-WH-11690</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11700</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**SOFTENER / FLUORIDE WHOLE HOUSE (4 Stages) FIBERGLASS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-11710</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11720</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**SOFTENER / FLUORIDE WHOLE HOUSE (4 Stages) STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-11730</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11740</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**SOFTENER / FLUORIDE / MULTISTAGE WHOLE HOUSE (7 Stages) FIBERGLASS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-11750</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11760</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

**SOFTENER / FLUORIDE / MULTISTAGE WHOLE HOUSE (7 Stages) STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-11780</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-11790</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

* See Page 5 for Details
Stage 1, water flows through a 20" sediment cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through an arsenic-reducing mineral tank.
Stage 3, water flows through a 20" solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

Arsenic enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices. Surface arsenic-related pollutants enter the ground water system by gradually moving with the flow of ground water from rains, melting of snow, etc. Arsenic won't affect the taste or smell of drinking water enough to call attention to such contamination. Like many contaminants in drinking water, arsenic is potentially hazardous at levels or concentrations that do not impart a noticeable taste, odor, or appearance to the water.

* if present in the water

Water travels through 3 stages of filtration

ARSENIC WHOLE HOUSE FIBERGLASS

- CQE-WH-01147
  - 1.5 cu. ft. resin
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01148
  - 2.0 cu. ft. resin
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

ARSENIC AND MULTISTAGE WHOLE HOUSE (6 Stages) FIBERGLASS

- CQE-WH-01151
  - 1.5 cu. ft. resin
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01152
  - 2.0 cu. ft. resin
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

SOFTENER / ARSENIC WHOLE HOUSE (4 Stages) FIBERGLASS

- CQE-WH-01155
  - 1.5 cu. ft. resin
  - 48,000 grain capacity
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01156
  - 2.0 cu. ft. resin
  - 60,000 grain capacity
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

SOFTENER, ARSENIC, AND MULTISTAGE WHOLE HOUSE (7 Stages) FIBERGLASS

- CQE-WH-01159
  - 1.5 cu. ft. resin
  - 48,000 grain capacity
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01160
  - 2.0 cu. ft. resin
  - 60,000 grain capacity
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

ARSENIC WHOLE HOUSE STAINLESS STEEL

- CQE-WH-01149
  - 1.5 cu. ft. resin
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01150
  - 2.0 cu. ft. resin
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

ARSENIC AND MULTISTAGE WHOLE HOUSE (6 Stages) STAINLESS STEEL

- CQE-WH-01153
  - 1.5 cu. ft. resin
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01154
  - 2.0 cu. ft. resin
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

SOFTENER / ARSENIC WHOLE HOUSE (4 Stages) STAINLESS STEEL

- CQE-WH-01157
  - 1.5 cu. ft. resin
  - 48,000 grain capacity
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01158
  - 2.0 cu. ft. resin
  - 60,000 grain capacity
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

SOFTENER, ARSENIC, AND MULTISTAGE WHOLE HOUSE (7 Stages) STAINLESS STEEL

- CQE-WH-01161
  - 1.5 cu. ft. resin
  - 48,000 grain capacity
  - 750,000 gallon capacity
  - Service Flow: 9-11 GPM

- CQE-WH-01162
  - 2.0 cu. ft. resin
  - 60,000 grain capacity
  - 1,000,000 gallon capacity
  - Service Flow: 10-13 GPM

See Page 5 for Details
Iron, Managanese, and Hydrogen Sulfide Filtration Systems

Water travels through 3 stages of filtration

Stage 1, water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through an iron, manganese, and hydrogen sulfide-reducing mineral tank.
Stage 3, water flows through a 20” solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

Iron and manganese are metallic elements present in many types of rock. Most groundwater contains some iron and manganese which naturally leaches from rocks and soils. Excess amounts in drinking water can cause discolored water, bad bitter tastes, and rust flakes in the water, as well as rusty-brown stains or black specks on fixtures and laundry. Excess amounts may also affect the taste of beverages and can build up deposits in pipes, heaters or pressure tanks. Hydrogen sulfide, which causes a “rotten egg” odor, can also be released from the soil by the same conditions (low dissolved oxygen and low pH) that cause iron and manganese to dissolve in water. Hydrogen sulfide is frequently found in water with excessive iron and manganese.

