

Stainless Steel Maintenance and Care

PROPERTIES AND CHEMICAL REACTIONS OF STAINLESS STEEL

300 series stainless steel contains iron, chromium, and nickel. This is capable of rusting, under certain conditions. With a 12-30% chromium content, 300 series stainless steel is "passive" towards corrosion. This means an invisible film covers the steel's surface, creating a barrier against corrosion, causing the metal to be stainless. This film is only a millionth of an inch thick, so if the film is broken down or scratched, your feature will begin to show signs of corrosion. The goal is to keep this film intact by applying proper maintenance and cleaning procedures to stainless steel to obtain maximum longevity of your feature.

WHAT CAUSES CORROSION?

Corrosion can manifest itself on your stainless steel feature if the passive film has broken down. The initial signs of this process begin with tiny pits and cracks on the surface of the steel, unable to be seen with the naked eye. Only with a magnifying glass or microscope, can these "symptoms" be seen. Over time, these pits and cracks will continue to increase in size and depth, resulting in the typical red-orange rust visible to the unaided eye.

WHAT CAUSES THE PASSIVE FILM LAYER TO DETERIORATE?

1. Steel pads, brillo pads, wire brushes, or anything abrasive that will scratch the surface.
2. Mineral deposits left over from hard water
3. Chlorides that are found in household cleaners, water, pools, even food particles (that are left behind after food preparation), and table salt. Chlorides ending in INE are not recommended.

**BLUWORLD WILL NOT BE RESPONSIBLE FOR ANY
DAMAGES IF THESE GUIDELINES ARE NOT FOLLOWED**



CORRECT TOOLS AND CLEANSER FOR STAINLESS MAINTENANCE

***Help prevent your stainless steel from corroding by cleaning it with the recommended tools and cleansers**

Tools

Do Use:

Soft cloths and plastic scouring pads. Any and all pads only be used in the direction of/parallel to the visible grain lines. See diagram below for visual.

Do Not Use:

Wire brushes or metals scrappers. Also do not use steel scouring pads against the designated polish lines.

Cleansers

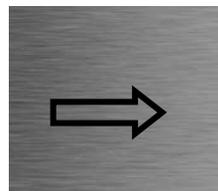
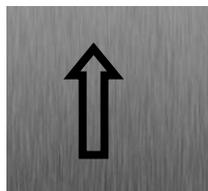
Do Use:

Stainless cleaner or non-chloride containing cleaners. If you do not know the chloride content of your cleaner, call the cleaner supplier.

Do Not Use:

Any abrasive cleaners ending in "INE", "IDE" or quaternary salts are **not** recommended

Clean parallel to the visible grain lines



8 tips to keep your stainless clean and corrosion free

1. Utilize proper tools
2. Wipe with the grain of the stainless
3. Utilize caution when using cleaners and **non-chloride** containing cleaners
4. Soften hard water with filters to reduce mineral deposits
5. Clean your feature frequently to prevent food particles from causing pits and cracks
6. If chlorinated cleanser is used, rinse and dry immediately
7. Absolutely, under any circumstances never used hydrochloric acid (muriatic acid) on stainless steel.
8. **Periodically restore or passivate your stainless steel by following these simple guidelines and using a good stainless steel cleaner.**

Scenario	Cleaner	Tip
Routine Cleaning	Soap, Ammonia, Mild Detergent	Cloth or sponge application
Smudges and Fingerprints	Bluworld Stainless cleaner	Lends barrier film
Difficult stains	Bluworld Stainless cleaner	Clean parallel to the polish lines
Restoration, Passivation	Bluworld Stainless cleaner wipes	Reconditions, provides luster