Stainless Steel

Care and Maintenance

316 stainless steel is extremely durable with anti-corrosion properties. Proper care and maintenance will ensure optimal performance over a long service life. Exposure to saline, chlorides, abrasive chemicals, or carbon steel will diminish stainless steel anti-corrosion properties and increase the risk of damage. Exercise caution when handling stainless steel products.



- Do not use carbon steel or galvanized fasteners to install stainless steel products. Use only stainless steel components and tools to prevent contamination.
- Do not weld, cut, drill, or grind carbon steel near stainless steel. Resulting particles will
 contaminate stainless steel and lead to rust.
- Do not use cleaning products containing chlorides or other abrasive chemicals.
- Do not allow chloride solutions or concrete detergents to contact stainless steel. If contact occurs, immediately rinse away with water. Wrap stainless steel when power washing nearby surfaces to prevent contact of concrete detergents.
- Do not use abrasive brushes or scouring pads to wipe stainless steel. Use a soft, lint-free cloth or soft nylon brush unless specified otherwise. For heavier rust deposits, a nylon scouring pad may be required. To minimize alteration of stainless steel finishes, use only ultra-fine nylon pads and rub with the grain.
- Do not clean stainless steel in direct sunlight or excessive temperatures.
- Use clean gloves when handling stainless steel products.
- Follow the safety instructions provided with cleaning or polishing agents.
- Use personal protective equipment in accordance with occupational health and safety guidelines stipulated by your local governing authority.

ROUTINE CARE:

Use a soft nylon brush to remove any accumulated dirt and wash with mild soap or detergent. Rinse thoroughly with clean water and wipe dry with a soft cloth. Perform routine inspection and cleaning every 6 months.

SPECIAL CARE:

TYPE OF DAMAGE	TREATMENT
CONTAMINATION Contamination of passivated steel surfaces results from iron/carbon steel contact.	 Use a soft cloth to apply a solution of oxalic acid to the surface and leave on for a few minutes. Rinse thoroughly with clean water.
CORROSION Stainless steel should not corrode with proper care. If signs of corrosion appear, clean immediately.	 Winor Use an all-purpose lubricant (i.e. WD-40) or domestic stainless steel cleaner containing calcium carbonate or citric acid (i.e. Citisurf 77 Plus). Rinse thoroughly with clean water. Moderate Use E-NOX CLEAN* or another phosphoric acid-based stainless steel cleaner. Spread evenly over the surface, wait 30-60 minutes, then neutralize the acid with an alkaline cleaner (i.e. UNO S F*). Rinse thoroughly with clean water. Severe Consult a professional service provider. A pickling bath with highly corrosive hydrofluoric acid is required. Once treated, stainless steel can be passivized with mild nitric acid.
MORTAR/CEMENT SPLATTER	 Use E-NOX CLEAN* or another phosphoric acid-based stainless steel cleaner. Spread evenly over the surface, wait 30-60 minutes, then neutralize the acid with an alkaline cleaner (i.e. UNO S F*). Rinse thoroughly with clean water.
GRAFFITI REMOVAL	 Use a biodegradable graffiti-cleaning spray or wipe. Avoid using knives or hard scraping tools as these may damage stainless steel surfaces.

 $\pm \text{E-NOX}$ CLEAN and UNO S F are made by Walter Surface Technologies.

Stainless Steel

Care and Maintenance

OIL/GREASE MARKS Use hydrocarbon solvents such as methylated spirit (i.e. Bartoline), isopropyl alcohol (i.e. rubbing alcohol), or acetone. Apply solvent several times with a clean, non-scratching cloth until all marks are removed. **HEAVY TARNISH** Use domestic metal polish or chrome polish for automotive parts. Treat entire stainless steel surface to avoid discolored patches. **HEAVY DAMAGE** Remove any significant rust as soon as possible to *Includes structural compromises such* prevent worsening of damage. as visible dents, cracks, breaks, and Remove heavily damaged products from service until a rust that can undermine the integrity repair or replacement can be made. of a product. For broken or missing parts, contact Reliance Foundry's Sales Department to determine the availability of replacements.

Contact Reliance Foundry if unsure about the suitability of a stainless steel cleaner. This content is provided for informational purposes only. Any mention of a specific product is not a guarantee of quality or effectiveness. Reliance Foundry is not responsible for any improper use or handling of hazardous chemicals.