Lasting Connections

MAINTENANCE CLEANING OF STAINLESS STEEL
LASTING CONNECTIONS

As a pioneer in innovative welding consumables, Böhler Welding offers a unique product portfolio for joint welding worldwide. More than 2000 products are adapted continuously to the current industry specifications and customer requirements, certified by well-respected institutes and thus approved for the most demanding welding applications.

Our customers benefit from a partner with

- the highest expertise in joining, rendering the best application support globally available
- specialized and best in class product solutions for their local and global challenges
- an absolute focus on customer needs and their success
- a worldwide presence through factories, offices and distributors

MATCHLESS IN STAINLESS

Böhler Welding weldCare is a leading producer of superior pickling products for stainless steels and special alloys. For over 50 years Böhler Welding weldCare has worked closely with leading producers of stainless steel and offers extensive knowledge and a wide range of finishing chemicals:

- Pickling Gels
- Pastes
- Sprays
- Liquids and
- Cleaning agents.

Using weldCare Finishing Chemicals will restore the surface and return stainless steel to its original look. Stainless steel retains its beautiful finish thanks to a protective layer that forms on the surface. The products help to maintain or restore this protective layer and help customers around the world in their daily work of creating a superior stainless steel surface.

Our products are made in Malmö, Sweden, in our own modern, automated process plant. All products have full traceability from raw material to finished product, which gives us total control of the product quality. Our quality and environmental management systems are certified according to the ISO 9001 and ISO 14001 standards.
STAINLESS STEEL IS NOT EQUAL TO MAINTENANCE FREE

Stainless steel is often chosen because of its beautiful finish, long life and minimal maintenance needs, but even stainless steel can be stained over time by dirt, oil, grease, paint and rust. With a regular maintenance program you can prevent discoloring and staining. This preserves the shine, feeling and overall impression of stainless steel.

The self-healing capacity of stainless steel

Stainless steel is protected from corrosion by its passive layer – a very thin surface layer that is primarily chromium oxide. The chromium in the steel reacts with the oxygen to which the steel surface is exposed and thus forms this invisible film. If the oxide film is damaged it will be spontaneously healed when the surface comes into contact with oxygen.

On a contaminated stainless steel surface, the deposits will block the contact with the oxygen which is required to maintain the chromium oxide layer at an optimum level. Chlorides may penetrate under the deposits, leading to corrosion and rust.

Proper cleaning of the surface right down into its pores will considerably reduce the risk of corrosion.
COMMON CAUSES OF RUST AND SPOTS ON STAINLESS STEEL

» If it is exposed to air that is polluted by chlorides and SOx in industrial zones, marine and coastal environments, road salt, traffic pollution.

» If the surface has a rough finish that provides a foothold for corrosive substances and corrosion products from the environment.

» If it has an inappropriate design that creates pockets and narrow grooves.

» If it is polluted by iron particles from the environment through the use of carbon steel tools and particles from vehicle brakes.

» If it has been mounted with fixtures of ordinary steel or are in direct contact with unalloyed steel.

Common uses

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PREVENTIVE MAINTENANCE

Rain is usually enough to keep a stainless surface clean and free of dirt and deposits on building components of stainless steel. In places with little rain or for surfaces that the rain does not reach, however, regular maintenance cleaning is necessary.

This also applies to building facades, shop entrances and signs, so that the steel will retain its luster and durability. It is also the best way to good overall economy.

Cleaning should always be done before the surface becomes extremely dirty. The appropriate cleaning interval depends on the environment.

A rule of thumb is that the steel should be cleaned as often as the windows. This could mean 3 – 6 months when slightly dirty and 1 – 3 months when very dirty and in aggressive environments.

Cleaning costs and the risk of damage to the stainless steel can be minimized with regular cleaning. Otherwise the material will suffer damage in the long term.
PRODUCT PROGRAM

We have a complete range of products designed to restore the corrosion resistance of stainless steel, whether it concerns light, medium or heavy cleaning, pickling and subsequent passivation we have a product to suit your operation. For very harsh attacks we recommend our wide range of pickling pastes, pickling sprays and pickling baths.

» Avesta 401, stainless steel cleaner Strong cleaning of dirtier surfaces, removal of surface rust, oil, grease and calcium stains.
» Avesta 130, pickling paste Cleaning of rustier surfaces, removal of coarse surface rust caused by pitting.
» Avesta 630, acid free passivator Passivates surfaces after cleaning and restores the rust protection. Gives no hazardous waste.

IN SAFE HANDS

A well balanced and implemented maintenance cleaning program minimizes maintenance costs, so that the surface of the steel, which is often a major reason for choosing stainless steel in the first place, comes into its own.

In general, all types of cleaning operations must always be carried out in accordance with local regulations. We can help you to arrive at a maintenance program with the best possible method to suit your conditions and to ensure minimal environmental impact.

We are environmentally certified according to ISO 14001 and we are constantly working with these matters. Contact us. Our specialists are ready to help you.
JOIN! voestalpine Böhler Welding

With over 100 years of experience, voestalpine Böhler Welding is the global top address for the daily challenges in the areas of joint welding, repair, hardfacing and cladding as well as brazing. Customer proximity is guaranteed by more than 40 subsidiaries in 25 countries, with the support of 2,200 employees, and through more than 1,000 distribution partners worldwide. With individual consultation by our application technicians and welding engineers, we make sure that our customers master the most demanding welding challenges. voestalpine Böhler Welding offers three specialized and dedicated brands to cater our customers’ and partners’ requirements.

**Lasting Connections** – As a pioneer in innovative welding consumables, Böhler Welding offers a unique product portfolio for joint welding worldwide. More than 2000 products are adapted continuously to the current industry specifications and customer requirements, certified by well-respected institutes and thus approved for the most demanding welding applications. As a reliable partner for customers, “lasting connections” are the brand’s philosophy in terms of both welding and people.

**Tailor-Made Protectivity™** – UTP Maintenance ensures an optimum combination of protection and productivity with innovative and tailor-made solutions. Everything revolves around the customer and their individual requirements. That is expressed in the central performance promise: Tailor-Made Protectivity™.

**In-Depth Know-How** – As a leading brand of soldering and brazing consumables, Fontargen Brazing offers proven solutions based on 50 years of industrial experience, tried and tested processes and methods. This In-Depth Know-How has made Fontargen Brazing an internationally preferred partner for every soldering and brazing task.
