



**FLATWARE**  
CARE & USE GUIDE



**steelite**  
INTERNATIONAL

## BASE METAL

There are three common types of stainless alloy used in flatware manufacturing. Choosing the type best suited for your operation depends on your needs for appearance, durability, and price.

### 18/10 STAINLESS

18/10 refers to 18% chrome and 10% nickel content in the alloy. 18/10 offers superior resistance to rusting and corrosion. Because of its nickel content, it will keep its color and luster longer than other grades of stainless. This is generally the most expensive of the stainless alloy materials.

### 18/0 CHROME

18/0 refers to 18% chrome and 0% nickel content in the alloy. Although this metal does not have the extra advantage of 18/10 stainless, it will stand up to commercial use. Since this is less expensive than 18/10, price generally has an effect on product selection.

### 13/0 CHROME

13/0 refers to 13% chrome and 0% nickel content in the alloy. 13/0 is used primarily for the manufacturing of one piece knives, in the case of hollow handle knives, the blade only will be 13/0. This alloy is used as it has a higher hardening factor which helps the blade stay sharper longer. This is fully dishwasher safe, but requires some attention to ensure the knives are fully dry after washing and rinsing.



## PRE-SOAK

Place all stainless flatware in a pre-soak solution directly after it is removed from the table. Use a pre-soak compound recommended by the manufacturer of your detergent. Always mix the pre-soak solution in warm water before placing the flatware in the pan. Do not apply the pre-soak agent once the flatware is in the pan. Use only a plastic or stainless steel pan for the pre-soak solution. Never use an aluminum pan. Aluminum frees the chlorine present in most pre-soak compounds, and causes discoloration of stainless steel.

Do not leave the stainless in pre-soak too long - 30 minutes or less. Stainless steel is not corrosion-proof. Over a period of time, excessive bathing of the soiled stainless in the pre-soak solution can cause damage to the flatware from food chemicals. It is wise to change the pre-soak solution often to eliminate the build-up of these food chemicals.

## WASHING (HIGH TEMPERATURE)

Be sure to wash all stainless flatware immediately after removal from the pre-soak. The benefits from the pre-soak will be lost if you allow the flatware to dry between the pre-soak and the washing procedures.

Hot water, as well as, a good cleaning agent should be used in washing. Select your cleaning agent with great care, making sure there are not abrasive or corrosive qualities. Prolonged contact with dissimilar metals during the washing should be avoided.

Washing should be done in vertical canisters, be careful the flatware is not packed too tightly, otherwise the washing and rinsing solutions will not properly clean the pieces.

## RINSING

After washing, the flatware should then be rinsed in clean water of at least 180 degrees Fahrenheit, and dried at once. All wash water and rinse water should be removed from the flatware. A wetting agent maybe added to the rinse water to prevent impurities in the water from staining the flatware. In the event that you have a hard water condition, a water softener is recommended.

Keep knives separated in their own canister with the blades pointed down.

## HANDLING

Perforated cylinders in a portable rack suitable for sink or dishwasher use make it possible to wash, transport and dispense stainless with a minimum of handling. In a system where flatware is washed and stored in the same cylinder, the stainless should be sorted into cylinders eating side down, to prevent hand contamination after cleansing.

## LOW TEMPERATURE DISHWASHERS

Use of low temperature dishwashing systems for the cleaning of stainless steel flatware requires careful attention to the manufacturer's instructions. Failure to follow the instructions for use with stainless steel, especially faulty rinsing or sanitizing, will result in staining or corrosion of even the finest stainless.

## HARMFUL PRACTICES

Soaking time should be kept as short as possible, 30 minutes maximum is recommended.

If a cleaner must be used in the soak, be sure it is one recommended for stainless steel.

- Do not soak stainless steel in aluminum tanks or in contact with aluminum utensils or implements.
- Do not soak stainless steel in contact with carbon steel tanks and equipment.
- Do not use soaking or, cleaning agents, intended for use with silverplate.
- Do not soak stainless steel in chlorinated cleaners, salt water, chlorine bleach or any other material containing chlorine or chlorides.
- Do not pour detergents directly on to the flatware, mix into hot water before adding the flatware.
- Do not allow items to soak or remain wet or damp overnight.
- Do not allow food to remain in contact with stainless steel overnight.

When a general cleaning problem exists, the detergent supplier or dishwasher representatives should be contacted. Water treatment representatives may need to be contacted.



## DEFINITION OF STAINLESS STEEL

An appropriate definition of stainless steel would be “a metal that stains less, but under no circumstances is completely stain proof”.

All stainless steel is subject to staining under improper ware cleaning conditions. In general, staining is a result of chemical reaction to the metal and in no way reflects the quality of the finish. The quality of the finish definitely has an impact on staining and corroding. The more pits and micro abrasions, the more likely the flatware will corrode.

Stainless steel derives its protection from an oxide film which forms in the manufacturing process. This film protects the stainless from staining and corrosion when proper care and handling is exercised. The film once destroyed, modified or removed by, for example chemical actions or adherent food deposits will continue to break down unless the conditions causing the problems are corrected

## EVALUATE CONDITIONS

- A small magnet will identify the normally more corrosion resistant grade series of steel. With the exception of the knives, 18/10 stainless steel will not adhere to a magnet. This will not be the case with 18/0 which will adhere to a magnet
- Make sure dishwashing equipment is operating as the manufacturer intended. Temperature controllers, dryers, spray heads, etc., should all be working properly. Make sure any manufacturer's strainers in the water supply line are not clogged.
- Low temperature dishwashers without exhaust can lead to tableware being stored in a damp to wet conditions leading to increased corrosion.
- Use of bleach can lead to corrosion problems if improperly dispensed or the wrong strength is used.
- More active detergents may lead to increased staining, if rinsing is marginal.
- Make sure detergents and soak cleaners are made up according to manufacturer's specifications and maintained at those levels.
- Be aware of water conditioning in and around the installation. The use of well water and water softeners should be noted.
- Make sure that detergents that have been used over a period of time have not been reformulated by the manufacturer. This could have detrimental results on the stainless flatware.
- Make sure that tables and stainless steel station areas are clean and free from food particles. This could cause pitting in the flatware.

## TROUBLE SHOOTING

Black or blue discoloration or staining on large or small areas is generally a reaction between the detergent and hard water, food scraps or trapped detergent solutions improperly rinsed. Also check that the manufacturer did not make any changes in the formula of the cleaning agent. A mild stainless steel polish will generally restore the finish. Weiman products are recommended.

Rough white to gray areas having an etched appearance is generally a result of soaking in aluminum or bleach compound. Cleaning procedure must be changed immediately. Damage may not be repairable but a mild stainless steel polish may help.

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