



BYMAT GmbH

Stainless steel

Cleaning and embossing machines



Productcatalogue 1.03



The company BYMAT was founded by Michael Byhahn in Grevenbroich in 1998 and within a short period of time achieved a leading market position in the field of electrochemical surface treatment of stainless steel.

Our success is due to the fact that we never lose sight of the needs of our customers. This is expressed in a policy of constant investment and research, as well as constant further development of the production processes and the willingness to implement innovative ideas and projects.

Since 2022, the company has been successfully continued in the 2nd generation by Björn Byhahn, and so we have been your specialist and contact for 25 years when it comes to cleaning and finishing stainless steel surfaces. If you have any questions or problems, you are in good hands with us and you will always receive serious and well-founded recommendations for your individual application.

BYMAT has a comprehensive dealer network, so that short-term demonstrations and deliveries are possible worldwide.

Equipped with the right equipment, BYMAT cleaning devices are your companion on the way to a flawless stainless steel surface. In the cleaning operation, they work without exception with our proven high-frequency technology.

From slight tarnishing to flash rust to stubborn dirt, our electrolytes are perfectly tailored to cleaning, polishing and passivating stainless steel weld seams and surfaces in a matter of seconds. They are non-toxic, and with the biodegradable electrolyte LF you are even completely acid-free on the road.

In this catalogue you will find high-quality cleaning devices as well as suitable tools and electrolytes for the perfect treatment of your stainless steel surfaces.

Stainless steel in perfection	4
Cleaning devices <i>Brushline</i> & <i>Premiumline</i>	6-9
Starter-Kits	10
Embossing device / electrolyte supply	11
Push & Clean electrolyte supply	12
Caddy / pistol grip	13
Picklingtable	14-15
Carbon brushes	16
Handles / sleeves	17
Accessories	18
Cables / clamps	19
Embossing accessories / templates	20-21
Electrolytes	22-23
Care products	24
PPE / useful helpers	25
Questions & answers	26-27

Why must be contaminated and damaged stainless steel surfaces are regenerated?

Stainless steel owes its corrosion resistance to a microscopically thin oxidic protective layer, the so-called passive layer (chromium oxide layer). A clean, metallurgically pure surface is a prerequisite for the formation of a defect-free and effective passive layer. Impurities such as welding scale, oxide layers, temper colors and extraneous rust, as well as ferritic components pressed into the surface as a result of mechanical processing must be removed, as must surface defects caused by organic contamination, for example.

How are temper colors formed and what does that mean?

Tempering colors are thermal oxides that are created during TIG and MIG welding. The result is reduced corrosion resistance. Despite protective measures in the form of an inert protective gas, the normal passive layer can change during the welding process due to oxidation of the metal surface. Chromium is broken down and an iron-containing oxide layer builds up, which no longer protects the surface of the material from corrosion. Depending on the degree, discoloration enormously promotes the formation of pitting corrosion. Encouraged by aggressive media such as salt water, pitting can occur. This often happens unnoticed because the corrosion on the surface only expands slightly. However, the corrosion continues inside the material and can cause cavernous cavities.

What treatment options are there?

Well-known processes include grinding, brushing, blasting and chemical pickling. Although these processes remove the tarnish produced during welding, they damage the surface. In addition, the protective passive layer is destroyed. This only gradually builds up again through the combination of chromium with atmospheric oxygen. During this time, the unprotected surface is exposed to external influences.

Electrochemistry offers many advantages

The electrochemical process removes temper colors and foreign oxides without changing the surface and immediately rebuilds the protective passive layer. Processing is convenient, fast and non-toxic.

The future

The constantly growing demands on occupational safety, the health of employees and the environment are causing more and more companies to rethink and stop using toxic pickling chemicals. Electrochemistry offers enormous advantages compared to the classic pickling of stainless steel: short exposure time - fast results, no development of nitrous gases, immediate formation of the passive layer, comfortable working method, non-toxic.



BRUSHLINE 1150 RS on a caddy with automatic electrolyte supply 1200 EP

1

Hose package with handle and premium BYMAT carbon brush. Cleans, passivates and polishes by touch contact. (See page 11)

2

1150 RS Powerful device for cleaning, passivating, polishing and marking (dark/light) stainless steel surfaces. (See page 9)

3

1200 EP Automatic electrolyte supply for convenient processing of stainless steel surfaces. In the event of physical contact, electrolyte is transported to the carbon brush. (See page 11)

4

Caddy The perfect workshop trolley with lots of shelves and holders for tools and electrolyte. (See page 13)

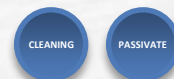
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Electrolyte C+ High-performance electrolyte for ultra-fast cleaning, passivation and polishing of stainless steel surfaces. (See page 22)

The perfect combination for stainless steel surface treatment



BYMAT Brushline 1120 RS

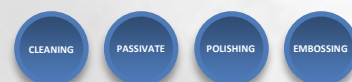


Compact and lightweight cleaning device for electrochemical cleaning of stainless steel surfaces. Ideal for the railing builder for stationary and mobile use.

