

Overview

Stainless steel of all grades can stain and discolour due to surface deposits. Contrary to the name stainless steel is not maintenance free and the surface must be kept clean to avoid contamination and the formation of surface deposits. To maximize corrosion resistance the surface must be regularly cleaned and dried.

Daily Cleaning

Wash down the surface regularly using a warm damp cloth and soap or a mild detergent. Rinse the surface with clean water and dry with a soft cloth to prevent water marks.

Removing Persistent Marks

Soap powders (non-abrasive) or cleaning powders can be used to help remove stubborn deposits. Oil grease and finger marks can be removed with a soap and water solution. Glass cleaner is very effective on bright mirror polished type stainless steel.

Prevent Surface Scratches

Do not use wire wool scouring pads, wire brushes, scrapers or any abrasive cleaning materials as these will leave marks and scratches on the surface. Always clean and wipe in straight strokes following the grain of the metal.

Avoid Surface Contamination

Never leave wet cloths on the surface, always wipe dry, dish wash liquids and cutlery cleaners contain chlorides that if left on the surface may cause pit marks and corrosion. Minute particles of iron or rust from other sources can form and contaminate the metal especially during installation, atmospheric conditions can also cause corrosion such as salt deposits in marine situations or acid solutions used during building work.

Do not use solvents, bleach, caustic cleaners or biological powders.



Stainless Steel Grades

Two of the most common and versatile grades of Stainless steel are austenitic type 304 and the ferritic type 430.

In appearance, they both look very similar, these two grades make up a large majority of stainless steel in use however there are some marked differences between them that set them apart from each other. Notably, 304 contains between 8 – 10.5% nickel whereas 430 contains 0%.

The inclusion of nickel in 304 makes the metal more corrosion resistant than 430.

Type 430 stainless steel is also more magnetic than type 304,

It is standard practise throughout industry to use type 304 on work surfaces and 430 type on ancillary parts of equipment, 430 type does combine good corrosion resistance with good formability and ductility. It is a ferritic, non-hardenable plain Chromium stainless steel with excellent finish quality.



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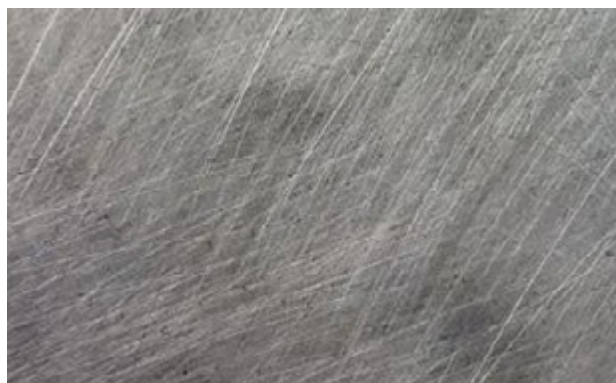
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Rust Marks:

Although stainless steel is known for its resistance to rust, it is important to note that it can still corrode or develop stains under certain circumstances. Finding rust or stains on your stainless steel does not necessarily indicate a faulty material. One common cause of rusting on stainless steel is when it comes into contact with ordinary carbon or low-alloy steel. The iron from the non-stainless steel can transfer onto the stainless steel surface, and when exposed to moisture in the atmosphere, it can lead to the formation of unsightly rust. Additionally, damage to the metal or areas where welding has occurred can also result in rust formation. These brown rust marks are typically superficial stains and can be effectively removed by using a soft damp cloth and a multi-purpose cream cleaner, restoring the surface to its original condition.

**Scratches:**

It is important to note that abrasive pads should not be used to clean stainless steel, as they can cause scratches. Stainless steel is not resistant to scratching, and while light scratches can be reduced or removed, deep scratches may require professional polishing. When cleaning stainless steel, it is crucial to identify the "grain direction" and rub in that direction. Before beginning any light scratchpolishing operation, ensure that the stainless steel surface is thoroughly cleaned, as dirt and deposits can further damage the surface during the process.

**Heat Discolouration:**

Stainless steel contains chromium, a sturdy metal, which helps to stop rusting and corroding. When combined with air and high heat, the surface forms a thin protective layer that changes colour and forms a rainbow effect. To remove the discoloration use a proprietary stainless steel polish, ensure to follow the grain of the metal. Alternatively dilute white vinegar and use a soft sponge to work the vinegar into the surface, rinse clean and completely wipe dry.

**Tanning and oil deposits:**

To remove tanning and oil stains and deposits, you can use a solution of hot water and sodium bicarbonate. Apply this solution using a soft cloth or sponge, then rinse thoroughly and ensure complete drying by wiping dry. In case the deposits are heavy, a mild multi-purpose cream cleaner can be used.

