



All About Water Quality Facts

Water Quality Facts



Reverse Osmosis Facts

Pump Facts

Softener Facts

Watts Premier wants to make sure that you have all the information you need to make an informed decision regarding your drinking water. A Healthy living, whether it is clean drinking water or what we eat is important. Making sure you are informed is just as important. If you can't find the information you are looking for here, please call us at

Sediment Filtration - Melt Blown vs. String?

Types Of Carbon Filtration

All About Microns

What Is TDS (Total Dissolved Solids)?

What Makes Reverse Osmosis Filtration Better Than Faucet Mounted Or Pitcher Filtration?

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SEDIMENT FILTRATION - MELT BLOWN VS. STRING

A Sediment Filter acts as a sieve to remove sand, silt and dirt. The important thing to keep in mind about Sediment Filters is that they reduce sediment. They don't remove chemicals or heavy metals or make the water taste or smell better. Sediment Filters are rated by a Micron number.

Melt Blown - The highest quality in cartridge filtration. They offer excellent filtration and good thermal stability. The unique density gradient construction maximizes efficiency and minimizes pressure drop. They are manufactured from 100% pure polypropylene and designed for purity, bacteria and chemical resistance. The spun fibers form a true Gradient Density from outer to inner surfaces.

String Wound - Cartridges which are a superior one-piece Filter with hundreds of diamond shaped tunnels that get progressively smaller from the outside into the core. As the fluid travels to the center of the Filter finer particles are trapped which allows for a much greater retention capacity than our melt blown Filter media of the same dimensions and Micron.

TYPES OF CARBON FILTRATION

Activated Carbon - Activated carbon has many purposes in the water treatment industry. The main use is to improve the taste and odor by neutralizing the Chlorine based disinfectants and adsorbing certain organic compounds.

Types of Activated Carbon - Bituminous is a coal-based used for general de-chlorination, taste/odor improvement and organic removal. Where Coconut Shell is carbon made from Coconut Shells. Coconut shell carbon has a higher surface area than bituminous and a higher capacity for de-chlorination than bituminous. Watts Premier only uses Coconut Shell based Carbon Block Filters. Activated carbon cartridges typically come in two forms; Granular Activated Carbon (GAC) Cartridges and Carbon Block Cartridges.

Activated Carbon Structure - Activated Carbon is an extremely porous material, which causes it to have a high surface area (up to 1100 square meters per gram). This gives it a high capacity for contaminant removal in water treatment. Many contaminants are attracted to this high surface area like we are attracted to the earth by gravity. This process is called adsorption. Chlorine/Chloramine is chemically neutralized by a reaction when the activated Carbon is introduced.

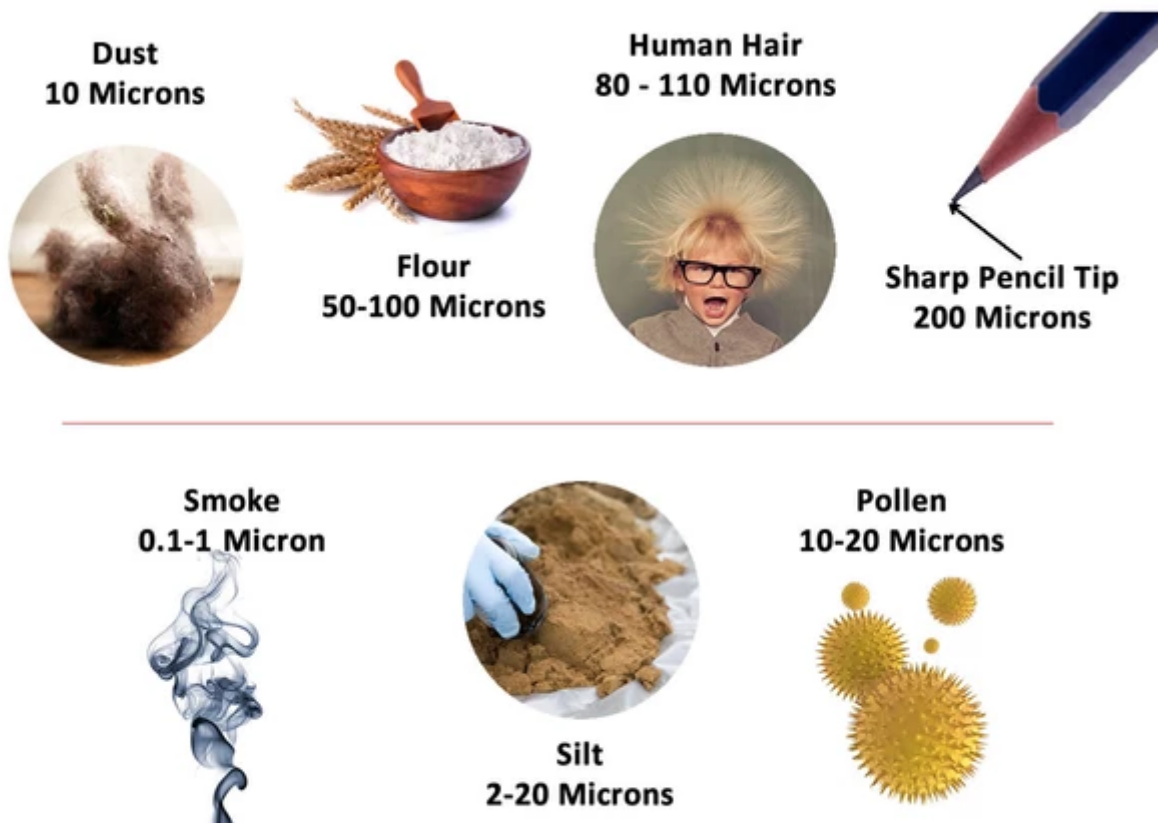
Contaminants Removed by Activated Carbon - **Chlorine** reacts with the carbon and is neutralized. **Chloramine** - Reacts with Carbon and is neutralized. **Organics** - Adsorbed by the Carbon with 1 Micron Filtration. **VOCs** - Adsorbed by the Carbon with 1 Micron Filtration. **Lead** - Adsorbed by an additive in the Carbon with 1 Micron Filtration. **Cysts** - Mechanically filtered by the block with 1 Micron Filtration.