300 Hz High frequency technology
Fixed cleaning level
Robust stainless steel housing with stable carrying handle
Performance: 800 VA
Weight: 7,9 kg
Dimensions: (LxWxH): 298 x 145 x 225 mm

Item	Item number
Brushline Cleaning device 1120 RS	1120 RS

BYMAT Brushline 1130 RS

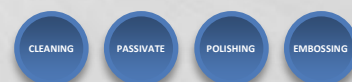


Compact cleaning device for electrochemical cleaning, polishing and embossing of stainless steel surfaces. Ideal for stationary and mobile use.

300 Hz High frequency technology
Fixed cleaning and polishing level
3-position switch
Digital multi-language display
Robust stainless steel housing with stable carrying handle
Performance: 800 VA
Weight: 11,9 kg
Dimensions: (LxWxH): 345 x 180 x 285 mm

Item	Item number
Brushline Cleaning device 1130 RS	1130 RS

BYMAT Brushline 1140 RS

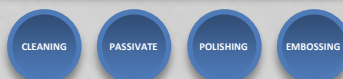


Compact cleaning device for electrochemical cleaning, polishing and embossing of stainless steel surfaces.

400 Hz High frequency technology
3-position switch
4 step amperage control
Digital multi-language display
Connection for optional pump (electrolyte supply)
Robust stainless steel housing with stable carrying handle
Performance: 1200 VA
Weight: 17,2 kg
Dimensions: (LxWxH): 420 x 215 x 350 mm

Item	Item number
Brushline Cleaning device 1140 RS	1140 RS

BYMAT Brushline 1150 RS



Most powerful cleaning device from the Brushline series for electrochemical Cleaning, polishing and marking of stainless steel surfaces.

400 Hz High frequency technology
3-position switch
4 step amperage control
Digital multi-language display
Connection for optional pump (electrolyte supply)
Robust stainless steel housing with stable carrying handle
Performance: 2500 VA
Weight: 23,5 kg
Dimensions: (LxWxH): 420 x 215 x 350 mm



Item	Item number
Brushline Cleaning device 1150 RS	1150 RS

BYMAT Premiumline 6024 RS



Cleaning device for electrochemical cleaning, polishing, marking of stainless steel surfaces. Electroplating of all conductive materials.

500 Hz High frequency technology
Infinitely adjustable 4 - 26 V AC · 4 - 26 V DC
Digital multi-language display
Connection for optional pump (electrolyte supply)
one button operation
Robust stainless steel housing with stable carrying handle
Performance: 1608 VA
Weight: 8,8 kg
Dimensions: (LxWxH): 385 x 163 x 305 mm



Item	Item number
Premiumline Cleaning device 6024 RS	6024 RS

BYMAT Premiumline 7024 RS



Most powerful cleaning device from the Premiumline series for electrochemical cleaning, Polishing, marking of stainless steel surfaces. Electroplating of all conductive materials.

500 Hz High frequency technology
Infinitely adjustable 4 - 26 V AC · 4 - 26 V DC
Digital multi-language display
Connection for optional pump (electrolyte supply)
one button operation
Robust stainless steel housing with stable carrying handle
Performance: 3216 VA
Weight: 10,8 kg
Dimensions: (LxWxH): 385 x 163 x 305 mm



Item	Item number
Premiumline Cleaning device 7024 RS	7024 RS



Brushline Starter-Kit 1120 ES & 1125 ES

Starter kit for brushline cleaning device 1120 RS

Incl. 1 piece of plastic case, PTFE handle with carbon brush and rotating sleeve, earth cable, work cable, wide-neck container, electrolyte A 1 liter.

Starter kit for brushline cleaning device 1120 RS

Incl. 1 piece of plastic case, PTFE handle with carbon brush and rotating sleeve, earth cable, work cable, wide-neck container, electrolyte C+ 1 liter.



Item	Item number
Starter-Kit for 1120 RS (with Elektrolyt A)	1125 ES
Starter-Kit for 1120 RS (with Elektrolyt C+)	1120 ES



Brushline Starter-Kit 1130 ES

Starter-Kit for Brushline cleaning devices 1130 RS, 1140 RS & 1150 RS

Incl. 1 piece of plastic case, PTFE handle with carbon brush and rotating sleeve, earth cable, work cable, wide-neck container, electrolyte C+ 1 liter.



