



STAINLESS STEEL CLEANING & MAINTENANCE GUIDE

The attractive and hygienic surface appearance of stainless-steel products cannot be regarded as completely maintenance free. All grades and finishes of stainless steel may in fact stain, discolour or attain an adhering layer of grime in normal service. The secret to stainless steel's longevity is the invisible chromium-oxide film that protects the steel beneath. To achieve maximum corrosion resistance the surface of the stainless steel must be kept clean. Provided the grade, condition and surface finish were correctly selected for the service environment, fabrication and installation procedures were correct and that cleaning schedules are carried out regularly, good performance and long service life will be achieved.

How often should I clean?

Clean as soon as build-up appears. This may vary from once a month for external applications to once a day for items in hygienic or aggressive situations. Frequency and cost of cleaning is lower with stainless steel than with many other materials and this will often out-weigh the higher acquisition cost.

Cleaning Aids

- Soap or mild detergent & water
- White Vinegar & Warm Water
- Organic Solvents
- Soft Cloth
- Soft-bristled Brush

Do Not use steel wool or metal brush to clean stainless steel. This will scratch the surface and may leave behind steel fragments that react with stainless steel and promote rusting.

Do Not use harsh chemical cleaners that contain powerful chemicals such as hydrochloric acid and sodium hydroxide that will damage the invisible passive layer protecting stainless steel. Any water that comes into contact with stainless steel, particularly cleaning solutions should have zero chloride content as even minute amounts can cause damage. Keep stainless steel products away from bore water.

Do Not use chlorinated sanitisers, cleansers, or bleach.

Do Not use brick cleaning liquids that contain hydrochloric acid anywhere near stainless. To remove cement from stainless steel before it sets, use a mixture of hot water & 25% white vinegar or 10% phosphoric acid. Once cleaned, surface should be neutralised with sodium bicarbonate, then rinsed and dried.



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Cleaning guide for specific issues

PROBLEM	CLEANING AGENT	COMMENTS
Routine cleaning	Soap or mild detergent and water (preferably warm)	Sponge, rinse with clean water, wipe dry if necessary. Follow polish lines
Fingerprints	Soap and warm water or organic solvent (e.g. acetone, alcohol, methylated spirits)	Rinse with clean water and wipe dry. Follow polish lines
Stubborn stains and discoloration	Mild cleaning solutions. Ensure any proprietary cleaners state compatibility with stainless steel. Phosphoric acid cleaners may also be effective	Use rag, sponge, or fibre brush (soft nylon or natural bristle. An old toothbrush can be useful). Rinse well with clean water and wipe dry. Follow polish lines
Lime deposits from hard water	Solution of one part vinegar to three parts water	Soak in solution then brush to loosen. Rinse well with clean water
Oil or grease marks	Organic solvents (e.g. acetone, alcohol, methylated spirits, propriety "safety solvents"). Baked-on grease can be softened beforehand with ammonia	Clean after with soap and water, rinse with clean water and dry. Follow polish lines.

For Designers

Specifiers can be the most important contributors to a building's low maintenance by careful attention to basic design considerations. The structure should be as far as possible self-cleaning by natural elements such as

rainwater. The Architect should minimize horizontal components that can collect dirt. This dirt, when washed off by rain may cause uneven streaking of the areas below. Designs that concentrate the flow of rainwater should be avoided. An overhang can be protruded beyond any lower one, to avoid splatter or concentration of dirt-carrying water. Sheltered areas, such as canopies or soffits should be designed so that they can be readily cleaned, particularly in low, street-side locations.

Joint designs that minimise dirt accumulation should be used. The possibility of staining of the stainless steel by run-off from other materials, e.g. rust from carbon steel, copper and aluminium including hidden clips or fasteners, must be avoided. Grooves, recesses and excessively complex contours which hamper the regular, easy cleaning associated with Stainless Steel should be avoided.

Maintenance during installation

Cleaning of new stainless-steel products should pose no special problems, although more attention may be required if the installation period has been prolonged. Where surface contamination is suspected, immediate cleaning will promote a trouble-free service life.