

Frequently Asked Questions (FAQs)

What you don't know that you don't know about Hydrogation

Why is Hydrogation unique to all other methods of solving water quality issues?

Water is only a problem if it negatively reacts to the things it has contact with.

Hydrogation simply makes your water react positively to the things it has contact with providing the results you need the most.

Hydrogation does not remove anything from the water, and it does not add anything to the water.

With years of investigation, years of trial and error, many things are understood about how water can be permanently changed by passing it through Hydrogation. Now it literally becomes nonproblematic and truly a natural resource providing the solution to many of our daily needs and activities.

Think of how many things we use water for.

Where can I use the Hydrogation Water Treatment System?

- Household / domestic
- Swimming pools, fountains, and jacuzzis
- Residential and commercial irrigation
- Agriculture, including hydroponics
- Lakes, reservoirs, and water storage tanks
- Commercial business: restaurants and hotels
- Industrial: Hot water and Steam Boilers – Chillers, Cooling Towers and Evaporative Condensers
- Pump stations and Plumbing Systems
- Laundry facilities
- Combined with Water Filtration and Water Purification Systems

What is the difference between hard and soft water? How can Hydrogation help?

Let's discuss two types of water: One is hard water (containing lots of minerals). Hard water tends to build up (stick) and form mineral deposits. So, it is common for traditional water treatment systems to remove those minerals. While being removed they must go somewhere along with a percentage of the water. Usually the drain. Therefore, it is expensive to operate traditional water treatment systems because of how much water they waste to the drain.

- So, what if the minerals don't stick? They would not form mineral deposits. No scale. Hydrogation changes the water, so those minerals just travel along (in solution) with the water to the drain.
- If there is no drain, they will evaporate, leaving the minerals to dry on the surface of wherever the water landed. Those minerals can be easily wiped off the surface. Because with Hydrogation they don't stick.

**THAT IS WHAT HYDROGATION DOES FOR HARD WATER.
IT SOLVES THE PROBLEM.**

Will Hydrogation solve the scaling of water? YES.

There is soft water (containing very few minerals = low [PH](#)). Soft water usually also has more gasses such as [CO2](#). Both waters have their disadvantages. Water with a low [PH](#) and high [CO2](#) is corrosive.

Soft water is acidic and tends to corrode; or eat away at what it contacts. Example: Soft water usually contains sodium salts and does not coat the pipes and consequently is more corrosive. See link below for more details about this topic.

<https://extension.psu.edu/corrosive-water-problems>

When water passes through the Hydrogation Water Treatment System the velocity of the traveling water is increased and agitation occurs causing most all the gasses to come out of solution, converting the gas to harmless bubbles no longer touching surfaces. Therefore, not being corrosive.

Like shaking a can of Coca-Cola. Everyone knows that Coke has [CO2](#) gas in it. When the can is shaken or agitated, the gas converts to a bubble. The bubbles just sit inside the can, then when opened they pop out into the atmosphere, and they are no longer in the liquid. Hydrogation does the same.

So, will Hydrogation solve problems with corrosion? YES.

In the same manner, Hydrogation also controls algae. Algae breathes [CO2](#) to produce oxygen so it can grow and live. When Hydrogation removes most of its food ([CO2](#)), the algae dies off. Hydrogation reduces and often totally kills algae growth.

So, will Hydrogation solve problems with algae? YES.

Hydrogation carries a lifetime warranty against manufacturer defects when the client purchases the annual service policy for each Hydrogation unit installed on the property. For threaded units, the current cost is \$100 annually.

For larger flanged units the client must see their individual contract to know the annual cost to maintain the lifetime guarantee fully active.

Will Hydrogation address issues with chlorine in our water?

Yes, since chlorine is also a gas in solution in your water supply, Hydrogation will provide the same benefit as the above example for algae. Hydrogation will convert the chlorine gas to harmless bubbles dissipating them the same as the [CO2](#).

What type of water will Hydrogation be successful at solving?

- City water.
- Well water.
- Reclaimed or Recycled water.
- River water.
- All waters have thoroughly been observed as non-problematic using Hydrogation.
- Sea Water: Currently being investigated. No hard data at this time.

Will Hydrogation make my water clearer?