Item	Item number
Starter-Kit for 1130 RS, 1140 RS & 1150 RS	1130 ES



Brushline Starter-Kit 1135 ES

Starter-Kit for Brushline cleaning device 1130 RS

Incl. 1 plastic case each, PTFE handle with carbon brush and rotating sleeve, earth cable, working cable, wide-neck container, electrolyte A 1 liter, marking electrolyte ET 100 ml, AK adapter with carbon anode 90°, marking felt (20 pieces).



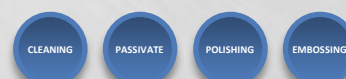
Item	Item number
Starter-Kit for 1130 RS	1135 ES



Brushline Starter-Kit 1145 ES

Starter-Kit for Brushline cleaning device 1130 RS, 1140 RS & 1150 RS

including 1 aluminum case each, PTFE handle with carbon brush and rotating sleeve, earth cable, work cable, wide-neck container (2 pieces), electrolyte A 1 liter, electrolyte C+ 1 liter, marking electrolyte ET (dark) 100 ml, marking electrolyte EN (light) 100 ml, AK adapter with carbon anode 90°, marking felt (20 pieces).



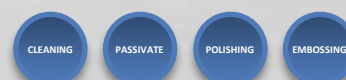
Item	Item number
Starter-Kit for 1130 RS, 1140 RS, 1150 RS	1145 ES



Premiumline Starter-Kit 6024 ES

Starter-Kit for cleaning device 6024 RS, 7024 RS

including 1 aluminum case each, PTFE handle with carbon brush and rotating sleeve, PTFE handle with carbon anode 90°, ground cable, work cable, wide-mouth container (3 pieces), electrolyte A 1 liter, electrolyte C 0.5 liter, electrolyte C+ 1 liter, marking electrolyte ET (dark) 100 ml, marking electrolyte EN (light) 100 ml, marking felt (20 pieces).



Item	Item number
Starter-Kit for 6024 RS, 7024 RS	6024 ES

BYMAT Classicline Embossing device 1030 MS



Compact and lightweight AC/DC device for electrochemical marking (light & dark) of steel and stainless steel surfaces.

2 fixed signing levels (light & dark)

Robust stainless steel housing

Weight: 3,2 kg

Dimensions: (LxWxH): 245 x 145 x 105 mm

Starter-Kit for Classicline Embossing device 1030 MS

Incl. 1 plastic case each, PP handle with carbon anode 90°, earth cable 2 m, work cable 2 m, marking electrolyte ET (dark) 100 ml, marking electrolyte EN (light) 100 ml, neutralyt 100 ml, preserve 100 ml, marking felt (40 pcs.).



Item	Item number
Classicline Embossing device 1030 MS with Starter-Kit	1130 MS
Classicline Embossing device 1030 MS Single device	1031 MS

BYMAT Automatic electrolyte supply 1200 EP

Increase in efficiency and productivity

Fully automatic pump system including hose package for BYMAT cleaning devices. Can also be used for third-party devices.

Incl. carbon brush with rotating sleeve

Infinitely variable regulation of the amount of electrolyte supplied

Electrolyte supply by touch contact

Suitable for all BYMAT cleaning devices

Dimensions: (LxWxH): 420 x 215 x 350 mm



Also available in black.



Item	Item number
Premiumline Electrolyte supply 1200 EP	1200 EP
Premiumline Hose pack for 1200 EP	6028 SP



Electrolyte supply by bottle pressure

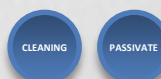


PUSH & CLEAN is a manual electrolyte supply system for the comfortable treatment of stainless steel surfaces. Dipping the carbon brush is no longer necessary. Electrolyte is delivered directly to the carbon brush by pressing the handle bottle. The carbon brush is cooled and has a longer service life.



PUSH & CLEAN system / electrolyte A

Equipped with a premium carbon brush and 250ml electrolyte A



Item	Item number
PUSH & CLEAN system cpl. with electrolyte A (250 ml)	7025 PA
Electrolyte A (6 bottles of 250 ml / pack)	7030 PA



PUSH & CLEAN system / electrolyte C

Equipped with a premium carbon brush and 250ml electrolyte C



Item	Item number
PUSH & CLEAN system cpl. with electrolyte C (250 ml)	7024 PC
Electrolyte C (6 bottles of 250 ml / pack)	7020 PC



PUSH & CLEAN system / electrolyte C+

Equipped with a premium carbon brush and 250ml electrolyte C+



Item	Item number
PUSH & CLEAN system cpl. with electrolyte C+ (250 ml)	7025 PC
Electrolyte C+ (6 bottles á 250 ml / pack)	7040 DC

CADDY workshop trolley

The perfect workshop trolley with many shelves and holders.

