

WELDING
SOLUTIONS

SURFOX



The alternative to pickling pastes!

The SURFOX weld seam cleaning system is a highly effective method for the removal of tarnishing after stainless steel welding (TIG, point welding, and MIG) without altering the base material surface.

SURFOX system



SURFOX 304

Easy and safe cleaning of MIG and TIG weld seams



The new SURFOX 304 is an easy and safe method for cleaning MIG and TIG weld seams without toxic acids or damage to the material treated.

The SURFOX 304 is a simple system that can be altered within seconds and facilitates the use of various carbon-fibre brushes and inserts. The carbon-fibre brushes feature an exclusive flow-through system that supplies the carbon-fibres with enough liquid at all times. This extends service life and guarantees consistent functioning. Doubled performance due to double inverter and 30 Ampère, compared to SURFOX 204.

- ◆ Cleaning of MIG weld seams with new carbon-fibre brushes
- ◆ Cleaning of TIG weld seams with inserts and carbon-fibre brush
- ◆ Faster cleaning with the Poli-Pads
- ◆ New Pad for graphite insert
- ◆ Fast change of brushes
- ◆ DC/direct current for electro-polishing
- ◆ Compressed-air connection for steam condensation and elimination

Technical details

Order number 54D334

Electrics

Input 230 V, 50/60 Hz, 2.0 A

Output 12-30 V AC/DC, 30 A

Dimensions

Length 57 cm Width 25 cm Height 37 cm

Tank capacity 1,9 L

Hose length 4 m

Weight 22 kg

Features

- ◆ Electrochemical cleaning with AC/alternating current – settings: low, medium, high (6-30 A)
- ◆ Marking option
- ◆ Electro-polishing with DC/direct current
- ◆ Vapour elimination by means of compressed air

Standard equipment

- ◆ 3 standard cleaning pads (54B026)
- ◆ 1 standard insert 90° (48R133)
- ◆ 1 clamp ring (54B002)
- ◆ Carbon-fibre brush B30 with adapter
- ◆ 1 transport case

SURFOX 204

The versatile system for a variety of applications



SURFOX 204 is an industrial weld seam cleaning system featuring an integrated electrolyte tank, level monitoring, and dosing pump.

Whether manually or automatically, the dosing pump will deliver the desired quantity of electrolyte directly to the work piece.

The SURFOX 204 operates with a self-regulating inverter. In this way, the power supply is automatically monitored and adapted in order to guarantee maximum cleaning effect without productivity loss:

- ◆ Control for variable power output; the user can select the desired amperage themselves
- ◆ Handle with ON/OFF pump control
- ◆ Second connection for the marking kit
- ◆ Switchable power output: AC/alternating current for cleaning and marking, DC/direct current for electro-polishing
- ◆ Compressed-air connection for steam condensation and elimination

Technical details

Order number 54D234

Electrics

Input 230 V, 50/60 Hz, 2.0 A

Output 12-30 V AC/DC, 15 A

Dimensions

Length 47 cm Width 25 cm Height 38 cm

Tank capacity 1,9 L

Hose length 4 m

Weight 17,3 kg

Features

- ◆ Electrochemical cleaning with AC/alternating current – settings: low, medium, high (6-15 A)
- ◆ Marking option
- ◆ Electro-polishing with DC/direct current
- ◆ Vapour elimination by means of compressed air

