FIRST SIGNS OF CORROSION

What Causes Corrosion?

Corrosion can manifest itself on your stainless steel equipment if the passive film has been broken down. The intial signs of this process begins 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 a 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 Does Corroded Stainless Steel Look Like?

Pictured at the right is a classic example of residual surface rust. These stainless steel commercial sink legs have undergone considerable corrosion, resulting in the visible red-orange rust mentioned in the paragraph above. This pitting and cracking of stainless begins on a microscopic level.

What Causes The Passive Film Layer To Deteriorate?

1. Steel 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, food particles (that are left behind after food preparation), and table salt.

IN REVIEW

Remember

Stainless steel is durable and can be long lasting, if the proper care and maintenance is provided.

- **KEEP STAINLESS STEEL PRODUCTS CLEAN TO INHIBIT BACTERIAL GROWTH.**
- **Do NOT allow liquids to stand on stainless steel for prolonged periods.**
- **Do NOT allow food particles, dirt, or other foreign matter to stay in contact with stainless for prolonged periods.**
- **It is recommended that Dow Fantastic or Glass Plus is used with a paper towel when cleaning the stainless.**
- **Do NOT use an abrasive cleaner! This will scratch the surface of the metal.**
- **Chlorine bleach should NOT be used to clean stainless surfaces. If chlorine bleach is used, it must be thoroughly rinsed off immediately with water.**

John Boos & Co.

315 S. First St. P.O. Box 609 Effingham, IL 62401
Phone (217) 347-7701 Fax (800) 433-2667
Email: sales@johnboos.com
Web: www.johnboos.com
or www.greenbutcherblock.com
E-Commerce: purchaseorders@johnboos.com

STAINLESS STEEL

Maintenance & Care

PROLONG THE LIFE OF YOUR STAINLESS STEEL

John BOOS Since 1887

PROPERTIES AND CHEMICAL REACTIONS OF STAINLESS STEEL

300 series stainless steel contains iron, chromium, and nickel. 400 series stainless steel contains iron and chromium. Since both series contain 70-80% iron, they are both capable of rusting, under certain conditions. With a 12-30% chromium content, both 300 and 400 series stainless steel are "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 millionths of an inch thick, so if the film is broken down or scratched, your equipment 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 equipment.

"Raw iron has no protection from corrosion. However, with stainless, as long as the film is intact; not broken or contaminated, the metal is passive and stain-less."

CORRECT TOOLS AND CLEANSERS 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. Stainless steel scouring pads may only be used in the direction of/parallel to the visible polish lines. See diagram below for visual.

DO NOT USE: Wire brushes or metal scrapers. Also do not use steel scouring pads against the designated polish lines.

CLEANSERS

DO USE: Alkaline, alkaline chlorinated, or non-chloride containing cleaners. If you do not know the chloride content of your cleaner, call the cleaner supplier.

DO NOT USE: Abrasive cleaners containing chlorides or quarternary salts.

8 TIPS TO KEEP YOUR STAINLESS CLEAN AND CORROSION FREE

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

Scenario	Cleaner	Tip
Routine Cleaning	Soap, Ammonia, Detergent	Cloth or Sponge Application
Smudges & Fingerprints	Arcal 20, Lac-O-Nu Ecoshine	Lends Barrier Film
Difficult Stains	Cameo, Talc, Zud First Impression	Clean Parallel To Polish Lines
Oil & Grease	A Good Commercial Detergent	Cloth Or Sponge Application
Food Grease, Burnt on Foods	Easy-off, De-Grease it, Oven Aid	Works Well On All Finishes
Restoration, Passivation	Benefit, Super Sheen	---