WELDING

MAKING GREEN WORK.



Bio-Circle Surface Technology GmbH Welding – EN - AL05/ 2026

BIO-CIRCLE®

bio-circle.com

BIO-CIRCLE®

VISION

WE FOR YOU



THINK HOLISTICALLY.
DESIGNING EFFICIENT PROCESSES.

Bio-Circle Surface Technology GmbH – your reliable partner for industrial products for **cleaning, welding, protecting, and lubricating.**

Our solutions are designed to reduce the use of traditional solvents, optimise cleaning processes and enable tailored applications for both manual and automated parts cleaning.
With over 40 years' experience in research, product development, process optimisation, sales and service, we develop solutions for industrial applications.
With an international network of production sites and partners, Bio-Circle has a global presence. The Gütersloh site is the company's headquarters. This is where our products are developed and manufactured for all markets. **Made in Germany.**

RESPONSIBILITY AND QUALITY

Recognising our responsibility towards the environment, we introduced an environmental management system as early as 1996, which has been continuously certified by LRQA in accordance with the requirements of the globally recognised DIN ISO 14001 standard. Since 2020, we have been participating in ecovadis – the independent sustainability ranking for companies – and undergoing assessment. Through our activities in the areas of sustainability, labour and human rights, ethics and sustainable procurement, we were once again able to achieve the Ecovadis Bronze rating in 2025.

When developing our products, we also take into account the requirements for responsible use, alongside product performance. In doing so, we develop solutions that can help to make cleaning processes more efficient and reduce the use of certain traditional solvents in suitable applications.

SET HIGH STANDARDS!

The way our company operates is reflected in the six building blocks of our circle. These are regularly reviewed, further developed and assessed for potential improvements. The individual building blocks are interlinked and form the basis for our day-to-day work. Transparency, continuous improvement and responsible conduct guide us in all areas of the business.

Our products cannot solve global challenges. However, they can help to make cleaning processes more efficient, reduce the use of certain substances and specifically improve workflows for users. A working environment that gives equal consideration to people and efficient processes has shaped our thinking and actions for more than 40 years.

Carefully selected raw materials

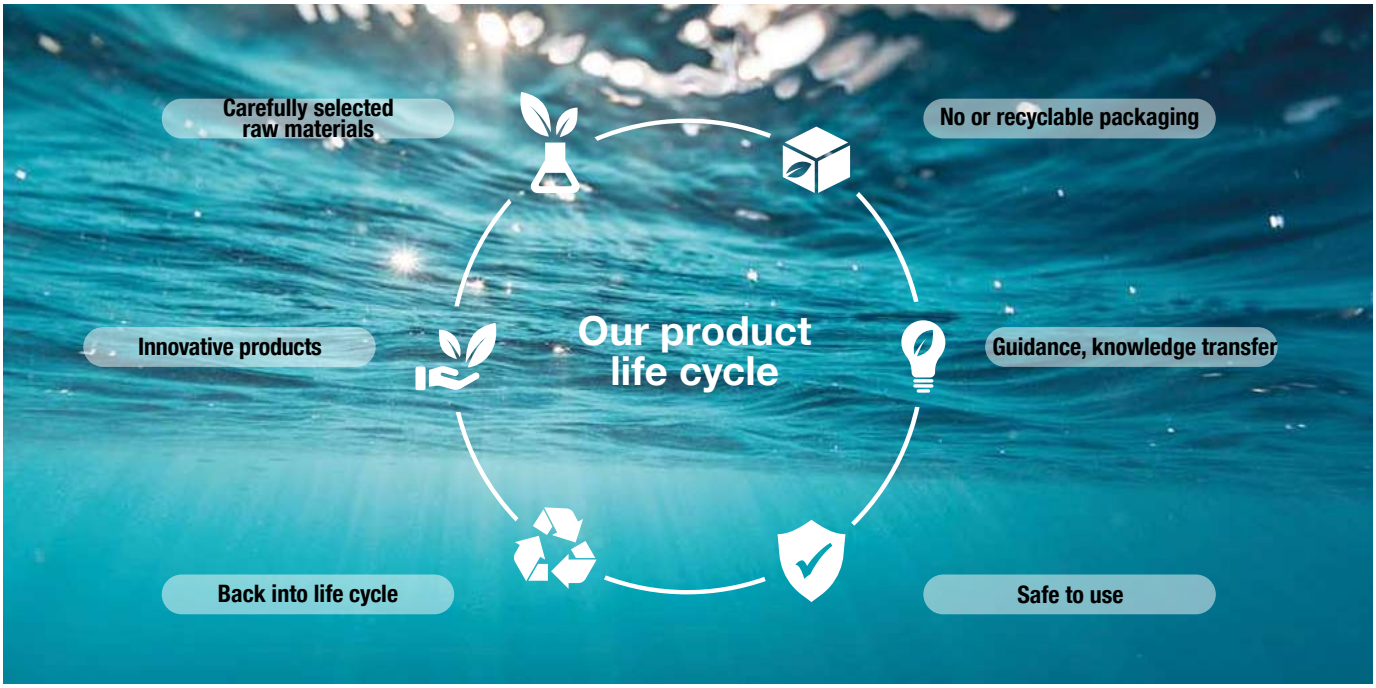
As a manufacturer of industrial cleaning agents and cleaning systems, Bio-Circle bears a great deal of responsibility. This is because these products play a vital role in the maintenance of machinery, plant and components. They are an important part of the production chain in every sector. Our aim is to develop products that combine performance, user requirements and the responsible use of resources.

