

How does the AdEdge SCOUT media prevent scale? How does the process work?

The AdEdge SCOUT media prevents the formation of scale that forms on heating element, pipes and hardware of plumbing systems. The media achieves this by accelerating the transformation of the calcium and magnesium minerals into harmless “Nano” particles. When raw water enters into the water conditioner tank, the up flow direction forces the water through the fluidized AdEdge SCOUT media which then acts as a catalyst and pulls the hardness minerals of calcium and magnesium out of the solution transforming these minerals into inactive Nano crystal particles. Since the hardness minerals have transformed into Nano particles, these Nanoscopic particles make their way through plumbing systems without attaching on to pipes, fixtures, valves, or heating elements. Several years of testing has proved that the calcium and magnesium bonds cannot attach to any surface resulting in 99% scale prevention. . A secondary benefit is that the AdEdge SCOUT media process has a decaling effect on the existing scale present in pipes, hardware, and equipment. The AdEdge SCOUT Media also prevents corrosion by adding a 30 micron protective layer to the surface of the pipes and hardware. The overall process of the AdEdge SCOUT treatment system is virtually maintenance free and does not require backwashing, salt, or electricity.

What is the main difference between a water-softening unit and a SCOUT system?

A “classical” water-softener operates on the basis of ion exchange; exchanging calcium and magnesium ions with an equivalent amount of sodium ions((Salt), resulting in an increased sodium content in the water supply. This added sodium content has raised health and environmental concern by many government agencies. Additionally, softening units require water for backwashing and common Brine “salt water” for regeneration. For example, in order to regenerate 100 liters of softening resin, up to 25 kg of salt per regeneration cycle is required. This means an added costly expense of salt is incurred for each and every regeneration cycle. The AdEdge SCOUT water media acts as a catalyst by accelerating the transformation of the calcium and magnesium minerals into harmless “Nano” particles without the use of salt or other regenerates

Why is AdEdge SCOUT an up-flow configuration? Why is it not down-flow?

The AdEdge SCOUT does not trap hardness nor does it exchange anything for the hardness like a traditional water softener. The AdEdge SCOUT system works as a catalytic media causing crystallization of ions on the surface while the water is in continual up flow. Crystallized ions attach to the media for a short time until they grow to Nano size and break free passing along with the water flow. The crystals are not able to attach to surfaces thus preventing scale build up.

Can I replace a traditional water softener system with a SCOUT water conditioner and what difference in performance should I see between the two systems?

A traditional water softener can be replaced with a SCOUT conditioner system. Although the customer will not feel the slippery feeling a traditional softener produces, all of the other great benefits still apply without the addition of sodium in the service water. Customers may experience a salty taste or slight odor in the water for a short period of time, AFTER REMOVAL OF AN EXISTING SOFTENER. A new SCOUT water conditioner scours the pipes that may have a sodium and/or



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calcium residue from the old softener. However, this lasts only for a short time; a customer can be assured that a calcium or scale build-up will not occur again.

AdEdge SCOUT and Hardness limitations.

The AdEdge SCOUT system can treat up to 100 grains hard water. All systems calculations are made based on a hardness of 25 Grains or less. The reason for this is that 95%+ OF ALL INSTALLATIONS FALL INTO THIS CATEGORY WORLD WIDE. The AdEdge SCOUT has been used on waters with hard water up to 100 grains hard. Please contact our support team for calculations over 25 grains.

Why does the AdEdge SCOUT media not need backwashing? What keeps the media bed from becoming fouled?

It is important to point out that there is no filtration effect with the SCOUT media. Remember the SCOUT system is in a continuous traditional backwash flow and not filtering anything from the water. There is no accumulation of minerals or debris in the suspended bed of SCOUT media. The SCOUT media works as a catalyst only and does not filter particles from the water.

What if the bed gets contaminated with bacteria?

A continuous backwash "up flow" is the best action to keep the media clean and sanitized. Nevertheless if the media becomes contaminated, the system can be treated with chlorine up to a maximum of 2-3 ppm for short periods to kill bacteria and to remove organic matter.

What is the maximum operating temperature of the SCOUT media?

The SCOUT media will tolerate 60° C (140° F). Please consider that all the other components of the system are more limited regarding the water temperature.

What is the minimum operating temperature of the SCOUT media?

The SCOUT can withstand temperatures to 38° F. Please consider that all the other components of the system more limited regarding the water temperature. (Please keep from freezing the media)

What is the pH range of the media? SCOUT media works best in a range of 6 to 9 pH, although testing has proved the SCOUT media works at a pH 5.5 as well.

What is the life time of the media?