Iron, Managanese, Hydrogen Sulfide Filtration Systems

Iron, Managanese, Hydrogen Sulfide Whole House Water Filters

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01195</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01196</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01197</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01198</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01199</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01200</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01201</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01202</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01203</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01204</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01205</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01206</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01207</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01208</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
<tr>
<td>CQE-WH-01209</td>
<td>1.5 cu. ft. resin</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01210</td>
<td>2.0 cu. ft. resin</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>
### Tannin Filtration Systems

**Tannin Whole House Water Filters**

Water travels through 3 stages of filtration

**Stage 1,** water flows through a 20" sediment cartridge that removes sediment, silt, sand and dirt.

**Stage 2,** water flows through a tannin-reducing mineral tank.

**Stage 3,** water flows through a 20" solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

* Tannins, also known as fulvic or humic acid, are a natural organic material that can be the by-products of nature’s fermentation process, and be created as water passes through peaty soil and decaying vegetation. This can cause water to have a faint yellow to tea-like color, and can cause yellow staining on fabrics, fixtures, china and laundry. Tannins in drinking water pose more of an aesthetic problem than a health risk. Tannins may give a tangy or tart aftertaste to water as well as cause water to have a musty or earthy odor. Tannins are more common in surface water supplies and shallow wells than in deep wells.

### TANIN WHOLE HOUSE FIBERGLASS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01179</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
<td></td>
</tr>
<tr>
<td>CQE-WH-01180</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
<td></td>
</tr>
</tbody>
</table>

### TANIN / MULTISTAGE WHOLE HOUSE (6 Stages) FIBERGLASS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01183</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
<td></td>
</tr>
<tr>
<td>CQE-WH-01184</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
<td></td>
</tr>
</tbody>
</table>

### SOFTENER / TANIN WHOLE HOUSE (4 Stages) FIBERGLASS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01187</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity</td>
<td>750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01188</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity</td>
<td>1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

### SOFTENER / TANIN / MULTISTAGE WHOLE HOUSE (7 Stages) FIBERGLASS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01191</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity</td>
<td>750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01192</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity</td>
<td>1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

### TANIN WHOLE HOUSE STAINLESS STEEL

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01181</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
<td></td>
</tr>
<tr>
<td>CQE-WH-01182</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
<td></td>
</tr>
</tbody>
</table>

### TANIN / MULTISTAGE WHOLE HOUSE (6 Stages) STAINLESS STEEL

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01185</td>
<td>1.5 cu. ft. resin, 750,000 gallon capacity</td>
<td>9-11 GPM</td>
<td></td>
</tr>
<tr>
<td>CQE-WH-01186</td>
<td>2.0 cu. ft. resin, 1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
<td></td>
</tr>
</tbody>
</table>

### SOFTENER / TANIN WHOLE HOUSE (4 Stages) STAINLESS STEEL

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01189</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity</td>
<td>750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01190</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity</td>
<td>1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>

### SOFTENER / TANIN / MULTISTAGE WHOLE HOUSE (7 Stages) STAINLESS STEEL

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01193</td>
<td>1.5 cu. ft. resin, 48,000 grain capacity</td>
<td>750,000 gallon capacity</td>
<td>9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01194</td>
<td>2.0 cu. ft. resin, 60,000 grain capacity</td>
<td>1,000,000 gallon capacity</td>
<td>10-13 GPM</td>
</tr>
</tbody>
</table>
Water travels through 3 stages of filtration

**Stage 1,** water flows through a 20’’ sediment cartridge that removes sediment, silt, sand and dirt.

**Stage 2,** water flows through a nitrate-reducing mineral tank.

**Stage 3,** water flows through a 20’’ solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

Nitrate in drinking water occurs when septic systems, feed lots, and agricultural fertilizers contaminate ground water supplies. Natural bacteria in soil can convert nitrogen into nitrate. Nitrate (NO3) comes into water supplies through the nitrogen cycle rather than via dissolved minerals. Rain or irrigation water can carry nitrate down through the soil into groundwater. Your drinking water may contain nitrate if your well draws from this groundwater.

