

Common types of household water treatment systems



Filters

Remove impurities from water—which can cause taste, odor, and appearance issues—using physical barriers, chemical, and/or biological processes. Filters are not meant to be a standalone solution for water treatment.



Water softeners

Reduce the hardness of water by using sodium or potassium ions to replace calcium and magnesium ions. Softeners are used as pretreatment solutions for other treatment methods.



Reverse osmosis

Forces water through a porous membrane to reject dissolved ions, metals (arsenic, lead, and nitrates), and pesticides. Effectiveness depends on the membrane type and operating conditions. Many RO units are not specified to remove microbial contaminants.



Inactivation

Uses a physical process, like exposure to ultraviolet light, or a chemical like chlorine to break down the membranes of microbial contaminants, preventing them from reproducing or causing disease. These processes often require some form of pretreatment to optimize effectiveness.

Let us help you determine the best comprehensive solution that will address your treatment requirements.

Contact us today.



Taking a Comprehensive Approach to Water Treatment



*Efficacy of VIQUA UV systems has been demonstrated in internal testing using surrogate organisms, specifically MS2 Phage. MS2 is a well-documented surrogate organism that is accepted in the water treatment industry in the design and testing of UV systems being used to treat *cryptosporidium* and *giardia*. Contact VIQUA for the details on internal testing performed.

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Well owners have many different options for treating their water. Because no single treatment system will protect against all problems, it's important for you to understand what issues you need to address to achieve your desired water quality.

Typical issues you may want to solve include:

- Removing specific contaminants
- Taking extra precautions to protect household members from possible illness
- Improving the taste, odor, and appearance of drinking water

This brochure provides an overview of the types of water treatment available and how these systems can work together. To determine the best treatment option for your situation, contact your water treatment professional.

Gain greater confidence in the quality of your water

Well water can be contaminated with disease-causing microorganisms at any time. To prevent microbial contamination, you need to a continuous treatment solution that is capable of inactivating these microorganisms, like a VIQUA UV water treatment system. Successful treatment, though, is dependent on weaving together a number of factors that will work in tandem. This multibarrier approach to treating water recognizes that each individual barrier may not be able to completely remove or prevent contamination, and thus requires a comprehensive water treatment solution that comprises multiple steps.

5-micron sediment filter Iron < 0.1 mg/L Tannins < 0.1 ppm	Filter Iron < 0.1 mg/L Tannins < 0.1 ppm	Softener < 7 mg/L	Reverse osmosis system	VIQUA UV system
Filters out sand, silt, clay, and other sediment. Protects downstream plumbing, fixtures, and equipment from damage. Optimizes UV effectiveness.	Eliminates rust staining on clothes and fixtures. Eliminates objectionable color and odor. Optimizes UV effectiveness. Reduces fouling of the UV system's quartz sleeve, minimizing maintenance.	Eliminates scale buildup. Reduces unsightly water spots on glassware. Optimizes UV effectiveness. Minimizes fouling of the UV system's quartz sleeve, minimizing UV maintenance.	Removes chlorine, salt, PFAS, and other dissolved solids. Improves taste and odor. Purifies drinking water.	Inactivates common waterborne pathogens including <i>cryptosporidium</i> , <i>giardia</i> , pathogenic <i>E. coli</i> (STEC/VTEC), <i>campylobacter</i> , <i>legionella</i> , <i>salmonella</i> , <i>shigella</i> , <i>norovirus</i> , <i>enterovirus</i> , and <i>hepatitis A virus</i> .* Provides 24x7 protection. Delivers treated water to every tap.

