

PRODUCT GUIDE

SCALE RX™

ION POLARIZATION SCALE REDUCTION SYSTEM

12 YEAR WARRANTY

- Prevents lime scale buildup on water heater elements
- No maintenance, No power or filter replacements
- Eliminates up to 76% of lime scale deposits
- IAPMO R&T Certified
- Provides reliable protection for your water heater
- Patented TGP® Technology (Turbulent Galvanic Polarization)
- Saves energy and money

LEAD FREE
NSF/ANSI 61



A WATER HEATER'S **ULTIMATE** DEFENSE

WHAT IS SCALE?

When water comes from areas high in calcium or magnesium carbonate, hard water leaves mineral deposits commonly known as “lime scale” on plumbing components.

WHY IS IT BAD?

Scale buildup can block pipes and faucet aerators and cause components to fail. It's unsightly, leaves white deposits on clothes and dishes and is a constant nuisance for end-users.

More significantly, scale build-up on water heater elements reduces the overall efficiency and drives up energy bills. Conditioned water saves more than 50% of operating costs over the lifetime of a water heater and help new tank and tankless water heaters to run even more efficiently.*

HOW IS SCALE BAD FOR A WATER HEATER?

- Restricts Flow
- Slows Transfer of Heat
- Decreases Efficiency
- Damages Heating Elements
- Decreases Water Pressure
- Shortens Life Span

* Retrieved from Water Quality Association website:
www.wqa.org/learn-about-water/perceptible-issues/scale-deposits



Water heater with scale and sediment buildup decreasing the efficiency, water pressure and lifespan of this water heater.



- The most common cause of failure in traditional gas and electric water heaters is **lime scale build-up**.
- During normal operation, especially in hard water areas, minerals in water will accumulate on the **hottest parts** of the water heater.
- Over time scale deposits act as an insulator, causing the water heater to work harder to function. This **reduces** the energy efficiency of the water heater by **up to 50%**.
- This **loss of efficiency** in the heat transfer directly affects heaters ability to heat water to high temperatures in short amounts of time.
- The water heater will **eventually fail** due to this **excessive heat** caused by the insulative properties of scale.

* Retrieved from Battelle Memorial Institute, Columbus, OH,
Study on Benefits of Removing Hardness, 2009.

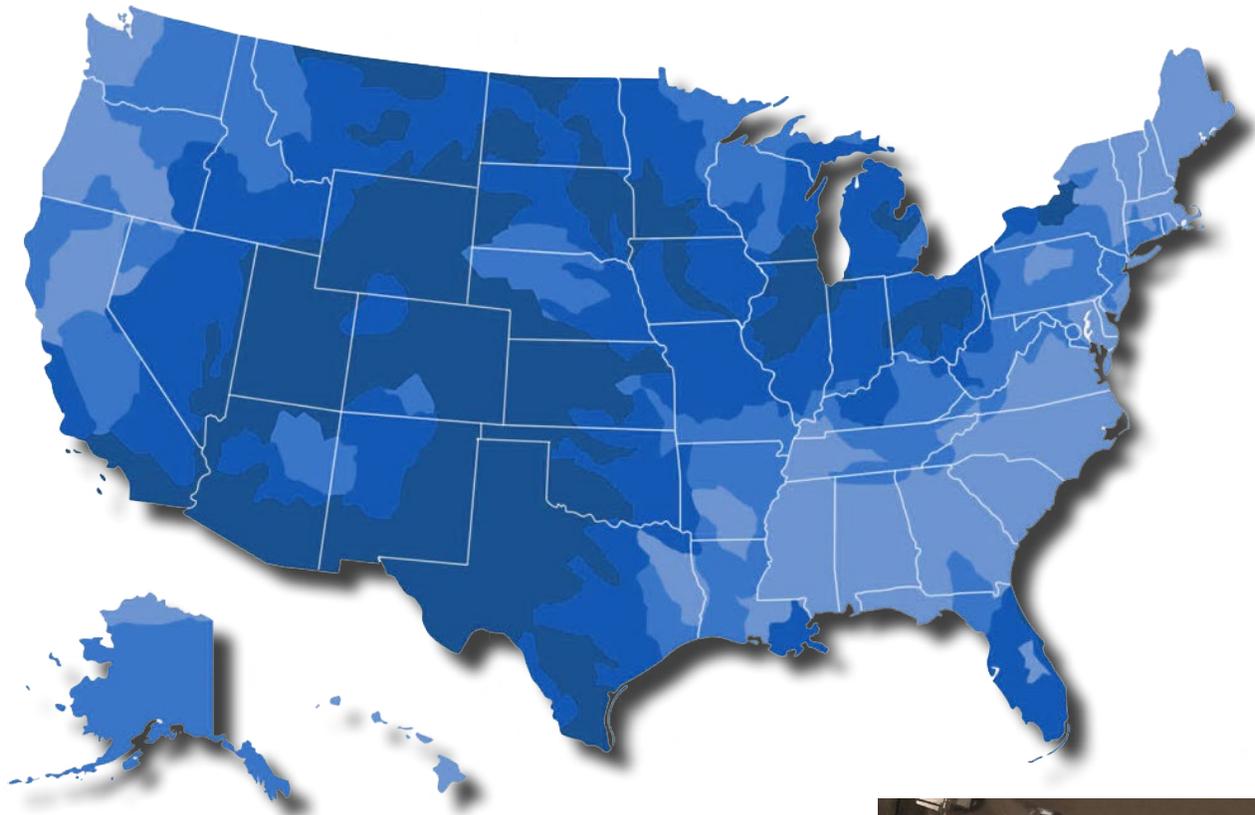
YOUR BEST DEFENSE AGAINST SCALE

Almost **90% of America** has some degree of hard water.

ScaleRX is suited for both traditional tank and tankless water heaters in areas with moderate to severe hard water. It's an inexpensive way to protect a water heater investment, easy to install, and a great value.



A cross-section of built up lime scale on the outlet of a water heater in Northern Illinois.



CONCENTRATION OF HARDNESS AS CALCIUM CARBONATE

- SOFT/SLIGHTLY HARD WATER
- MODERATELY HARD WATER
- HARD WATER
- VERY HARD WATER

Table adapted from and prepared by the United States Geological Survey:
<https://water.usgs.gov/owq/hardness-alkalinity.html#hardness.html>



Lime scale buildup on a tankless water heater without ScaleRX protection in Phoenix, Arizona

WHAT MAKES SCALERX™ BETTER?

ScaleRX can be installed on any tank or tankless water heater and connects directly to any ¾" Male NPT Copper, PEX, PVC or CPVC pipe.

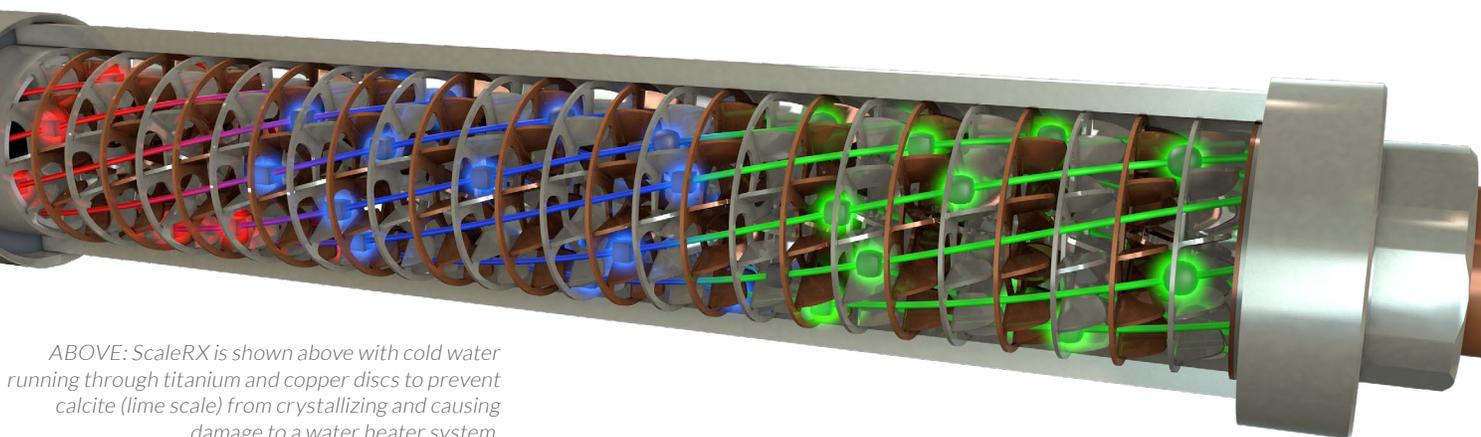
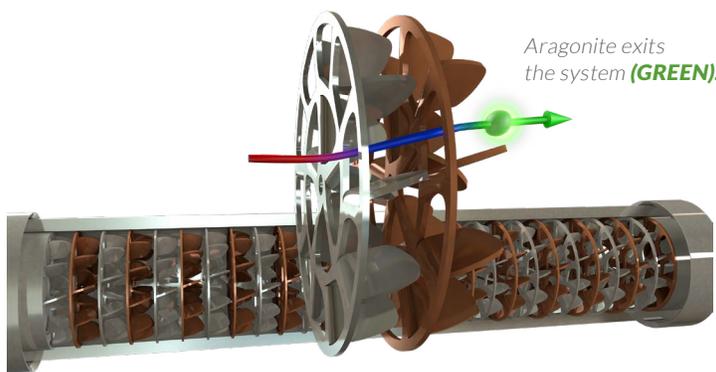
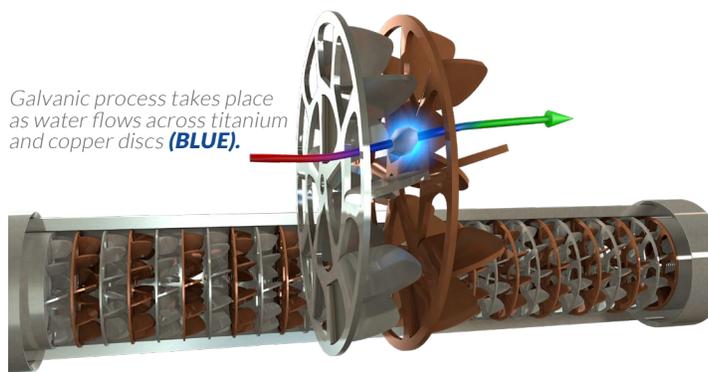
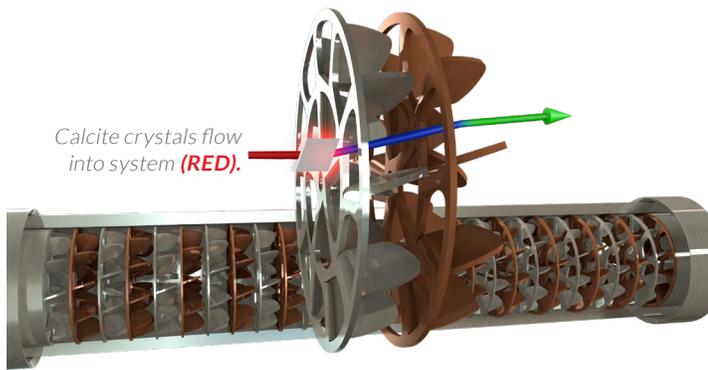
Continuous testing conducted by IAPMO shows ScaleRX to be **76.3%** effective at removing lime scale deposits on copper heating elements. In side-by-side comparison testing it was **4x's** more effective than the leading electronic scale reduction device.