Innovative products

Bio-Circle develops solutions for manual and automatic parts cleaning. A large proportion of our range consists of products that require no labelling or minimal labelling.

No or recyclable packaging

The mountains of rubbish are getting higher and higher, and the plastic gyres in the oceans are growing ever larger. These are just two problems – we all know that. When it comes to packaging, Bio-Circle is constantly evolving and innovating. The best bottle is no bottle at all, because refillable dispensing systems are the solution – they make bottles redundant! And when there's no other option, we offer recyclable 500 ml rPET bottles made from 100 % recycled material. To make the job easier: cleaners in IBCs and 200-litre drums can be transferred into 20-litre canisters
using hand pumps. Naturally, the IBCs, drums and canisters are made from HDPE, a plastic that is easily recyclable. For dispatch, only recycled and recyclable paper bearing the
'Blue Angel' eco-label is used as packing material.



Sound advice and knowledge transfer

We share our experience and know-how with you so that you can clean easily, quickly, safely, cost-efficiently and in an environmentally friendly way.
You have questions, we provide answers. If you are satisfied with the cleaning performance and with your work, if we have been able to optimise your work processes – then we are satisfied too.

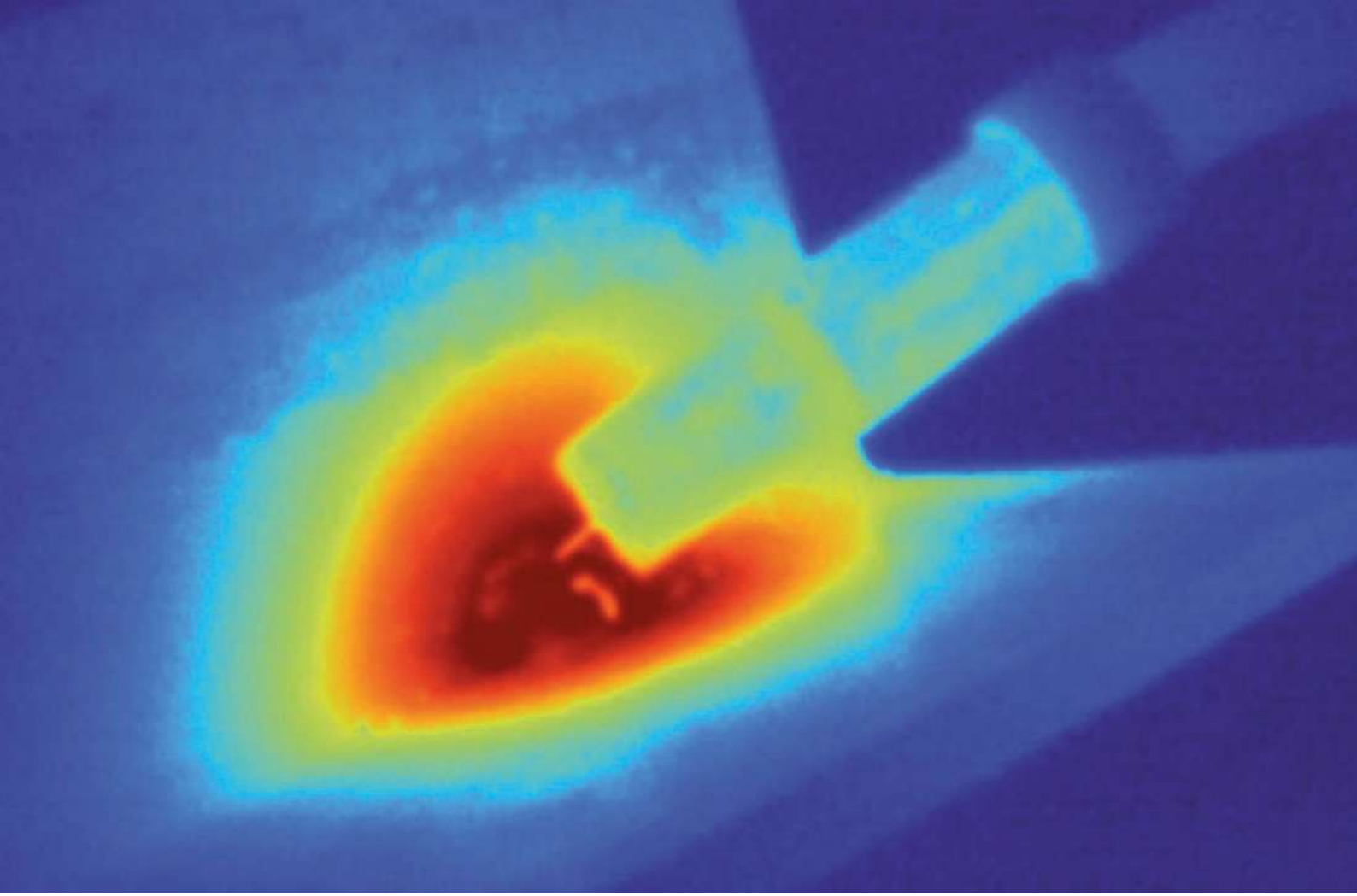
Safe to use

Working with non-labelled and low-labelled industrial cleaners and recirculating cleaning equipment can trigger a domino effect:
For the company, the longer service lives, the reduced health and safety measures and the increased productivity are just a few reasons to be happy about savings because **costs are reduced**.
The user, who has **more fun and motivation at work**, feels fitter because they are exposed to far fewer pollutants and toxic fumes, and they are happy about a better quality of life. For both sides, there is also the **time saving**. Not only thanks to the effectively cleaning industrial cleaners, but also because of the energy-saving, recirculating parts washers.

Back into the life cycle

At Bio-Circle, we live and breathe life cycle thinking. **We place great emphasis on sustainability in production and application.** Longer service lives and VOC-free or VOC-reduced cleaners reduce your disposal effort and make it safer.

MAKING GREEN WORK.



WELDING

„After using our silicone- and oil-free release agents, subsequent processes such as varnishing can run without any problems in 98 % of all cases.”

(Bio-Circle Surface Technology GmbH member of staff)

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E-WELD PREMIUM PRODUCTS

For precision manufacturing processes

The excellent wetting properties, **the fabulous separating effect**, the low consumption, and the stable consistency of the emulsions make the E-WELD products a must-have in welding applications.
In addition, most of them are solvent-free and non-labelled, which increases occupational health and safety and reduces operating costs. Great benefits for the user and the entrepreneur.

