

EXCALIBUR SOFT-TEC® - PRETREATMENT CHEMICAL REMOVAL SYSTEM AND WATER CONDITIONER SCALE CONTROL SYSTEMS





SOFT-TEC® RESIDENTIAL WATER CONDITIONER PROCESS

The Soft-Tec® scale control system's reliability transforms the positively charged calcium ions into calcium crystals. These calcium crystals are stable and cannot attach to any surfaces and hardware as the calcium crystals are rinsed away by the water flow. The size of the calcium crystals bonds is so small that they can only be seen with a microscope therefore the effect is the same as if the water was completely free of calcium. Tests lasting several years prove that these calcium crystals cannot attach to any kind of surface and the result was 100% scale control and prevention.

Also other ions can no longer attach to surfaces because of the structure of the surface created by the Soft-Tec® hardness stabilizer. The corrosion prevention works by adding a 30-micron protective layer to the surface of existing pipes and hardware. The Soft-Tec® specifications are calculated based on 75 grains per gallon or less.

The Soft-Tec® hardness stabilizer has a warranty of 5 or 7 years on all components and the complete system from defective components and workmanship.

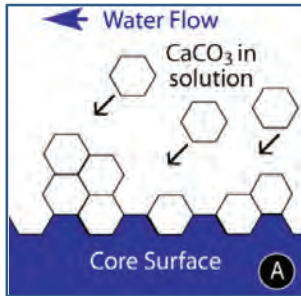
All iron, hydrogen sulfide, and tannins must be removed prior to water flowing through Soft-Tec® scale control water conditioner.

DISHWASHER OPERATION

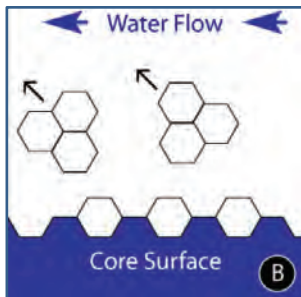
In the first 90 days make sure your dishwasher drying cycle is turned off and your using rinse agent to assist in scale control from hot water tank. Always use phosphate free dishwashing detergent.

SOFT-TEC® RESIDENTIAL WATER CONDITIONER SCALE CONTROL SYSTEM

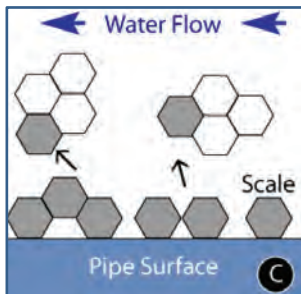
HOW DOES IT WORK!



The Soft-Tec® water conditioner control harmful dissolved lime from water via "template induced or epitaxial crystallization". The water conditioner media surface accelerates the natural tendency of dissolved lime to crystallize, but does so before lime can deposit on pipes/surfaces further downstream. The composition of the Soft-Tec® Water Conditioner Media surface mimics that of calcium carbonate crystals, allowing the dissolved lime in hard water to form microscopic hard crystals of "activated lime" on the media surface via the process of "template induced or epitaxial nucleation."



The Soft-Tec® Water Conditioner Media returns lime to the water as stabilized crystals of "activated lime". Once the microscopic crystals of activated lime grow large enough, they are freed from the Soft-Tec® Water Conditioner Media surface by shear forces of water flow. This makes room for generation of new activated lime crystals. These activated lime crystals are "stabilized," and will not cause pipe scaling or stubborn lime deposits on surfaces. When the Soft-Tec® Water Conditioner Media-treated water dries on surfaces, these crystals form a fine, dusty residue that is easily wiped off without cleansers.



The Soft-Tec® Water Conditioner Media's produce "activated" crystals then remove pre-existing scale and prevent new scale formation. Calcium carbonate in pre-existing scale will slowly "redistribute" itself from the low-surface area of pipe surfaces and plumbing to the high surface area of all the crystals in solution. The trillions of microscopic crystals of activated lime provide an incredibly high total surface area for further epitaxial crystallization. The net result is removal of pre-existing lime scale from plumbing, keeping pipes and appliances lime-free whilst leaving a thin protective surface!



WATER CHEMISTRY REQUIREMENTS

Hardness: 0 - 75 GPG

Temperature: 36 – 122°F
(2 - 50°C)

Pressure: 40-100 psi

Iron: 0.0 ppm

Sulphur: 0.0 ppm

Manganese: 0.0 ppm

Phosphate: 0.0 ppm

New Copper Pipe Installation

When new copper pipe is installed must wait 60 days prior to install. Because the new copper pipe has the potential of leaching copper into the water until it has a chance to build up a patina. The time required for this varies greatly from a few days to 60 days depending on water chemistry and how much damage was done to the plumbing system by the excessive use of corrosive flux in the soldering process.