- Storage space for a cleaning device
- Storage compartments for electrolyte and tools
- Storage compartment for electrolyte pump 1200 EP
- 4 fixed wheels, 2 of which are rotatable with parking brakes
- holders for cables
- solid rubber wheels



Sample applications



Item	Item number
CADDY workshop trolley	8010 PD

Pistol grip / handle holder

Fatigue-free work with the new pistol grip.
For installation you only need a screwdriver and a BYMAT handle. With integrated device for a spring balancer.

The magnetic handle holder is the perfect holder for the handle. It also sticks vertically to all magnetic surfaces.



Delivery without handle and cable



Sample applications

Item	Item number
Pistol grip	7005 PG
Handle holder	7010 HH

The ideal workplace for stainless steel processing

The BYMAT PICKLINGTABLE is the perfect workplace for cleaning and polishing stainless steel weld seams and surfaces. With a work surface of 1,550 x 800 mm, the PICKLINGTABLE offers enough space to comfortably process even large components. It contains enough shelves for all the necessary equipment and tools. With the large splash guard and an extraction system you are protected from all sides.

A fully equipped PICKLINGTABLE (picture on the right) contains everything you need to process your valuable stainless steel components; A cleaning device, a pump for the fully automatic electrolyte supply, a hose package, an integrated extraction system unit with an adjustable arm, a waste water canister, a paper roll and various storage options.



Hose package 4 meters including Premium carbon brush with rotating sleeve



Polished stainless steel perforated sheet entire field of work



Compartments for cleaning equipment, automatic electrolyte supply and utensils



Polished stainless steel perforated sheet
1.550 x 800 mm

Stainless steel splash guard

Storage compartments

Power connection for equipment

Main switch

Dirty water tank

Paper roll with holder

Various holders and shelves

Dimensions: 1.600 x 850 x 1.180 mm (WxDxH)

Working height: 980 mm

Basic equipment / Dimensions



The PICKLINGTABLE is the basic model and can be upgraded to a self-sufficient workplace according to your own wishes. Choose a cleaning device from the BYMAT product range and complete it with the automatic electrolyte supply 1200 EP.

Example of a fully equipped PICKLINGTABLE:

- Basic equipment (see info box on page 14)
- Cleaning device 1140 RS (cleaning, passivating, polishing and embossing)
- Fully automatic electrolyte supply 1200 EP
- Ground cable
- Hose package (4 meters) with carbon brush
- Electrolyte C+ in a canister (5 liters)
- Extraction system with arm

Item	Item number
PICKLINGTABLE Basic model	8050 PT



Premium carbon brush

THE ORIGINAL ONLY FROM BYMAT

Premium carbon fiber brush made of acid and heat-resistant stainless steel with a long service life and unrivaled quality. Millions of premium carbon fibers ensure perfectly cleaned and polished stainless steel surfaces. Perfect for our handles with fine thread connection. We offer this article in different pack sizes. Please refer to the price list for details.

Item	Total length / carbon fiber length	Item number
Carbon brush A small 8 mm (blue)	130 mm / 60 mm	6025 PO
Carbon brush B medium 10 mm (black)	130 mm / 60 mm	6026 PO
Carbon brush C large 14 mm (red)	130 mm / 60 mm	6027 PO



Premium carbon brush incl. PTFE-sleeve

Premium carbon fiber brush made of acid- and heat-resistant stainless steel in unrivaled quality. Millions of premium carbon fibers ensure perfectly cleaned / polished stainless steel surfaces. Perfect for our handles with fine thread connection. Including matching PTFE adjustment sleeve for perfect bundling of the carbon fibers. We offer this article in different pack sizes. Please refer to the price list for details.

Item	Total length / carbon fiber length	Item number
Carbon brush A small 8 mm (blue) incl. sleeve	130 mm / 60 mm	6025 PI
Carbon brush B medium 10 mm (black) incl. sleeve	130 mm / 60 mm	6026 PI
Carbon brush C large 14 mm (red) incl. sleeve	130 mm / 60 mm	6027 PI



Premium carbon brush incl. PTFE-sleeve for hose package & Push & Clean System

Premium carbon brush with continuous bore for hose package 6028 SP. In conjunction with the 1200 EP electrolyte supply and a cleaning device, the electrolyte is automatically conveyed to the carbon fiber brush in a very convenient manner. The dipping of the brush in electrolyte is no longer necessary. Including matching PTFE sleeve for perfect bundling of the carbon fibers.