We estimate a minimum of 3 to 5 years media life should be expected if you follow the recommended feed water chemistry and sizing requirements Well water can often be a concern if untreated due to high level of interference ions or dirty water. Municipal water sources often meet Scout feed water requirements but the use of foulants or high levels of chlorine (above 2-3 ppm) can interfere with media life.

What special precautions should be taken using the SCOUT system?

The same precautions should be taken as with conventional softening resin. Hydrogen sulfide and oil in the water will foul the media. Do not exceed a chlorine residual over 3 ppm. The SCOUT media is strong and should have at least a 5 plus years of life span with normal usage. It is recommended a whole house carbon pre filter be installed in front of the SCOUT conditioner where chlorine is present.

How do I keep the media from washing out of the unit when I start it up for the first time and put it into service?

It is recommended that the media soak for 15 minutes before initial start up. This assures that the media is saturated with water and will not "float" at the top of the vessel when filled with water. An upper basket should be installed to keep the media from going into the distribution plumbing.

Can the SCOUT media replace Polyphosphates in controlling scale build up?

The SCOUT media is a much safer choice than traditional Polyphosphates addition. Polyphosphates only temporarily coat the hardness and keep it from coming out of solution. Polyphosphate crystals are used up quickly and continually need replacing adding additional operating cost to the system. AdEdge SCOUT media will not dissolve, or release any chemicals to the service line, and has a normal lifetime of about 5 years.

If the water hardness is tested after the system is installed will the hardness level be different?

If the water is tested after the AdEdge SCOUT System is installed the hardness level will remain the same and possibly test slightly higher. This is due to existing scale being removed from the plumbing and fixtures (This is usually more noticeable on the hot water side do to more hardness build up on in the hot water heater and pipes). After the existing scale is removed the hardness will go back to original hardness level.

Will I experience any scale build-up after installing a SCOUT conditioner?

Depending on the amount and type of scale deposits present in the plumbing of your application build-up may be observed for approximately one to six weeks after installation of a SCOUT system. These effects will be temporary and will steadily diminish once the fixtures and plumbing have been de-scaled.

What should I expect to see in a dishwasher after installing a SCOUT conditioner?

Due to extremely high temperatures you may find unusual initial spotting due to the de-scaling process taking place. It is recommended that existing excessive scale build up inside of the dishwasher be removed after installation of a SCOUT system. The best way to eliminate existing



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scale in a dishwasher is use a cup of white vinegar or citric acid in the upper basket during the washing cycle.. This will help dissolve the existing scale in the washer arms and inside surfaces of the dishwasher. Harsh dishwashing detergents that have low ph, high chlorine, and phosphates, can breakdown the crystals causing spotting on dishes and interior of the dishwasher. It is important to reduce the soap usage as much as 50% and be sure to use Eco friendly dishwashing detergents.

How fast is the conversion of the calcium and magnesium out of solution in the AdEdge SCOUT system?

The AdEdge SCOUT systems are designed to have a contact time as quickly as 2 seconds. The catalytic reaction is immediate and the Nano particles are formed immediately on the surface of the media. The systems are designed to convert 100% of the temporary hardness of calcium and magnesium based on flow rates and equipment design.

Has the media been tested for health effects?

The media has been tested and meets NSF 61 standard. This is an independent test standard for health effects that was performed by an independent lab WQA, "Water Quality Association".

How serious is it having too much chlorine in the water? How will too much chlorine affect the media?

Having too much chlorine in the water will have a serious negative effect on all medias with a resin base. Because media manufacturers do not have any control over the concentration of chlorine in the water, media with a resin base is never covered under any warranty. Excessive levels of CHLORINE IN THE WATER SHOULD ALWAYS BE A SERIOUS CONCERN. Under normal conditions, good quality resin based medias typically show no significant loss of performance at common chlorine concentrations of 1-3 ppm. However, at elevated levels, chlorine can have a substantial negative effect on the structural integrity of the resin material in the media. The only way to GUARANTEE to protect your AdEdge SCOUT system is to always have a carbon filter installed as part of the treatment design. A carbon filter removes any excessive chlorine levels in the municipal water supplies before the water enters the SCOUT c conditioner.

What are the ongoing service & maintenance costs for SCOUT systems?

One of the major advantages of the SCOUT system, is that they require significantly less maintenance & service, and fewer follow up calls. Unlike softener systems, the SCOUT system requires no salt additions or service calls to see if the system is operating efficiently. The upflow design requires no valve or electricity to be used, keeping costs down.

Why are SCOUT systems considered an environmentally friendly "green" technology?

SCOUT systems require no salt or chemicals, resulting in no brine water discharged. These systems require no electricity, keeping energy costs down. The upflow design of SCOUT systems requires no backwashing so there's no wasted water. SCOUT systems use 50 to 70% less space than conventional softening systems. What's more, SCOUT systems allow healthy minerals (calcium & magnesium) to remain in your water.