



CARE INSTRUCTIONS

FOR NON-RUSTING STAINLESS STEELS

So that stainless steel always remains rust-free!



Advice on the proper handling of STAINLESS STEEL RUST-FREE

Stainless steel is a material that is durable and stable in many environments and is therefore highly valued by numerous users.

The STAINLESS STEEL RUST-FREE products produced by KMH are given a high-quality surface finish in the company's own blasting facilities. This maintains the full corrosion resistance of the stainless steel material used. To ensure that you have long pleasure from our hygienic surfaces, which in use are resistant to most environmental influences, you, as the user should also observe a few rules.

This increases the service life of your product considerably and you avoid serious damage in the long term. A guarantee for the corrosion resistance and the quality of the stainless steel products supplied by KMH can only be given if these care instructions are observed.

CARE INSTRUCTIONS FOR NON-RUSTING STAINLESS STEELS

1. TRANSPORT

KMH products made of STAINLESS STEEL RUST-FREE are carefully packed by us and delivered to you. We take particular care that the optically attractive surfaces do not rub against each other.

You are expected to take the same care: When unloading and handling, remove the parts from the packaging in such a way that **no scratches are caused by unprotected loading or shelf edges or by loading gear, and that no iron is rubbed into the surface of the stainless steel.**

2. STORAGE

Unpackaged KMH products made from STAINLESS STEEL RUST-FREE **should not be stored in the immediate vicinity of parts made from mild steel.** Iron abrasion can easily lead to rusting.

For outdoor storage, the STAINLESS STEEL RUST-FREE parts **should be covered to protect them from dirt and extraneous rust.** Ensure that the storage location is far enough away from where mild steel is worked: Red-hot sparks, shavings or filings can create rust spots on the stainless steel that are difficult to remove.

3. ASSEMBLY

Proceed carefully during assembly work and, when using tools, ensure that **no surface damage or crushing occurs.** Use only tools and fastening elements **made of stainless steel and intended for rust-free stainless steel.** When processing, avoid tools previously used for mild steel. **Only special, chloride-free pens** may be used to mark or label components made of stainless steel.

4. SUBSEQUENT WORK

Under no circumstances may hydrochloric acid or chlorine cleaning agents be used to clean KMH products made of STAINLESS STEEL RUST-FREE. Agents containing chloride must not be used in areas where they come into direct or indirect contact with the stainless steel products. This also applies to salt water.

If extensive acid cleaning in the immediate vicinity is indispensable, all stainless steel parts should be adequately protected before starting the measure. If, in spite of this, stainless steel parts should come into contact with the acidifying agent, they must be cleaned **immediately with plenty of fresh water and a sponge** (see: General rules for surface cleaning).

However, if acid residues have had an effect on the stainless steel parts for a longer period of time, brown discoloration can occur on the surface, and grain boundaries may also have been attacked. The brown discoloration can normally be removed with a passivating agent, which must be rinsed off thoroughly with fresh water after it has taken effect.

5. CLEANING

Cleaning of STAINLESS STEEL RUST-FREE should be carried out regularly, according to a plan specifically tailored to the system.

All deposits must be completely removed during cleaning. Contamination from the ambient air can lead to increased concentrations of saline deposits or dust. Due to the lack of oxygen, the passive layer slowly degrades in these areas and the material loses its resistance to corrosion. Furthermore, corrosion can be strongly advanced locally due to a possible hygroscopic effect.

GENERAL RULES FOR SURFACE CLEANING

- **Always wipe in the direction of the sanding**, not across it. Work in overlapping strokes from top to bottom.
- **Do not use scouring pads or hard objects** to remove stubborn dirt.
- **Do not use cleaning agents containing chlorine, bleaching agents or strong acids** (e.g. lime scale remover).
- Rinse off cleaning agent **with plenty of fresh water**. Dry if possible.
- **Basically, use only fresh water from the tap or water pipe for cleaning.** Never use e.g. pool water from swimming pools or used water from collecting tanks/reservoirs /containers. Fresh water contains oxygen, which is needed for repassivation. When using tap water, make sure that it does not contain any added chlorine (check with the water supplier if necessary).

RECOMMENDED CLEANING UTENSILS

- **Damp cloth or leather.**
- For stubborn dirt: **nylon sponges.**
Due to its structure, the high-quality KMH surface is less sensitive than bare surfaces.
- **Soft Nylon brushes.**
- **High-pressure cleaners** (care must be taken when using these: There is a risk of surface damage if there are sharp-edged dirt particles, if the water jet pressure is too high and, depending on the material thickness of the KMH stainless steel product, there may be a risk of deformation).
- **Demineralised water** (to avoid lime scale when rinsing).

MEASURES* IN THE EVENT OF RUST FORMATION AS A RESULT OF SUBSEQUENT INFLUENCES

- 1. In the case of ferritic spark burn-ins** that have burned deep into the surface, the surface must be removed mechanically. For restructure of the surface, please contact KMH.
- 2. In the event of rust film**, it is recommended that the affected KMH products are returned to KMH after consultation, so that the corrosion resistance can be restored.
- 3. Remove oil, grease and organic cleaning agents** containing alcohol, e.g. spirit, isopropyl alcohol or solvents such as acetone.
- 4. For lime stains, lime edges, cement and mortar splashes**, cleaning milk products with calcium are recommended or, in the case of larger contaminations, a 10-15% phosphoric acid solution is recommended. Vinegar (acid) can also be diluted with fresh water in a ratio of 1:3. Never use scouring powder.
- 5. Please remove graffiti and other colours** with special alkaline or solvent-based cleaners. Do not use hard scrapers or knives.
- 6. In the case of severely neglected surfaces**, it is recommended that the affected KMH products are returned to KMH after consultation in order that the surface finish can be restored.

*The measures listed can lead to an optically changed surface.



These care instructions are based on the findings of the information centre EDELSTAHL ROSTFREI, Düsseldorf and in cooperation with Prof. Dr.-Ing. Wolf-Berend Busch, Bielefeld and to the best of our knowledge.

Further information can be found here:

Leaflet MB824: Cleaning of STAINLESS STEEL RUST-FREE

Download at: www.edelstahl-rostfrei.de/publikationen

We hope you enjoy your high-quality
and durable product.

Reference to our Terms and Conditions:

We can only be held liable for the quality and freedom from corrosion of KMH STAINLESS STEEL RUST-FREE products provided that you, the customer and user of the products, observe and fully comply with the care instructions listed.

Furthermore, the warranty and liability regulations apply in accordance with KMH's General Terms and Conditions of Delivery and Payment.