Item	Total length / carbon fiber length	Item number
Carbon brush B medium 10 mm (black) incl. sleeve	125 mm / 60 mm	6028 PI
Carbon brush B medium 10 mm (black) without sleeve	125 mm / 60 mm	6028 PO



Double carbon brush (complete set)

Double carbon brush made of acid and heat resistant stainless steel for strong cleaning of stubborn TIG/MIG weld seams. A perfect match for our handles with stainless steel fine-thread connection. Including holder for 2 carbon fiber brushes and matching PTFE adjustment sleeve for perfect bundling of the carbon fibers.

Item	Total length / carbon fiber length	Item number
2x carbon brush with adapter and sleeve	123 mm / 50 mm	6029 PI
Carbon brush (2 pieces) in protective cover	123 mm / 50 mm	6029 PO



Carbon fiber brush with PTFE sleeve

Classic carbon brush in stainless steel design.

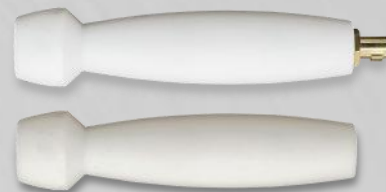
Item	Total length / carbon fiber length	Item number
Carbon brush with PTFE sleeve	90 mm / 40 mm	6020 PI

Handle

Thanks to its ergonomic shape, this acid- and heat-resistant handle fits perfectly in the hand and thus enables you to work without tiring. Equipped with a solid stainless steel fine-thread connection, all BYMAT carbon brushes sit firmly and smoothly.

Model 1 PTFE: Premiumline with bayonet connector (SK25)

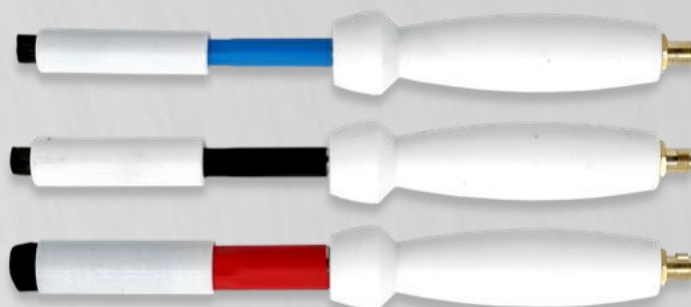
Model 2 PP: Classicline with 4 mm socket (MC)



Item	Item number
PTFE Handle with bayonet connector	5024 HG
PP Handle with 4 mm socket	1024 HG

Premium-Set

Fully equipped teflon handle with premium carbon brush and PTFE adjustment sleeve.



Item	Item number
Premium-Set blue	6025 ST
Premium-Set black	6026 ST
Premium-Set red	6027 ST

Sleeve for premium carbon brush

Rotating PTFE sleeve for bundling the carbon fibers



Item	Item number
Sleeve for carbon brush blue	6025 VH
Sleeve for carbon brush black	6026 VH
Sleeve for carbon brush red	6027 VH
Sleeve for carbon brush for hose package & Push & Clean system	6028 VH

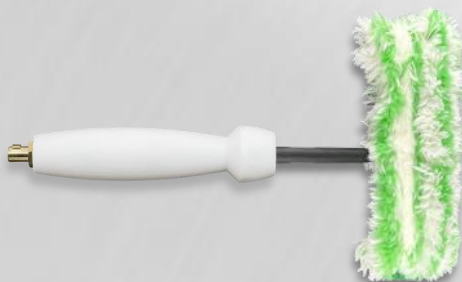
Adapter and PTFE sleeve for double carbon brush

Adapter for holding 2 carbon brushes (6029 PO)

PTFE sleeve for bundling the carbon fibers



Item	Item number
Adapter for double carbon brush	6029 PA
PTFE sleeve for double carbon brush	6029 VH



Stainless steel surface cleaner

The perfect tool for cleaning stainless steel surfaces

With the use of the surface cleaner, large stainless steel surfaces are cleaned and passivated. The use of toxic pickling work is therefore completely eliminated.

Also very effective for polished stainless steel surfaces in railing construction.

Item	Item number
Stainless steel surface cleaner with holder and PTFE handle	5060 SF
Stainless steel surface cleaner with holder	5060 SA
Surface cleaner strip (3 piece package)	5061 CS



Adjustment angle adjustable up to 90°

Infinitely adjustable angle for cleaning of complex stainless steel constructions.

