### SMART GREEN ENGINEERING - TRUSTED PRODUCTS - UNRIVALLED COST-EFFICIENCY



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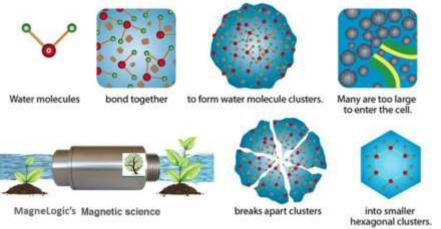
# CHEMICAL-FREE SCALE REMOVAL AND PREVENTION

This article explains how

Water molecules consist of one oxygen and two hydrogens. Thus: H2O. Simply put, the oxygen act as a negative, while each hydrogen molecule acts as a positive. Water molecules do not travel alone. They form clusters with other water molecules by the attraction of a positive hydrogen of one molecule to the negative oxygen of another. Water molecule clusters come in many sizes, depending on the number of water molecules involved.

In the case of water that has not been magnetically structured, the water molecule clusters are generally comprised of many water molecules that are loosely attracted. This loose and chaotic form of attraction allows for toxins and pollutants to travel inside the water molecule cluster. As these water molecule clusters pass by the cell membrane, many of them are sloughed off because they are too large or because of the toxins contained, which the plant is programmed to reject. The smaller of these chaotic clusters will enter the cell, some carrying toxins with them. It requires a great deal of unstructured water to hydrate a plant.

Magnetic field, when applied to normal water, restructures the water molecules into very small water molecule clusters, each made up of six symmetrically organized molecules. This miniscule cluster is recognized by the cell as "bio-friendly" due to its hexagonal structure and because the toxins cannot travel within the cluster, and easily enters the passageways in plant and animal cell membranes. The result provides maximum, healthy hydration with less water.



Since the hexagonal water molecule cluster won't allow the bonding of minerals to it, magnetically structured water removes scaling from pipes and won't allow new scaling to take effect.

The MagneLogic device is a simple flange containing powerful, specific inductance magnet tubes

that restructure the water and minerals passing through them into a more fulfilling and productive bio-available form.

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One of the primary challenges that industries face with their water systems is the buildup of scaling and corrosion.

Whether in an industrial boiler, a cooling tower, or similar water treatment or delivery system, mineral deposits can build up and form a dense layer. These deposits include calcium, magnesium, iron, copper, silica and other elements. In a boiler tube, for example, this buildup can impede heat transfer. Corrosion too can contribute to deposits, which results in metal damage to the system.

### Tipping Scale in your Favor

The hardest thing about engineering is, too often, the water. Hard water causes pipes, taps, boiler systems, garden sprinkler heads—and more—to clog up with a mineral plaque referred to as scale. The mineral richness of this hard water produces weak water pressure from corroded pipes that often have to be acid-bathed or replaced to allow the flow necessary for the operations.



If that's not bad enough, the manager comes home to find mineral stains wherever house water sits for any length of time, appliances that are choking to death from scale, and washing machines that demand an overload of soap to show signs of sudsing. Drinking, showering, and bathing in this water should deserve hazard pay for the residents in homes with this problem.

In the past, the answer for the evils of scale has been either a water softener in the system, or acid bathing and pipe replacement. But now, MagneLogic water systems tip scale in a different direction.

# MagneLogic's magnetic science not only prevents mineral rich water from scaling, but it gently removes scale that is already in place.

Better yet, MagneLogic softens water in a better way than softeners, creating a healthier, more productive end product. One that hydrates better. Tastes good, too. The process is scientifically simple. MagneLogic's magnetizing technology breaks down minerals into much smaller components, then holds them in suspension. In this state, they can't physically bond to the walls of pipes or stain shower doors and sink tops.

Better yet, MagneLogic's magnetically treated water gently washes away scale that is already in the pipes, creating a more productive flow and reducing electrical pumping power as result. This means the end of clogged shower heads, choked up pipes, and rock hard water in the equipment and in staff accommodations. No more stains on shower doors and sink tops.

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MagneLogic's actually outperforms water softeners, changing hard water into hydrating, healthy, mineraldelivering water. Hard water minerals stain and clog, causing additional work load for the Housekeeping Department.

Skin becomes healthier, more elastic and even in tone; the flavor of water improves dramatically; any vitamins or medications being taken are delivered more efficiently into the cells. It renders otherwise toxic elements non-interactive with the body, taking a load off the kidneys since they no longer have to go to war with those negative elements.



The financial benefits created by scale prevention and removal in hotels, cooling tanks, homes, municipalities—

and more-are enormous. You might say it tips the scale in MagneLogic's direction.

### Challenges with Evaporation

When water evaporates, minerals typically left behind will concentrate in the remaining water. If this concentration exceeds the saturation point, these minerals deposit on the internal surface of a cooling system, for example, and cause scaling build-up.

### **Cooling Towers**

Typical cooling towers are designed to cool the heated water that passes through the system, removing the heat from the refrigerant that cools a building. It is estimated that at least 60 percent of the problems associated with these cooling towers are caused by scaling.

## MagneLogic's Solution

<u>CONCLUSION</u>: MagneLogic<sup>™</sup> devices activate the water source, transforming water's molecular structure through the use of magnetic resonators. This safely and effectively changes the structural characteristics of water, preventing mineral deposits to bond. This, in turn, prevents scaling and build-up which can damage the system and lead to costly maintenance and repair costs.

The above effects and advantages are equally valid for all types of boilers: electric, solar, diesel and gas-fired. MagneLogic<sup>™</sup> always comes with a "Money Back" guarantee if the advised effects are not fully measurable (Terms and Conditions apply).

MagneLogic<sup>™</sup> Systems are supplied throughout Sub Sahara Africa and the Middle East by Saham Global. Contact the nearest sales office for more information.