*If present in the water

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### NITRATE WHOLE HOUSE

**FIBERGLASS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01131</td>
<td>1.5 cu. ft. resin</td>
<td>750,000 gallon capacity</td>
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<tr>
<td>CQE-WH-01132</td>
<td>2.0 cu. ft. resin</td>
<td>1,000,000 gallon capacity</td>
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### NITRATE / MULTISTAGE WHOLE HOUSE

(6 Stages) **FIBERGLASS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01135</td>
<td>1.5 cu. ft. resin</td>
<td>750,000 gallon capacity</td>
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<tr>
<td>CQE-WH-01136</td>
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<td>1,000,000 gallon capacity</td>
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### SOFTENER / NITRATE WHOLE HOUSE

(4 Stages) **FIBERGLASS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
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<tbody>
<tr>
<td>CQE-WH-01139</td>
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</tr>
<tr>
<td>CQE-WH-01140</td>
<td>2.0 cu. ft. resin</td>
<td>60,000 grain capacity</td>
<td>Service Flow: 10-13 GPM</td>
</tr>
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</table>

### SOFTENER / NITRATE / MULTISTAGE WHOLE HOUSE

(7 Stages) **FIBERGLASS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01143</td>
<td>1.5 cu. ft. resin</td>
<td>48,000 grain capacity</td>
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</tr>
<tr>
<td>CQE-WH-01144</td>
<td>2.0 cu. ft. resin</td>
<td>60,000 grain capacity</td>
<td>Service Flow: 10-13 GPM</td>
</tr>
</tbody>
</table>

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### NITRATE WHOLE HOUSE

**STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
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<tbody>
<tr>
<td>CQE-WH-01133</td>
<td>1.5 cu. ft. resin</td>
<td>750,000 gallon capacity</td>
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</tr>
<tr>
<td>CQE-WH-01134</td>
<td>2.0 cu. ft. resin</td>
<td>1,000,000 gallon capacity</td>
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### NITRATE / MULTISTAGE WHOLE HOUSE

(6 Stages) **STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01137</td>
<td>1.5 cu. ft. resin</td>
<td>750,000 gallon capacity</td>
<td>Service Flow: 9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01138</td>
<td>2.0 cu. ft. resin</td>
<td>1,000,000 gallon capacity</td>
<td>Service Flow: 10-13 GPM</td>
</tr>
</tbody>
</table>

### SOFTWARE / NITRATE WHOLE HOUSE

(4 Stages) **STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Capacity</th>
<th>Service Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01139</td>
<td>1.5 cu. ft. resin</td>
<td>48,000 grain capacity</td>
<td>Service Flow: 9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01140</td>
<td>2.0 cu. ft. resin</td>
<td>60,000 grain capacity</td>
<td>Service Flow: 10-13 GPM</td>
</tr>
</tbody>
</table>

### SOFTWARE / NITRATE / MULTISTAGE WHOLE HOUSE

(7 Stages) **STAINLESS STEEL**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<td>CQE-WH-01143</td>
<td>1.5 cu. ft. resin</td>
<td>48,000 grain capacity</td>
<td>Service Flow: 9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01144</td>
<td>2.0 cu. ft. resin</td>
<td>60,000 grain capacity</td>
<td>Service Flow: 10-13 GPM</td>
</tr>
</tbody>
</table>

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See Page 5 for Details

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**Nitrate Filtration Systems**
Water travels through 3 stages of filtration

Stage 1, water flows through a 20" sediment cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through a turbidity, dirt, rust and sediment-reducing mineral tank.
Stage 3, water flows through a 20" solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