RELEASE AGENTS FOR WELDING

Optimal separating effect on weld spatter

Spray it on. Weld. Wipe it off. Finished.
The anti-spatter sprays prevent weld spatter from burning in during MIG/MAG welding and laser- and plasma cutting. **Trouble-free zinc coating, powder coating and varnishing after welding can be done anywhere and anytime, because the ingredients are silicone- and oil-free!** In this context, we have been granted approvals issued by Herning Zinc Coating, Volkswagen AG, SLT Laser Technology et al.

E-WELD 2

- **Release agent especially suited for multilayer welding**
- **Ideal for welding thin metal sheets**

D50002 500 mL bottle with trigger
PU: 20 x 500 mL (1 box)
D02002 20 L jerrycan
D20002 200 L plastic drum
D10002 1000 L IBC

E-WELD 3

- **Release agent for welding**
- **Prevents the build-up of slag in plasma- and laser-cutting**
- **Perfectly suited for robotic welding**

D50008 500 mL PET bottle with trigger
PU: 20 x 500 mL (1 box)
D02008 20 L jerrycan
D20008 200 L plastic drum
D10008 1000 L IBC

E-WELD 4

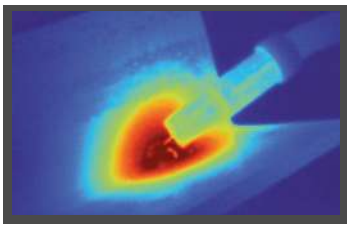
- **Release agent for welding**
- **Ideal for difficult, fine weld seams: thanks to the Moses effect, the separating lotion will part in the presence of heat, which guarantees accurate work**

D50012 500 mL PET bottle with trigger
PU: 20 x 500 mL (1 box)
D02012 20 L jerrycan
D20012 200 L plastic drum
D10012 1000 L IBC

NOZZLE PROTECTION

Full power

In welding, a clean nozzle is half the battle.



High thermal resilience by applying E-WELD Nozzle.





E-WELD Gel

- **Nozzle lube, made of highly pure, light-coloured fats**
- **Protects the nozzle, the welding apron, gloves and work boots from weld spatter**
- **Extends the service life of the welding nozzles**

D20106 200 g tin	
with magnet	
PU: 12 x 200 g (1 box)	
D01006 10 L pail	

E-WELD Nozzle

- **High-performance nozzle protection in an aerosol can**
- **Ceramic protection that lasts up to 8 hours**
- **Dries within seconds**
- **Thermally stable up to 1000 °C/1832 °F**
- **Also ideal for current contact tubes, clamping devices, and laser- and plasma cutting machines**

D40017 400 mL aerosol can	
PU: 6 x 400 mL (1 box)	
Hazard warnings: Eye Irrit. 2, Aerosol 1, Aerosol 1, STOT SE 3	







E-WELD SHIELD

Innovative surface protection

The water-based compound with ceramic protection prevents major build-ups of slag on the bars during plasma- and laser-cutting. This increases the service life of the systems and reduces set-up times, which in turn increases productivity and reduces operating costs. Moreover, the work pieces to be cut rest flat on the bars, which increases the quality of the cutting results.



E-WELD Shield 10 kg jerrycan
Order no. **D01116**

E-WELD Shield spray gun
Order no. **HW0180**



Pressure regulator
for E-WELD Shield gun
Order no. **HW0180-01**

E-WELD Shield

- **Water-based compound with ceramic protection**
- **Surface protection for the bars of plasma- and laser-cutting machines**
- **Prevents major build-ups of slag**
- **Makes slag is easy to remove**

FIELD OF USE: metal processing/CNC, maintenance of plasma- and laser-cutting machines. Apply a well-covering layer of E-WELD Shield to the new or cleaned bars using the E-WELD Shield Spray Gun, a lamb's wool roller, or AUTRASYS (cf. p. 120). Allow to dry for approx. 1 hour. Very economical (1 kg is usually sufficient for approx. 20 square metres).