In swimming pools, jacuzzis, fountains, lakes, and reservoirs Hydrogation demonstrates a dramatic improvement in water's clarity. In these applications, the water does need to be circulated for Hydrogation to continue to maintain its clean, healthy appearance. This is evident in the photos on this website.

What will Hydrogation do for my garden or my plants and landscape?

Hydrogation breaks down the surface tension of water and injects water deep into the soil, thus enabling better water penetration. Better water penetration will provide deeper moisture content in your soil causing deeper rooting.

A deep root system will increase the volume in which the roots have access to the soil's nutrients providing better growth and higher yields for plants, grass, trees, and vegetables.

Surface watering due to puddling and runoff wastes water. Maintaining more moisture deep down in the soil saves water. Water deep down does not evaporate as quickly, therefore conserving its availability for the plants. Less water will be necessary, saving you money in both water, electricity for pumping, and of course fertilizers.

Deeper moisture also protects foliage from leaf burn during extremely cold weather or even frost. Leaves stay moist (not dry and crispy) and therefore the cold air cannot penetrate the leaf, preventing it from being burned.

The same for extremely hot weather. A moist leaf will not get burned by sudden spikes in temperature while deep moisture is providing water to the leaves protecting them.

What if my well water is too salty for irrigation?

If you have Hydrogation, no problem. How is this possible? Simply put, Hydrogation will make all water digestible for plants.

When water has an excess amount of minerals it is often labeled “salty water.” Not necessarily all sodium. High mineral content in your water usually means you can’t use it to irrigate many “non salt-tolerant plants.”

Example: Water with an excess of calcium, magnesium, potassium, iron, phosphorous, etc. is called SALTY WATER.

An excess of these elements is NOT digestible for the plant, therefore, causing the plant to be deficient in these elements. What does this mean? Simply said, the excess mineral is not able to be assimilated by the plant, so they do NOT get absorbed into the plant. The mineral is blocked and stays in the soil.

This is proven when you have the results of an analysis of your water supply containing excess minerals, but the results for your plant leaves (tissue analysis) prove deficient in these elements. They didn’t get absorbed by the plant. Kind of confusing, isn't it? Lots of minerals in the water, but very little in the plant.

Too many minerals, cannot be absorbed. Thus, plants that are mineral deficient.

Typically, you then must buy it in the form of a soluble fertilizer. If your water’s minerals are not soluble, you must buy them, apply them and then wait for the plant to react to them. Complicated, eh?

Not with Hydrogation. You'll have plants thriving with nutrition when using Hydrogation.

Hydrogation makes all minerals digestible for the plant. A digestible mineral is fertilizer. Hydrogation makes your water nutritional. Fertilizers now can be used at a minimum, saving thousands of dollars over the life of your growing period.

Available upon request are water, soil, and tissue (plant) results for our projects. Some of our client’s water is as high as 10,000 ppm (parts per million) with healthy plants.

To understand what water containing 10,000 ppm of minerals really is, you must know that San Diego’s City Water Supply varies between 400-700 ppm).

Most seeds will die at 10,000 ppm. However, our clients continue to grow their crops and harvest with these bad types of water. What would happen if you could use almost any type of water without burning your plants or commercial crops?

Will Hydrogation affect soil salinity?

After reading the above, it may seem like using water with such a high mineral content would build up and increase your soil’s salinity over time. With Hydrogation it is the opposite. How is this possible?

While undigestible minerals make this true; digestible minerals are food for the plant. Digestible minerals will be uptaken by the plant roots and be utilized by your plants for their growth. If these elements are uptaken by the roots, they will not remain in the soil.

The plant will use them to grow. Slowly your soil salinity will decrease and over time you will have better soil, less salts in the soil, and even softer more permeable soil. Now we're talking; bad water, better soil, and healthy plants.

This only will happen with our proven system, Hydrogation.

What will Hydrogation do for my laundry?

Since Hydrogation breaks down the surface tension of water, it penetrates the fabric just like it is designed to deeply inject water into hard soils. Better penetration cleans better. It's better at loosening dirt and grime in clothing and linens allowing you to use less detergent.

