

Introduction:

All grades of stainless steel can stain and discolour due to surface deposits and must never be accepted as completely maintenance free. In order to achieve maximum corrosion resistance the surface of the stainless steel must be kept clean.

Provided the grade of stainless steel and the surface finish are correctly selected and cleaning carried out on a regular scheduled basis, good performance and long service life are assured.

Factors Affecting Maintenance:

Surface contamination and the formation of deposits must be prevented. Such deposits may be minute particles of iron or rust left over from the building of new premises and not removed until after the stainless steel items have been fixed. Industrial and even naturally occurring atmospheric conditions can produce deposits which can be equally corrosive, e.g. salt deposits from marine conditions.

required on a more frequent basis. Modern processes use many cleaners and sterilizers for hygienic purposes. Most of these proprietary solutions, when used in accordance with makers' instructions are safe but if used incorrectly (e.g. warm or concentrated) can cause discoloration and corrosion on the surface of any quality of stainless steel. Bleaches should not be used. Strong acid solutions are sometimes used to clean masonry and tiling of buildings but they should never be permitted to come into contact with metals, including stainless steel. If this should happen, the acid solution must be removed immediately using copious applications of water.

If the working environment creates unusual conditions e.g. high humidity, such as in a swimming pool, this may increase the speed of discoloration and therefore maintenance may be

Maintenance Programme:

With care taken during fabrication and installation, cleaning before handing over to the client should present no special problems, although more attention than normal may be required if the installation period has been prolonged. Where surface contamination is suspected, immediate attention to cleaning after site fixing will ensure long trouble free service. Food handling, pharmaceutical, aerospace and certain nuclear applications require extremely high levels of cleanliness applicable to each industry.

Advice is often sought concerning the frequency of cleaning stainless steel and the answer is quite simple "clean the metal when it is dirty in order to restore its original appearance." This may vary from once to four times a year for external applications or it may be once a day for an item in hygienic or aggressive situations. Frequency and cost of cleaning is lower with stainless steel than with many other materials and will often outweigh the initial higher cost of this superior product.

Problem:

Routine Cleaning. all finishes

Use soap or a mild detergent (such as Fairy Liquid), sponge, rinse with clean water and wipe dry if necessary

Problem:

Fingerprints, all finishes

Use soap and warm water or organic solvent (e.g. Usher/Walker Thinners PF8017, acetone, alcohol). Rinse with clean water and wipe dry if necessary.

Problem:

Stubborn stains and discolouration, all finishes

Use mild cleaning solutions (e.g. Jif, Goddard Stainless Steel Care)

Problem:

Rust and other corrosion, all finishes

Use Oxalic Acid. The cleaning solution should be applied with a swab and allowed to stand for 15-20 minutes before being washed away with water. Use Jif for a final clean and rinse well with clean water. (Observe precautions when using acid cleaners)

Problem:

Scratches on brushed satin finish

For slight scratches use Scotchbrite pads. For deeper scratches ensure polishing along the grain of the satin finish. Clean with soap or detergent. Do not use ordinary steel wool as iron particles may become embedded in the stainless steel causing further surface problems

Precautions:

Acids should only be used for on-site cleaning when all else has failed

Observe all safety precautions, use rubber gloves and if using a solvent keep well ventilated and do not smoke!