Turbidity (haze or cloudiness of water) is caused by the presence of suspended solids that interfere with the clarity of the water. These impurities may include clay, silt, finely divided inorganic and organic matter, soluble colored organic compounds, and plankton and other microscopic organisms. Typical sources of turbidity in drinking water include soil erosion, waste discharges, runoff from watersheds, decaying plants and animals, algae or aquatic weeds and products of their breakdown in water reservoirs, rivers or lakes. High iron concentration which gives water a rust-red coloration (mainly in ground water and ground water under the direct influence of surface water) is a source as well. Turbidity has no health effects, but can interfere with disinfection and provide a medium for microbial growth. Excessive turbidity in drinking water is aesthetically unappealing, and may also represent a health concern.

* if present in the water

<table>
<thead>
<tr>
<th>TURBIDITY / DIRT / RUST / SEDIMENT WHOLE HOUSE FIBERGLASS</th>
<th>TURBIDITY / DIRT / RUST / SEDIMENT WHOLE HOUSE STAINLESS STEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01259 1.5 cu. ft. resin 750,000 gallon capacity Service Flow: 9-11 GPM</td>
<td>CQE-WH-01261 1.5 cu. ft. resin 750,000 gallon capacity Service Flow: 9-11 GPM</td>
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<tr>
<td>CQE-WH-01260 2.0 cu. ft. resin 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
<td>CQE-WH-01262 2.0 cu. ft. resin 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
</tr>
</tbody>
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<tr>
<th>TURBIDITY / DIRT / RUST / SEDIMENT AND MULTI-STAGE WHOLE HOUSE (7 Stages) FIBERGLASS</th>
<th>TURBIDITY / DIRT / RUST / SEDIMENT AND MULTI-STAGE WHOLE HOUSE (6 Stages) STAINLESS STEEL</th>
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</thead>
<tbody>
<tr>
<td>CQE-WH-01263 1.5 cu. ft. resin 750,000 gallon capacity Service Flow: 9-11 GPM</td>
<td>CQE-WH-01265 1.5 cu. ft. resin 750,000 gallon capacity Service Flow: 9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01264 2.0 cu. ft. resin 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
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<th>TURBIDITY / DIRT / RUST / SEDIMENT AND SOFTENER WHOLE HOUSE (7 Stages) FIBERGLASS</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CQE-WH-01267 1.5 cu. ft. resin 48,000 grain capacity 750,000 gallon capacity Service Flow: 9-11 GPM</td>
<td>CQE-WH-01269 1.5 cu. ft. resin 48,000 grain capacity 750,000 gallon capacity Service Flow: 9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01268 2.0 cu. ft. resin 60,000 grain capacity 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
<td>CQE-WH-01270 2.0 cu. ft. resin 60,000 grain capacity 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
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<tr>
<td>CQE-WH-01271 1.5 cu. ft. resin 48,000 grain capacity 750,000 gallon capacity Service Flow: 9-11 GPM</td>
<td>CQE-WH-01273 1.5 cu. ft. resin 48,000 grain capacity 750,000 gallon capacity Service Flow: 9-11 GPM</td>
</tr>
<tr>
<td>CQE-WH-01272 2.0 cu. ft. resin 60,000 grain capacity 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
<td>CQE-WH-01274 2.0 cu. ft. resin 60,000 grain capacity 1,000,000 gallon capacity Service Flow: 10-13 GPM</td>
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Stage 1, water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through an acid neutralizing filter media mineral tank.
Stage 3, water flows through a 20” solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

Water with a low pH can be acidic, soft and corrosive. Telltale signs of acidic water include greenish-blue stains (copper pipes) and rust staining (from iron pipes), pinhole leaks in plumbing, and metallic or sour taste. It can cause many other corrosion problems as well, such as drastically shortening the life of all water-using equipment, including dishwashers, washing machines, hot water heaters and/or fixtures. To neutralize and raise the pH in acidic water, treat with a neutralizer: Neutralizing media slowly dissolved into the water increases the pH to a neutral level. Media may increase hardness in the water and a water softener may become necessary after the water is neutralized.