With 6 mm fine thread



Extension 160 mm

With 6 mm fine thread

Length 160 mm



Sample applications

Item	Item number
Adjustment angle	6024 VW
Extension	1026 MV



Adapter

Bayonet plug (SK25) to 4 mm MC socket

Item	Item number
Adapter Bayonet plug / 4 mm MC socket red	5024 AR
Adapter Bayonet plug / 4 mm MC socket black	5024 AS

Ground & working cables with bayonet connection (SK25)

Robust quality for connecting PTFE handle and ground connection to BYMAT Brushline and Premiumline cleaning devices.

We offer this article in different lengths. Please refer to the price list for details.



Item	Item number
Working cable 3m with bayonet connection	5024 KS
Working cable 3m with bayonet connection, highly flexible	5024 KF
Ground cable with clamp 3m and bayonet connector	5024 KR

Measure cable with 4mm plug (MC)

For connecting Classicline handle (4mm socket) and ground connection with BYMAT Classicline cleaning devices.



Item	Item number
Measuring cable black 4 mm, length 2 meters	1125 KS
Measuring cable black 4 mm, length 5 meters	1150 KS
Measuring cable red 4 mm, length 2 meters	1125 KR
Measuring cable red 4 mm, length 5 meters	1150 KR

Power cord

For connecting BYMAT cleaning devices to a Schuko socket.
CEE 7-7 plug to IEC socket C13



Item	Item number
Power cord 230 volts 2m	3400173

Alligator clamp with 4mm socket

For safe ground connection with measure cable 4mm and BYMAT Classicline cleaning device.



Item	Item number
Alligator clamp 4mm	1126 KL

Ground clamp

Ground clamp for connection to a ground wire.



Item	Item number
Ground clamp classic	5024 KL
Ground clamp Heavy duty	6024 KL



Polishing felt

Felt for polishing stainless steel surfaces and welds. Suitable for various polishing anodes. Dimensions: 40 x 60 x 2.5mm

We offer this article in different sizes and also as roll goods.
Please refer to the price list for details.

Item	Item number
Polishing felt 40 x 60 x 2.5 mm 20 piece package	1216 PF
Polishing felt 40 x 60 x 2.5 mm 100 piece package	1217 PF



Cleaning and embossing felt

Felt for cleaning and embossing stainless steel surfaces. Suitable for marking anode 90°. Dimensions: 38 x 60 x 2.6mm

We offer this article in different sizes and also as roll goods.
Please refer to the price list for details.

Item	Item number
Cleaning and embossing felt 20 piece package	1206 SF
Cleaning and embossing felt 100 piece package	1207 SF



O-Ring

For attaching polishing and cleaning/polishing felts to anodes.

Item	Item number
O-ring 26 x 2 mm (pack of 10 pieces)	1205 OR
O-ring 26 x 2 mm (pack of 100 pieces)	1127 OR



1



2



3

Anodes

Various anodes for cleaning/embossing and polishing stainless steel.

Model 1: 30° polishing anode

Model 2: 60° polishing anode

Model 3: 90° cleaning and embossing anode

Item	Item number
Model 1 30° polishing anode	1026 AD
Model 2: 60° polishing anode	1026 AS
Model 3: 90° cleaning and embossing anode	1026 AG



Adapter with embossing anode 90°

For attaching anodes to PP and PTFE handles

Item	Item number
Adapter with embossing anode 90°	5024 AK
Adapter for anode	5024 30

Handle with anode

Fully equipped PTFE handle with adapter and anode for embossing or polishing of stainless steel surfaces.



Item	Item number
PTFE handle with embossing anode 90°	5025 ST
PTFE handle with polishing anode 60°	5024 ST

Label printer

Professional printer for creating disposable embossing stencils.

USB interface

Font height: 18mm, 24mm - D610B

Font height: 18mm, 24mm, 36mm - P900

Including extensive accessories



D610B

P900

Item	Item number
Label printer D610B	D 610 B
Label printer P900	P900
Labeling print tape 18 mm x 3 m	1410 ST
Labeling print tape 24 mm x 3 m	1510 ST
Labeling print tape 36 mm x 3 m (P900 only)	1610 ST

Embossing template

With a BYMAT embossing template, you can create your desired logos and characters on stainless steel surfaces in a matter of seconds. A stencil can be used up to 10,000 times.

We offer embossing templates in different sizes.

Please refer to our price list for details.



How to get your personal embossing template:



Send an email with a print file to info@bymat.de. Enter the desired size of the logo or lettering and let us know if the template should be framed. A framed stencil is more stable.



We create a layout on this basis.



You will receive a correction template and check it for correctness.



With your approval, the template will be produced.



After a short production time you will receive your desired template.