VOC reduced!

D01116 10 kg jerrycan

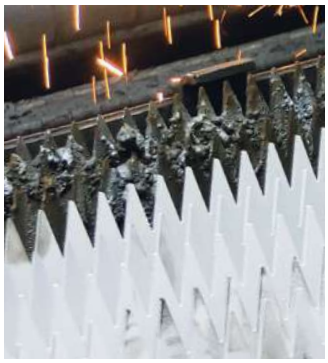
Hazard warnings: Aquatic Chronic 3

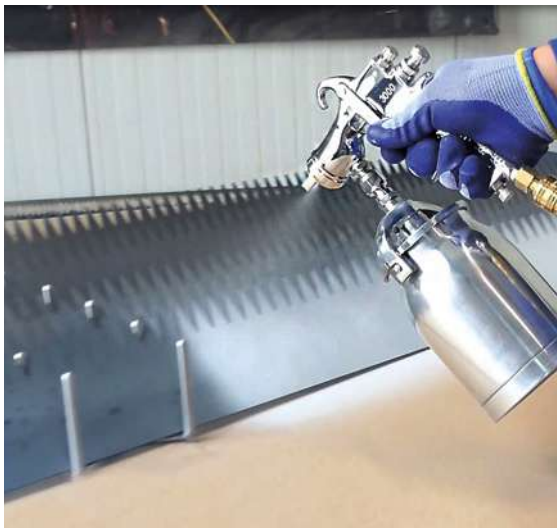
E-WELD Shield Spray Gun

The E-WELD Shield Spray Gun is an application system for E-WELD Shield surface protection, which leaves a ceramic protective layer on the bars of plasma- and laser-cutting benches in order to prevent major build-ups of slag.

- **Easy handling**
- **Individual adjustment options for spray- and airflow rate = optimal exploitation of the release agent**
- **Compressed air as a propellant**







GREENOX – THE ALTERNATIVE TO PICKLING PASTES!

Electro-chemical weld seam cleaning for stainless steel

GREENOX is the alternative to pickling pastes. The patented weld seam cleaning device is an effective method of removing heat tinting after welding from TIG-, MIG-, and spot welds on stainless steel. It promotes the formation of a uniform and durable passive chromium oxide layer which protects the stainless steel from further corrosion. An output regulator facilitates a perfect finish even on sensitive surfaces. Oxide and smoke residues are effectively removed.

GREENOX is available in two different versions. All are a safe, fast, and economical alternatives to toxic pickles for the passivation of stainless steel.

GREENOX Macro

- **Fast and economical cleaning of weld seams and large stainless-steel surfaces**
- **for the cleaning and polishing of MIG-, TIG-, and spot welds on stainless steel**
- **The integrated tank with pump ensures permanent automatic electrolyte supply.**
- **Swift and safe work without interruptions**
- **Special marking kits for stainless-steel surfaces are available separately**
- **With integrated touch panel**



GREENOX Micro

- **Cleans and polishes MIG-, TIG- and spot welds on stainless steel**
- **Ideal for repairing components that are difficult to reach and in narrow spaces with carbon fibre brush Micro**
- **Special marking kits for stainless-steel surfaces are available separately**
- **We recommend cleaning with GREENOX T for optimum results.**



	GREENOX Macro	GREENOX Micro
Input voltage	230 V, 50/60 Hz	230 V, 50/60 Hz
Output voltage	3 – 30 V	12 V AC
Output current	0 – 100 A	0 – 30 A
Output power	2400 W	360 W
Output voltage setting	1 V	-
Output current setting	LOW, MEDIUM, HIGH	-
Tank capacity	1.8 L	-
Pump output	1 – 3.6 l/h	-
Pump settings	Dynamic; manual; auto (8 levels)	-
IP protection class	IP20	IP20
Noise level	<70 dB (A)	<10 dB (A)
Weight (empty)	23 kg	4,6 kg
Dimensions	450 x 215 x 485 mm	140 x 290 x 350 mm
Wands	Wand with compressed air system (L 6 m), GREENOX Micro* wand, marking wand*, surface wand*	GREENOX Micro wand, marking wand*
Functions	Cleaning, polishing, marking	Cleaning, marking*
Order no.	**G00200**	**G00100**