* If present in the water

Enhancement Systems

**Acid Neutralizing Whole House Water Filters**

Water travels through 3 stages of filtration

Stage 1, water flows through a 20” sediment cartridge that removes sediment, silt, sand and dirt.
Stage 2, water flows through an acid neutralizing filter media mineral tank.
Stage 3, water flows through a 20” solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

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* If present in the water
### Water travels through 8 stages of filtration

**Stage 1**, water flows through a 20" sediment cartridge that removes sediment, silt, sand, and dirt.

**Stage 2**, water flows through a one-micron filter pad which removes suspended particles such as silt, sediment, cyst (Giardia, Cryptosporidium), sand, rust, dirt, and other undissolved matter.*

**Stage 3**, water passes through coconut shell granulated activated carbon (Arsenic-Free GAC™). GAC is universally recognized and regularly used as an effective adsorbent for removing a wide variety of organic contaminants; bad taste and odors from drinking water.

**Stage 4**, water flows through the ion exchange resin, reducing heavy metals such as lead, copper, aluminum, and water hardness.

**Stage 5 and 6**, water flows through a bed of media made of a special high-purity alloy blend of two dissimilar metals - copper and zinc (Eagle Redox Alloy® 6500 and Eagle Redox Alloy® 9500.)

**Stage 7**, water flows through another one-micron filtration pad for further reduction of undesirable particles. The end result is a great reduction or the total elimination of a wide variety of contaminants.

**Stage 8**, water flows through a 20" solid carbon filter cartridge for removing volatile organic compounds (VOCs), insecticides, pesticides and industrial solvents.*

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**SYSTEM NUMBER AND DESIGN** | **MODEL#** | **REPLACEMENT CARTRIDGES**
---|---|---
1. Single Whole House 2.5" x 20" | CQE-WH-01101 | Replacement Cartridges: CQE-RC-04016
2. Double Whole House 2.5" x 20" | CQE-WH-01102 | Replacement Cartridges: CQE-RC-04014, CQE-RC-04016
3. Triple Whole House 2.5" x 20" | CQE-WH-01103 | Replacement Cartridges: CQE-RC-04014, CQE-RC-04015, CQE-RC-04016
4. Single Big Heavy Duty 5" x 10" | CQE-WH-01104 | Replacement Cartridges: CQE-RC-04027
5. Double Big Heavy Duty 5" x 10" | CQE-WH-01105 | Replacement Cartridges: CQE-RC-04035, CQE-RC-04027
7. Single Big Heavy Duty 5" x 20" | CQE-WH-01107 | Replacement Cartridges: CQE-RC-04030
8. Double Big Heavy Duty 5" x 20" | CQE-WH-01108 | Replacement Cartridges: CQE-RC-04036, CQE-RC-04030
10. 10" Whole House 2.5" x 10" | CQE-WH-01163 | Replacement Cartridges: CQE-RC-04026
11. 10" Stainless Steel 2.5" x 10" | CQE-WH-01100 | Replacement Cartridges: CQE-RC-04026

* if present in the water
Crystal Quest® Ultraviolet Water Sterilizer System

A major advantage of UV treatment is that it can disinfect water faster than chlorine without cumbersome retention tanks or adding harmful chemicals to your drinking water. CRystal Quest®’s commercial and residential Ultraviolet Water Sterilizers are the most ecological way to treat your water, and for only pennies a day!

CRystal Quest® Ultraviolet Water Sterilizer Systems are manufactured with axial flow reactors in 304 stainless steel. The UV lamp incorporates natural ultraviolet light energy to eradicate microbiological contamination. Water enters through the bottom of the reactor chamber and swirls around a high-output, low-pressure mercury vapor lamp thermally protected by a quartz sleeve. The UV lamp emits powerful ultraviolet light. Energy components contained in microorganisms absorb the light energy, disrupting the DNA and preventing reproduction.

Applications include post-undersink water filters, water coolers, pre- and post-osmosis systems, wells, campgrounds, hotels, bottlers, aquaculture, hospitals, food processing, cottages, restaurants, breweries, laboratories, marine, pharmaceutical, dairies, and many other applications. The UV lamp should be replaced annually.