Remember, detergent is a penetrant that breaks down the surface tension of water. The detergent doesn't clean. The detergent makes the water penetrate, so that your water is doing the cleaning. When your water has less surface tension, you will need less detergent saving you money each month.

Less detergent allows the rinse cycle in the washing machine to do its job better. Too much detergent never gets 100% rinsed out, therefore accumulating in your fabrics and causing their appearance to change color. Whites turn grey. Blacks and colored fabric turn dim in color.

Using less detergent with the unique action Hydrogation provides, will keep whites and colors looking their best for longer periods of time. Hydrogation lengthens the life of all clothes, towels and linens.

What happens when Hydrogation is combined with filtration or even reverse osmosis water purification equipment?

Hydrogation makes water much more filterable (easier to be filtered). It makes the state of you water much better for the desired method of filtration to do its job more efficiently.

Filters can filter all by themselves without Hydrogation. However, by combining Hydrogation on the inlet side to our unique Ultra-Filtration your filters will capture a greater quantity of what needs to be filtered. Hence providing you better filtration.

By installing Hydrogation on the inlet side of the pre-filters for water purification equipment, such as reverse osmosis, it will prevent the ongoing damage and plugging up of expensive filter membranes. This is a huge cost saving feature eliminating a lot of headaches and multiple problems.

Because of this benefit, a water softening system is not be necessary. Our company has thoroughly tested Hydrogation as the only needed water treatment device combined with Ultra-

Filtration to absolutely preserve the life of any filter membrane for reverse osmosis technology. We have Hundreds of these applications.

On record, Hydrogation has been observed in use with filter membranes that keep producing with their same efficiency for many years in succession.

Not having to replace filter membranes for reverse osmosis also significantly reduces water consumption. A clean filter membrane doesn't discharge as much wastewater, saving a residential customer hundreds of dollars in one year. Thousands of dollars in one year for a commercial customer.

Do water softeners waste water?

All water softeners waste water. Most people that have used water softeners in their homes and businesses have no idea how much water goes directly to the drain when each water softener's tank

begins its rinse cycle (usually at night).

Depending on the diameter of the piping between the tank and the drain, a softener can waste as little as 5 gallons of water per MINUTE for 1/2" piping. 40 gallons of water per MINUTE for 1" piping. And as much as 128 gallons of water per MINUTE for 2" piping to the drain.

This is not for only one minute. Typically each tank will rinse to the drain for at least 30 minutes. There are usually 3 tanks that go into their rinse cycle every day.

Imagine wasting 40 -128 gallons of water each MINUTE for 30 minutes every night. That is how old technology works. Hydrogation water treatment does not waste even one drop of water. Never.

Videos of water waste to the drain using water softeners are available upon request.

Softeners also require bags of salt for their daily operation. The storage of these bags of salt takes up space in your home or business and are a large monthly expense.

Hydrogation does not use salt or any other supply for its daily operation.

What happens when water is treated by Hydrogation and is kept for long periods of time in a storage tank or travels through piping for long distances?

Hydrogation's treated water will remain in its conditioned state forever. Unlike magnetic water treatment devices, where the treatment loses its effect and reverts to its original condition, Hydrogation permanently improves your water supply.

Will there be any flow restriction installing Hydrogation? No.

We manufacture systems for all flow rates. We help you select the proper diameter unit to accommodate any flow, or combination of various flow rates and pressure you may have. Each installation is carefully designed for optimum efficiency.

Where is the Hydrogation System installed?

Usually on the main water line at the entrance to the property. For example: After the water meter. After well or river pumps, before any tee junctions or storage tanks, ensuring that your whole system will benefit by Hydrogation.

Hydrogation is even more efficient when installed on a circulating water system. On some large installations where there is a variation of flow, several smaller Hydrogation units may be manifolded together on the same water line as opposed to one large system.

We do not oversize Hydrogation. Performance is enhanced with the smallest unit possible. Pressure permitting of course. Our design team will assure the best installation for the lowest possible investment.

Hydrogation can be installed at any angle. Horizontal, vertical, or diagonal. All installations performed by RD Plumbing, Inc. / Hydrogation Water Solutions carry a lawfully binding 12 months guarantee for all piping and connections.

It's time to install.

Thank you,

Management

