Chrome and Stainless Steel - Care and Cleaning



CLEANING OF METAL SHELVING & TROLLEYS







Trolleys



Wire Baskets



Theatre Equipment

DO NOT USE



Steel Wool



Scrapers



Wire Brush



Chloride Cleaners Sodium Hypochlorite

DO NOT USE CLEANERS OR SANITIZERS CONTAINING CHLORINE OR SODIUM HYPOCHLORITE

DO NOT MIX DIFFERENT CLEANERS AND/OR SANITIZERS. FOLLOW THE MANUFACTURER'S DIRECTIONS CAREFULLY. DILUTE ALL CONCENTRATES TO THE PROPER STRENGTH

Failure to comply with the above care instructions voids any Warranty Agreement and in the event of a claim, a detailed, full maintenance schedule must be provided by claimant.



Never Use Hydrochloric Acid

on Stainless Steel or Chrome surfaces



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, thus it must be kept clean.

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Keep the Equipment Clean

Clean equipment frequently to avoid the build-up of hard, stubborn stains. The single most likely cause of damage comes from chlorides in the water or detergents. The hot water used in a typical hospital cart washer can cause damage due to the presence of chlorides in the water. Some hospitals only use a damp *Decitex Microfibre Finishing Cloth (Oates)* and water – with no detergent needed at all.

Use Alkaline, Alkaline Chlorinated or Non-Chloride containing Cleaners

The industry continues to offer an ever increasing choice of non-chloride cleaners, alongside some of the long established / customary cleaners. If the chloride content of your standard cleaner is unknown, check with the cleaner manufacturer and request additional information. Also avoid cleaners that contain quaternary salts as they too compromise stainless steel and cause pitting and rust spots. Windex and Isopropyl Alcohol Wipes are good to use.

Rinse and Dry

If chlorinated cleaners are used, the surface must be **rinsed thoroughly** and **immediately wiped dry**. The sooner standing water is removed from the surface, especially when is contains cleaning agents, the better. After wiping equipment down, allow to air dry as oxygen helps to maintain the protective passivity film of stainless steel.

Clean with the polish lines

Some stainless steels already display a noticeable 'grain' or polish lines, When these lines are easily recognizable and visible, the **scrubbing motion should always run parallel with the grain**. When the grain is not readily visible, err on the side of caution and use a soft cloth or plastic/ non-metallic Scotch- $Brite^{\mathbb{M}}$ scouring pad. Using 3M Scotch- $Brite^{\mathbb{M}}$ hand pads (green colour) fixed to flat hand held backing pad in conjunction with Stainless Steel Care Oil Spray (Wurth Australia brand), rub in long strokes in the same direction as the grain of the surface being cleaned, until all signs of 'tea staining' and surface rust have been removed.



Maintenance

Once the trolley/surface has been cleaned and thoroughly dried with a soft cloth, it is good to recoat the surface with a good quality stainless steel care oil (*Wurth, 3M* and *INOX-Protect*) are good. Rub over surface thoroughly (always rub with the surface grain) and then wipe clean any excess residue.

CHROME CLEANING INSTRUCTIONS - Cleaned Monthly

- 1. Using a soft lint free cotton cloth, wipe over all surfaces thoroughly with a mild alkaline based cleaning detergent. Some hospitals only use water and a damp *Decitex Microfibre Finishing Cloth (Oates)* with no detergent needed at all.
- 2. Keep free of oils, acids, salt residue and other corrosive substances.

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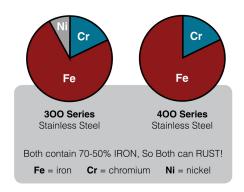
STAINLESS STEEL - a 'PASSIVE' Metal

Corrosion on Metals is common and is recognized on Iron and Steel, as yellow/orange rust. Because these metals actively corrode in the natural environment, they are referred to as "Active" metals. Stainless Steels are considered "Passive" metals, due to the fact that they contain other metals, like Chromium and Nickel.

300 Series Stainless Steel (304/306/316) – contain both Chromium and Nickel, while 400 Series Stainless Steel only contains Chromium, along with the Iron content.

When metals contain anywhere from 12% to 30% chromium, an invisible passive film covers the steels surface, acting as a shield against corrosion.

If this film has not been compromised, remains intact or has not been contaminated – the metal is passive and "stain-less".



PASSIVE FILM BREAKDOWN

Should the passive film of your Stainless Steel Equipment become compromised, the material will begin the slow process of corroding – with the eventual onset of what we know as rust.

The first signs of corrosion will appear on the microscopic level. Under simple magnification or use of a microscope, small pits and cracks will become noticeable. Over time, the compromised stainless steel will give way to deepening pits and increased cracking. Red-Orange rust will eventually appear.



Pitting



Microscopic Cracking seen at 200x magnification



Visible Cracking

Job / Task	Cleaning Agent
Routine Cleaning	Soap, Ammonia, Soft Alkaline based detergents or Windex – also could use Oates Microfibre Finishing Clothes (Green)
Fingerprints and Smears	Wurth, or 3M Stainless Steel cleaner – provides a barrier film
Stubborn Stains and Discolouration	Selleys BBQ cleaner spray or wipes, Alcohol Isopropyl Wipes – rub with grain direction
Grease and fatty acids, burnt on foods	Glitz Power Paste/Wurth Australia – rub with grain direction – use non-metallic Scotch-Brite pads
Grease and Oil, or Sticky residue	Any good commercial Detergent - remember to check Chloride content