Vulcan

vs. Water Softeners

Vulcan is an electronic (capacitive) impulse based water treatment system that solves your problems with scale and rust. Vulcan is an eco-friendly solution without salt or chemicals.

Water Softeners

Salt-based water softeners (so-called ion-exchangers) are using salt and chemicals to treat the water. They are installed into the piping system which should only be done by a professional plumber. They exchange the minerals (calcium and magnesium ions) with twice as much sodium (salt) ions. As calcium and magnesium gets deleted, the water is softer afterwards. This way softeners considerably increase the sodium content of the water which can cause considerable health threats and certainly is a threat for the environment.

Burning money: Regular water softeners are not only expensive to purchase but also you will need a specialist to do the installation. Once in place you will have to constantly refill it with salt.

Never-ending maintenance: Maintenance includes the constant refilling with salt, the washing of the granule and the checking of valves and measuring station.

Wasting resources: softeners require large amounts of salt and huge amounts of additional water of up to 30-80 gallons per wash (~110-300 l) to operate.

Water softeners need a lot of manpower as they constantly need to be fine-tuned and controlled. Especially season-related changes of the water quality (summer/ winter) are often simply forgotten to consider for the programming. The human error factor then prevents the unit from performing correctly.

Health issues: Babies, children, elderly people, people with salt-restricted diets or anyone who is health-conscious should consult a physician regarding the sodium intake increase when using a water softener. The water loses its natural taste and may even taste salty. Also you may have to supplement the important minerals calcium and magnesium in your daily diet.

It is important to note that many of the water softeners have a by-pass feature that will allow you to bypass the cold water in the kitchen. This will enable you to use unsoftened water for drinking and cooking. In addition, bypassing the cold water tap in the kitchen will prevent minerals from being removed from the water. However, then only part of your pipes are protected.

Water softeners make your water softer. But ...

... is that always a good idea?
... is it necessary to have extremely soft water?

The answers are simple: No. and No.
Hard water is a real nightmare as long as the scale builds deposits. The minerals calcium and magnesium in itself are good substances. Once you minimize the adhesivenes of the scale, it no longer bothers you as deposits but you can benefit from the healthy minerals. Very soft water is also not recommended for pipes as is might damage them (the soft water is too acidic).

Legislation and the Environment

The environment

Water resources are a valuable good. We require large amounts of fresh water but only 2.5% of the Earth's water is fresh, and over two thirds of that is frozen in glaciers and ice caps. The use of water softeners contributes to a decrease in the available fresh water on our planet. Therefore, it is important to use eco-friendly technologies and stop harming the environment.

The US government has started to put a ban on water softeners

For the above mentioned reasons and mainly due to the great threat to the environment, the US government has started to ban softeners.

Does the Vulcan treatment have a softening effect on the water?
The treatment does **NOT** change the overall water hardness. Unlike in chemical water treatment systems (e.g. a water softener that uses salt) the water treated by Vulcan does not lose minerals, such as calcium and magnesium. The natural composition of the elements in the water remains the same. However, due to a change of the water surface tension your skin will feel remarkably softer. You are sure to feel this effect when taking a shower or even simply washing your hands. Most importantly, scale loses its adhesive characteristic. The treatment does not, however, change the measured water hardness. So on a chemical level you have the same hardness before and after the treatment.