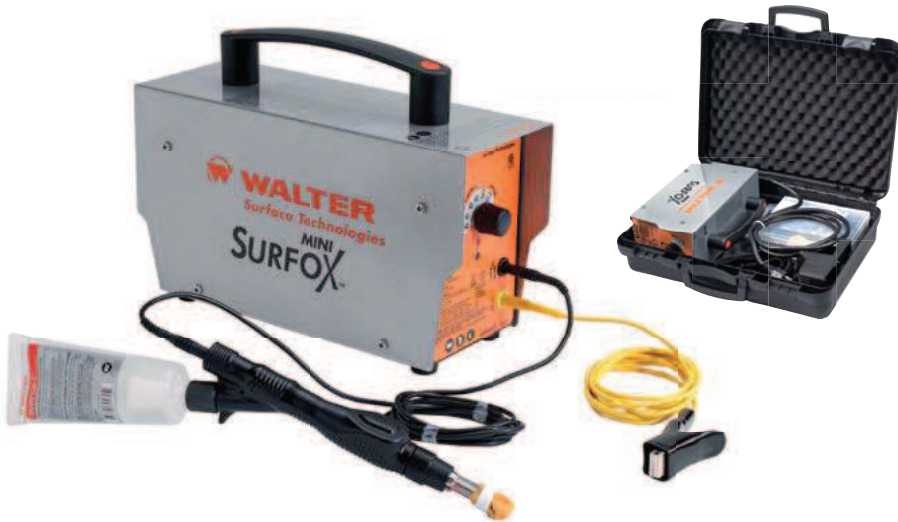
Standard equipment

- ◆ 3 standard cleaning pads (54B026)
- ◆ 1 standard insert 90° (48R133)
- ◆ 1 clamp ring (54B002)
- ◆ 1 transport case

SURFOX MINI

The power pack with an inverter

As strong as Surfox 204 – in a small package



SURFOX MINI is the new powerful compact version of the SURFOX 204 with a self-regulating inverter board for maximum cleaning performance. The device cleans and polishes stainless steel also in continuous operation. It is small and portable which makes it ideal for building sites and hassle-free operation in places that are difficult to access. Flexible – with electrodes and carbon-fibre brush – for every application. Versatile – with accessories also for surface cleaning and marking. The electrolyte comes in handy tubes and is fastened directly on the wand in order to be pumped to the work piece.

Technical details

Order number 54D056

Electrics

Input 230 V, 50/60 Hz, 1.5 A

Output 32 V AC/DC

Dimensions

L 31 cm W 11,5 cm H 22,5 cm

Weight 3,8 kg

Features

- ◆ Electrochemical cleaning with AC/alternating current
- ◆ Electro-polishing with DC/direct current
- ◆ Marking option
- ◆ Adjustable power supply

Standard equipment

- ◆ Cleaning pads
- ◆ 1 slim insert 90°
- ◆ 1 clamp ring
- ◆ 1 carbon-fibre brush
- ◆ 1 transport case
- ◆ 1 wand clamp

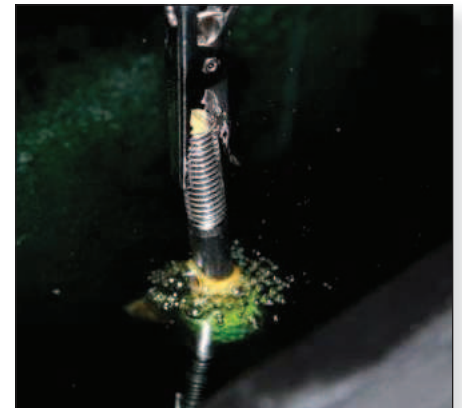


SURFOX POLISHING BOX

The innovative immersion basin for the pickling and electro-polishing of small stainless-steel parts, in combination with your SURFOX weld seam cleaner



The SURFOX Polishing Box is perfect for small parts with complex geometries, such as screws and springs. With the aid of the new inverter technology of the SURFOX devices and a special insert stainless steel parts are cleaned and polished electrolytically in the SURFOX Polishing Box. In comparison to other polishing baths with conventional inserts, the insert will increase the velocity up to 3 times.



- G00030 SURFOX Polishing Box 3 L
To be used with SURFOX Mini, SURFOX 204 and SURFOX 304
- G00060 SURFOX Polishing Box 6 L
To be used with SURFOX 304

Scope of delivery

- ◆ Basin complete with lid
- ◆ Inserts and 1 connection cable
- ◆ Parts carrier with 3 clamps

SURFOX Polishing electrolyte

- ◆ G00195 1 L bottle
- ◆ G00595 5 L jerrycan
- ◆ G01095 10 L jerrycan



Electrolytes for cleaning and polishing



SURFOX-H

Standard formula

- ▶ Developed for TIG- and point welding of stainless steel
- ▶ No transport of HAZMATs, no storage of HAZMATs
- ▶ Fewer vapours
- ▶ Safe alternative to pickling pastes and aggressive acids
- ▶ No labelling required under the CLP Regulation

SURFOX-H is an electrolyte solution for the cleaning of TIG- and point welds. SURFOX-H has been designed so as to keep environmental impact to a minimum and develop fewer vapours.