Temperature

The seed crystals that are produced by the media will continue to grow or partially re-dissolve depending on changes of Langelier Saturation Index of the water. Temperature is one of five parameters that are factors in LSI.

Soft-Tec® Residential Water Conditioner Testing

Soft-Tec® used the testing protocol of DVGW through an independent laboratory. DVGW is recognized throughout Europe like NSF in North America. The test was done by running raw 20gpg hardness water at 80°C for continuous 21 days and then water with same properties treated by Soft-Tec® media was ran for 21 days. The comparison of Calcium scale proves the proficiency more than 99%.



• 21 Days Soft-Tec® Treated Water



• 21 Days Raw Water (20gpg)

Soft-Tec® Benefits

- No additional water, chemicals or salt required
- No electricity cost
- No operating cost
- Essential body nutrients in your water remain intact
- Environment friendly, no chemicals or salt required

SOFT-TEC® Pretreatment Chemical Removal System / Features & Benefits



PREMIUM MODEL

System Benefits

Volatile and organic chemicals are dissolved in any water supply either municipal or rural (water wells, lakes and rivers). The chemicals found in your water are numerous and can cause serious health issues. The Excalibur Water Systems Chemical Removal System can take out most volatile and industrial chemicals, providing safe, clean water.

Features

- ◆ Removes most chemicals in your water supply such as chlorine, chloramines, volatile and industrial chemicals, providing safe, clean water.
- ◆ Chemical free system – no chemicals or water softening salt to purchase.
- ◆ No filter cartridge required.
- ◆ 7-year warranty.



SUPERIOR MODEL

System Benefits

Volatile and organic chemicals are dissolved in any water supply either municipal or rural (water wells, lakes and rivers). The chemicals found in your water are numerous and can cause serious health issues. The Excalibur Water Systems Chemical Removal System can take out most volatile and industrial chemicals, providing safe, clean water.

Features

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- ◆ Chemical free system – no chemicals or water softening salt to purchase.
- ◆ No filter cartridge required.
- ◆ 5-year warranty.

POE NSF ACID WASHED COCONUT SHELL CARBON FILTER PARAMETERS

Continuous Flow, gpm	: 5.0 @ 5.0psi
Peak Flow, gpm	: 8.0 @ 10.0psi
Piping Configuration	: Uplfow
Media Qty, ft ³	: ¾
Porting, in	: ¾
Bypass Valve, in	: ¾

MISCELLANEOUS DATA

Mineral Tank Size, in	: 8x44
Tank Area, ft ²	: 0.349
Freeboard, in	: 15.0
Colour	: Black
Mesh Size	: 12x40
Ash Content	: 1%
Iodine Number	: 1,000 mg/g
Operating Pressure, psi	: 20-125
Operating Temperature, °F	: 40-110

SOFT-TEC® Water Conditioner Scale Control System / Features & Benefits



PREMIUM MODEL

System Benefits

- ◆ No scale buildup on fixtures and appliances
- ◆ Scale prevention
- ◆ Essential minerals are no longer removed from the water
- ◆ Dishes, glassware & silverware are spotless and cleaner
- ◆ Appliances using water such as dishwasher, clothes washer, water heaters, ice makers etc. last longer and are more efficient, as scale has been controlled.
- ◆ 7 year warranty
- ◆ NSF 61 Certified
- ◆ Flow rates up to 10 GPM

Features

- ◆ Easy setup & installation
- ◆ No electrical power required
- ◆ No drain or waste water
- ◆ Bypass valve
- ◆ No Maintenance or Repairs
- ◆ No Backwash which lowers water consumption
- ◆ No water softening salt to purchase

NOTE:

No electrical power required, eliminates all unnecessary water usage. All these cost savings only come with a Soft-Tec® Water Conditioner Scale Control System



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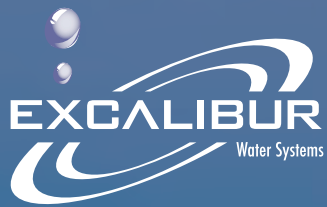
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- ◆ Dishes, glassware & silverware are spotless and cleaner
- ◆ Appliances using water such as dishwasher, clothes washer, water heaters,

ice makers etc. last longer and are more efficient, as scale has been controlled.

- ◆ 5 year warranty
- ◆ NSF 61 Certified
- ◆ Flow rates up to 5 GPM
- ◆ 5-mic Carbon block filter for chlorine and volatile chemicals removal





EXCALIBUR WATER SYSTEMS

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www.excaliburwater.com

Authorized Dealer:

