

ScaleNet®

Frequently Asked Questions



What is ScaleNet®?

ScaleNet® is an anti-scaling water treatment technology designed to protect plumbing components, pipes, fixtures, valves, fittings, hot tanks, etc. from the negative effects typically caused by water hardness. ScaleNet® is an environmentally friendly alternative to water softening or any other treatment device designed to address scale. ScaleNet® prevents scale by transforming dissolved hardness minerals into harmless, inactive microscopic crystal particles. These crystals stay suspended in the water and have a greatly reduced ability to react negatively and form scale compared to untreated hard water.

How does ScaleNet® differ from a Water Softener?

ScaleNet® uses a specially designed media to convert the dissolved primary hardness mineral (calcium carbonate) into a relatively insoluble microscopic crystal so that it cannot cause harm downstream. A water softener, on the other hand, uses the principles of “ion exchange” to remove calcium and magnesium ions from water while replacing them with sodium ions. A water softener requires a control valve, backwashing, drain line, regeneration and a brine tank to store salt while ScaleNet® requires nothing but an inlet and outlet connection.

Does ScaleNet® remove the important minerals in water?

No. ScaleNet® preserves the beneficial mineral content while preventing the possible negative scale formation associated with these minerals. By rendering the hardness minerals harmless while still keeping them present, you truly get the best of both worlds. Other treatment methods fall short.

In a 2005 report on *Nutrients in Drinking Water*, the World Health Organization writes...“We conclude that hard water is good because it contains nutrients valuable in themselves...To minimize heart disease risk, the ideal water should contain sufficient calcium and magnesium to be moderately hard.”



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What are some of the ideal applications for ScaleNet®?

Virtually any application where scale reduction or scale removal from water hardness is required or desirable. For example: Hotels, Restaurants, Apartment Buildings, Office Buildings, Condo Complexes, Boilers, Irrigation Systems, Humidifiers, Distillers, Residential/Light Commercial Blown Down Type Steam Generators, Solar Heating Systems, Tankless Water Heaters, RO Pre-Treatment, Misting Systems, Tract Homes Builders, Laundromats and numerous Food Service applications are all ideal applications for a ScaleNet® system. As always, Watts recommends you consult an engineer to determine if ScaleNet® is appropriate for use in your system.

How about other chemicals found in city water, such as Fluoride and Chlorine, does ScaleNet® remove them?

No. We all know the important role that chlorine (or chloramine) plays in a public water system. It assures the delivery of safe potable water to every customer. Fluoride is commonly added to municipal water systems because of the proven benefits it possesses in helping to develop children's teeth and to prevent tooth decay. ScaleNet® media, by itself, does not remove either of these additives from water. However, some ScaleNet® cartridge systems contain carbon-based media to remove and reduce chlorine in Food Service and other Point-Of-Use applications. Please contact your local authorized ScaleNet® Rep for the system most appropriate for your specific application.

What factors may effect ScaleNet's system performance?

Water chemistry and peak flow rate are the guidelines used to assure optimal system performance. Most municipally treated (city) water falls well within our performance guidelines to ensure scale control results. However, there are chemistry limitations related to possible foulants and interference ions. Water known to contain visible dirt and debris must be strained using a wye-pattern strainer or equivalent (100 mesh) before ScaleNet® tank systems. More details are available on the product datasheets and IOMs. As with any water treatment technology, correct sizing of the system is important to ensure proper

performance. However, ScaleNet® is more forgiving of flow variations and unplanned peaks than a conventional water softener.

Does the media in a ScaleNet® system need to be replaced?

Yes. Tank-based systems require media replacement every three years. Systems should be installed with this in mind. Isolation valves with a by-pass loop is recommended for most commercial applications so the tank(s) can be taken off-line for media replacement. Most filter housing based systems require cartridge requirement every year, while tankless water heater ScaleNet® systems require cartridge replacement every two years. Please refer to and follow the instructions in the Installation, Operation & Maintenance manual included with the ScaleNet® system.

Are there any application limitations to ScaleNet®?

Untreated well water may pose a limitation to ScaleNet® due to the unknown chemistry it often possesses. High hardness levels of 75 grains per gallon for commercial applications and 25 grains per gallon for residential is not a problem for ScaleNet®, but with well water, hardness minerals are often accompanied by other contaminants with levels outside of our operating guidelines. Copper, iron and other dissolved trace metals have a strong attraction to ScaleNet® and can foul the media. Installations on new copper plumbing should be allowed to stay in bypass for at least 4 weeks to allow the new copper surfaces to passivate. For additional information see the feed water guidelines section of the specification sheet. Additionally, closed-loop systems that do not offer a "blow-down" or "flush valve" are not recommended because the micro-crystals need to exit the system.

How easy is it to install a ScaleNet® system?

For anyone who has ever installed a Water Pressure Reducing Valve or a Backflow Preventer, installation of a ScaleNet® system will be relatively easy. Tank systems offer "sweat" or "plastic MPT" connection sizes in 3/4", 1" & 1 1/4". Larger tanks offer single socket or manifold connections in 2" sizes. Several ScaleNet® installation accessories are offered to accommodate most applications. ScaleNet® systems are compact allowing for easy installation when space is limited. ScaleNet® light weight makes it easy for the

installer to transport with nothing more than a hand truck.

What are the ongoing maintenance costs and considerations for ScaleNet®?

One of the great benefits of the ScaleNet® technology is the dramatically reduced maintenance requirements. Other than the planned media replacement, there is nothing else required. For tank systems, the media replacement is once every three years, and for filter housing systems, once a year or once every two years depending on model. That's it.

Why is ScaleNet® a "Green Technology"?

ScaleNet® is truly a "Green product" because it saves water and energy in the following ways:

1. Reduces Energy Consumption – ScaleNet® uses no electricity and reduces energy consumption by keeping heat transfer surfaces free of energy-robbing scale formation.
2. Reduces Chemical or Raw Material Consumption – ScaleNet® requires no chemical or significant ongoing consumable (salt, as an example)
3. Reduces Waste Water Discharge and Water Consumption – Because ScaleNet® does not discharge or require backwashing it meets both objectives.
4. Reduces Space Requirements – ScaleNet® systems use approximately 75% less floor space than water softeners.
5. Retains nature's minerals in the water. The beneficial minerals, calcium & magnesium, are completely retained.

What certifications does ScaleNet® have?

ScaleNet® systems have been certified by the National Water Quality Association (WQA) to NSF/ANSI standard 372 for Lead Free Compliance and to NSF/ANSI standard 61. ScaleNet® media has been certified by WQA to NSF/ANSI standard 61.



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