*optional

GREENOX LIQUID

Electrolytes for cleaning, polishing and neutralizing

GREENOX Liquids are a safe, clean and efficient method for cleaning stainless-steel welds.
The surface finish is not affected.

GREENOX 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**

G00592 5 L jerrycan

GREENOX 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**

G10091 100 mL tube, PU:6 x 100 mL
G00191 1 L bottle, PU:12 x 1 L
G00591 5 L jerrycan
G02091 20 L jerrycan
G20091 200 L plastic drum
Hazard warnings: Skin Corr. 1B, Met. Corr. 1

GREENOX 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**

A00157-25 1 L bottle, PU:10 x 1 L
A00557-25 5 L jerrycan
A02057-25 20 L jerrycan

GREENOX S

Surface cleaner

- **Developed for cleaning and passivating stainless-steel surfaces with GREENOX Macro**
- **Faster cleaning and safe passivation of stainless steel through electrolytic cleaning**
- **Slightly viscous and foaming – good adhesion to vertical surfaces**

G00193 1 L plastic bottle, PU: 12 x 1 L
G02093 20 L jerrycan
Hazard warnings: Eye Irrit. 2,
Skin Irrit. 2, Met. Corr. 1

MARKING

Black etching

Permanent marking of appliances by black etching with the **marking kits** and the **GREENOX M** contained in them, an electrolyte solution specially developed for black etching stainless steel. This oxidation process leaves a permanent black mark on the stainless-steel surface, resistant to mechanical and chemical attack.



Marking Kit

Order no.: 54B080

EQUIPMENT

- **Marking wand with cable**
- **Marking pads and O-rings**
- **GREENOX M electrolyte solution for marking/black etching**

PRO Marking Kit

Order no.: 54B081

EQUIPMENT

- **Marking wand with cable**
- **Marking pads and O-rings**
- **GREENOX M electrolyte solution for marking/black etching**
- **Stencil printer with 20 metres of stencil paper**





GREENOX M

H04891 250 mL plastic bottle

Marking fluid

- **Electrolyte solution for the permanent black etching of stainless steel**

Permanent stencils

Customised stencils are available in sizes up to 300 x 500 mm. Permanent stencils are ideal for black etching your company logo and address or other recurring information.

THE E-NOX RANGE

Stainless steel cleaner



These cleaners are ready for use and ideal for smooth stainless-steel surfaces. They are for manual applications and solvent-free or VOC-reduced.
Workplace safety is also a priority with these cleaners, as they are **free from hydrofluoric and nitric acid.**

E-NOX Shine

- **Water-based and alkaline**
- **Fast-drying**
- **Silicone-free**
- **Suitable for the food industry**

A50170 500 mL PET bottle with trigger
PU: 20 x 500 mL (1 box)
A01070 10 L jerrycan
A02070 20 L jerrycan
A20070 200 L plastic drum

E-NOX Clean

- **Water-based, acidic**
- **Viscous, with long-lasting foam**

A00141 1000 mL plastic bottle
PU: 12 x 1000 mL (1 box)
A01041 10 L jerrycan
A02041 20 L jerrycan
A20041 200 L plastic drum
Hazard warnings: Eye Dam. 1,
Skin Irrit. 2, Met. Corr. 1

E-NOX-I

- **Water-based, acidic**
- **Ultra-fine abrasive materials guarantee excellent cleaning**

A00192 1 kg plastic bottle
PU: 12 x 1 kg (1 box)
A00592 5 kg jerrycan
A02092 20 kg jerrycan
Hazard warnings: Eye Irrit. 2,
Skin Irrit. 2, Met. Corr. 1

The E-NOX cleaners for stainless steel surfaces remove mineral deposits, rust, oxidation, and heat tinting, in certain cases also fingerprints and limescale.
From: stainless steel, steel, tiles, aluminium, and plastics; in certain cases, also from zinc-coated surfaces and non-ferrous metals.

