

Care & Maintenance of Stainless Steel

1.0 INTRODUCTION:

- 1.1 Stainless steels are selected in applications where their inherent corrosion resistance, strength and aesthetic beauty are required, thus “The Stainless Advantage”.
- 1.2 Dependant upon the service conditions, stainless steels will occasionally stain or discolor due to surface deposits. In order to achieve maximum inherent properties of stainless steel, the surface should be kept clean. With a regular cleaning schedule, stainless steel will out perform most metals and provide outstanding performance and service life.

2.0 ADVERSE CONDITIONS:

- 2.1 Surface contamination and the formulation of mortar/cement deposits must be prevented. These deposits will discolor stainless steels.
- 2.2 Carbon steel airborne job site particles will settle on stainless steels and produce a “rusting” appearance. These deposits must be avoided for two reasons;
 - 2.2.1 Due to the “rusting” appearance.
 - 2.2.2 Due to the possibility of scratching the surface while cleaning the discoloration.
- 2.3 Jobsite paint splatter.
- 2.4 Jobsite scratches from mishandling.

3.0 MAINTENANCE PROGRAM:

- 3.1 Where surface contamination is suspected, immediately clean and correct site conditions so as to prevent later problems.
- 3.2 The frequency of cleaning is dependent upon the application. A simple rule is “clean the stainless steel when the surfaces appear dirty in order to restore its original appearance.
- 3.3 General application cleaning frequencies are as follows:
 - 3.3.1 Internal; as required to maintain appearance or design.
 - 3.3.2 Hygienic: daily and as required to maintain hygiene.
 - 3.3.3 Suburban or Rural; 6-12 month intervals or as appropriate to location and design.
 - 3.3.4 Industrial or Urban; 3-6 months intervals for type 304 and 6-12 months intervals for type 316 or as appropriate to location and design.
 - 3.3.5 Coastal or Marine; 6-12 month intervals for type 316 or as appropriate to location and design.

4.0 CLEANING METHODS:

- 4.1 When cleaning stainless steel products *always* clean with the grain so as not to scratch the finish damaging the inherent beauty.
- 4.2 When cleaning use a clean soft sponge, soft cloth or soft fiber brush and rinse thoroughly with clean water and dry.
- 4.3 Stainless steels are generally very easy to clean and keep clean. Washing with soap or a mild detergent and warm water followed by a clean water rinse is usually adequate for most applications.
- 4.4 Where stainless steels have become extremely dirty with signs of surface discolorations (perhaps following periods of neglect or adverse conditions) alternative methods of cleaning can be employed.

Care & Maintenance of Stainless Steel (Continued)

- 4.4.1 Light Soiling:
 - 4.4.1.1 Use soap or mild detergent or dilute (1%) ammonia solution in warm water.
- 4.4.2 Fingerprints:
 - 4.4.2.1 Use soap or mild detergent or dilute (1%) ammonia solution in warm water or commercially available sprays that are first and primarily sold for stainless steel.
- 4.4.3 Oil & Grease:
 - 4.4.3.1 Use Hydrocarbon Solvents (methylated spirit, isopropyl alcohol or acetone).
- 4.4.4 Stubborn stains, water marking and light 'rusting' staining:
 - 4.4.4.1 Mild, non-scratching creams and polishes. Apply per manufactures instructions always following the grain. Rinse off residue with clean water and dry.
- 4.4.5 Mortar cement splashes:
 - 4.4.5.1 Use a 10 to 15% volume solution of phosphoric acid. Use a warm neutralize solution with diluted ammonia, rinse with clean water and dry.
 - 4.4.5.2 Alternatively soak in a 25% vinegar solution and use a nylon brush to remove deposits.
 - 4.4.5.3 Do not use Hydrochloric acid based mortar removers. Solutions containing chloride can cause unacceptable surface staining and pitting and therefore should not be used in contact with stainless steel.
- 4.4.6 Paint and Graffiti:
 - 4.4.6.1 Use Proprietary alkaline or solvent paint strippers, depending upon paint type. Use soft nylon bristle brush on patterned or textured surfaces. Apply as directed by manufacture and rinse with clean water and dry.

Any product or chemical solutions referenced herein are understood to be suitable for stainless steel. However, no endorsement of any product or solution is implied. Cleaning agents should be approved for use under the relevant national environmental regulations and utilized as per manufactures specific instructions.

If all the suggestions and actions above have been attempted unsuccessfully, it is worth bearing in mind that stainless steel can be mechanically polished. Contact EMJAC Industries for further assistance.

