

# Stainless Steel Care (from Halcyon website - FAQ section)

## Q: Why does my stainless steel equipment look as though it is rusting?

A. Stainless steel resists rust and will stain “less” than other types of steel. What may appear to be rust is actually surface corrosion. When stainless steel comes in contact with chloride (which is found in seawater) or chlorine (which is used in swimming pools), the protective chromium oxide layer gets penetrated and allows corrosive attack to occur. Thoroughly rinsing all your equipment with fresh water after use in salt water or chlorinated water is the best way to prevent corrosion.

## Stainless Steel Cleaning and Maintenance (source: [www.recreonics.com](http://www.recreonics.com))

Stainless steel is a corrosion resistant chromium/nickel alloy steel that is strong and durable with excellent luster. However, it is not rustproof, particularly in the harsh environment of a swimming pool. Chlorine and bromine used for sanitization are highly caustic chemicals for stainless steel and heat and humidity enhance the corrosiveness of these chemicals. Regular cleaning is the best way to prevent corrosion and add to the service life for your railings, starting platforms, guard chairs and any other stainless steel equipment. The goal of your cleaning and maintenance program should be to keep the stainless steel's protective chromium oxide layer intact. This is what prevents corrosion.

## General Cleaning and Maintenance Suggestion for Stainless Steel

### DO:

- Rinse off stainless steel pool equipment frequently with fresh water to wash away accumulated chemicals such as chlorine and wipe dry with a clean cloth. Especially try to clean equipment immediately after use around chlorides (chlorine powder, seawater, etc.)
- Clean frequently with a cleaner and water. Any cleaner that is safe for glass is usually safe for stainless steel.
- Inspect equipment frequently, if you notice discoloration, tarnish or water stains, increase the frequency of your fresh water rinses to reduce accumulated chemicals.
- Remove any rust spots as soon as possible to prevent irreversible pitting.
- Occasionally clean with borax, soda ash, or a non-abrasive commercial cleanser and water. Stubborn stains may be removed with a magnesium oxide, ammonia and water paste.

Consider the following periodic cleaning program:

- 1 can of powered cleanser
- 1 Scotchbrite pad
- 1 spray bottle cleaner
- 1 paste automotive wax

### Directions:

Wet cleaning pad with fresh water (do not use pool water) and apply powered cleanser. Using gentle pressure, rub stained areas in the same direction of the existing polishing grain until stains are removed. Rinse with clean water. Use cleaner de-greaser to remove any stains. Thoroughly dry the stainless then apply wax. Let wax dry to a haze and buff to a shine with a clean dry cloth. Automotive waxes will provide added beauty and protection for your equipment.

## **DO NOT:**

- Do not use steel wool or sandpaper, or mineral acids, bleaches or chlorine cleansers.
- Do not add chlorine to your pool right next to your stainless steel equipment. Added it as far away as possible.
- Do not store stainless steel equipment in a closed area underneath steel beams to avoid corrosive condensation from dripping onto to the equipment and leaving brown spots.
- Do not store stainless steel equipment where it will attract and retain moisture or airborne contaminants and do not store equipment in the same areas as chlorine.

## **Advanced Cleaning for Stainless Steel**

### **Discoloration, Tarnish or Water Stains:**

The first stage of corrosion is completely on the surface and is easily removed by most commercial metal polishes. Discoloration will be greater at indoor facilities due to the chlorine vapor trapped in an inside environment.

### **Lighting Rusting:**

Rust is visible at this stage but little or no pitting has yet occurred. A stronger cleaning agent, such as Simichrome Polish, is required.

### **Heavy Rusting:**

A deep coat of rust with surface pitting can develop if corrosion has been left unchecked for a long time. For advanced corrosion naval jelly is recommended.

### **Surface Restoration:**

To remove or reduce pitting damage caused by corrosion, mechanical polishing is preferred chemical cleansing. Scotchbrite works well for this purpose. Work only in the direction of the existing grain and never use steel wool.

### **Corrosion Prevention:**

Apply a physical barrier between the stainless steel and corrosive agents by using a soft paste wax, such as an automotive wax. A coating of wax may last for up to six months, depending on equipment usage.