



Electronic Scale Removal System
For Water Slides and Aquatic Play Structures
Product Data Sheet

This environmentally friendly and maintenance-free technology will remove existing mineral deposits and prevent the formation of new scale buildup on water slides, aquatic play structures and water park plumbing systems.

WATER TREATMENT TECHNOLOGY

Just like municipal water treatment plants, water parks process millions of gallons of water a day. One of the biggest problems facing water park management today is the effect calcium fouling or lime-scale buildup has on the park's most vital assets and the effect hard water has as an irritant on the customer's overall experience.

Over time, calcium finds its way through the entire water system and begins to increase the water processing cost. Some of the best collectors of calcium deposits are pumps, heating elements and piping, not to mention the interior surfaces of water slides and the exterior surfaces of aquatic play features. Furthermore, since calcium is a thermal insulator, it causes the heating elements of either gas or electronic pool heaters to work overtime and at much higher temperatures. These elements start to fail prematurely and, in some environments, have been known to accumulate an inch of scale in just a few months! Energy costs can skyrocket where the scale builds up to 1 inch. This has the effect of a 95% reduction in heat transfer which virtually doubles the energy cost for the heating unit.

Water slides and aquatic splashground play features cannot escape the grip of hard water scale buildup either. They are notorious for attracting calcium which leads to surface oxidation and the eventual permanent loss of color. All of these conditions are the result of impurities found in process water. Mineral deposits from impurities build up on the interior walls of water feed pipes and on the exterior surfaces of water slides and aquatic play structures. These mineral deposits, commonly referred to as scale or lime scale, consist primarily of calcium and magnesium. Other solids and bacteria from many sources contribute also to the impurities of process water. Left unattended, scale build-up reduces water flow to these aquatic features increasing energy usage, maintenance costs, down time and permanently damaging the high gloss finish of your slides.

Treating process water to reduce mineral impurities may be accomplished either by adding chemicals or physically adding ions to impure particles. The latter technology prohibits crystalline formation and particle build-up. Physically changing the ion composition of process water as an effective method to remove impurities has been used for decades to treat a variety of industrial water processing systems, e.g. cooling towers, heat exchangers, boilers, air conditioners, chillers, furnaces, etc.

**THIS COMMERICALLY PROVEN TECHNOLOGY IS NOW AVAILABLE
TO WATER PARKS EXCLUSIVELY THROUGH SLIDERENU®.**



Guaranteed Shield of Protection™

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HOW IT WORKS

The ScaleShield™ electronic water treatment system generates a magnetic field by a coil that is wrapped around the water pipe which focuses immediately and specifically on calcium and magnesium crystals. These salts compose the greatest portion of impurities in most process water. The water comes under the influence of the ionic field which alters the electronic charge of the water and the shape of these impure crystals by increasing their solubility to keep them suspended in the water flow instead of forming layers of scale deposits on the surface of water slides and aquatic play structures. The ScaleShield™ Electronic Water Treatment System does not remove calcium. Rather, it converts the calcium carbonate into a soft form called calcium aragonite. It has the consistency of talcum powder which produces water that is much softer.

The unit is typically placed in 2 locations; (1) the water make-up line and (2) the pressure side of the water feed pipe that services the aquatic structure. There must be a minimum of 6 inches of straight pipe (horizontal or vertical) to which the wire coil is attached. Each unit is digitally calibrated to the unique water chemistry of each water park, the speed of the water flow and the pipe size/material. This is done by programming the frequency and intensity of the alternating current to attack the predominant hard water minerals in the water while taking into account the other plumbing system variables, i.e. water flow speed, pipe size, pipe composition, pipe wall thickness, etc.

In about 4-6 weeks, there should be a visible difference in the amount of scale on the surfaces of your water slides and aquatic play features. The scale should begin to soften and flake-off as it flows down to intake drains and is captured in the filtration system. The water may begin to feel softer and even hotter as the impurities are removed from the process water allowing the heating system to become more efficient. Since this is a non-evasive system, the water remains chemically unchanged and does not affect pool or drinking water.

BENEFITS

The benefits of this passive water treatment technology are many:

- Easy to install, no plumbing needed, no pipes to cut, i.e. Plug-n-Play.
- Programmable controller accommodates pipe sizes between 2" to 8".
- Compact splash-proof system.
- Effective on copper, steel, rubber, galvanized or PVC pipes.
- No chemicals required.
- Maintenance free operation.
- Negligible power consumption and operating costs.
- Short term payback.
- Environmentally friendly.
- Extends the life of pumps and piping network.
- Increases the life of water slides and aquatic play structures.
- Reduces chemical and cleaning costs.
- Improves water heating efficiency
- Eliminates unsightly scale buildup.

PERFORMANCE GUARANTEE & WARRANTY

The ScaleShield™ Electronic Water Treatment System comes with a 1 YEAR PERFORMANCE GUARANTEE and 5 YEAR PRODUCT WARRANTY. If you are not completely satisfied after using the ScaleShield™ system for 90 consecutive days, SlideRenu® will refund the purchase price less a system recalibration charge. If for any reason the ScaleShield™ system is defective, SlideRenu® will replace any defective component at no charge during the 5 year warranty period.



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