



WHO IS SAFE WATER TECHNOLOGIES?

WHAT IS IN A NAME?

To us, our name is our expertise and our philosophy, as well as our day-to-day business. Safe water is the type of water our equipment provides. Most other manufacturers provide equipment that is designed for water that is already potable (i.e. safe to drink). SWT's advanced technologies can make even the foulest water safe to drink. We provide for people that are mindful of their health, and do not want to be worrying about what is coming out of their faucets. SWT's equipment goes beyond the simpler treatments of taste and odor and water softening. Our belief is that people have the right to not just better tasting water, but water that is also safe and free from contamination put there by others.

DEFINE SAFE.

We define safe as being responsive to a specific water contamination problem, or as an insurance against unknown, and future, contamination in a given water supply. SWT water treatment systems concentrate on removing, and reducing, items from the water that are directly responsible for an adverse effect on health. These contaminants include:

- Chemicals, such as chlorine and pesticides
- Bacteria, viruses, and other microorganisms
- Cysts, such as Giardia and Cryptosporidium
- Heavy metals, such as lead and copper
- Plus, specific problems, such as sodium, nitrates, etc.

WHAT ABOUT THINGS IN THE WATER, SUCH AS HARDNESS, TASTE AND ODOR, OR ORANGE COLOR?

Safe Water Technologies provides a complete line of traditional water treatment systems, as well as the newest technologies. However, we design all of our equipment to go several steps farther than that.

We understand that purchasing a water treatment system is an expensive and significant proposition, so we want to make sure that not only are the cosmetic problems taken care of, but also the deeper health issues.

WHAT IS THE DIFFERENCE BETWEEN SWT EQUIPMENT AND THE COMMON FILTERS AVAILABLE FROM A STORE OR MULTI-LEVEL MARKETING FIRM?

People forget that all water supplies have different contamination problems. A filter that will treat taste and odor problems in one city is not designed to handle nitrate or E. coli bacteria problems on a farm 20 miles away.

Store bought equipment, generally speaking, is generic and is not for use on non-potable water (i.e. water that is biologically or chemically unsafe). In other words, most retail systems are designed for water that is already safe to drink.

SWT only sells its equipment through reputable, locally owned, water treatment companies. These companies have the experience and training to install and maintain equipment that is much more sophisticated than store bought filters. The water treatment technicians in your region can also custom tailor the equipment, or decide what equipment is applicable to your local water supply. They can advise you on when, and how often, to service your system.

It is the difference between "playing doctor" and going to a real one. The SWT water technician can test your water as required. Most part-time, multi-level, sales people cannot. Water is as important to life as air and food. It should be treated as such. Healthy, clean water is one of the most important investments one should make for themselves and their families.



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SWT DESIGNS AND BUILDS SYSTEMS THAT COVER A WIDE VARIETY OF TECHNOLOGIES.

- **Adsorption** — Carbon filtration is the most widely used adsorption method. Contaminants are soaked up like a sponge onto the matrix of the filter media.
- **Ion Exchange** — Water softeners work on this principle. Hardness ions (negatively charged particles) are caught on a positively charged bead during the softening process. Sodium is used to clean and “recharge” the bed.
- **Reverse Osmosis (RO)** — More correctly referred to as hyperfiltration. Water is forced under pressure through molecular size openings in a special plastic film membrane. Only the cleanest molecules can get through while the rest of the water is rejected by the membrane. Dissolved salt and dissolved nitrates are even too big to pass through. Other closely related methods of water treatment are ultrafiltration and nanofiltration.
- **Ultraviolet (UV) Sterilization** — This is one of the safest methods for treatment of bacteria and viruses. It works by bombarding organic matter with a special wavelength of light, and imparts nothing into the water supply. However, it has no effect on thick shelled organisms such as cysts.
- **Mechanical Filtration** — This is how sediment filters work in removing solid particles from the water. Sediment is rated according to micron size. Sediment filters will remove particles that are larger than the filter’s micron rating. A 25 micron sediment filter will generally remove most particles larger than 25 microns in size. This is how red (oxidized) iron is removed. Also, this is how cysts, such as Giardia and Cryptosporidium, are removed, since they are not susceptible to oxygen attack.
- **Oxidation** — Excessive amounts of oxygen are injected into the water. There are many types of oxidizing agents in the market. Chlorine is the most common. Chlorine carries suspended oxygen which is released when it encounters certain dissolved matter, such as bacteria or iron. The oxygen then attaches itself to the particle. In the case of waterborne bacteria that cannot survive in an oxygen environment, the bacteria dies. In the case of a substance such as dissolved iron, the iron becomes too complex to remain dissolved, and it turns from an invisible element to a visible particle that can be strained from the water.

There is no single type of water filtration technology that is “best for all.” Groundwater from wells in rural areas can vary tremendously, even among neighbors. Homes on municipal water supplies vary from community to community, and even the same household’s water can vary from summer to winter as chlorine levels rise and fall. Some municipalities draw their water from rivers, some from lakes, and some from deep wells. Some coastal communities even draw their water from the ocean. So far, there has not been one water treatment technology or system that has been found to work economically and efficiently in all applications.

Water treatment systems today are often a careful combination of several filtration technologies. Following a comprehensive water analysis and thorough understanding of the water’s chemistry, a well-trained water technician will be able to recommend the proper combination of technologies and equipment to satisfy each customer’s unique requirements for an effective, economical, and ecological finished product. At SWT, we are dedicated to being an expert partner in the process of bringing safe water technologies to the world.