



Salt vs Salt-free water softener

The majority of users tend to believe that the two technologies work the same, and the difference is that one uses salt while the other one doesn't; however, this is not true. In this review, with an eagle eye, we tear apart the salt-based softeners versus **salt-free water softeners**. Let's jump right into the discussion.

Generally, the two systems are set-up to take care of the challenges brought about by the use of hard water; and this is where you get the difference between the two technologies.

Salt-based water softener

Let's have a look at how this system works. Water Softening is the process of eliminating minerals like calcium and magnesium through a process called **ion exchange**. After that, it replaces them with beneficial minerals such as sodium or potassium. What a salt-based softener does, is it ensures that the unpleasant minerals are entirely removed from your tap before you even turn it on.

Salt-based water softeners might cost a lot more when you compare to salt-free within the same price range. However, if you want to ensure your water is free of hard water harmful elements, then the salt-based softener is what you need.

Salt-based water softeners systems recycle the household water through two tanks: one has unique resin beads, and the other contains brine. This unit uses the principle of ion exchange, whereby, it softens hard water by substituting salt (sodium) for hard water unwanted minerals like calcium, magnesium, and iron.

What happens is, during the cleaning cycle, the electronic valve runs a series of back flushes to remove the hardness minerals captured from the system and flush them through a drain line. After that, sodium gets replenished in the resin bed during the cycle, and the process is ready to run again.

Although the salt-based water softeners are highly effective for reducing scale, their soft water may be unhealthy to drink long term.

When it comes to handling hard water at a residential level, salt-based systems are undeniably the ultimate choice.

Advantages of Salt-Based Water Softeners

Mineral deposit reduction

Scale buildup from hard water will clog and ultimately damage your home appliances like washing machines, water heaters, dishwashers, and others. Likewise, it can affect the plumbing system and cause a substantial decrease in water pressure. If ignored, it can be expensive to repair or replace appliances and plumbing pipes. A salt-based water softener will come in handy to alleviate scale build-ups.

Personal hygiene

Taking a shower with hard water is hostile because your soap will not lather quickly, worse still, the combination creates an annoying curd that sticks to the body. And this will leave your body feeling sticky, your skin dry and brittle hair that is difficult to manage. Washing one's body and hair with soft water is better compared to hard water.

Household use

Minerals present in hard water creates corrosion on sinks, faucets, bathtubs, and shower stalls, which is extremely difficult to eliminate. Clean your household water using the salt-based system, and this challenge will be a thing of the past. Besides, it will save you money on the cost of repairs and maintenance of the appliances.

Increases the quality and appearance of your clothes

Hard water minerals hinder the effectiveness of laundry detergents, whiteners, and brighteners during your household laundry. Thus, the majority of people who use hard water end up using more detergent and wash their clothes regularly.

As such, the wear and tear on fabrics significantly increase. Washing clothes with soft water is the ultimate solution to this challenge. Your bedding and towels will retain their original color while the material feels smoother and cleaner to touch.

Disadvantages of Salt-Based Water Softeners

Removes all minerals

Sodium removes all the minerals in the water during the ion exchange process. Drinking such water can create a mineral imbalance in the body.

Sodium content increase

A Salt-based softener adds sodium to the water to displace the hard minerals; this may be unsuitable to people on a salt-restricted diet.

Salt-free water softener

While the salt-based process removes hardness minerals from the water, the salt-free counterparts, on the other hand, retains the minerals in the water and converts the hardness crystal such that they won't bind to surfaces. Ideally, this is water conditioning, as opposed to softening.

A water test reveals that before treatment 10 grains/gallon, however, results after salt-free treatment still indicated 10 grains/gallon. No doubt, the hardness minerals are still present, therefore what just changed is that they won't adhere to surfaces. We need to mention that with salt-free softeners, you do not require an electrical valve since the system works as a conditioner as we said and never captures anything. Therefore there is no need to purge any minerals.

Advantages of Salt-Free Water Softeners

Reduces maintenance

We noted that Salt-free water conditioners have shallow maintenance needs. Besides, installation is simple as it only has either a single tank or cartridge. Additionally, no drain connection as the conditioner does not go through regeneration cycles or backwash. Unlike salt-based softeners, they don't need any electricity to operate, thus saving you money on electric bills.

Eco-friendly

Notably, salt-free water conditioners do not require regeneration cycles; as such, they do not produce wastewater, and neither do they dump chlorides into the waste stream. Thus they are environmentally friendly.

Economical

Generally salt-free conditioners are less costly in comparison to the salt-based softeners.

No chemicals

If you dislike the idea of using chemicals to soften your water, a salt-free conditioner is the best choice for you.

Cons

Not suitable for well water

When it comes to well water, unfortunately, salt-free conditioners are not useful. Generally, well water is known to hold high levels of iron and manganese. So, a water conditioner may not be effective against high levels of iron and manganese.

Reduces soft water benefits

The system does not soften your water; instead, it conditions hard water. Therefore, you'll still need to use more of your laundry detergent and dishwasher soap. Salt-free water conditioners have low efficiency against tough water.

Conclusion

Drinking soft water may not a good idea. The majority of salt-based water softener manufacturers recommend the installation of a reverse osmosis system under your kitchen faucet to eliminate the extra sodium for your drinking water.