Granular Activated Carbon - Designed for Maximum Adsorption and has effective Taste, Odor and Chlorine Reduction. Granular Activated Carbon Filters are Post Filters to reduce Carbon Fines and are available in a variety of sizes and flow rates. Some Advantages of Granular Activated Carbon Filters are; Tolerant of high Sediment Waters and Good general purpose drinking water cartridge. One Disadvantage of Granular Activated Carbon Filters is it is typically designed for low flow rates.

Carbon Block Filters - Are economically priced and have a greater chlorine removal capacity than alternative technologies. Some of the advantages of Carbon Block Filters are; they have a very high capacity, some blocks are capable of Cyst / VOC reduction, there is little or no media migration and they can be designed for higher flow rates. A disadvantage of a Carbon Block Filter is you may need a Sediment Pre-Filter.

What are Microns in Water Filters - Filter cartridges for Sediment removal are rated in Microns. A Micron rating for a Water Filter is a way of indicating the ability of the Filter to remove contaminants by the size of the particles. A Filter that is marked **5 Microns** has some capability in capturing particles as small as 5 Microns.

What is the Size of a Micron - Sizes of airborne particles as dust, pollen bacteria, virus and many more. The size of contaminants and particles are usually described in Microns, a metric unit of measure where one Micron is One-Millionth of a Meter.



WHAT IS TDS (TOTAL DISSOLVED SOLIDS)?

In the natural cycle of water, water that began its life as rain and eventually found its way to your tap has come in contact with many sources of potential contaminant. The various minerals and salts that have been dissolved by the water during this cycle are called Total Dissolved Solids (TDS).

WHAT MAKES REVERSE OSMOSIS FILTRATION BETTER THAN FAUCET MOUNTED OR PITCHER FILTRATION?

Let's take a brief look at the primary difference between a Reverse Osmosis System and simple Faucet Water Filters. Faucet Water Filters are particle Filtration Systems and have a 1 Micron rating. This means that all the nasty materials smaller than one Micron such as arsenic, insecticides, pharmaceutical drugs, and human viruses will not be filtered out by Faucet Water Filters.

The Reverse Osmosis Membrane Filter by itself has a .0001 Micron rating, is classified under Nano-Filtration technology and would filter out all of these contaminants and thousands more that would be missed by Faucet Water Filters. Combined with its other 4-Stages of Filtration, Reverse Osmosis Systems deliver the cleanest drinking water available on the market with a 90-95% contaminant rejection rate.

Note - Faucet Water Filters DO NOT remove the following contaminants from tap water. Reverse Osmosis Systems do filter these and many other contaminants missed by Faucet Water Filters. Pesticides – Cancer (Bladder, Lung, Kidney, Skin), Diseases, Diabetes 2 Poisoning, Cancer, Miscarriages, Birth Defects. Arsenic – Cancer (Bladder, Lung, Kidney, Skin), Diseases, Diabetes 2. Fluoride – Neurotoxin, Alzheimer's Disease, IQ & Brain Damage, Skeletal Fluorosis, Reduces Metabolism. Drugs – There are thousands of different drugs and chemicals! Cryptosporidium – Gastrointestinal Illness, Diarrhea Mercury – Poison

These are scientific facts that even Faucet Water Filter supporters cannot deny. They know that carbon filtration can never compete against Reverse Osmosis Filtration, when it comes to water cleanliness and purity.

WHAT HAPPENS TO THE IMPURITIES DISCHARGED FROM THE REVERSE OSMOSIS SYSTEM?