FIELD OF USE: food industry, metal processing/CNC, automotive, machine maintenance, etc.

AUTRASYS

Application system

The efficient, fast and safe way of applying cleaners and release agents for welding.
The Bio-Circle application system makes the cleaning of medium-sized and large surfaces easier. Wherever the quantity from a spray bottle won't suffice, and wherever operators need to be particularly protected from fatigue, that's where the application system proves its strengths. It is connected directly to either the jerrycan or the drum. With the aid of the AODD pump, the fluid is pumped from the tank and can then be applied efficiently to the surface.
Ideally suited for the Bio-Circle cleaners and release agents for welding.

- **Time-saving because of large-area application**
- **Comfortable working, also overhead**
- **Conventional compressed air as a propellant**
- **High efficiency thanks to micro-fine spray mist – 3.7 m^2 per minute**
- **Low-maintenance operation thanks to AODD pump**
- **Adjustable output**



Please note:
Observe occupational limit values!

	AUTRASYS
Input pressure max.	6 bar
Hose length	5 m
Pump output max.	8 L/min
Spray gun nozzle size	1.5 mm
Order no.	**G80001**

Drum holder for AUTRASYS	
Order no.	**G80001-01**





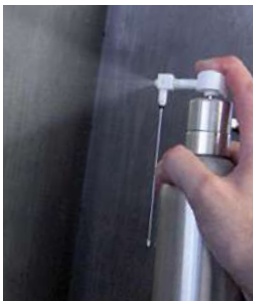
AIR FORCE

Rethink for a change!

Sustainability with the refillable spray bottle

Air Force is a refillable aluminium spray bottle – the best friend of any foamless cleaner!
'From jerrycan to bottle' is the new thinking in manual surface cleaning

RECOMMENDED PRODUCTS, foamless and non-labelled:
AF Clean, E-Weld 2, FT 100, GS 200, et al.





Spray over a large area – flood with pinpoint accuracy



With compressed air + cleaner you dispense with flammable propellants!

- ▶ **Unscrew bottle – fill in cleaner – screw down – top up with compressed air**
- ▶ **Nebulize or flush at the touch of a button: fine spray mist for large areas**
- ▶ **Precise, reliable, overhead: flushing and rinsing with a precision capillary tube**
- ▶ **Sustainable: refillable, suitable for many applications**
- ▶ **Effective → 650 mL capacity**

FIELD OF USE: automotive, metal/CNC, everywhere in maintenance; pre-treatment and final cleaning, cleaning of large surfaces, components such as engine blocks with narrow gaps, overhead work and much more.

APPLICATION: To top up with compressed air, a tyre inflator with adapter (for passenger cars) is necessary. Recommended pressure: up to 6.3 bar

H65000	Aluminium spray bottle
H65010	Bottleneck incl. Valve and suction tube
H65050	Starter Kit consisting of:
	Aluminium spray bottle, tyre inflator,
	3 L jerrycan of AF Clean, drain tap for 3 L
H65060	Tyre inflator

Unscrew bottle – fill in cleaner – screw down – top up with compressed air









ACCESSORIES:



Tap

H00003 for 5 L and 10 L jerrycans

H00004 for 20 L and 30 L jerrycans

H00015 for 200 L plastic drum, ¾" incl. adapter



Stainless steel hand-operated pump

H00006 for 200 L plastic drum
(discharge 0.6 L hoist)
2" standard drum thread

H00008-01 Hand-operated pump adapter for 200 L metall drum



Plastic hand-operated pump

H00007 for 200 L plastic drum
(discharge 0.3 L hoist)
2" standard drum thread
incl. thread adapter
and 1 m hose