SURFOX-T

High-performance formula

- ▶ Developed for highly demanding TIG-, point- and MIG welds
- ▶ Safe alternative to pickling pastes and aggressive acids
- ▶ No hydrofluoric acid, no nitric acid
- ▶ Removes light scaling

This high-performance electrolyte solution consists of phosphoric acid and other additives, which makes it the perfect solution for highly demanding weld seam cleaning applications. SURFOX-T has been designed for the cleaning of TIG-, point- and MIG weld seams.

- ▶ Both electrolyte solutions, SURFOX-H and SURFOX-T, are NSF-certified for use in the foodstuffs industry.
- ▶ The SURFOX system is ASTM A967 (ASTM 380) certified for passivation.

Electro-polishing (DC/direct current) If SURFOX-T is used with DC/direct current, it electro-polishes the weld seam. SURFOX-T contains additives that enhance the polishing effect while removing tarnishing and other contaminations from the weld seam.

G10092 100 mL tube, trading unit: 6 x 100 mL

G00192 1 L bottle, trading unit: 12 x 1 L

G00592 5 L jerrycan

G03092 30 L jerrycan

G20092 200 L plastic drum

Hazard warnings: Met. Corr. 1

G10091 100 mL tube, trading unit: 6 x 100 mL

G00191 1 L bottle, trading unit: 12 x 1 L

G00591 5 L jerrycan

G03091 30 L jerrycan

G20091 200 L plastic drum

Hazard warnings: Skin Corr. 1B, Met. Corr. 1

Neutralization



SURFOX-N

Neutralizer

- ▶ Developed for neutralizing the surface after electro-chemical and electro-polishing processes
- ▶ Ready for use, non-flammable, non-toxic, non-corrosive
- ▶ Leaves no residues

Neutralizes SURFOX-T electrolyte. Apply to the processed surface after the electro-chemical cleaning process.

A00157-25 1 L bottle, trading unit: 10 x 1 L

A00557-25 5 L jerrycan

A01057-25 10 L jerrycan



SURFOX electrolyte solutions work on the basis of a mineral acid. Neutralization is necessary in order to halt the effect of the acid that is used in electro-chemical and electro-polishing processes. If the acid is not neutralized completely, it continues interacting with the stainless steel surface. For proper neutralization, surface treatment with SURFOX-N is strongly recommended. Very often, rinsing with only water will not suffice.

For a complete neutralization, first remove excess electrolyte solution from the base material by means of a cloth or tissue. Then neutralize by spraying SURFOX-N on the surface, and finally wipe the surface thoroughly using a clean cloth.

If the excess acid is not removed from the surface, salt residues may form on the stainless steel surface after neutralization with SURFOX-N.

Salt residues as a result of improper neutralization and rinsing.



SURFOX pads and inserts

FOR SURFOX MINI



Standard insert 90°

No.: 54B036

To be used with cleaning pad 54B026 and clamp ring 54B002



Insert 60°

No.: 54B037

To be used with cleaning pad 54B027 and clamp ring 54B002



Graphite insert

No.: 54B048

More power for large surfaces and faster electro-polishing. To be used with cleaning pad 54B051.

10 pcs. per package + O-ring



Slim insert 90°

No.: 54B038

To be used with cleaning pad 54B028 and clamp ring 54B020 or cleaning boot 54B007



Slim insert 60°

No.: 54B039

To be used with cleaning pad 54B028 and clamp ring 54B020 or cleaning boot 54B008



Electrolyte straw

No.: 48R294

10 pcs. per package



Connection cable

No.: G00404

4 metres long, for the SURFOX Mini wand.

FOR SURFOX 104, 204 and 304



Standard insert 90°

No.: 48R133

To be used with cleaning pad 54B026 and clamp ring 54B002 or cleaning boot 54B005.