The typical ratio of wastewater to pure water is 4 to 1, based upon incoming water temperature and pressure. These discharged impurities filtered out are washed down the drain. Unlike filters, the Reverse Osmosis Membrane is self-cleaning. As the source water flows through the module, it is divided into two streams. One stream is forced through the Membrane by osmotic pressure created due to the water pressure on each side of the semi-permeable Membrane. The second stream carries the rejected salts, dissolved pollutants and contaminates to the drain.

Therefore, there is a minimum accumulation of debris on the pressure side of the Membrane. Charcoal or carbon filters, on the other hand, become less efficient with each glass of water drawn through them. Carbon filters only remove a limited number of contaminants, some odors, and some tastes.

Watts Premier has developed a couple of innovative Reverse Osmosis Systems referred to in the industry as "Zero-Discharge", because they discharge the backwash water back into the hot water supply. These two Reverse Osmosis Systems which Watts Premier has developed are the ZeroWaste® (<https://www.premierh2o.com/collections/zerowaste-design/products/watts-premier-500029-zerowaste-reverse-osmosis-system>) and Zero Pure Plus (<https://www.premierh2o.com/collections/zerowaste-design/products/531517-ro-pure-plus-voc-reverse-osmosis-w-brushed-nickel-top-mount-twist-faucet-by-watts-premier>) Reverse Osmosis Systems.

CAN THE WASTE WATER BE RECYCLED?

Yes, most waste water today is recycled for golf courses and artificial lakes. The drain water is slightly higher in TDS concentration than the incoming water, but as Reverse Osmosis does not add anything to the water, it can be used to water your lawn or garden.

WHY DOES MY WATER BOTTLE HAVE AN EXPIRATION DATE?

Recent research suggests there might be cause for concern. Chemicals called phthalates, which are known to disrupt testosterone and other hormones, can leach into bottled water over time. One study found that water that had been stored for 10 weeks in plastic and in glass bottles containing phthalates, suggesting that the chemicals could be coming from the plastic cap or liner. Although there are regulatory standards limiting phthalates in tap, there are no legal limits in bottled water; the bottled-water industry waged a successful campaign opposing the FDA proposal to set a legal limit for these chemicals.

If it only takes 10 weeks to start seeing enough levels to start "Adding Phthalates to the Water" think about how long bottled water sits before it gets to the store, gets to the shelf and then you actually drink it. In the past few years, researchers have linked phthalates to asthmas, attention-deficit hyperactivity disorder, breast cancer,

obesity and type II diabetes, low IQ, neurodevelopmental issues, behavioral issues, autism spectrum disorders, altered reproductive development and male fertility issues. If you are like most people you like to stock up when they are on sale. What is this doing to our daughters & sons.

COULD THE WATER BOTTLE ACTUALLY BE A HEALTH RISK?

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Add a Reverse Osmosis System (<https://www.premierh2o.com/collections/reverse-osmosis>) today and purify your own Tap Water. It is quick, simple and you can avoid any waste water by adding a ZeroWaste® Retro Fit Kit (https://www.premierh2o.com/collections/booster-zero-waste-kits/products/watts_premier_501026_zero-waste_retrofit_kit). Eliminating all waste water by sending it back into your Hot Water System.

DOESN'T THE MUNICIPALITIES CLEAN THE WATER?

Yes, Municipalities work very hard to supply all residents with clean drinking water out of the tap, to meet the EPA's guidelines. However, the problem is not necessarily the Municipalities. Once your water leaves the city's water plant think about

everywhere that water goes before it reaches your tap. The truth is that contaminants can reach the water from any number of sources after it leaves the water plant. Aquifers, springs and corroded pipes can introduce impurities into the water lines even after the water has been treated at a water plant.

Reverse Osmosis Systems (<https://www.premierh2o.com/collections/reverse-osmosis>) remove 99% of the impurities which are in your water. With a Reverse Osmosis System you have an initial investment and then minimal cost for maintenance, where bottled water costs you hundreds of dollars per year and fills up our landfills with non-degradable plastic.

WHY WOULD I QUESTION THE QUALITY OF MY TAP WATER?

You may have a right to be concerned. EPA administrator Lisa Jackson admits that American water fails to meet public health goals, and water pollution law enforcement is unacceptably low. There has even been times when companies have intentionally released pollutants into the water supply. With a Watts Premier Reverse Osmosis System you don't have to worry about the quality of your drinking water. All of our Reverse Osmosis Systems are tested and certified to NSF Standards by a third party in order to ensure they meet the Federal Regulatory Requirements. By meeting these standards the majority of the impurities are removed from your drinking water.

DOES DRINKING WATER HAVE A FLAVOR?

There has been an age old debate..."Does drinking water have a flavor?" If your water does have a distinct flavor (i.e. salt, chlorine, metallic, etc.) this normally means there is something in the water that is giving it this flavor. Not because water has a flavor. One of the best ways to remove these unwanted elements in your drinking water is to add a Reverse Osmosis System. This water can be used for drinking and cooking. Removing these elements from both your drinking and cooking water will make it much healthier for you and your family.