Jerrican cap spanner/ bung wrench

H00016 Jerrican cap spanner
for both DIN 51 and DIN 61,
plastic, colour: green

H00030 Bung wrench, metal,
for 200 L drums



Dosing pump and wall bracket

H00011 Dosing pump incl. wall bracket
for 3 L bottle Hand Cleaning Cream

H00012 Dosing pump
for 3 L bottle Hand Cleaning Cream



HDPE bottle with trigger

H00001 500 ml, spray nozzle green/white

H00101 1000 ml, spray nozzle green/white



rPET bottle with trigger

H00033 500 mL, spray nozzle green/white

Spray nozzle

H50012 with plastic nozzle green/white
for 500 mL HDPE/PET bottle

H00112 with plastic nozzle green/white
for 1000 mL plastic bottle



Pressure pump-action spray bottle

H10001 1.5 L



Foam sprayer

H10003 FOAMER 1.25 L

VOC-free, VOC-reduced
The European VOC Solvents Directive (1999/13/EC) aims to considerably reduce the use of solvents and VOC emissions into the environment, thus protecting human health. In the development and manufacturing of our products we pay close attention to developing and manufacturing VOC-free or VOC-reduced products. In plenty of applications, the water-based Bio-Circle products can replace solvents completely.

Non-labelled
With the aid of efficient systems and non-labelled products we succeed in optimizing the processes at our customers'. The cleaning quality is maintained although the cleaning is done without labelled products. The laborious handling of hazardous substances is obsolete. HAZMAT storages, HAZMAT trainings, and the preparation of operating instructions are a thing of the past.

NSF – Cleaning in the foodstuffs industry
The NSF-certified water-based Bio-Circle cleaners are completely miscible with water, and because of their residue-free rinsability they are suitable for applications in the foodstuffs industry according to sec. 31 LFGB (German Food, Consumer Goods and Feed Code).

Water-miscible
Many of our cleaners are concentrates. They are easy to mix with water and hence very economical. Please make sure the mixing ratio corresponds to the application and the contamination.

Clean Blue – for low-temperature cleaning only
The Bio-Circle low-temperature cleaners – Clean Blue – have been developed for mechanical and manual use. They save energy and efficiently remove strong contaminations already at ambient temperature.

Ready to use
These cleaners are applied ready for use. Depending on the cleaner, their application is manual or mechanical. The user is relieved of one work step, as calculating the mixing ratio is no longer necessary.

Our delivery service (Germany)

Delivery time: approx. 2–3 days.
Delivery:
Free domicile incl. packaging for order values of € 600.00 or higher.
For order values (OV) under € 600.00, we invoice the following service charges (SC):

Service charge:	OV up to € 100.00	SC of € 16.50
	OV up to € 200.00	SC of € 19.50
	OV up to € 600.00	SC of € 22.50

Collection by the customer:
You are welcome to pick up your products Monday thru Thursday between **8:00 a.m. and 3:30 p.m**. and Friday between **8:00 a.m. and 2:00 p.m** directly from our production facilities in Gütersloh. Please call ahead on **+49 (0) 5241 9443 0**, so that we can prepare your order for pick-up.

Payment terms:
Our invoices are payable within 8 days with a 2 % discount, or within 30 days net without deduction. Upon request, we will debit the invoice amount from your account within 8 days. In that case you will receive a 3 % discount. For this, we require a direct debit authorization from you.

Reservation of title:
All items delivered by us shall remain our property until all present and future claims arising from the business relationship with the customer have been settled in full.

All prices are subject to VAT at the applicable rate.

A STRONG GLOBAL PARTNER:

- ▶ CLEANING
- ▶ PROTECTING
- ▶ LUBRICATING
- ▶ WELDING

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Present around the globe

Our products are sold and used in 63 countries. We have a global network of own subsidiaries, production sites, and trade partners.