Insert 60°

No.: 54B016

To be used with cleaning pad 54B027 and clamp ring 54B002 or cleaning boot 54B006.



Slim insert 90°

No.: 54B017

To be used with cleaning pad 54B028 and clamp ring 54B020 or cleaning boot 54B007.



Slim insert 60°

No.: 54B018

To be used with cleaning pad 54B028 and clamp ring 54B020 or cleaning boot 54B008.



Kohlefaserpinsel

No.: 54B029

Made of high-conductivity carbon-fibres. To be fastened on the Mini wand.

5 pcs. per package

Ideal for spots that are difficult to access and for inside corners.



Carbon-fibre brush Mini

No.: 54B097

5 pcs. per package

Adapter for Mini wand

No.: 54B100

Cylindrical sleeve for carbon-fibre brush

No.: 54B103

FOR SURFOX 204 and 304



Wide insert

No.: 54B009

45 mm wide

Ideal for wide weld seams and for surface reconditioning



Standard pad

No.: 54 B052

90 mm L x 50 mm W x 4 mm T

To be used with wide insert 54B009.

5 pcs. per package + O-ring



Poli-Pad XL

No.: 54B043

90 mm L x 50 mm W x 2 mm T

To be used with wide insert 54B009.

10 pcs. per package + O-ring

FOR ALL MODELS



**Slim clamp rings
for slim pads**

No.: 54B020

To be used with inserts 54B017,
54B018, 54B038, and 54B039
10 pcs. per package



**Clamp rings
for cleaning pads**

No.: 54B002

To be used with inserts 48R133,
54B016, 54B036, and 54B037
10 pcs. per package

HIGH-EFFICIENCY CLEANING PADS



**Standard cleaning
pad (Poli-Pad S)**

No.: 54B026

Dimensions:
46 mm L x 24 mm W x 4 mm T

10 pcs. per package incl.
1 clamp ring



**Large cleaning pad
(Poli-Pad TL)**

No.: 54B027

Dimensions:
60 mm L x 38 mm W x 2 mm T

10 pcs. per package incl.
1 clamp ring



**Slim cleaning pad
(Poli-Pad TS)**

No.: 54B028

Dimensions:
46 mm L x 24 mm W x 2 mm T

10 pcs. per package incl.
1 clamp ring

CLEANING PAD CLASSIC

To be used with SURFOX-T solution



Standard cleaning pad

No.: 54B040

To be used with inserts 48R133
and 54B036
10 pcs. per package incl.
1 clamp ring

STANDARD CLEANING BOOTS



Cleaning boot 90°

No.: 54B005

To be used with inserts
48R133 and 54B036
5 pcs. per package



**Cleaning boot
slim 90°**

No.: 54B007

To be used with inserts
54B017 and 54B038
5 pcs. per package



Cleaning boot 60°

No.: 54B006

To be used with inserts
54B016 and 54B037
5 pcs. per package



Cleaning boot slim 60°

No.: 54B008

To be used with inserts
54B018 and 54B039
5 pcs. per package

HOW TO USE A CLEANING PAD

1. Insert clamp ring in bracket.

2. Position cleaning pad.*

3. Push down wand
with insert.

4. Finished.



* Cleaning Pad Classic: Make sure that the Ω sign points upwards.

CARBON-FIBRE BRUSH KITS FOR SURFOX 104, 204, and 304



Brush kit 30

No.: G00300

Includes

- ◆ 1 brush adapter G00105
- ◆ 1 insulator G00205
- ◆ 1 brush B30 with sleeve G00305
- ◆ 1 brush holder insert G00605
- ◆ 1 O-ring 48R113



Brush kit 60

No.: G00600

Includes

- ◆ 1 brush adapter G00105
- ◆ 1 insulator G00205
- ◆ 1 brush B60 G00405
- ◆ 1 sleeve B60 G00505
- ◆ 1 brush holder insert G00605
- ◆ 1 O-ring 48R113



Brush kit BM

No.: G00130

Includes

- ◆ 1 wand BM SURFOX G00104
- ◆ 1 brush B30 with sleeve G00305
- ◆ 1 cable BM 4 m G00404
- ◆ 1 500 mL tin H50003



