

Lasting Connections

MAINTENANCE CLEANING OF STAINLESS STEEL



LASTING CONNECTIONS

Perfect alignment of welding machines, consumables and technologies combined with our renowned application and process know-how provide the best solution for your requirements: A tried and true connection among people, products and technologies. The result is what we promise: Full Welding Solutions for Lasting Connections.

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.



Before



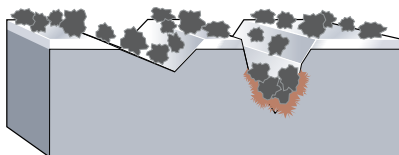
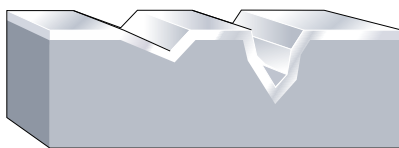
After



Before



After



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 de-posits 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

External	Buildings	Bridges	Vehicles	Trains	Ships	Tanks
Internal	Pipes	Tanks	Autoclaves	Process equipment	Food equipment	
Indoors	Lifts	Entrances	Kitchens	Doors	Wall panels	Sanitary installations

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.

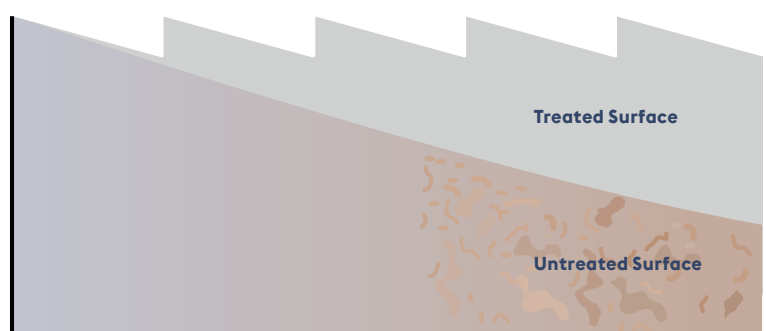
This also applies to building facades, shop entrances and signs, so that the steel will retain its luster and durability. It is also the best way to good overall economy.

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.

100%
Finish



Time

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.

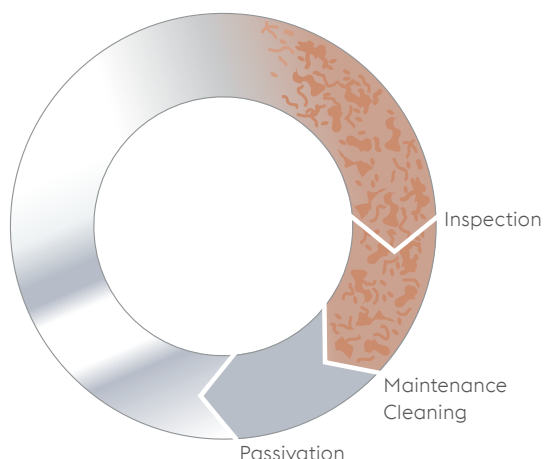
- » Avesta 401, stainless steel cleaner Strong cleaning of dirtier surfaces, removal of surface rust, oil, grease and calcium stains.
- » Avesta 130, pickling paste Cleaning of rustier surfaces, removal of coarse surface rust caused by pitting.
- » Avesta 630, acid free passivator Passivates surfaces 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.



Avesta Pickling Paste 130 is a unique low-fuming and safer-to-use pickling paste



Avesta Cleaner 401 is a heavy-duty stainless steel cleaner.



Avesta FinishOne Passivator 630 is an acid-free passivator



JOIN! voestalpine Böhler Welding

We are a leader in the welding industry with over 100 years of experience, more than 50 subsidiaries and more than 4,000 distribution partners around the world. Our extensive product portfolio and welding expertise combined with our global presence guarantees we are close when you need us. Having a profound understanding of your needs enables us to solve your demanding challenges with Full Welding Solutions - perfectly synchronized and as unique as your company.



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Tailor-Made Protectivity™ – Proven under the toughest conditions: Our products protect metal surfaces from wear and corrosion. With over 70 years of experience and the broadest product portfolio in the industry, we are your preferred partner for Surface Protection solutions. We deliver what we promise: Surface Protection tailored to your needs.



In-Depth Know-How – As a manufacturer of soldering and brazing consumables, we offer proven solutions based on 60 years of industrial experience, tested processes and methods, made in Germany. This in-depth know-how makes us the internationally preferred partner to solve your soldering and brazing challenge through innovative solutions. The result is what we promise: Innovation based on in-depth know-how.

The Management System of voestalpine Böhler Welding Group GmbH, Peter-Mueller-Strasse 14-14a, 40469 Duesseldorf, Germany has been approved by Lloyd's Register Quality Assurance to: ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007, applicable to: Development, Manufacturing and Supply of Welding and Brazing Consumables. More information: www.voestalpine.com/welding



