

The Triangular Wave System Gives All Of The Benefits Of Soft Water Without The Harmful Salts

The TWT Deposit Control is a advanced electronic method of treatment of hard water and hard water's effect on water-based applications. The system is non-invasive and non-chemical by design and is suitable for practically all applications requiring hard water treatment.

Sources of Water

Drinking water primarily comes from two sources-- the bodies of water on the earth's surface and the subterranean wells which gather groundwater after it is filtered through the top layers of the earth's strata. After the groundwater passes through the uppermost layers of the earth's surface, it contains carbon-dioxide (CO₂), a carbonic acid. In the lower strata of the earth, the carbonic acid-enriched water dissolves lime (CaCO₃) from the subterranean rock and converts it to calcium-hydrogen carbonate. The calcium-hydrogen carbonate is the source of lime deposits and encrustations (scale) which form in water systems.

Hardness in Water

Regardless of the source of drinking water, water typically contains carbon-dioxide (CO₂) and the earth's alkalines, such as calcium and magnesium. The total hardness of water is determined by the sum calcium-hydrogen carbonate, magnesium-hydrogen carbonate and the non-carbonate starches which include calcium and magnesium component solutions. Consequently, the water "hardness" is dependent upon the amount of lime in the water. There are **several methods of preventing lime deposit formation** (scale and encrustation) in water systems.

- In one method, ion exchanging mechanisms are used to remove the calcium ions Ca²⁺ and the calcium-hydrogen carbonate from the water by exchanging the calcium ions and the calcium-hydrogen carbonate in the water for sodium ions from sodium chloride (NaCl).

- Another method uses phosphate chemicals as an additive mechanism to prevent the formation of crust deposits. The lime is either contained by the added chemicals or it forms a sediment which is flushed by the water moving through the system.
- A third method for preventing the formation of lime deposits uses an electronic deposit controller, (**Triangular Wave System**) which generates an electronically modulated frequency, and amplified, triangulated waveform, which is then oscillated to change the separation characteristics of calcium and carbonates before they enter the water system. That immediately neutralizes the hardness, and functionally "softens" the water. The process is purely physical as it uses no chemical additives.

The Triangular Wave Deposit Control System Will:

1. Give the benefits of soft water without adding harm harmful salt or removing health giving minerals.
2. Prevent any further hard scale build-up in and on water equipment and fixtures.
3. Remove the existing scale that is inside the water system.
4. Soften the existing hard scale around taps, basins, and toilets, etc.
5. Reduce soap scum and improve the lather of soap.
6. Make the water feel silkier.
7. Reduce the harsh effects of hard water on skin and clothes
8. Reduces water spotting on fixtures and surfaces in contact with the water.
9. Provides a much more environmentally friendly solution to hard water – no salts or chemicals.
10. The water will taste better, as pipes will be cleared of both mineral and biological deposits.
11. Plants that receive the treated water will grow better.