Brush kit B30 for Mini wand

No.: G00700

Includes

- ◆ 1 adapter for Mini wand G00705
- ◆ 1 O-ring G00706
- ◆ 1 insulator PTFE G00205
- ◆ 1 brush B30 G00305



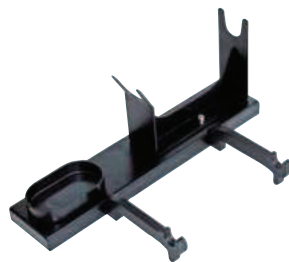
FOR SURFOX MINI



Pump for filling the 100 mL tube

No.: 54B092

FOR SURFOX 204 and 304



Wand holder SURFOX 204/304

No.: 54B094

Carbon-fibre brush kit with Mini wand

No.: 54B133

Mini wand with cable and holder, 2 carbon-fibre brushes, one 100 mL cartridge of SURFOX-H G10092, transport case

Passivation tester

SURFOX

Passivation Tester

Nr. 54T010

Standard equipment

- ◆ Passivation tester
- ◆ Data collection software with USB port
- ◆ Incl. 5 additional felt tips



Microscopically small cells are often found on the surface of the work piece delivered; however, they are not locatable and recognizable before dispatch. Later, they will spread and become visible; this phenomenon is called pitting. Therefore, it is important for the manufacturer to make sure that their work piece is properly passivated before commissioning. Repairs and reconditioning on site are very costly for the manufacturer. Hence, there is some demand for an unequivocal diagnostic tool that is able to verify the passivation status prior to the work piece's leaving the plant.

Our solution is an electro-chemical test probe, on the basis of measuring the corrosion potential.

The test probe provides the user with the quality of the protective chromium-oxide layer on the stainless steel surface, given as a numeric value. A negative value indicates that the protective layer is damaged or non-existent. A value of zero or above indicates that

the surface has been passivated. The readout value is a quantitative representation of the quality and strength of the protective chromium-oxide layer.

The information that, at the moment of dispatch, the work piece features an intact passive coating not only makes the end customer feel safe, but also makes dealing with possible later complaints about corrosion easier.



Use the SURFOX Passivation Tester and discover how easy it is to record your passivation data so that you can access and consult them in future!

Save time and money! Verifying and measuring the passivation status of your work piece or your finished products can help you save considerable amounts of time and money. In order to make your work easier, the Passivation Tester features an integrated data storage device so that you as the end user can save your passivation data securely stored. And in case of doubt you can always resort to documented data, should corrosion occurring at a later point in time make that necessary.

Marking

Stainless steel can be marked permanently. This requires its own electrolyte solution. You can mark stainless steel surfaces with company logos, texts, part numbers, serial numbers, lot- and batch numbers, model numbers, barcodes, QR codes, and many more. SURFOX marking kits use a fast and simple electrochemical process that marks stainless steel surfaces permanently. The marking wand is plugged directly in the SURFOX device and is used with permanent or disposable stencils.



SURFOX Marking Kit

No.: 54B080

Features

- ▶ Marking wand with cable
- ▶ Marking pads and O-rings
- ▶ SURFOX-M 100 mL electrolyte solution for marking



SURFOX Marking Kit PRO

No.: 54B081

Features

- ▶ Marking wand with cable
- ▶ Marking pads and O-rings
- ▶ SURFOX-M 100 mL electrolyte solution for marking
- ▶ Stencil printer and a 20 m roll of stencil paper



SURFOX NANO MARKING

Nr.: G00070

Mobile marking with a storage battery!

