



Stainless Steel CARE GUIDE

Stainless steels are selected in applications where their natural corrosion resistance, strength and aesthetic appeal are required. However, dependent on their environment, stainless steels will stain and discolour due to surface deposits, and therefore need to be cleaned correctly for a number of reasons:

- To preserve the appearance
- Cleanroom or controlled environment disinfection
- To preserve corrosion resistance

Stainless steel is protected from corrosion by a thin layer of chromium oxide. Oxygen from the atmosphere combines with chromium in the stainless steel to form this passive chromium oxide film that protects from further corrosion.

Any contamination of the surface by dirt hinders this passivation process and can trap corrosive agents, reducing corrosion protection.

How To Clean Stainless Steel Products

Some form of routine cleaning is necessary to preserve the appearance and integrity of the surface.

The material actually thrives with frequent cleaning, and unlike some other materials, it is impossible to “wear out” stainless steel by excessive cleaning.

Like any surface that is exposed to the environment, stainless steel can get dirty and even corrode if not cleaned properly. The actual name, ‘stainless’ simply mean it stains less, than many other materials. Often, warm water with or without a gentle neutral detergent is sufficient.

Disinfection can be carried out using either non-sterile or sterile 70% IPA alcohol , depending on the cleanroom requirements and SOP.

Where stainless steel has become extremely dirty with signs of surface discolouration (perhaps following periods of neglect, or misuse) alternative methods of cleaning can be used, as outlined on page 2.

Cleaning should always be followed by rinsing in clean hot water. It is advisable to wipe the surface completely with dry, lint free and none abrasive cleanroom surface wipes.

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Requirement	Suggested Method
Routine cleaning of light soiling	Soap, detergent or dilute (1%) ammonia solution in warm clean water. Apply with a clean sponge, soft cloth or soft-fibrebrush then rinse in clean water and dry.
Fingerprints	Detergent and warm water. Alternatively, hydrocarbon solvent (methylated spirit, isopropyl alcohol or acetone)..
Oil and grease marks	Hydrocarbon solvents (methylated spirit, isopropyl alcohol or acetone).
Stubborn spots, stains and light discolouration. Water marking. Light rust staining	Mild, non-scratching creams and polishes. Apply with soft cloth or soft sponge and rinse off residues with clean water and dry.
Localised rust stains caused by carbon steel contamination	Proprietary gels, or 10% phosphoric acid solution (followed by ammonia and water rinses), or oxalic acid solution (followed by water rinse).
Adherent hard water scales and mortar/cement splashes	10-15 volume % solution of phosphoric acid. Use warm, neutralise with dilute ammonia solution, rinse with clean water and dry. Alternatively soak in a 25% vinegar solution and use a nylon brush to remove deposits.
Heating or heavy discolouration	a) Non-scratching cream or polish e.g. Solvol Auto Chrome Metal Polish b) Nylon-type pad, e.g. 'Scotchbrite'
Paint, graffiti	Proprietary alkaline or solvent paint strippers, depending upon paint type.