

# Stainless Steel Care & Cleaning



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#### General

Stainless steel is a "passive" metal because it contains other metals like chromium, nickel and manganese that stabilize the atoms. Chromium provides an invisible passive film that covers the steel surface, acting as a shield against corrosion. As long as the film is intact and not contaminated, the metal is passive and stainless. If the passive film of stainless steel has been broken, equipment can start to corrode and rust.

Three materials or processes can break down stainless steel's passive layer and allow corrosion to occur:

- Mechanical abrasion
- Deposits and water
- Chlorides

**Mechanical abrasion** refers to items that will scratch a steel surface. Steel pads, wire brushes and scrapers are prime examples.

Water comes out of the faucet in varying degrees of hardness. Hard water may leave spots. When allowed to sit, these deposits will break down the passive chromium layer and rust stainless steel. Other deposits from food preparation must be promptly removed with an appropriate cleaning agent.

**Chlorides** are found nearly everywhere. They are in water, food and table salt. Household and industrial cleaners are the worst offenders.

#### **Preventing Stainless Steel Rust**

Use non-abrasive tools to clean stainless steel products. Soft cloths and plastic scouring pads will not harm the steel's passive layer.

Clean with polish lines. Some stainless steels have visible polishing lines or "grain". When visible lines are present, always scrub in a motion parallel to the lines. When the grain cannot be seen, polish in a consistent straight pattern and not in a circular motion.

Use alkaline, alkaline chlorinated or non-chloride containing cleaners. While many traditional cleaners are loaded with chlorides, the industry is providing an ever-increasing choice of non-chloride cleaners. If you are not sure of chloride content in the cleaner being used, contact your cleaner supplier. If your present cleaner contains chlorides, ask your supplier for an alternative. Avoid cleaners containing quaternary salt; it also can attack stainless steel and cause pitting and rusting. Keep food equipment clean. Use alkaline, alkaline chlorinated or non-chloride cleaners at recommended strength. Clean frequently to avoid build-up of hard, stubborn stains. The single most likely cause of damage is chlorides in the water. Remember, adding heat to cleaners that contain chlorides dramatically increases their effect on stainless steel.

If chlorinated cleaners are used, immediately rinse and wipe equipment and supplies dry. The sooner you wipe standing water, especially when it contains cleaning agents, the better. After wiping equipment down, allow it to air dry. Oxygen helps maintain the stainless steel passive film.

# **A**CAUTION

NEVER use hydrochloric acid (muriatic acid) on stainless steel. Do not use abrasive cleansers or cloths on any interior or exterior surfaces or removeable parts.

### **Cleaning Non-Metallic Surfaces**

Glass panels may be cleaned using any standard glass cleaner available on the market.

To clean interior and exterior non-metallic surfaces and removable parts, wash with mild solution of soap and lukewarm water with a little baking soda. Rinse and dry thoroughly. Avoid getting water on the lights, controllers, fan motors and unfinished wood wine rack faces.

#### **Cleaning the Refrigeration System Condenser**

The condenser (located behind the front grille cover) should be cleaned every three (3) months. Use a soft bristle brush and vacuum to remove dust and lint.

## **A**CAUTION

Avoid damaging or crushing the condenser fins or tubing.

### **Recommended Cleaners for Specific Situations**

Cleaning Agent	Comments
Soap, ammonia, detergent	Apply with sponge or soft cloth
Areal 20, Lac-O-Nu, Lumin Wash, O-Cedar Cream Polish	Provides barrier film to minimize fingerprints. Can be used on all finishes. Rub the surface with a cloth as directed on the package.
Stubborn stains and discolorationsAllChem Concentrated Cleaner, Samae, Twinkle, Cameo Copper Cleaners, Grade FFF Italian Pumice Whiting, Steel Bright, Lumin Cleaner, Zud Restoro, Sta-Clean, Highlite Cooper's Stainless Steel Cleaner or Revere Stainless Steel CleanerOld Dutch, Lighthouse Sunbrite, Wyandotte Bab-O, Gold Dust, Sapollo, Bon Ami or CometLiquid NuSteel or Dubois Temp	Apply with a damp sponge or cloth, then rinse with clear water and wipe dry.
	For these household cleaners, rub with a damp cloth. They may contain chlorine bleaches so rinse thoroughly after use and wipe dry.
	For these products, rub the surface with a dry cloth using only a small amount of cleanser. Rinse with water and dry.
Penny-Brite, Copper Brite, Paste Nu-Steel, Dubois Temp or Tarnite	Rub onto surface with a dry cloth
Bar Keepers Friend, Revere Stainless Steel Cleaner, Allen Polish, Steel Bright Wyandotte Bab-O or Zud	When using these cleaners, apply with a damp sponge or cloth, rinse thoroughly and wipe dry.
Oakite No. 33 Dilac, Texo NY, Flash-Klenz Caddy Cleaner, Turco Scale 4368 or Permag 57	Swab and soak with a clean cloth. Let stand for 15 minutes or more according to directions on package, then rinse and wipe dry.
3M Scotch Pad, type A, grade "fine"	Clean off the surface soil using cleaning methods above. Then rub discolored or corroded areas lightly with a dry pad.
	Soap, ammonia, detergent   Areal 20, Lac-O-Nu, Lumin Wash, O-Cedar Cream Polish   AllChem Concentrated Cleaner, Samae, Twinkle, Cameo Copper Cleaners, Grade FFF Italian Pumice Whiting, Steel Bright, Lumin Cleaner, Zud Restoro, Sta-Clean, Highlite Cooper's Stainless Steel Cleaner or Revere Stainless Steel Cleaner   Old Dutch, Lighthouse Sunbrite, Wyandotte Bab-O, Gold Dust, Sapollo, Bon Ami or Comet   Liquid NuSteel or Dubois Temp   Penny-Brite, Copper Brite, Paste Nu-Steel, Dubois Temp or Tarnite   Bar Keepers Friend, Revere Stainless Steel Cleaner, Allen Polish, Steel Bright Wyandotte Bab-O or Zud   Oakite No. 33 Dilac, Texo NY, Flash-Klenz Caddy Cleaner, Turco Scale 4368 or Permag 57

inadequacy. All products should be used in strict accordance with instructions on the package. **NOTE:** Do <u>NOT</u> use steel wool or scouring pads to clean stainless steel.



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