

# Stainless Steel in the Home



The qualities of stainless steel make it an outstanding medium to work with in a modern kitchen.

It is generally corrosive resistant, with varying amounts of nickel and chromium. Increasing the content of chromium and in particular nickel gives resistance in more hostile environments.

With the addition of niobium, titanium, molybdenum and other exotic metals, grades are created with properties enabling working environments of 1170 degrees Celsius scaling temperature and down to around - 200 degrees Celsius. With other grades capable of performing well in aggressive acid conditions and a number of other specific applications.

Our interest is with the austenitic range which is one of the four most common types of stainless steel, the other three being duplex, ferritic and martensitic. Austenitic stainless steel is non magnetic with about 18 percent chromium and 10 percent nickel and is by far the most utilised group. We work mostly with grade T304, 18 gauge (1.2 mm) when fabricating stainless benchtops, typical analysis (%) Cr 18.3, Ni 8.7, C 0.4.

While stainless steel is resistant to most substances found around the home care must be taken with the chemical agents used for cleaning tiles and concrete surfaces (usually only encountered during the construction period). These chemicals will cause pitting/corrosion. Care must be taken to protect the stainless steel surface. Wiping is not sufficient. The acid **MUST BE NEUTRALISED QUICKLY**.

Hydrogen sulphide and sulphur dioxide can cause general corrosion. Passivity can be restored using an oxidising acid such as nitric acid. Avoid chlorides, bromides and fluorides. Liquid hand soap often contains chemicals which may corrode stainless steel. We do not recommend that hot pots or hot roasting dishes, etc, being placed directly onto a stainless steel bench. The heat may result in your bench delaminating from the frame. We recommend the use of a pot stand.

## **Stainless Benchtop Considerations**

Today's modern kitchen design maintains straight, clean lines. Stainless steel benchtops will give you a timeless look whereas other benchtops may date your kitchen when colours change with fashion. We suggest you consider the following information to assist you with your stainless steel benchtop design:

Square fascia's are more in keeping with the straight clean lines of the modern kitchen. Bullnose fascia's give a softer look to the bench. They also give a dated look to the kitchen. With textured stainless there are exciting design possibilities, such as mixing normal stainless with textures. Polished fascia's or a 10-mm shiny strip to the leading edges of the benchtop give a contrasted look to the bench.

The modern kitchen sink has tight radius corners. 10 mm radius and 20 mm radius corner sinks are very popular. There is a tendency to have one large sink as opposed to two sinks. Colour also contributes to your modern kitchen design. Stainless has a neutral colour which blends in with any kitchen colour. The colour of a stainless bench will not date your kitchen. Stainless steel is timeless, hardwearing, hygienic and easy to clean.

## **Cleaning Stainless Benchtops**

Whether it be your stainless benchtop or sink, the following tips for cleaning stainless steel will ensure you enjoy your kitchen for years to come. Wipe your stainless bench down with a clean, damp, dish cloth and dry off with a tea towel. If there are water marks on the bench use the cream Jiff and a damp, clean soft cloth. Always wipe in the direction of the grain and over a larger area than the actual mark to avoid leaving shiny spots on the bench.

When cleaning stainless benchtops, use meths to remove finger marks and streaks. Always use a clean cloth/paper towel to wipe off these chemicals. Meths can dissolve paint so be careful not to come into contact with paint with the meths. An alternative to using any chemicals is to use a Euro-cloth and follow the instructions that come with the cloth.

Beware: Liquid hand soap often contains Sodium Chloride which will corrode your Stainless Steel Bench.

Note: If you have a textured bench you may find that over a period of several months you may get a slight build-up of dirt. This can be removed by scrubbing the area with a brush you would clean your finger nails with and Sunlight soap (not Jiff). Then wipe the soap off with a paper towel.