Advantages include:
- No chemicals added to the water supply; no byproducts (i.e., chlorine + organics = trihalomethanes)
- Environmentally friendly; no dangerous chemicals to handle or store; no risk of overdosing
- No change in taste, odor, pH or conductivity, or in the general chemistry of the water
- More effective against viruses than chlorine
- Immediate treatment process; no need for holding tanks, long retention times, etc.
- Automatic operation without special attention or measurement; operator friendly
- Simplicity and ease of maintenance, periodic cleaning (if applicable), and annual lamp replacement
- No moving parts to wear out

For other types of disinfection systems, contact your Crystal Quest® Dealer or visit www.crystalquest.com.

Connecting UV to galvanized pipe

Electronic ballast must be connected to a grounded outlet, and the lamp connector ground wire must be connected to the stainless steel reactor chamber.

Connecting UV to plastic pipe

This disinfection system is designed to be mounted horizontally or vertically at the point of use or point of entry, depending on the specific flow rate of the unit.

The UV disinfection system is intended for indoor use only.

Do not install disinfection system where it may be exposed to the weather or temperatures above 100°F.
Chlorine Injection System

Chlorine is used to remove and prevent bacteria and other microbial presence in water supplies. It is a strong oxidizing agent and is highly effective in eliminating microbes, but can also reach unbearable user levels in some homes.

Chlorine is available in dry form as pellets (calcium hypochlorite) or in liquid form (sodium hypochlorite). For safety purposes and to maintain the chemical integrity of the product, both forms of chlorine must be stored accordingly.

The common types of chlorinators for continuous chlorination of a home drinking water supply include chemical feed pumps and tablet chlorinators. As the effectiveness of the disinfection is a function of contact time, in each type of chlorinator the chlorine should be introduced into the water as close to the source as possible. This will allow the chlorine a longer contact time with the water.

**CHLORINATION IN THE HOME (Figure 1)**

- This system is designed to remove dissolved impurities in your water such as iron and hydrogen sulfide. Chlorine is injected into the water coming from the well pressure tank by using a pump.
- The chlorine is used to drop out or oxidize the impurities in the water.
- The retention tank is used for the water to get additional contact time with the chlorine, ensuring that the impurities are completely oxidized out of the water.
- This system is designed with a flow switch. This switch signals the chlorine pump to inject the chlorine/water mixture only when water is used inside your home. This allows the outside water to be left untreated.

Figure 1 shows a chemical feed pump chlorinator. A fixed amount of chlorine solution is delivered with each pump discharge stroke. The amount delivered can be adjusted by changing the length of the discharge stroke, the speed of the pump, or the running time of the pump. The feed pump should be wired to the water pump pressure switch so that the chemical pump operates only when the water pump is operating. A contact tank for additional contact time, along with a carbon filter for dechlorination and removal of precipitated contaminants, is also shown.

**CHLORINATION AT THE WELL HEAD (Figure 2)**

Chlorine pellets are dropped directly into the well. The diagram also shows a dechlorinating filter and a contact tank, although the tank is often not required due to the additional contact time inside the well.

Drinking water treatment using continuous chlorination disinfects a water supply. It destroys pathogenic bacteria, nuisance bacteria, viruses, some parasites and other microorganisms. It also oxidizes iron and manganese so they can be filtered out, and oxidizes hydrogen sulfide in order to reduce nuisance odors.
CRYSTAL QUEST® FILTRATION MEDIA

For more information on replacement media or to review media data sheets, visit www.crystalquest.com.

How do you know if you need a water filtration system?

Find out the quality of your water by calling a local Crystal Quest® distributor/dealer. They can assist in getting your water analyzed*, then explain the results of the water test. They determine the type of water treatment system best suited for your softening and filtration needs and specify the proper size based on your water usage habits.

*You may be asked to complete a questionnaire that gives a detailed description of your existing water conditions or your water may need testing.