- ▶ Marking on stainless steel (AC)
- ▶ 40 min battery service life, sufficient for approx. 200–300 markings
- ▶ Safe, simple, flexible
- ▶ Works with duplicator- or disposable stencils

Features

- ▶ SURFOX NANO MARKING storage battery
- ▶ Battery charger
- ▶ Marking wand with cable
- ▶ Earth cable
- ▶ Marking pads and O-rings
- ▶ SURFOX-M 100 mL electrolyte solution for marking

54B088 Graphite insert, 35 x 10 mm

54B083 Marking pads ,

Trading unit: Package of 20

54B086 Stencil paper,

Trading unit: 100 mm x 20 m roll

54B087 Stencil paper,

Trading unit: 100 mm x 50 m roll

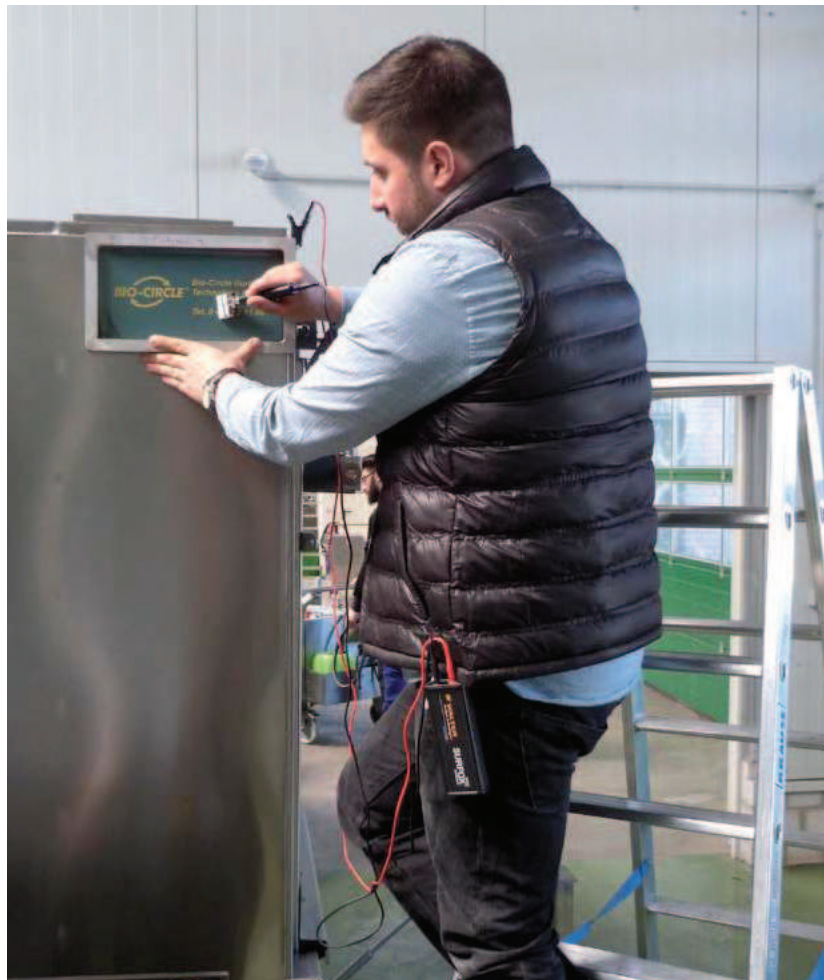
Marking

Duplicator stencils

Customized stencils on the basis of a .bmp, .jpg, .tiff, .dwg, .ai, .cdr, .doc, or .pdf reference document. Available in all sizes up to 300 x 500 mm. Duplicator stencils are ideal for etching your company logo and your company address or other recurrent information.

With good care, duplicator stencils can be reused hundreds of times. In order to extend their useful life, rinse the stencil with SURFOX-N and water and store them flat between pieces of cardboard

Mobile marking with SURFOX NANO MARKING



Disposable stencils

Disposable stencils are ideal for serial numbers, lot- and batch numbers, barcodes, QR codes and other information that require constant change and evolution. You may now print labels on which the data change for each label, such as counters, serial numbers, date and time.

Printing disposable stencils has never been easier than with the Marking Kit PRO.

Stencil printer and software

The stencil printer is part of the Marking Kit PRO and offers a user-friendly method for creating and printing disposable stencils.



*Stencil printer and software
(laptop not included in the scope of delivery)*

SURFOX-M

*Liquid
250 mL refill bottle*

No.: H04891

SURFOX-M is an electrolyte solution that has been especially developed for the permanent marking of stainless steel. This oxidation process leaves a black mark on the stainless steel surface without altering it. Markings on stainless steel are resistant to mechanical and chemical attacks.