ScaleRX is shown here installed on the cold water inlet of both a traditional tank (RIGHT) and a tankless water heater system (LEFT), and horizontally (BOTTOM).



HOW DOES SCALERX™ WORK?

- ScaleRX effectively disrupts the formation of lime scale as cold water enters a tank or tankless water heater system to be warmed.
- Cold water enters through one side of the ScaleRX system and travels through stationary disc cutouts before ultimately flowing into a water heater.
- As a result of water flowing across dissimilar metals (titanium & copper) a galvanic current is created and effectively disrupts the ability of Calcite crystals to form and stick together.
- Aragonite can now pass safely through a water heater system without additional chemicals, filters, or a power source.



FAQ

What Kind Of Water Heaters Can It Be Used On?

ScaleRX can be used on any residential water heater—tankless, tank, gas, electric, geothermal, etc.

How Long Does It Last?

ScaleRX is designed to live as long as any gas or electric water heater and is backed by a 12 year warranty.

Can I Install It Outside?

Certainly! The outside components are made of durable stainless steel and made to survive in any type of environment inside or outside.

What Type Of Pipe Do I Need To Use?

ScaleRX can be used with any type of pipe. It connects directly to copper, CPVC, or PVC pipe. Brass or plastic adapters may be used to connect it to any other type of pipe.

Why Doesn't It Need An External Power Source?

ScaleRX is a flow-through body with inlet and outlet ports. In it are placed turbine-shaped electrodes (not magnets) of two different electrically conductive materials. The electrode design is patent-protected (TGP® - Turbulent Galvanic Polarization) and creates a swirling water flow that modifies the structure of minerals.

The water flowing through the body forms by means of the electrodes a galvanic wet cell with a voltage of 4.2V to 6V.

How Much Flow Restriction Is There?

ScaleRX doesn't reduce household water pressure, and has less than 1 GPM flow rate change.

- Min./max. Pressure (inlet): 4 psi/145 psi
- Min./max. (Inlet): 40°F - 210°F
- Flow rate: 14.1 gal./min.



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*ACTUAL SIZE