ELECTROLYTES



Electrolyte A (yellow) MILD

Electrolyte for cleaning and passivating stainless steel surfaces and TIG weld seams. Remove tarnishing, rust film and dirt. You get a chemically pure and passivated stainless steel surface.



Item	Item number
Electrolyte A 1 liter bottle	2030 DH
Electrolyte A 5 liter canister	2035 DH



Electrolyte B MILD

Electrolyte for cleaning and passivating stainless steel surfaces and TIG weld seams. Remove stubborn tarnishing, rust film and dirt. You get a matt, chemically pure and passivated stainless steel surface.



Item	Item number
Electrolyte B 1 liter bottle	2011 DB
Electrolyte B 5 liter canister	2015 DB



Electrolyte C STARK

Electrolyte for quick cleaning, polishing and passivation of stainless steel surfaces and TIG/MIG weld seams. Remove stubborn tarnishing, rust film and dirt. You get a chemically pure and passivated stainless steel surface.



Item	Item number
Electrolyte C 1 liter bottle	2021 DC
Electrolyte C 5 liter canister	2025 DC



Electrolyte C+ (Red) EXTRA STRONG

High-performance electrolyte for ultra-fast cleaning, polishing and passivation of stainless steel surfaces and TIG/MIG weld seams. Remove particularly stubborn tarnishing, rust film and dirt. You get a chemically pure and passivated stainless steel surface.



Item	Item number
Electrolyte C+ 1 liter bottle	2040 DC
Electrolyte C+ 5 liter canister	2045 DC



Electrolyte LF (Green) ACID FREE

Mild electrolyte without phosphoric acid for cleaning and passivating stainless steel surfaces and TIG weld seams. Remove tarnishing, rust film and dirt. You get a chemically pure and passivated stainless steel surface.



Item	Item number
Electrolyte LF 1 liter bottle	2030 LF
Electrolyte LF 5 liter canister	2035 LF

Electrolyte NON DRIP A

Pasty electrolyte for cleaning and passivating stainless steel surfaces and TIG weld seams in hard-to-reach or vertical places. You get a chemically pure and passivated stainless steel surface.



Item	Item number
Electrolyte NON DROP A 500ml bottle	2020 PG

Neutralyt

Product for neutralizing the stainless steel surface contaminated with electrolyte. After treatment with neutralyt and deionized water, you will get a chemically clean surface. There will be no white spots.



Item	Item number
Neutralyt 1 liter bottle	2211 NT
Neutralyt 5 liter canister	2250 NT
Spray bottle for 1 liter neutralyt or water	2100 SF

Electrolyte ET

Electrolyte for dark embossing of V2A stainless steel surfaces. With the help of a marking template, you can permanently create your own logos and characters on stainless steel surfaces.



Item	Item number
Electrolyte ET 100ml bottle	2101 ET
Electrolyte ET 500ml bottle	2105 ET
Electrolyte ET 1 liter bottle	2111 ET
Electrolyte ET 5 liter canister	2115 ET

Electrolyte EC-S

Electrolyte for dark embossing of V4A stainless steel surfaces. With the help of a marking template, you can permanently create your own logos and characters on stainless steel surfaces.



Item	Item number
Electrolyte EC-S 100ml bottle	2101 EC-S
Electrolyte EC-S 500ml bottle	2105 EC-S
Electrolyte EC-S 1 liter bottle	2111 EC-S
Electrolyte EC-S 5 liter canister	2115 EC-S

Electrolyte EN

Electrolyte for bright embossing of stainless steel surfaces. With the help of a marking template, you can permanently create your own logos and characters on stainless steel surfaces.



Item	Item number
Electrolyte EN 100ml bottle	2170 EN
Electrolyte EN 500ml bottle	2175 EN
Electrolyte EN 1 liter bottle	2171 EN
Electrolyte EN 5 liter canister	2185 EN



Stainless steel polish

Fine metal polish for a perfect stainless steel surface.
Used like a regular polish.

Item	Item number
Stainless steel polish (750 ml-can)	5750 EP



Stainless steel power cleaner

Ideal for stainless steel surfaces, anodized and enamelled metal surfaces, light and non-ferrous metals.
Powerfully removes dirt, as well as greasy and oily surfaces.

Item	Item number
Stainless steel power cleaner (500 ml spray bottle)	5500 KR



Stainless steel protection spray

The perfect care for all shiny and polished stainless steel surfaces. Once applied, it protects all metal surfaces and leaves a beautiful finish. Rapid re-soiling is prevented.

Item	Item number
Stainless steel protection spray (400 ml spray can)	5400 PO
Stainless steel care spray (12 spray cans / pack)	5412 PO



Special paste

Product for removing white spots from stainless steel surfaces.

