



## ION Series - Inline Water Conditioners



### How does the HALO ION Series Inline Water Conditioner work?

The patented system, when installed in a water supply line, controls the formation of scale and corrosion deposits without the use of chemicals. Water passing through the alternating magnetic fields causes most minerals (iron excepted) to stay suspended in the water so they cannot form a hard, brittle scale. The entire process bonds calcium ions to each other rather than to your plumbing and plumbing fixtures

Water passes, under pressure, and with minimal turbulence, through alternating magnetic lines of force perpendicular to the water's flow direction. This causes a polarizing effect upon non-polar constituents in the water, and provides the energy of activation level necessary to cause the dissolved Calcium Carbonate (Calcite)  $\text{CaCO}_3$  within the water to recombine and form "aragonite" (an amorphous powdery form) when the solubility limit is reached. Unlike crystalline  $\text{CaCO}_3$ , aragonite can easily remain suspended in the water stream rather than attaching to system walls as "scale".

The presence of aragonite in the water provides an additional benefit in terms of corrosion protection. A thin film of the soft aragonite, which normally forms as a result of long term magnetic treatment, actually prevents free oxygen within the water from attacking the metallic components through which the water travels, thus preventing corrosion.

### How is your product different from traditional water softeners?

Most water hardness treatment systems use ion exchange with salt as a regenerate which can have adverse effects on our health and the environment. While ion exchange systems substitute salt (sodium) for calcium, the HALO ION Series Inline Water Conditioner transforms dissolved calcium to crystallized calcium. Calcium in its crystallized state is rendered harmless and free from its hard properties and scaling effects.

### What is your product used for?

The HALO ION Series Inline Water Conditioner has several uses. It is primarily used for commercial applications where scale prevention is required, such as; water heater pretreatment, reverse osmosis pretreatment, etc. It is also used for residential applications where HALO ION Series water is desired for both taste and functional use.

### What is special about the HALO ION Series Inline Water Conditioner?

The HALO ION Series Inline Water Conditioner has been in use since 1964. It is the most widely used, recognized and reliable maintenance-free system available today. In addition, recent local bans on soft water equipment or wastewater discharge permits are not applicable to this system.

### What is so important about not using chemicals or sodium in treating the water?

1. You are not spending money on them. 2. You are not ingesting them in part or in whole. 3. You are not adding to the pollution of the water supplies.

### If the HALO ION Series Inline Water Conditioner does not use chemicals or sodium, what does it use?

Just water! The HALO ION Series Inline Water Conditioner alters the state of the water through a multi-stage magnetic process; it does not add anything to it.

### Will the water test soft after the system is installed?

NO. Remember that the calcium is still present in the water but in an altered state. A test for hardness in reality is a test for the presence of minerals Calcium and Magnesium, which have naturally hard properties. The HALO ION Series Inline Water Conditioner renders these harmless.

### Won't the calcium crystals revert back to their dissolved state in my water heater?

The calcium crystals will remain suspended for approx. 24 to 72 hours. Normal water usage indicates that a typical household will turn the hot water over in a correctly sized water heater at least once per day. This means that the suspended calcium crystals will be washed down the drain before they have the chance to revert back to a dissolved state. At times when the water does sit for example if you are away on vacation, as soon as water is drawn through the unit the water is conditioned and any water that has been converted back to hard will quickly wash through. This prevents any scale from building up over time.