Item	Item number
Special paste (500 ml bottle)	5005 SP



Copper paste

A drop on the thread and plug-in connections prevents seizing and ensures constant conductivity.

Item	Item number
Copper paste (30 g can)	5400 KP



Preservative

Care product for preserving embossed surfaces.

Item	Item number
Preservative (1 liter bottle)	2311 KO

Safety goggles

Full-vision goggles EN 166 1 F, also suitable for people who wear glasses.



Item	Item number
Safety goggles	1202 SB

Safety gloves

Ultra nitrile 492 9-9 1/2, EN 388, EN 374, nitrile glove green 31 cm, highly abrasion resistant Size: XL.



Item	Item number
Safety gloves (pair)	1203 HS

Protection mask

Protective mask, particle mask FFP2 with valve, against particles up to 10 times the threshold limit value (TLV).



Item	Item number
Protection mask FFP2 with valve	1201 SM

Brass brush

For cleaning threads and plug connections.



Item	Item number
Brass brush	5024 MB

Wide neck container 500 ml

Tightly sealable container for dosing electrolyte.



Item	Item number
Wide neck container 500 ml	2500 WB

Spray bottle 1.0 liter / 1.5 liter

Spray bottle for filling with 1.0 liters of water / neutralyt

Pump spray bottle for filling with 1.5 liters of water / neutralyt



Item	Item number
1.0 liter spray bottle	2100 SF
1.5 liter pump spray bottle	2150 DS

Why do white, cloud-like spots appear on the stainless steel surface, and what can be done about it?

Electrolyte contains salts that remain on the surface after cleaning, leaving white spots. These salts must be removed from the surface, otherwise the protective passive layer will not build up and the stainless steel can corrode. In the worst case, cavernous pitting can form. To prevent this, neutralize the previously cleaned surface with BYMAT Neutralyt. Spray the neutralyte onto the surface while the electrolyte is still in the wet phase. Never let electrolyte dry on the surface! When neutralizing with neutralyte, a large part of the surface contaminated with electrolyte is neutralized. However, a small amount of residual electrolyte remains, which must be rinsed off with cold water. Rinse the surface and any gaps with cold fresh water (18 - 20°C) until the surface has a pH value of 7.0. Any white spots that appear can be easily removed with BYMAT special paste (Item number 5005 SP).

Why is cold water better than warm water for rinsing?

Electrolytes include salts and acids. These ingredients must not remain on the stainless steel surface. When rinsing with warm water, the surface heats up, the residues to be removed dry and the previously created passive layer is destroyed. Later, white spots and rust can form (see above).

Why are there black craters on the weld and how to remove them?

These surface pores can have different causes. Usually, however, the reason is that the surface was not properly cleaned before welding or a generally very dirty base material was used. Poor gas protection and/or a welding process that is too hot can also quickly produce oxides and chromium carbides. These pores can only be removed electrochemically with a great deal of effort and time (through electrochemical polishing). Classic pickling with hydrofluoric acid and nitric acid does not bring any improvement either. The best way to remove these craters is abrasively, i.e. by grinding.

Why is there a light area next to the cleaned one weld and how can it be removed?

The bright metallic area next to the weld seam is in the area of the heat-affected zone and usually means a lack of chromium. Welding was probably too hot or with too little gas. As a result, the chromium in the immediate vicinity of the weld is burnt. This streak can be removed by light electrochemical polishing. The carbon brush should be used briefly in succession without the polishing effect (gloss) appearing. It should be noted that this lack of chromium can lead to changes in the material properties in the component, among other things.

What is rouging and what is the remedy?

Rouging is a particular type of corrosion that is common in ultrapure hot water systems in the stainless steel industry. It comes with a red-brown, violet to black discoloration and a chalky surface to the touch. Rouging is harmful to the surface as the protective passive layer is destroyed. In addition, rouging particles can get into the end product and contaminate it. Derouging should be done electrochemically. The surface is cleaned with electrolyte. During this process, the passive layer regenerates itself immediately. It is important that rouging-prone systems are regularly checked for newly forming rouging.

The carbon fiber brush cannot be detached from the handle.

Our carbon brushes are made of stainless steel, among other things. To make it easier to loosen connections between the handle and the brush, it is important to wet the thread of the brush with a drop of copper/ceramic paste before installation.

What safety precautions must be taken when working with electrolyte?

When processing BYMAT electrolytes, the protective and safety precautions specified in the safety data sheets must be observed. Never work without the prescribed protective equipment!



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Stainless steel

Cleaning- and embossing machines

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